TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-104320-1

Job Description: Ravenna, OH

For:
Cardno TEC, Inc
2496 Old Ivy Road
Suite 300
Charlottesville, VA 22903

Attention: Mr. Peter Chapman



Approved for release.
Patrick J McEntee
Manager of Project Management
12/31/2017 3:37 PM

Patrick J McEntee, Manager of Project Management
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0107
patrick.mcentee@testamericainc.com
12/31/2017

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

Table of Contents

Cover Title Page 1

Data Summaries 9

- Definitions 9
- Case Narrative 11
- Detection Summary 17
- Client Sample Results 26
- Default Detection Limits 80
- Surrogate Summary 86
- QC Sample Results 90
- QC Association 131
- Chronicle 146
- Certification Summary 160
- Method Summary 161
- Sample Summary 162
- Manual Integration Summary 163
- Reagent Traceability 188
  - COAs 374

Organic Sample Data 969

- GC/MS VOA 969
  - Method 8260B 969
    - Method 8260B QC Summary 970
    - Method 8260B Sample Data 980
    - Standards Data 1031
      - Method 8260B ICAL Data 1031
      - Method 8260B CCAL Data 1095
    - Raw QC Data 1130

Table of Contents

Method 8260B Tune Data 1130

Method 8260B Blank Data 1138

Method 8260B LCS/LCSD Data 1147

Method 8260B MS/MSD Data 1161

Method 8260B Run Logs 1173

Method 8260B Prep Data 1185

GC/MS Semi VOA 1187

8270D_DOD5 1187

8270D_DOD5 QC Summary 1188

8270D_DOD5 Sample Data 1212

Standards Data 1287

8270D_DOD5 ICAL Data 1287

8270D_DOD5 CCAL Data 1372

Raw QC Data 1438

8270D_DOD5 Tune Data 1438

8270D_DOD5 Blank Data 1480

8270D_DOD5 LCS/LCSD Data 1499

8270D_DOD5 MS/MSD Data 1525

8270D_DOD5 Run Logs 1543

8270D_DOD5 Prep Data 1569

8270D_SIM_DOD5 1574

8270D_SIM_DOD5 QC Summary 1575

8270D_SIM_DOD5 Sample Data 1583

Standards Data 1654

8270D_SIM_DOD5 ICAL Data 1654

8270D_SIM_DOD5 CCAL Data 1684

Table of Contents

Raw QC Data 1696

8270D_SIM_DOD5 Tune Data 1696

8270D_SIM_DOD5 Blank Data 1716

8270D_SIM_DOD5 LCS/LCSD Data 1725

8270D_SIM_DOD5 MS/MSD Data 1730

8270D_SIM_DOD5 Run Logs 1740

8270D_SIM_DOD5 Prep Data 1742

GC Semi VOA 1744

8081B_DOD5 1744

8081B_DOD5 QC Summary 1745

8081B_DOD5 Sample Data 1779

Standards Data 1822

8081B_DOD5 ICAL Data 1822

8081B_DOD5 Resolution Data 1912

8081B_DOD5 PEM Data 1920

8081B_DOD5 CCAL Data 1952

Raw QC Data 2120

8081B_DOD5 Blank Data 2120

8081B_DOD5 LCS/LCSD Data 2142

8081B_DOD5 MS/MSD Data 2203

8081B_DOD5 Run Logs 2215

8081B_DOD5 Prep Data 2222

8082A_DOD5 2228

8082A_DOD5 QC Summary 2229

8082A_DOD5 Sample Data 2242

Standards Data 2289

Table of Contents

8082A_DOD5 ICAL Data 2289

8082A_DOD5 CCAL Data 2516

Raw QC Data 2606

8082A_DOD5 Blank Data 2606

8082A_DOD5 LCS/LCSD Data 2614

8082A_DOD5 MS/MSD Data 2621

8082A_DOD5 Run Logs 2635

8082A_DOD5 Prep Data 2640

HPLC/IC 2642

8330B_DOD5 2642

8330B_DOD5 QC Summary 2643

8330B_DOD5 Sample Data 2661

Standards Data 2774

8330B_DOD5 ICAL Data 2774

8330B_DOD5 CCAL Data 2839

Raw QC Data 2915

8330B_DOD5 Blank Data 2915

8330B_DOD5 LCS/LCSD Data 2931

8330B_DOD5 MS/MSD Data 2955

8330B_DOD5 Run Logs 2964

8330B_DOD5 Prep Data 2972

Method 8330 Nitroguanidine 2977

Method 8330 Nitroguanidine QC Summary 2978

Method 8330 Nitroguanidine Sample Data 2982

Standards Data 2997

Method 8330 Nitroguanidine ICAL Data 2997

Table of Contents

Method 8330 Nitroguanidine CCAL Data 3013

Raw QC Data 3034

Method 8330 Nitroguanidine Blank Data 3034

Method 8330 Nitroguanidine LCS/LCSD Data 3037

Method 8330 Nitroguanidine MS/MSD Data 3040

Method 8330 Nitroguanidine Run Logs 3046

Method 8330 Nitroguanidine Prep Data 3048

LCMS 3058

Method 6860 3058

Method 6860 QC Summary 3059

Method 6860 Sample Data 3066

Standards Data 3083

Method 6860 ICAL Data 3083

Method 6860 CCAL Data 3102

Raw QC Data 3121

Method 6860 Blank Data 3121

Method 6860 LCS/LCSD Data 3133

Method 6860 MS/MSD Data 3147

Method 6860 Run Logs 3156

Inorganic Sample Data 3157

Metals Data 3157

Met Cover Page 3158

Met Sample Data 3159

Met QC Data 3180

Met ICV/CCV 3180

Met CRQL 3218

Table of Contents

Met Blanks 3225

Met ICSA/ICSAB 3249

Met MS/MSD/PDS 3277

Met LCS/LCSD 3280

Met Serial Dilution 3293

Met MDL 3296

Met IECF 3310

Met Linear Ranges 3316

Met Preparation Log 3319

Met Analysis Run Log 3326

Met Internal Standards 3356

Met Prep Data 3374

Met Raw Data 3385

General Chemistry Data 6258

Gen Chem Cover Page 6259

Gen Chem Sample Data 6261

Gen Chem QC Data 6282

Gen Chem ICV/CCV 6282

Gen Chem Blanks 6287

Gen Chem MS/MSD/PDS 6289

Gen Chem LCS/LCSD 6293

Gen Chem MDL 6299

Gen Chem Linear Ranges 6309

Gen Chem Preparation Log 6310

Gen Chem Analysis Run Log 6312

Gen Chem Prep Data 6322

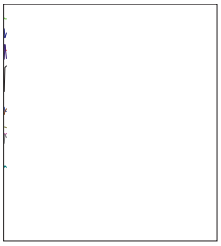
Table of Contents

Gen Chem Raw Data 6336
Subcontracted Data 6427
Shipping and Receiving Documents 6428
Client Chain of Custody 6429
Sample Receipt Checklist 6442

METALS

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
7	50000	40426	40363.8	0.19
9	50000	46968	47008.4	0.22
59	1E+05	54562	55210.5	1.86
66	2000	2126	2191.7	2.59
70	5000	1678	1687.5	2.34
75	5000	4417	4378.0	0.80
89	2E+05	90583	89991.5	1.11
105	1000	436	431.7	4.83
118	1000	739	702.1	8.52
137	20000	11135	10915.5	2.10
140	2E+05	95131	95906.1	0.71
205	2E+05	61446	62125.3	1.62
6	5000	6852	6820.9	1.05
70/140	2	1.764 %	1.759 %	2.19
156/140	2	1.542 %	1.580 %	4.50

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas		0.00
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	℃	Plasma Gas		15.0
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas		0.9

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-70	V	Cell Entrance	-40	V	Deflect	16.2	V
Extract 2	-165.0	V	Omega Lens	8.6	V	Cell Exit	-58	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		H2 Flow	0.0	mL/min	OctP Bias	-8.0	V	Energy Discrimination	3.0
He Flow	0.0	mL/min	3rd Gas Flow	0	%	OctP RF	200	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-5.0	V
Mass Offset	123	Axis Offset	-0.07			

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	1.68E-4	Pa	Internal Temp	43.5	℃	Forward Power	1550	W
Water RF/WC/IF	1.82	L/min	Reflected Power	8	W			

Current Signal

[HMI H2]



Mass	Range	Count	Avg. Count	RSD [%]
7	500	506	474.7	17.08
9	2000	1897	1737.2	13.08
59	10000	5783	5357.4	13.61
63	500	218	180.8	16.82
70	1000	466	453.4	14.95
78	50	11	14.9	38.46
89	1E+05	44092	42263.5	8.52
115	1E+05	44702	43647.0	6.73
118	500	334	357.0	6.25
137	10000	5742	5799.2	4.93
140	50000	36826	34921.4	7.32
205	50000	29397	29077.7	2.46
238	1E+05	38716	37981.3	2.13
70/140	2	1.266 %	1.292 %	10.04
156/140	1	1.065 %	1.010 %	6.13

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.14	
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	℃	Plasma Gas	15.0	
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas	0.9	

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-90	V	Cell Entrance	-20	V	Deflect	1.4	V
Extract 2	-185.0	V	Omega Lens	9.7	V	Cell Exit	-64	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		H2 Flow	4.0	mL/min	OctP Bias	-18.0	V	Energy Discrimination	3.0
He Flow	0.0	mL/min	3rd Gas Flow	0	%	OctP RF	200	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-15.0	V	
Mass Offset	123	Axis Offset	-0.07				

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	7.48E-4	Pa	Internal Temp	43.5	℃	Forward Power	1548	W
Water RF/WC/IF	1.82	L/min	Reflected Power	8	W			

US EPA Tune Check Sample Report

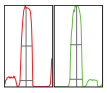
Batch Folder D:\MassHunter Data\Li122617.b
Report Comment
Instrument Name G3281A JP09320047

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	3277	1.73	5.00	
9	11956	0.58	5.00	

Mas	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	3339	3333	3265	3216	3233
9	11953	12010	11862	12035	11920

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	516	6.90	6.9 - 7.1		0.789	0.750	[F]
9	1924	8.95	8.9 - 9.1		0.780	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 60.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.14	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.4	V
Extract 2	-185.0	V	Cell Entrance	-20	V	Plate Bias	-60	V
Omega Bias	-90	V	Cell Exit	-64	V			

 # # Cell Parameters # #

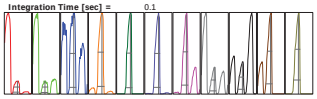
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	4.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2968	4.31	5.00	
25	449	3.57	5.00	
26	549	6.98	5.00	[F]
59	14955	2.62	5.00	
103	39322	1.83	5.00	
115	4588	4.71	5.00	
205	36356	2.69	5.00	
206	12042	3.17	5.00	
207	10447	2.29	5.00	
208	25238	2.65	5.00	
238	64703	1.16	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	3167	2974	2940	2949	2810
25	472	453	449	429	441
26	605	564	550	511	516
59	14442	14733	14917	15320	15364
103	38393	39007	39222	39686	40304
115	4324	4461	4540	4782	4835
205	35253	35591	36272	37109	37556
206	11433	11983	12099	12438	12258
207	10165	10270	10428	10651	10723
208	24391	24882	25096	25837	25987
238	64088	64309	64138	65194	65788

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	492	24.000	23.9 - 24.1		0.755	0.750	[F]
25	78	24.900	24.9 - 25.1		0.744	0.750	
26	90	26.000	25.9 - 26.1		0.743	0.750	
59	2685	59.000	58.9 - 59.1		0.731	0.750	
103	7723	103.050	102.9 - 103.1		0.715	0.750	
115	886	115.050	114.9 - 115.1		0.726	0.750	
205	7358	205.000	204.9 - 205.1		0.707	0.750	
206	2406	206.000	205.9 - 206.1		0.707	0.750	
207	2015	207.000	206.9 - 207.1		0.698	0.750	
208	5158	208.000	207.9 - 208.1		0.706	0.750	
238	12763	237.950	237.9 - 238.1		0.722	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 283 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.23	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.1	V	Deflect	3.2	V
Extract 2	-175.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	V	Cell Exit	-70	V			

 # # Cell Parameters # #

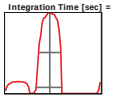
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	5.0	mL/min	Energy Discrimination	4.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	252962	1.28	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	258503	250451	251414	251444	252999

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	39635	6.950	6.9 - 7.1		0.790	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 36.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.00	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	16.2	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-50	V
Omega Bias	-70	V	Cell Exit	-58	V			

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-8.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	false		3rd Gas Flow	0	%			

US EPA Tune Check Sample Report

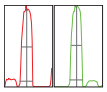
Batch Folder D:\MassHunter Data\Li122617.b
Report Comment
Instrument Name G3281A JP09320047

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	3208	1.44	5.00	
9	11389	1.47	5.00	

Mas	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	3228	3249	3211	3223	3129
9	11241	11482	11422	11601	11201

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	508	6.95	6.9 - 7.1		0.788	0.750	[F]
9	1810	8.95	8.9 - 9.1		0.787	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 60.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.14	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.4	V
Extract 2	-185.0	V	Cell Entrance	-20	V	Plate Bias	-60	V
Omega Bias	-90	V	Cell Exit	-64	V			

 # # Cell Parameters # #

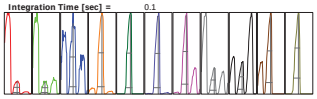
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-18.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
CollP RF	200	V	H2 Flow	4.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2164	2.85	5.00	
25	318	5.21	5.00	[F]
26	385	6.76	5.00	[F]
59	13429	2.83	5.00	
103	35342	1.80	5.00	
115	3925	4.67	5.00	
205	32964	1.96	5.00	
206	10789	2.65	5.00	
207	9576	2.45	5.00	
208	22708	1.82	5.00	
238	58844	2.11	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2077	2154	2240	2148	2203
25	320	289	329	321	329
26	367	368	378	430	384
59	12993	13123	13420	13734	13875
103	34547	34763	35693	35789	35916
115	3667	3812	3974	4108	4065
205	31890	32878	33174	33390	33489
206	10446	10516	11006	10922	11053
207	9281	9362	9733	9758	9744
208	22134	22547	22714	22899	23248
238	57098	58020	59366	60041	59694

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	357	23.950	23.9 - 24.1		0.748	0.750	
25	55	24.900	24.9 - 25.1		0.742	0.750	
26	66	25.900	25.9 - 26.1		0.745	0.750	
59	2443	59.000	58.9 - 59.1		0.730	0.750	
103	6988	103.050	102.9 - 103.1		0.715	0.750	
115	767	115.000	114.9 - 115.1		0.720	0.750	
205	6627	205.000	204.9 - 205.1		0.717	0.750	
206	2143	206.000	205.9 - 206.1		0.705	0.750	
207	1814	206.950	206.9 - 207.1		0.684	0.750	
208	4618	208.000	207.9 - 208.1		0.703	0.750	
238	11788	237.950	237.9 - 238.1		0.711	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 283 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.23	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.1	V	Deflect	3.2	V
Extract 2	-175.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	V	Cell Exit	-70	V			

 # # Cell Parameters # #

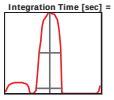
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-18.0	V	He Flow	5.0	mL/min	Energy Discrimination	4.0	V
CollP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	242142	0.64	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	242596	240217	240866	243237	243794

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	38975	6.950	6.9 - 7.1		0.788	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 36.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.00	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	16.2	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-50	V
Omega Bias	-70	V	Cell Exit	-58	V			

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-8.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
CollP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	false		3rd Gas Flow	0	%			

US EPA Tune Check Sample Report

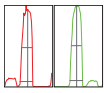
Batch Folder D:\MassHunter Data\Li122617.b
Report Comment
Instrument Name G3281A JP09320047

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	3070	1.58	5.00	
9	11064	1.91	5.00	

Mas	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	3056	3038	3155	3041	3057
9	11311	10803	11194	10891	11122

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	498	7.00	6.9 - 7.1		0.785	0.750	[F]
9	1803	8.95	8.9 - 9.1		0.787	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 60.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.14	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.4	V
Extract 2	-185.0	V	Cell Entrance	-20	V	Plate Bias	-60	V
Omega Bias	-90	V	Cell Exit	-64	V			

 # # Cell Parameters # #

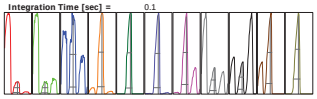
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	4.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2221	3.02	5.00	
25	314	3.34	5.00	
26	400	4.86	5.00	
59	13974	2.20	5.00	
103	36637	1.55	5.00	
115	4444	2.66	5.00	
205	34002	1.78	5.00	
206	11316	2.54	5.00	
207	9969	0.92	5.00	
208	23462	1.44	5.00	
238	59542	1.56	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2158	2156	2230	2316	2247
25	307	306	308	331	316
26	372	397	408	398	425
59	13619	13738	13973	14167	14374
103	36066	36117	36959	36639	37403
115	4318	4389	4471	4411	4631
205	33208	33554	34228	34310	34707
206	10990	11093	11292	11537	11671
207	9865	9919	9962	9990	10111
208	23018	23261	23452	23791	23791
238	58002	59470	59931	59848	60460

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	376	24.000	23.9 - 24.1		0.743	0.750	
25	54	24.900	24.9 - 25.1		0.737	0.750	
26	68	25.900	25.9 - 26.1		0.743	0.750	
59	2599	59.000	58.9 - 59.1		0.727	0.750	
103	7465	103.050	102.9 - 103.1		0.710	0.750	
115	893	115.000	114.9 - 115.1		0.710	0.750	
205	6989	205.000	204.9 - 205.1		0.712	0.750	
206	2294	206.000	205.9 - 206.1		0.698	0.750	
207	1941	206.950	206.9 - 207.1		0.673	0.750	
208	4874	207.950	207.9 - 208.1		0.693	0.750	
238	12261	237.950	237.9 - 238.1		0.704	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 283 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.23	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.3	V	Deflect	2.6	V
Extract 2	-200.0	V	Cell Entrance	-30	V	Plate Bias	-60	V
Omega Bias	-85	V	Cell Exit	-66	V			

 # # Cell Parameters # #

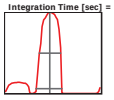
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	5.0	mL/min	Energy Discrimination	4.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	240124	1.75	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	238434	234954	238472	243354	245406

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	38999	6.950	6.9 - 7.1		0.787	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 36.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.00	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	16.2	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-50	V
Omega Bias	-70	V	Cell Exit	-58	V			

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-8.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	false		3rd Gas Flow	0	%			

Mass	Element Name	Current Value
7	Li	Signal too low
9	Be	0.107514911968021
23	Na	0.116981385410811
24	Mg	0.122929887554437
27	Al	0.12624255262341
39	K	0.128445197067644
45	Sc	0.129974665347521
51	V	0.131595117059061
55	Mn	0.138568280466876
56	Fe	0.12699692533204
59	Co	0.142267165816854
60	Ni	0.143515543803562
63	Cu	0.145883633229471
66	Zn	0.145026538379442
72	Ge	0.144466110499312
75	As	0.142548398900813
77	Se	Signal too low
82	Se	Signal too low
88	Sr	0.146605023097062
89	Y	0.144588388397322
95	Mo	0.14382795085145
100	Ru	0.147079419018904
101	Ru	0.147505364415701
102	Ru	0.148019691783248
104	Ru	0.14945246333522
105	Pd	0.151332767594529

Mass	Element Name	Current Value
106	Pd	0.15202401412207
111	Cd	0.152994223654755
114	Cd	0.154283908735795
115	In	0.15401095354636
118	Sn	0.152939567675484
121	Sb	0.152674814115705
137	Ba	0.151316707935859
175	Lu	0.160493981918143
193	Ir	0.160058896915023
205	Tl	0.162094181325466
208	Pb	0.163273166785123
209	Bi	0.16285866834508
232	Th	0.162885315729934
238	U	0.162676197669861

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	001WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T10:43:45-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	002WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T10:47:34-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	003WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T10:51:21-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	004WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T10:55:09-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	005WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T10:58:57-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	006CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:02:45-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	179114	0.00
Li	7	2	HMI He	9920	0.04
Li	7	3	No Gas	15439798	0.00
Be	9	1	HMI H2	3	5196.15
B	11	1	HMI H2	570	2.15
Na	23	1	HMI H2	247807	0.00
Na	23	2	HMI He	12872	0.01
Mg	24	2	HMI He	160	25.61
Al	27	2	HMI He	47	332.14
K	39	2	HMI He	5221	0.03
Ca	44	2	HMI He	27	214.81
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	290	12.58
Cr	52	2	HMI He	237	2.73
Mn	55	2	HMI He	7	2598.08
Fe	57	2	HMI He	27	292.73
Co	59	2	HMI He	7	2598.08
Ni	60	2	HMI He	190	7.33
Cu	63	2	HMI He	2567	0.26
Zn	66	2	HMI He	147	20.96
As	75	2	HMI He	9	541.04
Se	78	1	HMI H2	21	50.74
Sr	88	2	HMI He	13	324.76
Zr	90	2	HMI He	87	75.71
Nb	93	2	HMI He	67	85.19
Mo	95	2	HMI He	13	324.76
Pd	105	2	HMI He	7	1299.04
Ag	107	2	HMI He	40	0.00
Cd	111	2	HMI He	3	5196.15
Sn	120	2	HMI He	143	12.25
Sb	121	2	HMI He	10	1732.05
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	220	9.47
Pt	195	2	HMI He	63	14.39
Tl	205	2	HMI He	57	47.57
Pb	208	2	HMI He	483	3.88
Th	232	2	HMI He	843	1.54
U	238	2	HMI He	73	87.87

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1566848	1.03
Sc (IS)	45	1	HMI H2	44647994	1.59
Sc (IS)	45	2	HMI He	410930	0.56
Sc (IS)	45	3	No Gas	174437931	0.57
Ge Internal Standard	72	1	HMI H2	21311463	1.05
Ge Internal Standard	72	2	HMI He	577281	2.05
In Internal Standard	115	2	HMI He	1218427	2.54
Ho-165	165	2	HMI He	11098014	2.27

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	007CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:06:35-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	635290	0.00
Li	7	2	HMI He	34346	0.01
Li	7	3	No Gas	49806409	0.00
Be	9	1	HMI H2	41935	0.00
B	11	1	HMI H2	60459	0.00
Na	23	1	HMI H2	41606629	0.00
Na	23	2	HMI He	1348905	0.00
Mg	24	2	HMI He	550727	0.00
Al	27	2	HMI He	96179	0.00
K	39	1	HMI H2	46159091	0.00
K	39	2	HMI He	164780	0.00
Ca	40	1	HMI H2	62915701	0.00
Ca	44	2	HMI He	10163	0.07
Ti	47	2	HMI He	17	549.91
V	51	2	HMI He	66266	0.00
Cr	52	2	HMI He	95025	0.00
Mn	55	2	HMI He	23436	0.01
Fe	57	2	HMI He	169061	0.00
Co	59	2	HMI He	211106	0.00
Ni	60	2	HMI He	65514	0.00
Cu	63	2	HMI He	197211	0.00
Zn	66	2	HMI He	15524	0.01
As	75	2	HMI He	8914	0.01
Se	78	1	HMI H2	46104	0.00
Sr	88	2	HMI He	15414	0.03
Zr	90	2	HMI He	827	0.68
Nb	93	2	HMI He	491207	0.00
Mo	95	2	HMI He	67251	0.00
Pd	105	2	HMI He	130976	0.00
Ag	107	2	HMI He	275671	0.00
Cd	111	2	HMI He	21120	0.01
Sn	120	2	HMI He	45693	0.00
Sb	121	2	HMI He	37914	0.01
Ba	137	2	HMI He	9763	0.01
Nd	146	2	HMI He	54651	0.00
Sm	147	2	HMI He	47940	0.00
Sm	150	2	HMI He	47650	0.00
Gd	156	1	HMI H2	1188101	0.00
Gd	157	1	HMI H2	911640	0.00
W	182	2	HMI He	503394	0.00
Pt	195	2	HMI He	571012	0.00
Tl	205	2	HMI He	628302	0.00
Pb	208	2	HMI He	802521	0.00
Th	232	2	HMI He	931360	0.00
U	238	2	HMI He	1113207	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1473896	0.88	1566848	94.07	60	120	
Sc (IS)	45	1	HMI H2	43574043	0.48	44647994	97.59	60	120	
Sc (IS)	45	2	HMI He	395273	1.79	410930	96.19	60	120	
Sc (IS)	45	3	No Gas	157379161	0.52	174437931	90.22	60	120	
Ge Internal Standard	72	1	HMI H2	20729289	0.58	21311463	97.27	60	120	
Ge Internal Standard	72	2	HMI He	561525	0.77	577281	97.27	60	120	
In Internal Standard	115	2	HMI He	1172787	1.39	1218427	96.25	60	120	
Ho-165	165	2	HMI He	11002559	0.71	11098014	99.14	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV-4905062
Data File Name	008_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:10:23-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	430.797	ppb	2.605	370004	400	107.7	90	110	
Li	7	2	45	422.187	ppb	4.615	20185	400	105.5	90	110	
Li	7	3	45	438.503	ppb	1.797	29302508	400	109.6	90	110	
Be	9	1	6	39.315	ppb	3.562	16468	40	98.3	90	110	
B	11	1	6	25.218	ppb	1.760	15630	40	63.0	90	110	>+\-10%
Na	23	1	45	3923.449	ppb	4.029	16325139	4000	98.1	90	110	>+\-10%
Na	23	2	45	3833.752	ppb	2.381	528889	4000	95.8	90	110	
Mg	24	2	45	3963.047	ppb	2.408	220108	4000	99.1	90	110	
Al	27	2	45	8093.922	ppb	3.239	78482	4000	202.3	90	110	>+\-10%
K	39	1	45	3892.980	ppb	5.385	22998125	4000	97.3	90	110	
K	39	2	45	3993.357	ppb	3.334	69367	4000	99.8	90	110	
Ca	40	1	45	3949.488	ppb	4.085	24696092	4000	98.7	90	110	
Ca	44	2	45	4084.935	ppb	8.068	4197	4000	102.1	90	110	
Ti	47	2	45	59.128	ppb	100.717	10	40	147.8	90	110	>+\-10%
V	51	2	72	41.480	ppb	2.452	27903	40	103.7	90	110	
Cr	52	2	72	40.225	ppb	2.947	38706	40	100.6	90	110	
Mn	55	2	72	38.427	ppb	1.803	9093	40	96.1	90	110	
Fe	57	2	72	7913.634	ppb	1.904	134992	4000	197.8	90	110	>+\-10%
Co	59	2	72	39.641	ppb	1.178	84443	40	99.1	90	110	
Ni	60	2	72	39.285	ppb	1.379	26083	40	98.2	90	110	
Cu	63	2	72	39.173	ppb	1.604	79478	40	97.9	90	110	
Zn	66	2	72	39.506	ppb	6.607	6275	40	98.8	90	110	
As	75	2	72	37.450	ppb	2.758	3374	40	93.6	90	110	
Se	78	1	72	39.492	ppb	2.915	18012	40	98.7	90	110	
Sr	88	2	72	44.225	ppb	5.344	6888	40	110.6	90	110	>+\-10%
Zr	90	2	72	5.995	ppb	123.427	130	40	15.0	90	110	>+\-10%
Nb	93	2	72	77.442	ppb	1.450	191963	80	96.8	90	110	
Mo	95	2	115	38.310	ppb	1.723	26608	40	95.8	90	110	
Pd	105	2	115	38.594	ppb	1.760	52180	40	96.5	90	110	
Ag	107	2	115	38.780	ppb	2.116	110377	40	97.0	90	110	
Cd	111	2	115	39.085	ppb	6.070	8526	40	97.7	90	110	
Sn	120	2	115	38.514	ppb	1.690	18254	40	96.3	90	110	
Sb	121	2	115	39.049	ppb	5.555	15284	40	97.6	90	110	
Ba	137	2	115	43.845	ppb	9.298	4417	40	109.6	90	110	
W	182	2	165	78.984	ppb	1.603	399279	40	197.5	90	110	>+\-10%
Pt	195	2	165	38.294	ppb	1.473	219592	40	95.7	90	110	
Tl	205	2	165	39.569	ppb	1.024	249669	40	98.9	90	110	
Pb	208	2	165	40.180	ppb	3.079	324029	40	100.5	90	110	
Th	232	2	165	40.117	ppb	2.429	375637	40	100.3	90	110	
U	238	2	165	39.680	ppb	2.828	443554	40	99.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1472069	0.81	1566848	93.95	60	120	
Sc (IS)	45	1	HMI H2	43210883	2.08	44647994	96.78	60	120	
Sc (IS)	45	2	HMI He	398467	1.08	410930	96.97	60	120	
Sc (IS)	45	3	No Gas	155485064	1.29	174437931	89.13	60	120	
Ge Internal Standard	72	1	HMI H2	20499929	1.95	21311463	96.19	60	120	
Ge Internal Standard	72	2	HMI He	566584	0.41	577281	98.15	60	120	
In Internal Standard	115	2	HMI He	1210458	0.59	1218427	99.35	60	120	
Ho-165	165	2	HMI He	11048458	1.23	11098014	99.55	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV-4905062
Data File Name	009_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:14:53-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	422.450	ppb	0.687	372252	400	105.6	90	110	
Li	7	2	45	401.375	ppb	6.834	20282	400	100.3	90	110	
Li	7	3	45	409.857	ppb	0.710	28700125	400	102.5	90	110	
Be	9	1	6	39.230	ppb	4.493	16485	40	98.1	90	110	
B	11	1	6	25.108	ppb	2.956	15614	40	62.8	90	110	>+\-10%
Na	23	1	45	3936.056	ppb	0.802	16653915	4000	98.4	90	110	>+\-10%
Na	23	2	45	3789.714	ppb	3.040	539451	4000	94.7	90	110	
Mg	24	2	45	3977.247	ppb	4.104	227816	4000	99.4	90	110	
Al	27	2	45	8045.015	ppb	1.819	80487	4000	201.1	90	110	>+\-10%
K	39	1	45	3975.355	ppb	0.481	23697534	4000	99.4	90	110	
K	39	2	45	4077.841	ppb	3.182	72964	4000	101.9	90	110	
Ca	40	1	45	3962.569	ppb	0.579	25197004	4000	99.1	90	110	
Ca	44	2	45	4037.535	ppb	3.756	4284	4000	100.9	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	40	0.0	90	110	>+\-10%
V	51	2	72	40.961	ppb	5.459	28136	40	102.4	90	110	
Cr	52	2	72	40.881	ppb	5.252	40159	40	102.2	90	110	
Mn	55	2	72	41.326	ppb	2.637	9986	40	103.3	90	110	
Fe	57	2	72	8059.261	ppb	3.152	140402	4000	201.5	90	110	>+\-10%
Co	59	2	72	40.186	ppb	3.532	87421	40	100.5	90	110	
Ni	60	2	72	41.036	ppb	7.509	27799	40	102.6	90	110	
Cu	63	2	72	39.669	ppb	3.456	82164	40	99.2	90	110	
Zn	66	2	72	42.112	ppb	4.959	6822	40	105.3	90	110	
As	75	2	72	38.896	ppb	4.923	3578	40	97.2	90	110	
Se	78	1	72	39.026	ppb	2.091	18230	40	97.6	90	110	
Sr	88	2	72	42.136	ppb	5.922	6702	40	105.3	90	110	
Zr	90	2	72	6.988	ppb	69.776	140	40	17.5	90	110	>+\-10%
Nb	93	2	72	78.113	ppb	3.908	197720	80	97.6	90	110	
Mo	95	2	115	39.567	ppb	3.465	27903	40	98.9	90	110	
Pd	105	2	115	39.612	ppb	2.858	54387	40	99.0	90	110	
Ag	107	2	115	38.793	ppb	4.219	112099	40	97.0	90	110	
Cd	111	2	115	40.520	ppb	1.319	8976	40	101.3	90	110	
Sn	120	2	115	38.862	ppb	4.263	18698	40	97.2	90	110	
Sb	121	2	115	39.999	ppb	5.153	15895	40	100.0	90	110	
Ba	137	2	115	42.863	ppb	7.174	4384	40	107.2	90	110	
W	182	2	165	79.340	ppb	3.137	408900	40	198.3	90	110	>+\-10%
Pt	195	2	165	37.991	ppb	2.710	222126	40	95.0	90	110	
Tl	205	2	165	40.111	ppb	3.178	258014	40	100.3	90	110	
Pb	208	2	165	40.326	ppb	3.641	331556	40	100.8	90	110	
Th	232	2	165	40.283	ppb	3.973	384522	40	100.7	90	110	
U	238	2	165	39.901	ppb	3.363	454732	40	99.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1476911	0.72	1566848	94.26	60	120	
Sc (IS)	45	1	HMI H2	43918136	0.47	44647994	98.37	60	120	
Sc (IS)	45	2	HMI He	411188	2.68	410930	100.06	60	120	
Sc (IS)	45	3	No Gas	157742908	0.53	174437931	90.43	60	120	
Ge Internal Standard	72	1	HMI H2	20990383	0.84	21311463	98.49	60	120	
Ge Internal Standard	72	2	HMI He	578919	2.36	577281	100.28	60	120	
In Internal Standard	115	2	HMI He	1229810	2.64	1218427	100.93	60	120	
Ho-165	165	2	HMI He	11268027	2.28	11098014	101.53	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV-4905062
Data File Name	010_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:20:23-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	430.890	ppb	2.633	373056	400	107.7	90	110	
Li	7	2	45	367.031	ppb	6.521	20469	400	91.8	90	110	
Li	7	3	45	421.721	ppb	1.332	28141875	400	105.4	90	110	
Be	9	1	6	40.251	ppb	3.347	16745	40	100.6	90	110	
B	11	1	6	25.689	ppb	2.819	15804	40	64.2	90	110	>+\-10%
Na	23	1	45	4058.973	ppb	0.748	17025156	4000	101.5	90	110	>+\-10%
Na	23	2	45	3620.882	ppb	2.803	544548	4000	90.5	90	110	
Mg	24	2	45	3735.442	ppb	4.475	225801	4000	93.4	90	110	
Al	27	2	45	7803.402	ppb	5.606	82338	4000	195.1	90	110	>+\-10%
K	39	1	45	4157.686	ppb	1.094	24187142	4000	103.9	90	110	
K	39	2	45	3888.592	ppb	2.927	73690	4000	97.2	90	110	
Ca	40	1	45	4110.319	ppb	0.926	25916206	4000	102.8	90	110	
Ca	44	2	45	3742.471	ppb	11.827	4184	4000	93.6	90	110	
Ti	47	2	45	17.553	ppb	173.205	3	40	43.9	90	110	>+\-10%
V	51	2	72	38.002	ppb	4.425	27682	40	95.0	90	110	
Cr	52	2	72	37.353	ppb	2.601	38910	40	93.4	90	110	
Mn	55	2	72	38.969	ppb	5.380	9977	40	97.4	90	110	
Fe	57	2	72	7530.700	ppb	2.840	138998	4000	188.3	90	110	>+\-10%
Co	59	2	72	37.606	ppb	4.298	86667	40	94.0	90	110	
Ni	60	2	72	38.082	ppb	5.102	27359	40	95.2	90	110	
Cu	63	2	72	37.137	ppb	4.592	81658	40	92.8	90	110	
Zn	66	2	72	35.931	ppb	2.614	6191	40	89.8	90	110	>+\-10%
As	75	2	72	36.891	ppb	4.839	3596	40	92.2	90	110	
Se	78	1	72	39.812	ppb	4.020	18342	40	99.5	90	110	
Sr	88	2	72	40.097	ppb	7.577	6758	40	100.2	90	110	
Zr	90	2	72	-1.075	ppb	-165.794	83	40	-2.7	90	110	>+\-10%
Nb	93	2	72	74.633	ppb	4.414	200148	80	93.3	90	110	
Mo	95	2	115	37.033	ppb	3.286	28047	40	92.6	90	110	
Pd	105	2	115	37.093	ppb	4.466	54688	40	92.7	90	110	
Ag	107	2	115	36.996	ppb	4.701	114813	40	92.5	90	110	
Cd	111	2	115	38.978	ppb	4.272	9270	40	97.4	90	110	
Sn	120	2	115	36.726	ppb	4.472	18985	40	91.8	90	110	
Sb	121	2	115	36.650	ppb	5.270	15644	40	91.6	90	110	
Ba	137	2	115	40.807	ppb	4.724	4484	40	102.0	90	110	
W	182	2	165	74.288	ppb	3.900	402933	40	185.7	90	110	>+\-10%
Pt	195	2	165	35.469	ppb	3.252	218239	40	88.7	90	110	>+\-10%
Tl	205	2	165	38.289	ppb	2.792	259217	40	95.7	90	110	
Pb	208	2	165	38.783	ppb	3.880	335601	40	97.0	90	110	
Th	232	2	165	38.580	ppb	3.926	387624	40	96.5	90	110	
U	238	2	165	37.967	ppb	3.973	455364	40	94.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1462195	0.99	1566848	93.32	60	120	
Sc (IS)	45	1	HMI H2	43556159	0.66	44647994	97.55	60	120	
Sc (IS)	45	2	HMI He	433922	2.62	410930	105.60	60	120	
Sc (IS)	45	3	No Gas	152408071	0.04	174437931	87.37	60	120	
Ge Internal Standard	72	1	HMI H2	20700670	0.18	21311463	97.13	60	120	
Ge Internal Standard	72	2	HMI He	613172	1.11	577281	106.22	60	120	
In Internal Standard	115	2	HMI He	1320511	1.94	1218427	108.38	60	120	
Ho-165	165	2	HMI He	11857527	1.81	11098014	106.84	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB-4905058
Data File Name	011_ICB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:30:01-07:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	-19.749	ppb	-5.5	13827686	10	
Be	9	1	0.000	ppb	102304.0	3	0.5	
B	11	1	0.478	ppb	55.0	877	0.5	
Na	23	1	27.407	ppb	5.3	383961	25	>RL
Na	23	2	19.303	ppb	3.7	17786	25	
Mg	24	2	-1.269	ppb	-33.9	100	25	
Al	27	2	-1.992	ppb	-135.1	30	15	
K	39	1	138.867	ppb	26.6	9823754	50	>RL
K	39	2	-24.988	ppb	-25.8	5494	50	
Ca	40	1	-0.043	ppb	-697.7	121662	50	
Ca	44	2	18.607	ppb	152.4	53	25	
Ti	47	2	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	0.275	ppb	21.8	543	1	
Cr	52	2	-0.072	ppb	-44.5	190	1	
Mn	55	2	0.094	ppb	159.9	33	0.5	
Fe	57	2	3.540	ppb	65.1	100	25	
Co	59	2	-0.002	ppb	-140.3	3	0.5	
Ni	60	2	-0.048	ppb	-190.7	180	1	
Cu	63	2	0.085	ppb	100.1	3114	1	
Zn	66	2	-0.129	ppb	-172.8	143	5	
As	75	2	-0.012	ppb	-478.8	9	1	
Se	78	1	0.001	ppb	1100.7	23	1	
Sr	88	2	-0.029	ppb	-2.3	10	0.5	
Zr	90	2	-3.275	ppb	-70.6	70	1	
Nb	93	2	0.843	ppb	8.6	2500	2	
Mo	95	2	0.005	ppb	626.1	20	0.5	
Pd	105	2	0.001	ppb	559.2	10	1	
Ag	107	2	-0.006	ppb	-79.4	30	1	
Cd	111	2	-0.003	ppb	-584.7	3	0.5	
Sn	120	2	-0.070	ppb	-123.9	137	1	
Sb	121	2	0.140	ppb	28.4	80	0.6	
Ba	137	2	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	0.044	ppb	17.5	500	1	
Pt	195	2	0.000	ppb	-3776.3	70	1	
Tl	205	2	0.006	ppb	107.4	103	0.1	
Pb	208	2	0.005	ppb	127.5	590	0.5	
Th	232	2	0.006	ppb	107.5	1007	1	
U	238	2	0.004	ppb	142.9	127	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1568360	1.19	1566848	100.10	60	120	
Sc (IS)	45	1	HMI H2	47100306	0.99	44647994	105.49	60	120	
Sc (IS)	45	2	HMI He	469878	2.15	410930	114.34	60	120	
Sc (IS)	45	3	No Gas	164593068	0.59	174437931	94.36	60	120	
Ge Internal Standard	72	1	HMI H2	22109807	1.29	21311463	103.75	60	120	
Ge Internal Standard	72	2	HMI He	656678	1.19	577281	113.75	60	120	
In Internal Standard	115	2	HMI He	1502032	5.89	1218427	123.28	60	120	IS Failed
Ho-165	165	2	HMI He	12427391	2.69	11098014	111.98	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	012WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:33:49-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.030	ppb	215.502003	17	0.5
Na	23	2	45	-23.652	ppb	-4.788442316	10667	25
Mg	24	2	45	-0.381	ppb	-271.5824609	153	25
Al	27	2	45	-1.055	ppb	-168.7698191	40	15
K	39	2	45	-37.961	ppb	-11.40838146	5108	50
Ca	44	2	45	-16.744	ppb	-50.92478758	10	25
V	51	2	72	0.140	ppb	26.99188064	427	1
Cr	52	2	72	-0.011	ppb	-410.7720084	250	1
Mn	55	2	72	0.148	ppb	81.4328456	47	0.5
Fe	57	2	72	3.342	ppb	17.88146081	93	25
Co	59	2	72	0.003	ppb	249.6479834	13	0.5
Ni	60	2	72	-0.004	ppb	-2274.860891	207	1
Cu	63	2	72	-0.539	ppb	-11.38621425	1643	1
Zn	66	2	72	0.220	ppb	116.3018719	200	5
As	75	2	72	-0.055	ppb	-54.84352729	5	1
Se	78	1	72	-0.023	ppb	-72.7726317	11	1
Nb	93	2	72	0.307	ppb	17.35302496	930	2
Mo	95	2	115	0.048	ppb	40.26122141	53	0.5
Pd	105	2	115	0.017	ppb	118.895727	33	1
Ag	107	2	115	-0.010	ppb	-35.66498695	13	1
Cd	111	2	115	-0.015	ppb	-1.52888E-06	0	0.5
Sn	120	2	115	-0.055	ppb	-140.4138522	133	1
Sb	121	2	115	0.137	ppb	95.27847175	73	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.021	ppb	32.75018967	363	1
Pt	195	2	165	0.002	ppb	521.8058736	80	1
Tl	205	2	165	-0.001	ppb	-452.7019527	53	0.1
Pb	208	2	165	-0.002	ppb	-348.7577114	517	0.5
Th	232	2	165	-0.018	ppb	-35.23374513	747	1
U	238	2	165	-0.003	ppb	-54.29869045	50	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1574030	1.13	1566848	100.46	60	120	
Sc (IS)	45	1	HMI H2	46505444	1.30	44647994	104.16	60	120	
Sc (IS)	45	2	HMI He	457269	0.69	410930	111.28	60	120	
Sc (IS)	45	3	No Gas	161065418	0.53	174437931	92.33	60	120	
Ge Internal Standard	72	1	HMI H2	21965914	0.54	21311463	103.07	60	120	
Ge Internal Standard	72	2	HMI He	637864	0.66	577281	110.49	60	120	
In Internal Standard	115	2	HMI He	1391279	0.24	1218427	114.19	60	120	
Ho-165	165	2	HMI He	12252830	0.71	11098014	110.41	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	013WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:37:37-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.015	ppb	256.6707791	10	0.5
Na	23	2	45	-25.093	ppb	-23.95693266	10503	25
Mg	24	2	45	-0.606	ppb	-4.666019878	140	25
Al	27	2	45	1.340	ppb	273.005576	67	15
K	39	2	45	-27.956	ppb	-56.6457425	5324	50
Ca	44	2	45	-11.015	ppb	-162.4085314	17	25
V	51	2	72	0.176	ppb	75.82997906	453	1
Cr	52	2	72	-0.079	ppb	-59.29881653	177	1
Mn	55	2	72	0.135	ppb	88.53622958	43	0.5
Fe	57	2	72	4.552	ppb	27.02880728	117	25
Co	59	2	72	-0.002	ppb	-145.5693194	3	0.5
Ni	60	2	72	-0.054	ppb	-111.0120044	170	1
Cu	63	2	72	-0.516	ppb	-14.47346491	1697	1
Zn	66	2	72	0.313	ppb	101.1606664	217	5
As	75	2	72	0.010	ppb	452.7446708	11	1
Se	78	1	72	-0.020	ppb	-42.47205062	12	1
Nb	93	2	72	0.164	ppb	18.04437477	533	2
Mo	95	2	115	-0.007	ppb	-186.4786331	10	0.5
Pd	105	2	115	0.008	ppb	79.3555197	20	1
Ag	107	2	115	-0.008	ppb	-102.7555119	20	1
Cd	111	2	115	-0.015	ppb	-1.52888E-06	0	0.5
Sn	120	2	115	-0.086	ppb	-47.17948846	117	1
Sb	121	2	115	0.056	ppb	151.2041532	37	0.6
Ba	137	2	115	0.057	ppb	86.60527392	7	0.5
W	182	2	165	0.020	ppb	89.08035255	357	1
Pt	195	2	165	-0.003	ppb	-71.10800417	53	1
Tl	205	2	165	0.000	ppb	-355.161757	60	0.1
Pb	208	2	165	0.009	ppb	164.2732761	617	0.5
Th	232	2	165	-0.027	ppb	-22.07547202	653	1
U	238	2	165	-0.001	ppb	-30.54940835	67	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1549794	1.71	1566848	98.91	60	120	
Sc (IS)	45	1	HMI H2	45629841	1.98	44647994	102.20	60	120	
Sc (IS)	45	2	HMI He	459961	1.29	410930	111.93	60	120	
Sc (IS)	45	3	No Gas	164667488	1.48	174437931	94.40	60	120	
Ge Internal Standard	72	1	HMI H2	21486243	0.77	21311463	100.82	60	120	
Ge Internal Standard	72	2	HMI He	638947	1.44	577281	110.68	60	120	
In Internal Standard	115	2	HMI He	1390381	1.16	1218427	114.11	60	120	
Ho-165	165	2	HMI He	12278465	1.76	11098014	110.64	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	014WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:41:25-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	006CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.007	ppb	-1.57455E-06	0	0.5
Na	23	2	45	-25.679	ppb	-10.70023569	10310	25
Mg	24	2	45	-1.582	ppb	-20.93813492	77	25
Al	27	2	45	4.998	ppb	59.15174454	107	15
K	39	2	45	-18.467	ppb	-71.739443	5444	50
Ca	44	2	45	9.042	ppb	191.4487079	40	25
V	51	2	72	0.178	ppb	18.48806616	447	1
Cr	52	2	72	0.038	ppb	305.9026385	297	1
Mn	55	2	72	0.126	ppb	109.1187939	40	0.5
Fe	57	2	72	6.096	ppb	44.14725556	143	25
Co	59	2	72	-0.003	ppb	0	0	0.5
Ni	60	2	72	-0.063	ppb	-79.54399478	160	1
Cu	63	2	72	-0.589	ppb	-11.3591677	1507	1
Zn	66	2	72	0.199	ppb	145.0021318	193	5
As	75	2	72	-0.054	ppb	-86.11942791	5	1
Se	78	1	72	-0.023	ppb	-20.81879661	11	1
Nb	93	2	72	0.108	ppb	25.67503047	370	2
Mo	95	2	115	0.006	ppb	345.6965818	20	0.5
Pd	105	2	115	0.010	ppb	35.64941961	23	1
Ag	107	2	115	-0.006	ppb	-84.09436446	27	1
Cd	111	2	115	-0.015	ppb	-1.52888E-06	0	0.5
Sn	120	2	115	-0.014	ppb	-639.0759072	153	1
Sb	121	2	115	0.042	ppb	161.7527528	30	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.017	ppb	92.06358914	333	1
Pt	195	2	165	-0.001	ppb	-586.6806043	60	1
Tl	205	2	165	-0.002	ppb	-260.2688494	50	0.1
Pb	208	2	165	-0.005	ppb	-362.8255436	487	0.5
Th	232	2	165	-0.030	ppb	-38.37959363	613	1
U	238	2	165	-0.002	ppb	-194.8995962	60	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1581148	1.55	1566848	100.91	60	120	
Sc (IS)	45	1	HMI H2	46198801	0.28	44647994	103.47	60	120	
Sc (IS)	45	2	HMI He	455287	0.69	410930	110.79	60	120	
Sc (IS)	45	3	No Gas	162750971	0.89	174437931	93.30	60	120	
Ge Internal Standard	72	1	HMI H2	21815168	0.27	21311463	102.36	60	120	
Ge Internal Standard	72	2	HMI He	626606	0.90	577281	108.54	60	120	
In Internal Standard	115	2	HMI He	1368204	0.54	1218427	112.29	60	120	
Ho-165	165	2	HMI He	12128691	0.65	11098014	109.29	60	120	

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	015CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:45:13-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	180933	0.00
Li	7	2	HMI He	9469	0.07
Li	7	3	No Gas	13792584	0.00
Be	9	1	HMI H2	3	5196.15
B	11	1	HMI H2	743	2.54
Na	23	1	HMI H2	211149	0.00
Na	23	2	HMI He	12004	0.05
Mg	24	2	HMI He	153	31.92
Al	27	2	HMI He	23	106.04
K	39	2	HMI He	5254	0.06
Ca	44	2	HMI He	17	1039.23
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	417	3.52
Cr	52	2	HMI He	187	17.54
Mn	55	2	HMI He	20	500.00
Fe	57	2	HMI He	40	165.36
Co	59	2	HMI He	0	#VALUE!
Ni	60	2	HMI He	263	10.92
Cu	63	2	HMI He	2787	0.23
Zn	66	2	HMI He	180	21.38
As	75	2	HMI He	9	488.00
Se	78	1	HMI H2	16	270.63
Sr	88	2	HMI He	10	1000.00
Zr	90	2	HMI He	73	53.68
Nb	93	2	HMI He	347	9.64
Mo	95	2	HMI He	20	433.01
Pd	105	2	HMI He	10	1000.00
Ag	107	2	HMI He	23	212.09
Cd	111	2	HMI He	7	2598.08
Sn	120	2	HMI He	130	15.65
Sb	121	2	HMI He	23	212.09
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	263	2.20
Pt	195	2	HMI He	163	28.39
Tl	205	2	HMI He	43	187.02
Pb	208	2	HMI He	693	0.64
Th	232	2	HMI He	473	5.32
U	238	2	HMI He	70	54.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1554733	1.24
Sc (IS)	45	1	HMI H2	46339121	0.98
Sc (IS)	45	2	HMI He	445795	0.52
Sc (IS)	45	3	No Gas	164326821	0.83
Ge Internal Standard	72	1	HMI H2	22097711	0.69
Ge Internal Standard	72	2	HMI He	629677	0.65
In Internal Standard	115	2	HMI He	1367430	1.48
Ho-165	165	2	HMI He	12033141	0.60

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	016CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:49:01-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	628263	0.00
Li	7	2	HMI He	33628	0.01
Li	7	3	No Gas	43991678	0.00
Be	9	1	HMI H2	43151	0.01
B	11	1	HMI H2	60646	0.00
Na	23	1	HMI H2	42768956	0.00
Na	23	2	HMI He	1437615	0.00
Mg	24	2	HMI He	586331	0.00
Al	27	2	HMI He	106263	0.00
K	39	1	HMI H2	48138224	0.00
K	39	2	HMI He	181123	0.00
Ca	40	1	HMI H2	64581544	0.00
Ca	44	2	HMI He	10827	0.01
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	72065	0.00
Cr	52	2	HMI He	99656	0.00
Mn	55	2	HMI He	25382	0.01
Fe	57	2	HMI He	182154	0.00
Co	59	2	HMI He	220282	0.00
Ni	60	2	HMI He	69734	0.00
Cu	63	2	HMI He	204717	0.00
Zn	66	2	HMI He	16628	0.01
As	75	2	HMI He	9502	0.01
Se	78	1	HMI H2	46332	0.00
Sr	88	2	HMI He	17917	0.01
Zr	90	2	HMI He	730	1.54
Nb	93	2	HMI He	529247	0.00
Mo	95	2	HMI He	72827	0.00
Pd	105	2	HMI He	137745	0.00
Ag	107	2	HMI He	290985	0.00
Cd	111	2	HMI He	22866	0.02
Sn	120	2	HMI He	49246	0.00
Sb	121	2	HMI He	42183	0.01
Ba	137	2	HMI He	10861	0.03
Nd	146	2	HMI He	59123	0.00
Sm	147	2	HMI He	51601	0.00
Sm	150	2	HMI He	52377	0.00
Gd	156	1	HMI H2	1159996	0.00
Gd	157	1	HMI H2	889486	0.00
W	182	2	HMI He	514237	0.00
Pt	195	2	HMI He	570757	0.00
Tl	205	2	HMI He	658917	0.00
Pb	208	2	HMI He	844259	0.00
Th	232	2	HMI He	996815	0.00
U	238	2	HMI He	1163746	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1456495	1.18	1554733	93.68	60	120	
Sc (IS)	45	1	HMI H2	44265313	0.78	46339121	95.52	60	120	
Sc (IS)	45	2	HMI He	432417	1.11	445795	97.00	60	120	
Sc (IS)	45	3	No Gas	148013071	0.37	164326821	90.07	60	120	
Ge Internal Standard	72	1	HMI H2	20983188	0.82	22097711	94.96	60	120	
Ge Internal Standard	72	2	HMI He	610517	0.43	629677	96.96	60	120	
In Internal Standard	115	2	HMI He	1315900	0.73	1367430	96.23	60	120	
Ho-165	165	2	HMI He	11804967	0.83	12033141	98.10	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV-4905062
Data File Name	017_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:52:49-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	428.506	ppb	0.704	364913	400	107.1	90	110	
Li	7	2	45	429.739	ppb	1.384	19434	400	107.4	90	110	
Li	7	3	45	419.550	ppb	1.854	26187893	400	104.9	90	110	
Be	9	1	6	37.145	ppb	1.986	16161	40	92.9	90	110	
B	11	1	6	25.250	ppb	3.594	15957	40	63.1	90	110	>+\-10%
Na	23	1	45	3873.142	ppb	0.602	16548718	4000	96.8	90	110	>+\-10%
Na	23	2	45	3802.967	ppb	2.461	546749	4000	95.1	90	110	
Mg	24	2	45	4048.972	ppb	3.300	234389	4000	101.2	90	110	
Al	27	2	45	8087.151	ppb	0.497	84840	4000	202.2	90	110	>+\-10%
K	39	1	45	3849.988	ppb	1.883	23935129	4000	96.2	90	110	
K	39	2	45	4017.920	ppb	1.584	74859	4000	100.4	90	110	
Ca	40	1	45	3919.783	ppb	1.373	25168754	4000	98.0	90	110	
Ca	44	2	45	4166.925	ppb	8.107	4467	4000	104.2	90	110	
V	51	2	72	39.877	ppb	1.832	28367	40	99.7	90	110	
Cr	52	2	72	41.181	ppb	2.935	40269	40	103.0	90	110	
Mn	55	2	72	39.868	ppb	0.602	9916	40	99.7	90	110	
Fe	57	2	72	8091.485	ppb	1.552	144265	4000	202.3	90	110	>+\-10%
Co	59	2	72	41.323	ppb	2.408	89089	40	103.3	90	110	
Ni	60	2	72	40.714	ppb	1.502	27943	40	101.8	90	110	
Cu	63	2	72	41.057	ppb	2.417	83818	40	102.6	90	110	
Zn	66	2	72	40.400	ppb	2.776	6678	40	101.0	90	110	
As	75	2	72	39.452	ppb	1.882	3674	40	98.6	90	110	
Se	78	1	72	38.568	ppb	1.594	17784	40	96.4	90	110	
Sr	88	2	72	41.044	ppb	3.360	7202	40	102.6	90	110	
Zr	90	2	72	6.262	ppb	86.393	110	40	15.7	90	110	>+\-10%
Nb	93	2	72	78.238	ppb	0.263	202860	80	97.8	90	110	
Mo	95	2	115	39.729	ppb	1.669	28655	40	99.3	90	110	
Pd	105	2	115	39.729	ppb	2.422	54183	40	99.3	90	110	
Ag	107	2	115	40.186	ppb	2.007	115772	40	100.5	90	110	
Cd	111	2	115	40.134	ppb	4.224	9086	40	100.3	90	110	
Sn	120	2	115	40.679	ppb	2.277	19906	40	101.7	90	110	
Sb	121	2	115	39.982	ppb	2.316	16719	40	100.0	90	110	
Ba	137	2	115	42.050	ppb	7.643	4517	40	105.1	90	110	
W	182	2	165	80.798	ppb	2.475	407387	40	202.0	90	110	>+\-10%
Pt	195	2	165	39.802	ppb	2.044	222827	40	99.5	90	110	
Tl	205	2	165	40.730	ppb	1.949	263162	40	101.8	90	110	
Pb	208	2	165	40.711	ppb	1.832	337380	40	101.8	90	110	
Th	232	2	165	41.006	ppb	1.613	401068	40	102.5	90	110	
U	238	2	165	40.839	ppb	1.779	466016	40	102.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1467938	0.95	1554733	94.42	60	120	
Sc (IS)	45	1	HMI H2	43892176	0.95	46339121	94.72	60	120	
Sc (IS)	45	2	HMI He	426844	1.83	445795	95.75	60	120	
Sc (IS)	45	3	No Gas	151013288	0.39	164326821	91.90	60	120	
Ge Internal Standard	72	1	HMI H2	20872532	0.61	22097711	94.46	60	120	
Ge Internal Standard	72	2	HMI He	597614	1.15	629677	94.91	60	120	
In Internal Standard	115	2	HMI He	1302924	2.25	1367430	95.28	60	120	
Ho-165	165	2	HMI He	11575660	1.71	12033141	96.20	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB-4905058
Data File Name	018_ICB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T11:56:36-07:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	-4.698	ppb	-69.9	12646171	10	
Be	9	1	0.023	ppb	60.3	13	0.5	
B	11	1	0.637	ppb	63.9	1087	0.5	>RL
Na	23	1	28.547	ppb	7.6	315389	25	>RL
Na	23	2	19.821	ppb	1.8	14970	25	
Mg	24	2	-0.395	ppb	-127.1	130	25	
Al	27	2	2.411	ppb	99.2	50	15	
K	39	1	82.706	ppb	47.9	9210686	50	>RL
K	39	2	-13.594	ppb	-92.7	5028	50	
Ca	40	1	1.573	ppb	48.3	119290	50	
Ca	44	2	29.732	ppb	60.4	50	25	>RL
V	51	2	0.156	ppb	26.1	527	1	
Cr	52	2	0.074	ppb	124.8	260	1	
Mn	55	2	-0.038	ppb	-102.4	10	0.5	
Fe	57	2	1.097	ppb	96.2	60	25	
Co	59	2	0.003	ppb	173.2	7	0.5	
Ni	60	2	-0.006	ppb	-910.8	257	1	
Cu	63	2	0.050	ppb	107.2	2860	1	
Zn	66	2	0.167	ppb	285.3	207	5	
As	75	2	0.007	ppb	1924.6	10	1	
Se	78	1	0.031	ppb	66.1	29	1	
Sr	88	2	-0.054	ppb	0.0	0	0.5	
Zr	90	2	-2.873	ppb	-59.7	53	1	
Nb	93	2	0.973	ppb	9.3	2970	2	
Mo	95	2	-0.009	ppb	-224.2	13	0.5	
Pd	105	2	0.023	ppb	45.2	43	1	
Ag	107	2	0.008	ppb	107.9	47	1	
Cd	111	2	-0.028	ppb	0.0	0	0.5	
Sn	120	2	-0.059	ppb	-145.5	100	1	
Sb	121	2	0.288	ppb	21.2	150	0.6	
Ba	137	2	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	0.043	ppb	37.2	493	1	
Pt	195	2	-0.013	ppb	-82.9	90	1	
Tl	205	2	0.022	ppb	10.1	197	0.1	
Pb	208	2	-0.007	ppb	-51.9	643	0.5	
Th	232	2	0.079	ppb	23.4	1290	1	
U	238	2	0.005	ppb	27.5	133	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1470652	2.42	1554733	94.59	60	120	
Sc (IS)	45	1	HMI H2	43206613	2.03	46339121	93.24	60	120	
Sc (IS)	45	2	HMI He	447394	1.27	445795	100.36	60	120	
Sc (IS)	45	3	No Gas	152494281	1.08	164326821	92.80	60	120	
Ge Internal Standard	72	1	HMI H2	20726256	2.47	22097711	93.79	60	120	
Ge Internal Standard	72	2	HMI He	623307	0.64	629677	98.99	60	120	
In Internal Standard	115	2	HMI He	1373559	0.63	1367430	100.45	60	120	
Ho-165	165	2	HMI He	12168602	1.89	12033141	101.13	60	120	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	ICVL-4905063
Data File Name	019LICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:00:38-07:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	6.479	ppb	75.183	13469279	50	13.0	70	130	>+/-30%
Be	9	1	6	0.793	ppb	17.068	360	1	79.3	70	130	
Na	23	2	45	54.032	ppb	2.998	20399	50	108.1	70	130	>+/-30%
Mg	24	2	45	48.371	ppb	4.883	3147	50	96.7	70	130	
Al	27	2	45	35.895	ppb	26.911	427	30	119.6	70	130	
K	39	2	45	90.990	ppb	11.318	7062	100	91.0	70	130	
Ca	44	2	45	51.924	ppb	94.726	77	50	103.8	70	130	
V	51	2	72	5.026	ppb	9.648	4161	5	100.5	70	130	
Cr	52	2	72	2.059	ppb	17.163	2314	2	102.9	70	130	
Mn	55	2	72	1.061	ppb	31.173	300	1	106.1	70	130	
Fe	57	2	72	50.617	ppb	12.756	997	50	101.2	70	130	
Co	59	2	72	1.006	ppb	8.013	2300	1	100.6	70	130	
Ni	60	2	72	1.817	ppb	21.223	1577	2	90.8	70	130	
Cu	63	2	72	2.489	ppb	6.134	8025	2	124.4	70	130	
Zn	66	2	72	9.848	ppb	10.373	1864	10	98.5	70	130	
As	75	2	72	4.767	ppb	4.166	479	5	95.3	70	130	
Se	78	1	72	4.756	ppb	4.029	2279	5	95.1	70	130	
Sr	88	2	72	0.968	ppb	18.953	190	1	96.8	70	130	
Zr	90	2	72	9.654	ppb	91.475	140	0.5	1930.9	70	130	>+/-30%
Nb	93	2	72	1.020	ppb	3.280	3147	2	51.0	70	130	>+/-30%
Mo	95	2	115	1.688	ppb	5.801	1357	2	84.4	70	130	
Pd	105	2	115	0.017	ppb	88.186	37	1	1.7	70	130	>+/-30%
Ag	107	2	115	4.653	ppb	7.523	14730	5	93.1	70	130	
Cd	111	2	115	1.056	ppb	5.475	270	1	105.6	70	130	
Sn	120	2	115	9.741	ppb	4.824	5351	10	97.4	70	130	
Sb	121	2	115	1.997	ppb	17.116	937	2	99.9	70	130	
Ba	137	2	115	1.293	ppb	43.379	153	1	129.3	70	130	
W	182	2	165	4.634	ppb	3.481	24703	1	463.4	70	130	>+/-30%
Pt	195	2	165	0.012	ppb	88.656	233	1	1.2	70	130	>+/-30%
Tl	205	2	165	1.062	ppb	2.729	7222	1	106.2	70	130	
Pb	208	2	165	0.992	ppb	4.660	9288	1	99.2	70	130	
Th	232	2	165	1.988	ppb	2.826	20798	2	99.4	70	130	
U	238	2	165	1.030	ppb	1.605	12362	1	103.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1520201	1.70	1554733	97.78	60	120	
Sc (IS)	45	1	HMI H2	45550781	0.11	46339121	98.30	60	120	
Sc (IS)	45	2	HMI He	455922	1.10	445795	102.27	60	120	
Sc (IS)	45	3	No Gas	157889434	1.44	164326821	96.08	60	120	
Ge Internal Standard	72	1	HMI H2	21561746	0.34	22097711	97.57	60	120	
Ge Internal Standard	72	2	HMI He	633732	1.06	629677	100.64	60	120	
In Internal Standard	115	2	HMI He	1432416	4.84	1367430	104.75	60	120	
Ho-165	165	2	HMI He	12110414	0.37	12033141	100.64	60	120	

CRI Report

Sample Table

Sample Name	CRI-4905064
Data File Name	020RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:04:44-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	10.676	ppb	36.668	181643	10	106.8	80	120	
Li	7	2	45	-0.827	ppb	-2218.026	9593	10	-8.3	80	120	>+\-20%
Li	7	3	45	4.626	ppb	65.999	13604179	10	46.3	80	120	>+\-20%
Be	9	1	6	0.954	ppb	25.418	433	1	95.4	80	120	
B	11	1	6	0.832	ppb	22.189	1250	1	83.2	80	120	
Na	23	1	45	108.363	ppb	1.535	677723	100	108.4	80	120	
Na	23	2	45	95.960	ppb	3.061	26510	100	96.0	80	120	
Mg	24	2	45	103.627	ppb	3.414	6515	100	103.6	80	120	
Al	27	2	45	109.681	ppb	14.131	1243	100	109.7	80	120	
K	39	2	45	112.008	ppb	18.186	7398	100	112.0	80	120	
Ca	40	1	45	112.559	ppb	0.823	856440	100	112.6	80	120	
Ca	44	2	45	144.032	ppb	21.201	180	100	144.0	80	120	>+\-20%
V	51	2	72	1.228	ppb	25.554	1333	1	122.8	80	120	>+\-20%
Cr	52	2	72	0.973	ppb	20.759	1193	1	97.3	80	120	
Mn	55	2	72	1.024	ppb	13.094	290	1	102.4	80	120	
Fe	57	2	72	113.135	ppb	9.757	2180	100	113.1	80	120	
Co	59	2	72	1.065	ppb	10.691	2437	1	106.5	80	120	
Ni	60	2	72	1.014	ppb	6.780	997	1	101.4	80	120	
Cu	63	2	72	1.254	ppb	6.866	5438	1	125.4	80	120	>+\-20%
Zn	66	2	72	1.083	ppb	43.450	367	1	108.3	80	120	
As	75	2	72	1.060	ppb	15.568	114	1	106.0	80	120	
Se	78	1	72	1.001	ppb	13.917	492	1	100.1	80	120	
Sr	88	2	72	1.021	ppb	5.411	200	1	102.1	80	120	
Zr	90	2	72	0.892	ppb	593.499	80	1	89.2	80	120	
Nb	93	2	72	2.016	ppb	5.388	5888	2	100.8	80	120	
Mo	95	2	115	1.026	ppb	12.201	823	1	102.6	80	120	
Pd	105	2	115	1.039	ppb	11.541	1547	1	103.9	80	120	
Ag	107	2	115	1.046	ppb	5.657	3294	1	104.6	80	120	
Cd	111	2	115	0.848	ppb	35.791	217	1	84.8	80	120	
Sn	120	2	115	1.036	ppb	12.041	680	1	103.6	80	120	
Sb	121	2	115	1.141	ppb	22.427	540	1	114.1	80	120	
Ba	137	2	115	1.085	ppb	12.830	127	1	108.5	80	120	
W	182	2	165	1.026	ppb	4.020	5671	1	102.6	80	120	
Pt	195	2	165	0.942	ppb	7.727	5671	1	94.2	80	120	
Tl	205	2	165	1.008	ppb	0.322	6855	1	100.8	80	120	
Pb	208	2	165	1.125	ppb	7.552	10428	1	112.5	80	120	
Th	232	2	165	0.882	ppb	4.844	9487	1	88.2	80	120	
U	238	2	165	1.018	ppb	2.640	12209	1	101.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1522196	0.47	1554733	97.91	60	120	
Sc (IS)	45	1	HMI H2	45247616	0.38	46339121	97.64	60	120	
Sc (IS)	45	2	HMI He	452585	0.09	445795	101.52	60	120	
Sc (IS)	45	3	No Gas	160196234	0.28	164326821	97.49	60	120	
Ge Internal Standard	72	1	HMI H2	21563335	0.10	22097711	97.58	60	120	
Ge Internal Standard	72	2	HMI He	634199	0.27	629677	100.72	60	120	
In Internal Standard	115	2	HMI He	1415745	4.12	1367430	103.53	60	120	
Ho-165	165	2	HMI He	12099751	0.78	12033141	100.55	60	120	

CRI Report

Sample Table

Sample Name	CRI-
Data File Name	021RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:11:03-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-5.291	ppb	-25.395	178985	10	-52.9	80	120	>+\-20%
Li	7	2	45	-19.964	ppb	-73.616	9680	10	-199.6	80	120	>+\-20%
Li	7	3	45	-7.489	ppb	-28.281	13486411	10	-74.9	80	120	>+\-20%
Be	9	1	6	-0.007	ppb	0.000	0	1	-0.7	80	120	>+\-20%
B	11	1	6	-0.148	ppb	-210.705	643	1	-14.8	80	120	>+\-20%
Na	23	1	45	0.455	ppb	169.844	213866	100	0.5	80	120	>+\-20%
Na	23	2	45	-3.572	ppb	-62.595	12385	100	-3.6	80	120	>+\-20%
Mg	24	2	45	-1.153	ppb	-50.265	90	100	-1.2	80	120	>+\-20%
Al	27	2	45	55.095	ppb	6.400	677	100	55.1	80	120	>+\-20%
K	39	2	45	-8.657	ppb	-140.482	5498	100	-8.7	80	120	>+\-20%
Ca	40	1	45	0.902	ppb	28.301	123870	100	0.9	80	120	>+\-20%
Ca	44	2	45	4.401	ppb	396.799	23	100	4.4	80	120	>+\-20%
V	51	2	72	4.800	ppb	5.987	4217	1	480.0	80	120	>+\-20%
Cr	52	2	72	0.047	ppb	116.236	250	1	4.7	80	120	>+\-20%
Mn	55	2	72	-0.040	ppb	-1.392	10	1	-4.0	80	120	>+\-20%
Fe	57	2	72	1.382	ppb	126.425	70	100	1.4	80	120	>+\-20%
Co	59	2	72	0.000	ppb	#DIV/0!	0	1	0.0	80	120	>+\-20%
Ni	60	2	72	0.004	ppb	322.154	283	1	0.4	80	120	>+\-20%
Cu	63	2	72	2.226	ppb	6.756	7892	1	222.6	80	120	>+\-20%
Zn	66	2	72	0.269	ppb	26.104	240	1	26.9	80	120	>+\-20%
As	75	2	72	-0.006	ppb	-725.996	9	1	-0.6	80	120	>+\-20%
Se	78	1	72	0.014	ppb	207.317	23	1	1.4	80	120	>+\-20%
Sr	88	2	72	0.031	ppb	338.567	17	1	3.1	80	120	>+\-20%
Zr	90	2	72	-0.156	ppb	-2330.631	77	1	-15.6	80	120	>+\-20%
Nb	93	2	72	-0.024	ppb	-34.888	300	2	-1.2	80	120	>+\-20%
Mo	95	2	115	-0.007	ppb	-97.936	17	1	-0.7	80	120	>+\-20%
Pd	105	2	115	0.011	ppb	93.139	30	1	1.1	80	120	>+\-20%
Ag	107	2	115	0.002	ppb	805.165	33	1	0.2	80	120	>+\-20%
Cd	111	2	115	-0.028	ppb	0.000	0	1	-2.8	80	120	>+\-20%
Sn	120	2	115	0.076	ppb	137.354	193	1	7.6	80	120	>+\-20%
Sb	121	2	115	0.007	ppb	487.838	30	1	0.7	80	120	>+\-20%
Ba	137	2	115	0.077	ppb	98.764	10	1	7.7	80	120	>+\-20%
W	182	2	165	0.022	ppb	118.554	397	1	2.2	80	120	>+\-20%
Pt	195	2	165	-0.009	ppb	-143.324	117	1	-0.9	80	120	>+\-20%
Tl	205	2	165	0.003	ppb	214.999	67	1	0.3	80	120	>+\-20%
Pb	208	2	165	-0.010	ppb	-54.473	640	1	-1.0	80	120	>+\-20%
Th	232	2	165	0.011	ppb	62.984	613	1	1.1	80	120	>+\-20%
U	238	2	165	-0.001	ppb	-58.811	57	1	-0.1	80	120	>+\-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1541941	1.64	1554733	99.18	60	120	
Sc (IS)	45	1	HMI H2	46487956	0.91	46339121	100.32	60	120	
Sc (IS)	45	2	HMI He	481052	1.93	445795	107.91	60	120	
Sc (IS)	45	3	No Gas	163800901	1.54	164326821	99.68	60	120	
Ge Internal Standard	72	1	HMI H2	21961512	0.41	22097711	99.38	60	120	
Ge Internal Standard	72	2	HMI He	669675	1.58	629677	106.35	60	120	
In Internal Standard	115	2	HMI He	1559580	2.09	1367430	114.05	60	120	
Ho-165	165	2	HMI He	12710386	2.40	12033141	105.63	60	120	

CRI Report

Sample Table

Sample Name	CRI-4905065
Data File Name	022_CRI.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:14:52-07:00
Sample Type	AFCRI
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	0.153	ppb	41.145	73	0.2	76.4	80	120	AFCRI Main CR1 Failed
Na	23	2	45	19.729	ppb	29.761	15460	20	98.6	80	120	
Mg	24	2	45	21.134	ppb	6.999	1483	20	105.7	80	120	
Al	27	2	45	25.337	ppb	22.962	313	20	126.7	80	120	AFCRI Main CR1 Failed
K	39	2	45	26.452	ppb	42.879	5948	20	132.3	80	120	AFCRI Main CR1 Failed
Ca	44	2	45	28.366	ppb	33.666	50	20	141.8	80	120	AFCRI Main CR1 Failed
V	51	2	72	0.214	ppb	66.358	583	0.2	106.8	80	120	
Cr	52	2	72	0.304	ppb	32.725	507	0.2	152.2	80	120	AFCRI Main CR1 Failed
(Cr)	53	2	72	-0.079	ppb	-123.382	210	0.2	-39.7	80	120	AFCRI Main CR1 Failed
Mn	55	2	72	0.237	ppb	97.696	83	0.2	118.4	80	120	
Fe	57	2	72	24.985	ppb	24.451	517	20	124.9	80	120	AFCRI Main CR1 Failed
Co	59	2	72	0.224	ppb	20.082	517	0.2	112.1	80	120	
Ni	60	2	72	0.026	ppb	439.724	287	0.2	13.0	80	120	AFCRI Main CR1 Failed
Cu	63	2	72	0.599	ppb	19.387	4101	0.2	299.5	80	120	AFCRI Main CR1 Failed
Zn	66	2	72	0.500	ppb	97.610	270	0.2	249.9	80	120	AFCRI Main CR1 Failed
As	75	2	72	0.196	ppb	42.534	29	0.2	98.2	80	120	
Se	78	1	72	0.170	ppb	30.639	99	0.2	84.9	80	120	
(Se)	82	1	72	0.343	ppb	405.612	3464	0.2	171.6	80	120	AFCRI Main CR1 Failed
Nb	93	2	72	0.422	ppb	11.191	1520	0.4	105.4	80	120	
Mo	95	2	115	0.208	ppb	58.046	187	0.2	104.0	80	120	
Pd	105	2	115	0.186	ppb	14.876	293	0.2	93.1	80	120	
Ag	107	2	115	0.186	ppb	16.131	620	0.2	93.0	80	120	
Cd	111	2	115	0.103	ppb	80.502	33	0.2	51.6	80	120	AFCRI Main CR1 Failed
(Cd)	114	2	115	0.193	ppb	21.680	137	0.2	96.7	80	120	
Sn	120	2	115	0.177	ppb	44.049	233	0.2	88.7	80	120	
Sb	121	2	115	0.161	ppb	21.008	100	0.2	80.5	80	120	
Ba	137	2	115	0.299	ppb	50.405	37	0.2	149.5	80	120	AFCRI Main CR1 Failed
W	182	2	165	0.201	ppb	15.190	1353	0.2	100.4	80	120	
Pt	195	2	165	0.143	ppb	13.309	1023	0.2	71.6	80	120	AFCRI Main CR1 Failed
Tl	205	2	165	0.203	ppb	18.194	1450	0.2	101.7	80	120	
(Pb)	206	2	165	0.203	ppb	4.814	630	0.2	101.4	80	120	
(Pb)	207	2	165	0.210	ppb	25.703	570	0.2	104.9	80	120	
Pb	208	2	165	0.203	ppb	7.294	2510	0.2	101.7	80	120	
Th	232	2	165	0.140	ppb	6.061	1944	0.2	69.9	80	120	AFCRI Main CR1 Failed
U	238	2	165	0.209	ppb	5.613	2617	0.2	104.4	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1544734	1.23	1554733	99.36	60	120	
Sc (IS)	45	1	HMI H2	46585109	0.64	46339121	100.53	60	120	
Sc (IS)	45	2	HMI He	462484	2.84	445795	103.74	60	120	
Sc (IS)	45	3	No Gas	163437758	0.52	164326821	99.46	60	120	
Ge Internal Standard	72	1	HMI H2	22059667	0.40	22097711	99.83	60	120	
Ge Internal Standard	72	2	HMI He	640225	1.68	629677	101.68	60	120	
In Internal Standard	115	2	HMI He	1456334	6.18	1367430	106.50	60	120	
Ho-165	165	2	HMI He	12359732	1.67	12033141	102.71	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA-4905066
Data File Name	023ICSA.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:18:40-07:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-19.422	ppb	-21.0	11397777	1	
Be	9	1	6	0.001	ppb	1303.5	3	1	
B	11	1	6	0.006	ppb	2918.2	640	1	
Na	23	1	45	99229.439	ppb	0.6	389268314	100000	
K	39	1	45	100966.646	ppb	0.7	371325821	100000	>RL or LOD
Ca	40	1	45	101213.293	ppb	0.8	601152071	100000	>RL or LOD
V	51	2	72	0.126	ppb	300.4	443	1	
Cr	52	2	72	1.539	ppb	10.6	1547	1	>RL or LOD
Mn	55	2	72	1.291	ppb	17.7	313	1	>RL or LOD
Co	59	2	72	0.007	ppb	86.6	13	1	
Ni	60	2	72	0.052	ppb	169.4	263	1	
Cu	63	2	72	-0.291	ppb	-38.4	1910	1	
Zn	66	2	72	2.431	ppb	33.8	520	1	>RL or LOD
As	75	2	72	0.059	ppb	115.6	13	1	
Se	78	1	72	0.009	ppb	460.4	17	1	
Sr	88	2	72	0.583	ppb	60.4	103	1	
Zr	90	2	72	0.917	ppb	820.1	70	1	
Nb	93	2	72	0.001	ppb	2702.6	307	1	
Mo	95	2	115	2232.848	ppb	0.8	1487294	2000	>RL or LOD
Pd	105	2	115	0.017	ppb	96.3	30	1	
Ag	107	2	115	0.031	ppb	26.0	103	1	
Cd	111	2	115	0.209	ppb	124.6	50	1	
Sn	120	2	115	0.065	ppb	170.3	143	1	
Sb	121	2	115	0.092	ppb	150.4	57	1	
Ba	137	2	115	0.067	ppb	173.2	7	1	
W	182	2	165	0.206	ppb	10.5	1263	1	
Pt	195	2	165	-0.021	ppb	-23.7	40	1	
Tl	205	2	165	0.006	ppb	127.0	77	1	
Pb	208	2	165	0.104	ppb	20.0	1490	1	
Th	232	2	165	0.070	ppb	11.1	1113	1	
U	238	2	165	0.010	ppb	70.1	180	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1330100	0.27	1554733	85.55	60	120	
Sc (IS)	45	1	HMI H2	40772364	0.87	46339121	87.99	60	120	
Sc (IS)	45	2	HMI He	396512	1.13	445795	88.94	60	120	
Sc (IS)	45	3	No Gas	142853845	1.25	164326821	86.93	60	120	
Ge Internal Standard	72	1	HMI H2	18987923	0.55	22097711	85.93	60	120	
Ge Internal Standard	72	2	HMI He	551114	1.54	629677	87.52	60	120	
In Internal Standard	115	2	HMI He	1203965	1.93	1367430	88.05	60	120	
Ho-165	165	2	HMI He	11293449	1.84	12033141	93.85	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB-4905067
Data File Name	024ICSB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:22:25-07:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	882.294	ppb	0.466	525085	100	882.3	80	120	
Li	7	2	45	914.195	ppb	0.919	29491	100	914.2	80	120	
Li	7	3	45	905.372	ppb	1.501	40715819	100	905.4	80	120	
Be	9	1	6	95.963	ppb	1.778	35956	100	96.0	80	120	
B	11	1	6	59.548	ppb	3.184	31598	100	59.5	80	120	>+\-20%
Na	23	1	45	99660.499	ppb	0.467	387825994	100	99660.5	80	120	>+\-20%
K	39	1	45	102647.037	ppb	0.536	374328714	100	102647.0	80	120	>+\-20%
Ca	40	1	45	102604.295	ppb	0.545	604538018	100	102604.3	80	120	>+\-20%
V	51	2	72	94.325	ppb	2.059	63382	100	94.3	80	120	
Cr	52	2	72	94.320	ppb	1.317	87627	100	94.3	80	120	
Mn	55	2	72	91.811	ppb	1.260	21724	100	91.8	80	120	
Co	59	2	72	94.857	ppb	0.790	194766	100	94.9	80	120	
Ni	60	2	72	91.842	ppb	2.040	59724	100	91.8	80	120	
Cu	63	2	72	92.770	ppb	0.316	177203	100	92.8	80	120	
Zn	66	2	72	91.117	ppb	3.290	14136	100	91.1	80	120	
As	75	2	72	95.758	ppb	1.841	8482	100	95.8	80	120	
Se	78	1	72	95.681	ppb	0.500	40330	100	95.7	80	120	
Sr	88	2	72	95.629	ppb	3.375	15968	100	95.6	80	120	
Zr	90	2	72	7.048	ppb	177.852	110	100	7.0	80	120	>+\-20%
Nb	93	2	72	177.445	ppb	1.176	437737	100	177.4	80	120	
Mo	95	2	115	1998.572	ppb	2.734	1355664	100	1998.6	80	120	>+\-20%
Pd	105	2	115	90.756	ppb	0.970	116462	100	90.8	80	120	
Ag	107	2	115	91.846	ppb	0.784	248956	100	91.8	80	120	
Cd	111	2	115	95.441	ppb	1.114	20333	100	95.4	80	120	
Sn	120	2	115	96.772	ppb	1.315	44399	100	96.8	80	120	
Sb	121	2	115	98.462	ppb	1.448	38699	100	98.5	80	120	
Ba	137	2	115	99.648	ppb	2.180	10083	100	99.6	80	120	
W	182	2	165	95.100	ppb	0.470	468381	100	95.1	80	120	
Pt	195	2	165	92.295	ppb	0.289	504509	100	92.3	80	120	
Tl	205	2	165	92.059	ppb	0.536	580967	100	92.1	80	120	
Pb	208	2	165	92.400	ppb	0.761	747185	100	92.4	80	120	
Th	232	2	165	94.596	ppb	0.578	903169	100	94.6	80	120	
U	238	2	165	94.033	ppb	0.462	1048078	100	94.0	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1264109	0.89	1554733	81.31	60	120	
Sc (IS)	45	1	HMI H2	40443983	0.34	46339121	87.28	60	120	
Sc (IS)	45	2	HMI He	404490	0.65	445795	90.73	60	120	
Sc (IS)	45	3	No Gas	146978061	0.58	164326821	89.44	60	120	
Ge Internal Standard	72	1	HMI H2	19088539	0.13	22097711	86.38	60	120	
Ge Internal Standard	72	2	HMI He	569070	0.75	629677	90.37	60	120	
In Internal Standard	115	2	HMI He	1225711	1.02	1367430	89.64	60	120	
Ho-165	165	2	HMI He	11305029	0.57	12033141	93.95	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	025SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:26:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-9.594	ppb	-9.594	-71.64	164982	500000	
Li	7	2	45	-12.072	ppb	-12.072	-77.12	9003	500000	
Li	7	3	45	-22.774	ppb	-22.774	-3.43	12361946	50000	
Be	9	1	6	0.048	ppb	0.048	76.84	23	2000	
B	11	1	6	0.212	ppb	0.212	140.40	803	2000	
Na	23	1	45	55.046	ppb	55.046	3.04	427043	2000	
Na	23	2	45	37.438	ppb	37.438	12.39	17195	400000	
Mg	24	2	45	5.442	ppb	5.442	30.06	473	400000	
Al	27	2	45	7.489	ppb	7.489	27.25	103	400000	
K	39	1	45	40.287	ppb	40.287	80.66	9080832	400000	
K	39	2	45	5.896	ppb	5.896	474.77	5264	400000	
Ca	40	1	45	9.871	ppb	9.871	1.39	172151	400000	
Ca	44	2	45	12.372	ppb	12.372	74.18	30	400000	
V	51	2	72	-0.042	ppb	-0.042	-303.16	383	2000	
Cr	52	2	72	-0.001	ppb	-0.001	-6796.92	183	5000	
Mn	55	2	72	-0.051	ppb	-0.051	-87.52	7	10000	
Fe	57	2	72	10.805	ppb	10.805	49.44	240	400000	
Co	59	2	72	0.003	ppb	0.003	86.61	7	2000	
Ni	60	2	72	-0.035	ppb	-0.035	-174.47	237	5000	
Cu	63	2	72	0.066	ppb	0.066	168.18	2900	5000	
Zn	66	2	72	-0.249	ppb	-0.249	-118.74	137	5000	
As	75	2	72	-0.040	ppb	-0.040	-29.66	5	2000	
Se	78	1	72	0.013	ppb	0.013	100.45	21	2000	
Sr	88	2	72	0.055	ppb	0.055	98.45	20	4000	
Zr	90	2	72	1.129	ppb	1.129	543.52	80	1000	
Nb	93	2	72	0.936	ppb	0.936	5.05	2877	200	
Mo	95	2	115	0.318	ppb	0.318	50.68	260	2000	
Pd	105	2	115	0.065	ppb	0.065	36.97	103	100	
Ag	107	2	115	0.006	ppb	0.006	126.78	40	100	
Cd	111	2	115	-0.002	ppb	-0.002	-2607.92	7	2000	
Sn	120	2	115	0.022	ppb	0.022	162.73	143	2000	
Sb	121	2	115	0.181	ppb	0.181	24.24	103	1000	
Ba	137	2	115	0.000	ppb	0.000	#DIV/0!	0	5000	
W	182	2	165	0.016	ppb	0.016	79.35	343	100	
Pt	195	2	165	-0.002	ppb	-0.002	-348.32	150	100	
Tl	205	2	165	0.019	ppb	0.019	51.29	170	2000	
Pb	208	2	165	-0.008	ppb	-0.008	-147.40	617	5000	
Th	232	2	165	0.054	ppb	0.054	20.41	1017	2000	
U	238	2	165	0.005	ppb	0.005	162.89	127	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1421277	1.62	1554733	91.42	60	120	
Sc (IS)	45	1	HMI H2	43350386	0.45	46339121	93.55	60	120	
Sc (IS)	45	2	HMI He	437941	1.25	445795	98.24	60	120	
Sc (IS)	45	3	No Gas	156325951	0.50	164326821	95.13	60	120	
Ge Internal Standard	72	1	HMI H2	21130727	0.29	22097711	95.62	60	120	
Ge Internal Standard	72	2	HMI He	624897	1.68	629677	99.24	60	120	
In Internal Standard	115	2	HMI He	1385152	5.22	1367430	101.30	60	120	
Ho-165	165	2	HMI He	11945493	0.54	12033141	99.27	60	120	

Linear Range Sample (LRS) Report

Sample Table

Sample Name	LRA-4861752
Data File Name	026_LR.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:30:03-07:00
Sample Type	LR
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	1908.085	ppb	1.018	792893	2000	95.4	90	110	
V	51	2	72	2021.709	ppb	1.035	1374231	2000	101.1	90	110	
Cr	52	2	72	4892.634	ppb	1.022	4615076	5000	97.9	90	110	
(Cr)	53	2	72	4977.871	ppb	0.157	583722	5000	99.6	90	110	
Mn	55	2	72	10292.147	ppb	0.789	2475024	10000	102.9	90	110	
Co	59	2	72	2087.752	ppb	0.295	4360735	2000	104.4	90	110	
Ni	60	2	72	5162.675	ppb	0.136	3401524	5000	103.3	90	110	
Cu	63	2	72	4992.647	ppb	0.260	9565940	5000	99.9	90	110	
Zn	66	2	72	4897.336	ppb	0.446	764298	5000	97.9	90	110	
As	75	2	72	1885.688	ppb	0.488	169750	2000	94.3	90	110	
Se	78	1	72	1969.393	ppb	0.223	885103	2000	98.5	90	110	
(Se)	82	1	72	1852.447	ppb	1.590	383006	2000	92.6	90	110	
Mo	95	2	115	2052.945	ppb	3.324	1417319	2000	102.6	90	110	
Cd	111	2	115	2086.391	ppb	0.115	452291	2000	104.3	90	110	
(Cd)	114	2	115	2045.919	ppb	1.387	1196638	2000	102.3	90	110	
Sn	120	2	115	2006.505	ppb	0.867	934684	2000	100.3	90	110	
Sb	121	2	115	996.692	ppb	0.846	398525	1000	99.7	90	110	
Ba	137	2	115	5234.794	ppb	2.055	539163	5000	104.7	90	110	
Tl	205	2	165	1061.229	ppb	1.341	6646910	2000	53.1	90	110	LRS Main CR1 Failed
(Pb)	206	2	165	5136.745	ppb	1.361	9931160	5000	102.7	90	110	
(Pb)	207	2	165	5175.590	ppb	1.675	9216438	5000	103.5	90	110	
Pb	208	2	165	5174.487	ppb	1.108	41495734	5000	103.5	90	110	
Th	232	2	165	1027.850	ppb	0.569	9736758	2000	51.4	90	110	LRS Main CR1 Failed
U	238	2	165	2074.643	ppb	1.242	22951200	2000	103.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1402294	0.98	1554733	90.20	60	120	
Sc (IS)	45	1	HMI H2	42400454	0.19	46339121	91.50	60	120	
Sc (IS)	45	2	HMI He	402615	1.05	445795	90.31	60	120	
Sc (IS)	45	3	No Gas	147489321	0.23	164326821	89.75	60	120	
Ge Internal Standard	72	1	HMI H2	20359856	0.68	22097711	92.14	60	120	
Ge Internal Standard	72	2	HMI He	578895	0.85	629677	91.94	60	120	
In Internal Standard	115	2	HMI He	1247669	0.35	1367430	91.24	60	120	
Ho-165	165	2	HMI He	11222449	1.64	12033141	93.26	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	027SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:33:47-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-7.365	ppb	-7.365	-101.90	161990	500000	
Li	7	2	45	5.724	ppb	5.724	377.96	9033	500000	
Li	7	3	45	-18.121	ppb	-18.121	-6.40	12184736	50000	
Be	9	1	6	0.312	ppb	0.312	4.70	133	2000	
B	11	1	6	-0.236	ppb	-0.236	-37.54	537	2000	
Na	23	1	45	7.214	ppb	7.214	16.35	222149	2000	
Na	23	2	45	4.930	ppb	4.930	24.84	11968	400000	
Mg	24	2	45	0.921	ppb	0.921	125.15	197	400000	
Al	27	2	45	0.458	ppb	0.458	637.90	27	400000	
K	39	1	45	-23.283	ppb	-23.283	-65.48	8626753	400000	
K	39	2	45	-7.463	ppb	-7.463	-287.87	4807	400000	
Ca	40	1	45	3.340	ppb	3.340	17.42	127760	400000	
Ca	44	2	45	25.866	ppb	25.866	114.16	43	400000	
V	51	2	72	0.138	ppb	0.138	113.38	483	2000	
Cr	52	2	72	0.352	ppb	0.352	13.47	510	5000	
Mn	55	2	72	0.568	ppb	0.568	60.97	157	10000	
Fe	57	2	72	0.917	ppb	0.917	155.03	53	400000	
Co	59	2	72	0.150	ppb	0.150	20.94	317	2000	
Ni	60	2	72	0.421	ppb	0.421	18.64	527	5000	
Cu	63	2	72	0.351	ppb	0.351	8.57	3277	5000	
Zn	66	2	72	0.289	ppb	0.289	115.16	213	5000	
As	75	2	72	0.143	ppb	0.143	40.08	22	2000	
Se	78	1	72	0.310	ppb	0.310	30.78	155	2000	
Sr	88	2	72	-0.054	ppb	-0.054	0.00	0	4000	
Zr	90	2	72	-1.322	ppb	-1.322	-430.37	60	1000	
Nb	93	2	72	0.051	ppb	0.051	123.70	453	200	
Mo	95	2	115	0.457	ppb	0.457	17.47	343	2000	
Pd	105	2	115	0.015	ppb	0.015	128.46	30	100	
Ag	107	2	115	0.003	ppb	0.003	329.91	30	100	
Cd	111	2	115	0.107	ppb	0.107	73.64	30	2000	
Sn	120	2	115	1.127	ppb	1.127	34.83	660	2000	
Sb	121	2	115	1.858	ppb	1.858	34.06	783	1000	
Ba	137	2	115	0.157	ppb	0.157	34.77	17	5000	
W	182	2	165	0.004	ppb	0.004	605.10	270	100	
Pt	195	2	165	-0.017	ppb	-0.017	-27.24	60	100	
Tl	205	2	165	0.139	ppb	0.139	12.11	933	2000	
Pb	208	2	165	0.462	ppb	0.462	9.08	4440	5000	
Th	232	2	165	0.831	ppb	0.831	4.77	8493	2000	
U	238	2	165	0.159	ppb	0.159	15.29	1867	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1407369	1.31	1554733	90.52	60	120	
Sc (IS)	45	1	HMI H2	42314132	1.19	46339121	91.31	60	120	
Sc (IS)	45	2	HMI He	419280	3.05	445795	94.05	60	120	
Sc (IS)	45	3	No Gas	152176948	0.87	164326821	92.61	60	120	
Ge Internal Standard	72	1	HMI H2	20407520	0.53	22097711	92.35	60	120	
Ge Internal Standard	72	2	HMI He	586634	0.58	629677	93.16	60	120	
In Internal Standard	115	2	HMI He	1284845	1.92	1367430	93.96	60	120	
Ho-165	165	2	HMI He	11460489	0.47	12033141	95.24	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	028_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:37:36-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	469.631	ppb	1.870	376891	500	93.9	90	110	
Li	7	2	45	503.247	ppb	4.390	20412	500	100.6	90	110	
Li	7	3	45	457.188	ppb	0.298	27887874	500	91.4	90	110	
Be	9	1	6	47.953	ppb	1.528	20225	50	95.9	90	110	
B	11	1	6	41.168	ppb	2.684	24797	50	82.3	90	110	>+\-10%
Na	23	1	45	4916.936	ppb	1.054	20595309	5000	98.3	90	110	
Na	23	2	45	4963.754	ppb	2.160	683683	5000	99.3	90	110	
Mg	24	2	45	5209.934	ppb	2.807	290327	5000	104.2	90	110	
Al	27	2	45	5150.806	ppb	0.871	52025	5000	103.0	90	110	
K	39	1	45	4942.038	ppb	1.422	27678625	5000	98.8	90	110	
K	39	2	45	5201.277	ppb	2.862	91832	5000	104.0	90	110	
Ca	40	1	45	4978.693	ppb	1.407	31391130	5000	99.6	90	110	
Ca	44	2	45	5479.526	ppb	10.325	5644	5000	109.6	90	110	
V	51	2	72	50.061	ppb	3.643	35119	50	100.1	90	110	
Cr	52	2	72	52.041	ppb	1.019	50291	50	104.1	90	110	
Mn	55	2	72	51.196	ppb	2.561	12588	50	102.4	90	110	
Fe	57	2	72	5120.554	ppb	1.893	90318	5000	102.4	90	110	
Co	59	2	72	51.588	ppb	0.421	110014	50	103.2	90	110	
Ni	60	2	72	51.355	ppb	4.092	34795	50	102.7	90	110	
Cu	63	2	72	50.078	ppb	2.219	100561	50	100.2	90	110	
Zn	66	2	72	53.261	ppb	4.527	8652	50	106.5	90	110	
As	75	2	72	50.865	ppb	2.829	4683	50	101.7	90	110	
Se	78	1	72	50.094	ppb	1.573	22916	50	100.2	90	110	
Sr	88	2	72	51.029	ppb	7.140	8856	50	102.1	90	110	
Zr	90	2	72	55.533	ppb	10.195	423	50	111.1	90	110	>+\-10%
Nb	93	2	72	101.571	ppb	0.699	260368	100	101.6	90	110	
Mo	95	2	115	52.472	ppb	1.202	37231	50	104.9	90	110	
Pd	105	2	115	52.291	ppb	2.160	70167	50	104.6	90	110	
Ag	107	2	115	51.802	ppb	1.306	146832	50	103.6	90	110	
Cd	111	2	115	50.890	ppb	3.625	11341	50	101.8	90	110	
Sn	120	2	115	52.509	ppb	3.547	25240	50	105.0	90	110	
Sb	121	2	115	51.679	ppb	3.164	21248	50	103.4	90	110	
Ba	137	2	115	54.007	ppb	3.892	5715	50	108.0	90	110	
W	182	2	165	51.640	ppb	0.593	257049	50	103.3	90	110	
Pt	195	2	165	51.829	ppb	1.643	286288	50	103.7	90	110	
Tl	205	2	165	51.753	ppb	1.344	329967	50	103.5	90	110	
Pb	208	2	165	52.162	ppb	1.456	426401	50	104.3	90	110	
Th	232	2	165	51.815	ppb	1.743	499976	50	103.6	90	110	
U	238	2	165	51.833	ppb	1.970	583659	50	103.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1422948	1.09	1554733	91.52	60	120	
Sc (IS)	45	1	HMI H2	43139596	0.77	46339121	93.10	60	120	
Sc (IS)	45	2	HMI He	410898	1.21	445795	92.17	60	120	
Sc (IS)	45	3	No Gas	153699804	0.53	164326821	93.53	60	120	
Ge Internal Standard	72	1	HMI H2	20710600	0.21	22097711	93.72	60	120	
Ge Internal Standard	72	2	HMI He	591040	0.51	629677	93.86	60	120	
In Internal Standard	115	2	HMI He	1281643	0.99	1367430	93.73	60	120	
Ho-165	165	2	HMI He	11420631	0.40	12033141	94.91	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	029_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:41:24-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-13.229	ppb	-23.5	12374987	10	
Be	9	1	6	0.071	ppb	76.6	33	0.5	
B	11	1	6	0.290	ppb	35.9	860	0.5	
Na	23	1	45	9.932	ppb	9.3	239634	25	
Na	23	2	45	4.845	ppb	46.0	12058	25	
Mg	24	2	45	0.424	ppb	176.3	170	25	
Al	27	2	45	2.034	ppb	70.5	43	15	
K	39	1	45	-11.793	ppb	-282.1	8907551	50	
K	39	2	45	12.950	ppb	212.6	5204	50	
Ca	40	1	45	3.617	ppb	7.9	133047	50	
Ca	44	2	45	26.074	ppb	117.5	43	25	>RL
V	51	2	72	-0.058	ppb	-93.0	357	1	
Cr	52	2	72	0.172	ppb	35.5	347	1	
Mn	55	2	72	-0.010	ppb	-457.7	17	0.5	
Fe	57	2	72	4.010	ppb	25.2	110	25	
Co	59	2	72	0.012	ppb	21.6	27	0.5	
Ni	60	2	72	0.013	ppb	242.9	260	1	
Cu	63	2	72	0.184	ppb	31.5	3027	1	
Zn	66	2	72	-0.033	ppb	-1359.7	167	5	
As	75	2	72	-0.023	ppb	-293.6	7	1	
Se	78	1	72	0.075	ppb	6.3	49	1	
Sr	88	2	72	-0.035	ppb	-94.6	3	0.5	
Zr	90	2	72	-4.638	ppb	-1.1	40	1	
Nb	93	2	72	0.637	ppb	8.2	1990	2	
Mo	95	2	115	0.053	ppb	111.9	57	0.5	
Pd	105	2	115	0.025	ppb	67.2	43	1	
Ag	107	2	115	0.002	ppb	344.7	27	1	
Cd	111	2	115	0.030	ppb	331.9	13	0.5	
Sn	120	2	115	0.274	ppb	33.8	257	1	
Sb	121	2	115	0.434	ppb	16.8	203	0.6	
Ba	137	2	115	0.062	ppb	86.6	7	0.5	
W	182	2	165	0.018	ppb	99.7	343	1	
Pt	195	2	165	-0.003	ppb	-384.1	140	1	
Tl	205	2	165	0.030	ppb	20.6	237	0.1	
Pb	208	2	165	0.081	ppb	14.3	1340	0.5	
Th	232	2	165	0.073	ppb	34.8	1167	1	
U	238	2	165	0.014	ppb	16.1	227	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1438747	0.12	1554733	92.54	60	120	
Sc (IS)	45	1	HMI H2	43480269	1.46	46339121	93.83	60	120	
Sc (IS)	45	2	HMI He	422717	0.78	445795	94.82	60	120	
Sc (IS)	45	3	No Gas	152568431	0.80	164326821	92.84	60	120	
Ge Internal Standard	72	1	HMI H2	20779206	0.66	22097711	94.03	60	120	
Ge Internal Standard	72	2	HMI He	601443	0.82	629677	95.52	60	120	
In Internal Standard	115	2	HMI He	1302668	2.07	1367430	95.26	60	120	
Ho-165	165	2	HMI He	11566310	2.21	12033141	96.12	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	030LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:45:13-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-5.196	ppb	-48.028	12928761	50	-10.4	70	130	>+/-30%
Be	9	1	6	0.888	ppb	12.741	393	1	88.8	70	130	
Na	23	2	45	50.737	ppb	10.784	18633	50	101.5	70	130	
Mg	24	2	45	51.176	ppb	4.259	3107	50	102.4	70	130	
Al	27	2	45	46.482	ppb	14.898	510	30	154.9	70	130	>+/-30%
K	39	2	45	108.551	ppb	9.949	6915	100	108.6	70	130	
Ca	44	2	45	28.781	ppb	39.136	47	50	57.6	70	130	>+/-30%
V	51	2	72	4.907	ppb	4.416	3864	5	98.1	70	130	
Cr	52	2	72	1.948	ppb	7.324	2087	2	97.4	70	130	
Mn	55	2	72	1.228	ppb	30.303	327	1	122.8	70	130	
Fe	57	2	72	52.300	ppb	9.736	977	50	104.6	70	130	
Co	59	2	72	0.926	ppb	7.161	2010	1	92.6	70	130	
Ni	60	2	72	1.673	ppb	18.099	1397	2	83.6	70	130	
Cu	63	2	72	2.383	ppb	2.983	7409	2	119.2	70	130	
Zn	66	2	72	9.402	ppb	2.909	1697	10	94.0	70	130	
As	75	2	72	4.720	ppb	2.307	450	5	94.4	70	130	
Se	78	1	72	4.730	ppb	5.496	2220	5	94.6	70	130	
Sr	88	2	72	1.136	ppb	12.489	210	1	113.6	70	130	
Zr	90	2	72	17.451	ppb	32.168	183	0.5	3490.2	70	130	>+/-30%
Nb	93	2	72	0.706	ppb	6.992	2170	2	35.3	70	130	>+/-30%
Mo	95	2	115	1.914	ppb	8.719	1413	2	95.7	70	130	
Pd	105	2	115	0.029	ppb	64.969	50	1	2.9	70	130	>+/-30%
Ag	107	2	115	5.145	ppb	3.624	15001	5	102.9	70	130	
Cd	111	2	115	1.006	ppb	10.118	237	1	100.6	70	130	
Sn	120	2	115	9.565	ppb	4.904	4828	10	95.7	70	130	
Sb	121	2	115	2.154	ppb	21.539	930	2	107.7	70	130	
Ba	137	2	115	1.012	ppb	23.887	110	1	101.2	70	130	
W	182	2	165	4.755	ppb	2.900	24466	1	475.5	70	130	>+/-30%
Pt	195	2	165	0.016	ppb	76.070	250	1	1.6	70	130	>+/-30%
Tl	205	2	165	1.000	ppb	5.531	6572	1	100.0	70	130	
Pb	208	2	165	1.020	ppb	9.114	9191	1	102.0	70	130	
Th	232	2	165	2.105	ppb	2.113	21235	2	105.3	70	130	
U	238	2	165	1.041	ppb	1.966	12069	1	104.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1481387	0.50	1554733	95.28	60	120	
Sc (IS)	45	1	HMI H2	44339604	1.07	46339121	95.69	60	120	
Sc (IS)	45	2	HMI He	426724	0.96	445795	95.72	60	120	
Sc (IS)	45	3	No Gas	156093331	0.22	164326821	94.99	60	120	
Ge Internal Standard	72	1	HMI H2	21109557	1.07	22097711	95.53	60	120	
Ge Internal Standard	72	2	HMI He	601670	0.94	629677	95.55	60	120	
In Internal Standard	115	2	HMI He	1316510	1.09	1367430	96.28	60	120	
Ho-165	165	2	HMI He	11692274	1.32	12033141	97.17	60	120	

Blank Report

Sample Table

Sample Name	mb 280-399632/1-a
Data File Name	031_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:49:02-07:00
Sample Type	Blank
Dilution	1
Comment	399632 6020B
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-14.451	ppb	-16.08130063	170558	0.5
Li	7	2	45	0.289	ppb	1984.134107	9643	0.5
Li	7	3	45	-20.245	ppb	-10.20034298	13129363	10
Be	9	1	6	0.046	ppb	159.0540201	23	0.5
B	11	1	6	-0.276	ppb	-12.20888055	540	0.5
Na	23	1	45	9.964	ppb	4.494099105	250441	25
Na	23	2	45	3.190	ppb	72.84501993	12692	25
Mg	24	2	45	5.064	ppb	32.16668834	467	25
Al	27	2	45	9.851	ppb	24.37249244	133	15
K	39	1	45	-1020.388	ppb	-1.431778744	5266022	50
K	39	2	45	17.160	ppb	71.90128975	5661	50
Ca	40	1	45	7.765	ppb	1.886093657	166398	50
Ca	44	2	45	37.845	ppb	80.30109517	60	25
V	51	2	72	-0.176	ppb	-55.4579924	290	1
Cr	52	2	72	0.185	ppb	59.57572297	383	1
Mn	55	2	72	0.299	ppb	24.15226855	100	0.5
Fe	57	2	72	18.979	ppb	22.80776947	403	25
Co	59	2	72	0.020	ppb	66.68737964	47	0.5
Ni	60	2	72	-0.061	ppb	-110.8025204	223	1
Cu	63	2	72	-0.608	ppb	-11.61795954	1543	1
Zn	66	2	72	1.062	ppb	35.91749759	367	5
As	75	2	72	0.058	ppb	111.3341999	15	1
Se	78	1	72	0.018	ppb	94.71246515	24	1
Sr	88	2	72	-0.036	ppb	-84.62028088	3	0.5
Zr	90	2	72	-5.033	ppb	-85.74337614	40	1
Nb	93	2	72	0.016	ppb	295.3274712	397	2
Mo	95	2	115	0.012	ppb	109.3501819	30	0.5
Pd	105	2	115	0.004	ppb	323.5124123	17	1
Ag	107	2	115	0.001	ppb	213.892103	27	1
Cd	111	2	115	-0.014	ppb	-165.7205405	3	0.5
Sn	120	2	115	0.238	ppb	27.71507758	257	1
Sb	121	2	115	0.133	ppb	40.72775854	83	0.6
Ba	137	2	115	0.374	ppb	47.15316534	43	0.5
W	182	2	165	0.046	ppb	40.73995163	510	1
Pt	195	2	165	-0.003	ppb	-316.8826233	150	1
Tl	205	2	165	0.033	ppb	11.59050244	270	0.1
Pb	208	2	165	0.138	ppb	8.151746916	1900	0.5
Th	232	2	165	0.097	ppb	14.96458105	1470	1
U	238	2	165	0.004	ppb	73.38975977	120	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1480597	1.79	1554733	95.23	60	120	
Sc (IS)	45	1	HMI H2	45409674	0.42	46339121	97.99	60	120	
Sc (IS)	45	2	HMI He	453544	1.42	445795	101.74	60	120	
Sc (IS)	45	3	No Gas	164905478	0.32	164326821	100.35	60	120	
Ge Internal Standard	72	1	HMI H2	21380281	0.48	22097711	96.75	60	120	
Ge Internal Standard	72	2	HMI He	639694	1.30	629677	101.59	60	120	
In Internal Standard	115	2	HMI He	1397445	1.48	1367430	102.20	60	120	
Ho-165	165	2	HMI He	12162430	1.43	12033141	101.07	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-399632/2-a
Data File Name	032_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:52:51-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399632 6020B
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	28.015	28.015	ppb	11.243	190629	400	7.0	80	120	>+/-20%
Li	7	2	45	50.215	50.215	ppb	13.682	10854	400	12.6	80	120	>+/-20%
Li	7	3	45	23.631	23.631	ppb	11.046	14519742	400	5.9	80	120	>+/-20%
Be	9	1	6	37.078	37.078	ppb	2.506	16538	40	92.7	80	120	
Na	23	2	45	-8.433	-8.433	ppb	-12.213	10884	40	-21.1	80	120	>+/-20%
Mg	24	2	45	2.035	2.035	ppb	45.441	280	40	5.1	80	120	>+/-20%
Al	27	2	45	400.735	400.735	ppb	6.137	4464	40	1001.8	80	120	>+/-20%
K	39	2	45	-6.725	-6.725	ppb	-294.173	5188	40	-16.8	80	120	>+/-20%
Ca	44	2	45	248.269	248.269	ppb	13.850	297	40	620.7	80	120	>+/-20%
V	51	2	72	38.926	38.926	ppb	0.561	29201	40	97.3	80	120	
Cr	52	2	72	40.350	40.350	ppb	2.983	41613	40	100.9	80	120	
Mn	55	2	72	39.797	39.797	ppb	1.773	10433	40	99.5	80	120	
Fe	57	2	72	387.172	387.172	ppb	6.637	7312	40	967.9	80	120	>+/-20%
Co	59	2	72	40.980	40.980	ppb	1.171	93150	40	102.5	80	120	
Ni	60	2	72	39.936	39.936	ppb	1.024	28898	40	99.8	80	120	
Cu	63	2	72	39.416	39.416	ppb	1.929	84942	40	98.5	80	120	
Zn	66	2	72	38.220	38.220	ppb	4.905	6668	40	95.5	80	120	
As	75	2	72	38.947	38.947	ppb	1.819	3825	40	97.4	80	120	
Se	78	1	72	37.791	37.791	ppb	1.008	17997	40	94.5	80	120	
Nb	93	2	72	0.050	0.050	ppb	141.166	483	40	0.1	80	120	>+/-20%
Mo	95	2	115	40.349	40.349	ppb	3.163	30438	40	100.9	80	120	
Pd	105	2	115	0.005	0.005	ppb	87.947	17	40	0.0	80	120	>+/-20%
Ag	107	2	115	40.113	40.113	ppb	0.380	120857	40	100.3	80	120	
Cd	111	2	115	38.874	38.874	ppb	4.805	9210	40	97.2	80	120	
Sn	120	2	115	39.588	39.588	ppb	2.071	20260	40	99.0	80	120	
Sb	121	2	115	38.046	38.046	ppb	3.204	16636	40	95.1	80	120	
Ba	137	2	115	41.467	41.467	ppb	3.670	4664	40	103.7	80	120	
W	182	2	165	38.825	38.825	ppb	1.435	202285	40	97.1	80	120	
Pt	195	2	165	-0.004	-0.004	ppb	-125.471	140	40	0.0	80	120	>+/-20%
Tl	205	2	165	40.200	40.200	ppb	1.725	268182	40	100.5	80	120	
Pb	208	2	165	40.633	40.633	ppb	1.815	347678	40	101.6	80	120	
Th	232	2	165	38.896	38.896	ppb	0.845	392830	40	97.2	80	120	
U	238	2	165	39.567	39.567	ppb	0.948	466212	40	98.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1504974	0.90	1554733	96.80	60	120	
Sc (IS)	45	1	HMI H2	45464969	0.14	46339121	98.11	60	120	
Sc (IS)	45	2	HMI He	450760	1.27	445795	101.11	60	120	
Sc (IS)	45	3	No Gas	163189021	0.31	164326821	99.31	60	120	
Ge Internal Standard	72	1	HMI H2	21556116	0.38	22097711	97.55	60	120	
Ge Internal Standard	72	2	HMI He	629973	1.23	629677	100.05	60	120	
In Internal Standard	115	2	HMI He	1362305	0.90	1367430	99.63	60	120	
Ho-165	165	2	HMI He	11951084	1.19	12033141	99.32	60	120	

Sample Report

Sample Table

Sample Name	280-104778-a-8-d
Data File Name	033SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T12:56:40-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-13.131	ppb	-13.131	-14.58	169273	500000	
Li	7	2	45	19.743	ppb	19.743	14.43	9830	500000	
Li	7	3	45	-12.928	ppb	-12.928	-6.62	13268846	50000	
Be	9	1	6	0.054	ppb	0.054	88.88	27	2000	
B	11	1	6	13.010	ppb	13.010	5.64	8539	2000	
Na	23	1	45	21463.974	ppb	21463.974	0.73	92899472	2000	>LDR
Na	23	2	45	20945.955	ppb	20945.955	0.96	3049116	400000	
Mg	24	2	45	7916.094	ppb	7916.094	0.33	472011	400000	
Al	27	2	45	10.825	ppb	10.825	7.45	140	400000	
K	39	1	45	2251.288	ppb	2251.288	0.68	18160225	400000	
K	39	2	45	3401.930	ppb	3401.930	0.58	66074	400000	
Ca	40	1	45	20022.183	ppb	20022.183	0.25	131073125	400000	
Ca	44	2	45	20376.157	ppb	20376.157	0.72	22418	400000	
V	51	2	72	31.361	ppb	31.361	1.34	23166	2000	
Cr	52	2	72	16.671	ppb	16.671	2.64	16975	5000	
Mn	55	2	72	1.069	ppb	1.069	32.37	293	10000	
Fe	57	2	72	32.870	ppb	32.870	21.77	647	400000	
Co	59	2	72	0.078	ppb	0.078	20.77	173	2000	
Ni	60	2	72	5.207	ppb	5.207	5.45	3921	5000	
Cu	63	2	72	-0.394	ppb	-0.394	-24.93	1930	5000	
Zn	66	2	72	0.960	ppb	0.960	26.42	337	5000	
As	75	2	72	2.832	ppb	2.832	6.00	281	2000	
Se	78	1	72	1.564	ppb	1.564	3.49	753	2000	
Sr	88	2	72	94.569	ppb	94.569	5.68	17149	4000	
Zr	90	2	72	52.203	ppb	52.203	30.83	420	1000	
Nb	93	2	72	-0.037	ppb	-0.037	-20.56	240	200	
Mo	95	2	115	12.242	ppb	12.242	3.64	9159	2000	
Pd	105	2	115	-0.007	ppb	-0.007	0.00	0	100	
Ag	107	2	115	0.177	ppb	0.177	17.83	550	100	
Cd	111	2	115	0.072	ppb	0.072	191.79	23	2000	
Sn	120	2	115	0.030	ppb	0.030	200.14	143	2000	
Sb	121	2	115	0.355	ppb	0.355	37.83	177	1000	
Ba	137	2	115	33.347	ppb	33.347	2.30	3714	5000	
W	182	2	165	12.625	ppb	12.625	1.52	65463	100	
Pt	195	2	165	-0.012	ppb	-0.012	-96.99	90	100	
Tl	205	2	165	0.042	ppb	0.042	12.72	320	2000	
Pb	208	2	165	0.230	ppb	0.230	10.09	2634	5000	
Th	232	2	165	0.193	ppb	0.193	2.89	2397	2000	
U	238	2	165	1.324	ppb	1.324	0.49	15552	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1464401	2.40	1554733	94.19	60	120	
Sc (IS)	45	1	HMI H2	44905449	0.14	46339121	96.91	60	120	
Sc (IS)	45	2	HMI He	439648	1.28	445795	98.62	60	120	
Sc (IS)	45	3	No Gas	163454298	0.63	164326821	99.47	60	120	
Ge Internal Standard	72	1	HMI H2	21380551	0.73	22097711	96.75	60	120	
Ge Internal Standard	72	2	HMI He	618290	1.62	629677	98.19	60	120	
In Internal Standard	115	2	HMI He	1349033	1.05	1367430	98.65	60	120	
Ho-165	165	2	HMI He	11861073	0.38	12033141	98.57	60	120	

Sample Report

Sample Table

Sample Name	280-104778-a-8-dSD@5
Data File Name	034SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:00:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	1.870	ppb	1.870	345.52	172987	500000	
Li	7	2	45	1.235	ppb	1.235	1170.48	9273	500000	
Li	7	3	45	-4.625	ppb	-4.625	-68.72	12931048	50000	
Be	9	1	6	0.008	ppb	0.008	338.70	7	2000	
B	11	1	6	2.086	ppb	2.086	5.89	1994	2000	
Na	23	1	45	4476.865	ppb	4476.865	1.52	19182093	2000	
Na	23	2	45	4262.963	ppb	4262.963	1.36	623514	400000	
Mg	24	2	45	1627.927	ppb	1627.927	1.61	96188	400000	
Al	27	2	45	2.551	ppb	2.551	38.38	50	400000	
K	39	1	45	244.658	ppb	244.658	10.30	10029806	400000	
K	39	2	45	725.378	ppb	725.378	3.41	17976	400000	
Ca	40	1	45	4193.516	ppb	4193.516	1.38	27040038	400000	
Ca	44	2	45	4225.404	ppb	4225.404	2.54	4614	400000	
V	51	2	72	6.139	ppb	6.139	2.56	4851	2000	
Cr	52	2	72	3.385	ppb	3.385	6.82	3584	5000	
Mn	55	2	72	0.288	ppb	0.288	33.56	93	10000	
Fe	57	2	72	3.676	ppb	3.676	23.25	107	400000	
Co	59	2	72	0.011	ppb	0.011	49.74	23	2000	
Ni	60	2	72	1.315	ppb	1.315	9.99	1180	5000	
Cu	63	2	72	0.638	ppb	0.638	15.49	4031	5000	
Zn	66	2	72	0.503	ppb	0.503	30.24	260	5000	
As	75	2	72	0.595	ppb	0.595	16.38	66	2000	
Se	78	1	72	0.294	ppb	0.294	15.04	152	2000	
Sr	88	2	72	18.456	ppb	18.456	5.32	3347	4000	
Zr	90	2	72	6.734	ppb	6.734	47.16	117	1000	
Nb	93	2	72	-0.061	ppb	-0.061	-35.09	177	200	
Mo	95	2	115	2.410	ppb	2.410	12.34	1797	2000	
Pd	105	2	115	-0.002	ppb	-0.002	-348.54	7	100	
Ag	107	2	115	0.058	ppb	0.058	58.67	193	100	
Cd	111	2	115	-0.013	ppb	-0.013	-190.31	3	2000	
Sn	120	2	115	0.100	ppb	0.100	99.60	177	2000	
Sb	121	2	115	0.260	ppb	0.260	35.16	133	1000	
Ba	137	2	115	6.210	ppb	6.210	26.71	683	5000	
W	182	2	165	2.582	ppb	2.582	2.61	13436	100	
Pt	195	2	165	-0.017	ppb	-0.017	-11.60	63	100	
Tl	205	2	165	0.008	ppb	0.008	138.81	93	2000	
Pb	208	2	165	0.070	ppb	0.070	23.93	1263	5000	
Th	232	2	165	0.006	ppb	0.006	48.74	517	2000	
U	238	2	165	0.286	ppb	0.286	6.01	3371	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1490581	0.83	1554733	95.87	60	120	
Sc (IS)	45	1	HMI H2	44088768	0.65	46339121	95.14	60	120	
Sc (IS)	45	2	HMI He	435154	1.42	445795	97.61	60	120	
Sc (IS)	45	3	No Gas	155893994	0.48	164326821	94.87	60	120	
Ge Internal Standard	72	1	HMI H2	21051521	0.38	22097711	95.27	60	120	
Ge Internal Standard	72	2	HMI He	616607	0.45	629677	97.92	60	120	
In Internal Standard	115	2	HMI He	1334152	1.39	1367430	97.57	60	120	
Ho-165	165	2	HMI He	11720053	0.81	12033141	97.40	60	120	

Sample Report

Sample Table

Sample Name	280-104778-a-8-e ms
Data File Name	035SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:04:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	31.013	ppb	31.013	14.90	188786	500000	
Li	7	2	45	37.242	ppb	37.242	15.78	10260	500000	
Li	7	3	45	32.240	ppb	32.240	17.21	14790212	50000	
Be	9	1	6	37.294	ppb	37.294	4.42	16261	2000	
B	11	1	6	35.693	ppb	35.693	1.22	22324	2000	
Na	23	1	45	20338.489	ppb	20338.489	1.25	87628865	2000	>LDR
Na	23	2	45	20240.249	ppb	20240.249	2.20	2945018	400000	
Mg	24	2	45	7627.970	ppb	7627.970	1.31	454592	400000	
Al	27	2	45	396.679	ppb	396.679	2.36	4307	400000	
K	39	1	45	2091.836	ppb	2091.836	1.47	17447329	400000	
K	39	2	45	3317.007	ppb	3317.007	3.02	64525	400000	
Ca	40	1	45	18945.882	ppb	18945.882	0.47	123456238	400000	
Ca	44	2	45	19601.935	ppb	19601.935	3.09	21550	400000	
V	51	2	72	71.468	ppb	71.468	1.73	51555	2000	
Cr	52	2	72	57.135	ppb	57.135	0.60	56952	5000	
Mn	55	2	72	42.015	ppb	42.015	3.35	10660	10000	
Fe	57	2	72	443.137	ppb	443.137	2.34	8102	400000	
Co	59	2	72	41.023	ppb	41.023	1.66	90262	2000	
Ni	60	2	72	44.974	ppb	44.974	2.15	31475	5000	
Cu	63	2	72	40.374	ppb	40.374	2.07	84172	5000	
Zn	66	2	72	39.401	ppb	39.401	8.65	6645	5000	
As	75	2	72	42.201	ppb	42.201	0.18	4011	2000	
Se	78	1	72	39.829	ppb	39.829	2.20	18463	2000	
Sr	88	2	72	132.284	ppb	132.284	3.13	23664	4000	
Zr	90	2	72	5191.240	ppb	5191.240	3.56	34241	1000	>LDR
Nb	93	2	72	-0.014	ppb	-0.014	-393.67	297	200	
Mo	95	2	115	52.010	ppb	52.010	3.27	37869	2000	
Pd	105	2	115	0.000	ppb	0.000	2175.25	10	100	
Ag	107	2	115	40.282	ppb	40.282	1.76	117212	100	
Cd	111	2	115	41.210	ppb	41.210	5.88	9420	2000	
Sn	120	2	115	41.413	ppb	41.413	3.83	20457	2000	
Sb	121	2	115	39.560	ppb	39.560	2.52	16699	1000	
Ba	137	2	115	71.900	ppb	71.900	6.45	7802	5000	
W	182	2	165	52.682	ppb	52.682	1.51	268228	100	
Pt	195	2	165	-0.013	ppb	-0.013	-19.25	83	100	
Tl	205	2	165	40.425	ppb	40.425	0.88	263660	2000	
Pb	208	2	165	40.367	ppb	40.367	0.89	337705	5000	
Th	232	2	165	39.774	ppb	39.774	0.84	392695	2000	
U	238	2	165	41.566	ppb	41.566	1.11	478806	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1471360	0.78	1554733	94.64	60	120	
Sc (IS)	45	1	HMI H2	44697213	0.57	46339121	96.46	60	120	
Sc (IS)	45	2	HMI He	439457	1.46	445795	98.58	60	120	
Sc (IS)	45	3	No Gas	162873101	0.50	164326821	99.12	60	120	
Ge Internal Standard	72	1	HMI H2	20985307	0.98	22097711	94.97	60	120	
Ge Internal Standard	72	2	HMI He	609868	1.70	629677	96.85	60	120	
In Internal Standard	115	2	HMI He	1316017	2.72	1367430	96.24	60	120	
Ho-165	165	2	HMI He	11683684	1.62	12033141	97.10	60	120	

Sample Report

Sample Table

Sample Name	280-104778-a-8-f msd
Data File Name	036SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:08:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	31.372	ppb	31.372	18.70	190366	500000	
Li	7	2	45	49.633	ppb	49.633	37.95	10540	500000	
Li	7	3	45	41.790	ppb	41.790	10.66	15314114	50000	
Be	9	1	6	38.856	ppb	38.856	0.15	17269	2000	
B	11	1	6	35.626	ppb	35.626	0.91	22705	2000	
Na	23	1	45	21031.511	ppb	21031.511	0.99	91289792	2000	>LDR
Na	23	2	45	21155.364	ppb	21155.364	1.50	3071179	400000	
Mg	24	2	45	7946.252	ppb	7946.252	1.42	472464	400000	
Al	27	2	45	414.217	ppb	414.217	5.61	4484	400000	
K	39	1	45	2188.503	ppb	2188.503	1.57	17962672	400000	
K	39	2	45	3399.291	ppb	3399.291	0.69	65854	400000	
Ca	40	1	45	19857.705	ppb	19857.705	0.69	130369121	400000	
Ca	44	2	45	20123.448	ppb	20123.448	1.36	22078	400000	
V	51	2	72	72.477	ppb	72.477	3.31	52467	2000	
Cr	52	2	72	57.818	ppb	57.818	1.45	57817	5000	
Mn	55	2	72	42.571	ppb	42.571	1.32	10840	10000	
Fe	57	2	72	433.824	ppb	433.824	2.60	7955	400000	
Co	59	2	72	41.198	ppb	41.198	0.97	90958	2000	
Ni	60	2	72	44.706	ppb	44.706	3.83	31379	5000	
Cu	63	2	72	40.536	ppb	40.536	0.66	84776	5000	
Zn	66	2	72	38.929	ppb	38.929	0.19	6595	5000	
As	75	2	72	41.256	ppb	41.256	1.03	3934	2000	
Se	78	1	72	39.318	ppb	39.318	0.25	18425	2000	
Sr	88	2	72	133.257	ppb	133.257	2.46	23924	4000	
Zr	90	2	72	5334.008	ppb	5334.008	1.28	35304	1000	>LDR
Nb	93	2	72	-0.046	ppb	-0.046	-85.28	217	200	
Mo	95	2	115	54.022	ppb	54.022	3.31	39112	2000	
Pd	105	2	115	-0.002	ppb	-0.002	-188.81	7	100	
Ag	107	2	115	41.004	ppb	41.004	2.42	118618	100	
Cd	111	2	115	40.502	ppb	40.502	1.66	9213	2000	
Sn	120	2	115	41.962	ppb	41.962	1.19	20617	2000	
Sb	121	2	115	40.001	ppb	40.001	2.08	16789	1000	
Ba	137	2	115	72.166	ppb	72.166	1.71	7792	5000	
W	182	2	165	52.679	ppb	52.679	0.82	267176	100	
Pt	195	2	165	-0.011	ppb	-0.011	-66.65	97	100	
Tl	205	2	165	40.816	ppb	40.816	0.75	265167	2000	
Pb	208	2	165	41.022	ppb	41.022	0.13	341818	5000	
Th	232	2	165	40.121	ppb	40.121	0.59	394576	2000	
U	238	2	165	42.171	ppb	42.171	1.60	483823	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1499367	1.29	1554733	96.44	60	120	
Sc (IS)	45	1	HMI H2	45035081	0.99	46339121	97.19	60	120	
Sc (IS)	45	2	HMI He	438473	2.02	445795	98.36	60	120	
Sc (IS)	45	3	No Gas	164937341	0.22	164326821	100.37	60	120	
Ge Internal Standard	72	1	HMI H2	21210718	1.33	22097711	95.99	60	120	
Ge Internal Standard	72	2	HMI He	611854	0.95	629677	97.17	60	120	
In Internal Standard	115	2	HMI He	1308216	1.25	1367430	95.67	60	120	
Ho-165	165	2	HMI He	11636857	0.88	12033141	96.71	60	120	

Sample Report

Sample Table

Sample Name	280-104778-a-8-d PDS
Data File Name	037SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:11:53-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	200.600	ppb	200.600	3.89	266056	500000	
Li	7	2	45	217.564	ppb	217.564	14.83	14359	500000	
Li	7	3	45	207.227	ppb	207.227	2.35	21299486	50000	
Be	9	1	6	191.143	ppb	191.143	2.85	84783	2000	
B	11	1	6	12.942	ppb	12.942	7.95	8689	2000	
Na	23	1	45	21310.061	ppb	21310.061	1.27	91552209	2000	>LDR
Na	23	2	45	21491.411	ppb	21491.411	3.98	3047073	400000	
Mg	24	2	45	8209.774	ppb	8209.774	4.12	476810	400000	
Al	27	2	45	2042.756	ppb	2042.756	7.11	21523	400000	
K	39	1	45	2227.489	ppb	2227.489	2.34	17932235	400000	
K	39	2	45	3427.209	ppb	3427.209	2.64	64810	400000	
Ca	40	1	45	19992.014	ppb	19992.014	0.93	129906521	400000	
Ca	44	2	45	21958.136	ppb	21958.136	2.65	23533	400000	
V	51	2	72	240.631	ppb	240.631	2.10	168936	2000	
Cr	52	2	72	228.851	ppb	228.851	1.71	222686	5000	
Mn	55	2	72	207.297	ppb	207.297	3.65	51398	10000	
Fe	57	2	72	2092.607	ppb	2092.607	1.68	37296	400000	
Co	59	2	72	211.751	ppb	211.751	3.04	455902	2000	
Ni	60	2	72	209.587	ppb	209.587	3.67	142583	5000	
Cu	63	2	72	209.805	ppb	209.805	3.02	416866	5000	
Zn	66	2	72	210.702	ppb	210.702	1.60	34060	5000	
As	75	2	72	199.607	ppb	199.607	2.63	18527	2000	
Se	78	1	72	195.234	ppb	195.234	1.42	90434	2000	
Sr	88	2	72	299.179	ppb	299.179	4.45	52360	4000	
Zr	90	2	72	26722.110	ppb	26722.110	2.42	172208	1000	>LDR
Nb	93	2	72	0.660	ppb	0.660	12.99	2034	200	
Mo	95	2	115	217.087	ppb	217.087	3.06	152435	2000	
Pd	105	2	115	0.010	ppb	0.010	107.35	23	100	
Ag	107	2	115	52.340	ppb	52.340	2.46	146884	100	
Cd	111	2	115	217.026	ppb	217.026	4.15	47851	2000	
Sn	120	2	115	209.906	ppb	209.906	1.36	99565	2000	
Sb	121	2	115	206.718	ppb	206.718	2.79	84089	1000	
Ba	137	2	115	249.033	ppb	249.033	2.31	26091	5000	
W	182	2	165	222.271	ppb	222.271	3.66	1105547	100	
Pt	195	2	165	0.025	ppb	0.025	51.20	293	100	
Tl	205	2	165	209.319	ppb	209.319	3.69	1334458	2000	
Pb	208	2	165	206.209	ppb	206.209	4.05	1683642	5000	
Th	232	2	165	222.152	ppb	222.152	4.61	2141877	2000	
U	238	2	165	220.759	ppb	220.759	3.56	2485790	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1497117	1.59	1554733	96.29	60	120	
Sc (IS)	45	1	HMI H2	44573611	0.33	46339121	96.19	60	120	
Sc (IS)	45	2	HMI He	428443	2.01	445795	96.11	60	120	
Sc (IS)	45	3	No Gas	166233781	0.58	164326821	101.16	60	120	
Ge Internal Standard	72	1	HMI H2	20981622	0.44	22097711	94.95	60	120	
Ge Internal Standard	72	2	HMI He	596815	1.63	629677	94.78	60	120	
In Internal Standard	115	2	HMI He	1269206	1.55	1367430	92.82	60	120	
Ho-165	165	2	HMI He	11426581	2.20	12033141	94.96	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	038_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:15:41-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	493.763	ppb	3.025	395546	500	98.8	90	110	
Li	7	2	45	562.117	ppb	7.453	21887	500	112.4	90	110	>+\-10%
Li	7	3	45	511.328	ppb	0.715	29124075	500	102.3	90	110	
Be	9	1	6	47.794	ppb	3.025	20872	50	95.6	90	110	
B	11	1	6	42.652	ppb	0.953	26570	50	85.3	90	110	>+\-10%
Na	23	1	45	5012.618	ppb	0.975	21422197	5000	100.3	90	110	
Na	23	2	45	5010.466	ppb	0.911	693604	5000	100.2	90	110	
Mg	24	2	45	5197.354	ppb	0.187	291168	5000	103.9	90	110	
Al	27	2	45	5179.055	ppb	0.955	52583	5000	103.6	90	110	
K	39	1	45	4860.309	ppb	0.315	27929042	5000	97.2	90	110	
K	39	2	45	5234.288	ppb	1.219	92874	5000	104.7	90	110	
Ca	40	1	45	5006.931	ppb	0.617	32216494	5000	100.1	90	110	
Ca	44	2	45	5238.721	ppb	2.782	5424	5000	104.8	90	110	
V	51	2	72	50.343	ppb	3.023	35262	50	100.7	90	110	
Cr	52	2	72	51.139	ppb	2.911	49345	50	102.3	90	110	
Mn	55	2	72	49.102	ppb	8.037	12055	50	98.2	90	110	
Fe	57	2	72	5099.583	ppb	2.384	89815	5000	102.0	90	110	
Co	59	2	72	50.697	ppb	1.345	107965	50	101.4	90	110	
Ni	60	2	72	49.708	ppb	4.098	33626	50	99.4	90	110	
Cu	63	2	72	50.712	ppb	1.706	101657	50	101.4	90	110	
Zn	66	2	72	50.955	ppb	4.948	8272	50	101.9	90	110	
As	75	2	72	50.448	ppb	0.902	4639	50	100.9	90	110	
Se	78	1	72	49.895	ppb	1.617	22950	50	99.8	90	110	
Sr	88	2	72	50.186	ppb	4.914	8699	50	100.4	90	110	
Zr	90	2	72	78.705	ppb	8.227	570	50	157.4	90	110	>+\-10%
Nb	93	2	72	99.900	ppb	1.359	255699	100	99.9	90	110	
Mo	95	2	115	50.369	ppb	1.669	35507	50	100.7	90	110	
Pd	105	2	115	52.011	ppb	4.096	69317	50	104.0	90	110	
Ag	107	2	115	50.865	ppb	2.459	143229	50	101.7	90	110	
Cd	111	2	115	53.646	ppb	2.062	11875	50	107.3	90	110	
Sn	120	2	115	50.543	ppb	1.593	24151	50	101.1	90	110	
Sb	121	2	115	50.071	ppb	2.591	20457	50	100.1	90	110	
Ba	137	2	115	50.924	ppb	2.410	5354	50	101.8	90	110	
W	182	2	165	51.410	ppb	1.325	256622	50	102.8	90	110	
Pt	195	2	165	50.906	ppb	1.040	281971	50	101.8	90	110	
Tl	205	2	165	50.948	ppb	1.896	325734	50	101.9	90	110	
Pb	208	2	165	50.986	ppb	0.414	417987	50	102.0	90	110	
Th	232	2	165	50.471	ppb	0.241	488392	50	100.9	90	110	
U	238	2	165	50.771	ppb	0.509	573335	50	101.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1473182	0.88	1554733	94.75	60	120	
Sc (IS)	45	1	HMI H2	44022263	0.48	46339121	95.00	60	120	
Sc (IS)	45	2	HMI He	412991	1.21	445795	92.64	60	120	
Sc (IS)	45	3	No Gas	150912278	0.65	164326821	91.84	60	120	
Ge Internal Standard	72	1	HMI H2	20823943	0.20	22097711	94.24	60	120	
Ge Internal Standard	72	2	HMI He	590190	0.94	629677	93.73	60	120	
In Internal Standard	115	2	HMI He	1273626	1.83	1367430	93.14	60	120	
Ho-165	165	2	HMI He	11453274	0.72	12033141	95.18	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	039_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:19:31-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-3.709	ppb	-74.7	12696570	10	
Be	9	1	6	0.038	ppb	59.1	20	0.5	
B	11	1	6	0.679	ppb	48.1	1127	0.5	>RL
Na	23	1	45	15.156	ppb	3.6	259213	25	
Na	23	2	45	13.697	ppb	15.8	13039	25	
Mg	24	2	45	0.482	ppb	194.7	170	25	
Al	27	2	45	0.490	ppb	421.2	27	15	
K	39	1	45	-32.646	ppb	-13.0	8751541	50	
K	39	2	45	20.961	ppb	43.9	5241	50	
Ca	40	1	45	4.521	ppb	11.5	137551	50	
Ca	44	2	45	10.673	ppb	51.0	27	25	
V	51	2	72	0.325	ppb	52.7	610	1	
Cr	52	2	72	0.084	ppb	53.4	253	1	
Mn	55	2	72	-0.035	ppb	-204.1	10	0.5	
Fe	57	2	72	3.602	ppb	28.5	100	25	
Co	59	2	72	0.011	ppb	89.5	23	0.5	
Ni	60	2	72	-0.037	ppb	-65.6	220	1	
Cu	63	2	72	0.097	ppb	54.3	2780	1	
Zn	66	2	72	0.205	ppb	104.4	200	5	
As	75	2	72	-0.029	ppb	-131.7	6	1	
Se	78	1	72	0.032	ppb	104.1	29	1	
Sr	88	2	72	0.043	ppb	77.3	17	0.5	
Zr	90	2	72	0.263	ppb	1022.4	70	1	
Nb	93	2	72	0.792	ppb	17.0	2330	2	
Mo	95	2	115	0.067	ppb	104.7	67	0.5	
Pd	105	2	115	0.008	ppb	189.9	20	1	
Ag	107	2	115	0.013	ppb	28.0	60	1	
Cd	111	2	115	0.002	ppb	1410.1	7	0.5	
Sn	120	2	115	0.066	ppb	94.7	153	1	
Sb	121	2	115	0.376	ppb	38.0	177	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.039	ppb	17.2	440	1	
Pt	195	2	165	-0.009	ppb	-48.2	107	1	
Tl	205	2	165	0.030	ppb	7.0	233	0.1	
Pb	208	2	165	0.028	ppb	81.8	887	0.5	
Th	232	2	165	0.134	ppb	15.8	1727	1	
U	238	2	165	0.009	ppb	45.9	163	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1486624	1.38	1554733	95.62	60	120	
Sc (IS)	45	1	HMI H2	43099629	0.88	46339121	93.01	60	120	
Sc (IS)	45	2	HMI He	414742	1.69	445795	93.03	60	120	
Sc (IS)	45	3	No Gas	152706354	0.67	164326821	92.93	60	120	
Ge Internal Standard	72	1	HMI H2	20480451	0.68	22097711	92.68	60	120	
Ge Internal Standard	72	2	HMI He	585675	1.08	629677	93.01	60	120	
In Internal Standard	115	2	HMI He	1283237	1.27	1367430	93.84	60	120	
Ho-165	165	2	HMI He	11356608	1.77	12033141	94.38	60	120	

Sample Report

Sample Table

Sample Name	280-104844-a-3-g
Data File Name	040SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:23:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-2.920	ppb	-2.920	-212.83	168973	500000	
Li	7	2	45	16.224	ppb	16.224	128.14	9373	500000	
Li	7	3	45	0.587	ppb	0.587	263.63	13812432	50000	
Be	9	1	6	0.016	ppb	0.016	146.80	10	2000	
B	11	1	6	5.813	ppb	5.813	5.58	4184	2000	
Na	23	1	45	18766.019	ppb	18766.019	0.74	78906730	2000	>LDR
Na	23	2	45	18742.836	ppb	18742.836	1.01	2625986	400000	
Mg	24	2	45	16906.089	ppb	16906.089	0.65	969511	400000	
Al	27	2	45	10.377	ppb	10.377	8.48	130	400000	
K	39	1	45	6606.192	ppb	6606.192	1.32	34380739	400000	
K	39	2	45	7860.784	ppb	7860.784	0.31	140329	400000	
Ca	40	1	45	60058.894	ppb	60058.894	1.14	381606994	400000	
Ca	44	2	45	60036.941	ppb	60036.941	1.41	63499	400000	
V	51	2	72	22.669	ppb	22.669	2.21	16248	2000	
Cr	52	2	72	10.443	ppb	10.443	0.54	10313	5000	
Mn	55	2	72	1.634	ppb	1.634	6.70	423	10000	
Fe	57	2	72	53.762	ppb	53.762	4.49	993	400000	
Co	59	2	72	0.127	ppb	0.127	16.94	273	2000	
Ni	60	2	72	19.439	ppb	19.439	0.88	13429	5000	
Cu	63	2	72	0.465	ppb	0.465	40.01	3554	5000	
Zn	66	2	72	0.786	ppb	0.786	6.89	297	5000	
As	75	2	72	7.444	ppb	7.444	4.92	698	2000	
Se	78	1	72	2.877	ppb	2.877	5.68	1317	2000	
Sr	88	2	72	280.056	ppb	280.056	1.56	48940	4000	
Zr	90	2	72	0.063	ppb	0.063	8532.40	70	1000	
Nb	93	2	72	0.278	ppb	0.278	30.67	1047	200	
Mo	95	2	115	2.036	ppb	2.036	6.61	1470	2000	
Pd	105	2	115	0.013	ppb	0.013	120.83	27	100	
Ag	107	2	115	0.024	ppb	0.024	39.28	90	100	
Cd	111	2	115	0.002	ppb	0.002	2898.11	7	2000	
Sn	120	2	115	0.161	ppb	0.161	45.03	200	2000	
Sb	121	2	115	0.343	ppb	0.343	22.67	163	1000	
Ba	137	2	115	44.567	ppb	44.567	5.34	4738	5000	
W	182	2	165	0.476	ppb	0.476	3.59	2640	100	
Pt	195	2	165	-0.017	ppb	-0.017	-36.71	60	100	
Tl	205	2	165	0.020	ppb	0.020	57.51	173	2000	
Pb	208	2	165	0.050	ppb	0.050	14.66	1080	5000	
Th	232	2	165	0.166	ppb	0.166	6.06	2067	2000	
U	238	2	165	2.419	ppb	2.419	2.69	27575	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1457478	1.18	1554733	93.74	60	120	
Sc (IS)	45	1	HMI H2	43612621	0.86	46339121	94.12	60	120	
Sc (IS)	45	2	HMI He	422926	1.52	445795	94.87	60	120	
Sc (IS)	45	3	No Gas	164315764	0.44	164326821	99.99	60	120	
Ge Internal Standard	72	1	HMI H2	20512801	0.24	22097711	92.83	60	120	
Ge Internal Standard	72	2	HMI He	595741	0.97	629677	94.61	60	120	
In Internal Standard	115	2	HMI He	1287989	0.61	1367430	94.19	60	120	
Ho-165	165	2	HMI He	11532265	1.11	12033141	95.84	60	120	

Sample Report

Sample Table

Sample Name	280-104844-a-3-h ms
Data File Name	041SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:27:50-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	35.006	ppb	35.006	4.65	188604	500000	
Li	7	2	45	62.314	ppb	62.314	15.82	10600	500000	
Li	7	3	45	48.310	ppb	48.310	7.92	15238743	50000	
Be	9	1	6	38.440	ppb	38.440	2.68	16912	2000	
B	11	1	6	29.312	ppb	29.312	3.85	18620	2000	
Na	23	1	45	18683.290	ppb	18683.290	1.82	79652380	2000	>LDR
Na	23	2	45	18412.248	ppb	18412.248	3.21	2610210	400000	
Mg	24	2	45	16596.051	ppb	16596.051	1.70	963104	400000	
Al	27	2	45	416.828	ppb	416.828	8.57	4404	400000	
K	39	1	45	6447.672	ppb	6447.672	2.33	34241561	400000	
K	39	2	45	7789.476	ppb	7789.476	2.31	140752	400000	
Ca	40	1	45	58686.114	ppb	58686.114	2.23	378071954	400000	
Ca	44	2	45	59361.713	ppb	59361.713	2.62	63536	400000	
V	51	2	72	64.005	ppb	64.005	1.54	45522	2000	
Cr	52	2	72	49.749	ppb	49.749	3.52	48858	5000	
Mn	55	2	72	42.032	ppb	42.032	3.65	10507	10000	
Fe	57	2	72	493.464	ppb	493.464	1.07	8879	400000	
Co	59	2	72	41.426	ppb	41.426	0.81	89782	2000	
Ni	60	2	72	57.898	ppb	57.898	1.93	39826	5000	
Cu	63	2	72	40.814	ppb	40.814	0.85	83774	5000	
Zn	66	2	72	38.586	ppb	38.586	9.22	6421	5000	
As	75	2	72	46.140	ppb	46.140	5.04	4318	2000	
Se	78	1	72	41.777	ppb	41.777	0.34	19284	2000	
Sr	88	2	72	315.584	ppb	315.584	2.19	55610	4000	
Zr	90	2	72	5306.868	ppb	5306.868	1.49	34485	1000	>LDR
Nb	93	2	72	0.105	ppb	0.105	27.77	603	200	
Mo	95	2	115	42.610	ppb	42.610	3.28	30594	2000	
Pd	105	2	115	0.010	ppb	0.010	150.85	23	100	
Ag	107	2	115	40.619	ppb	40.619	1.28	116494	100	
Cd	111	2	115	41.324	ppb	41.324	3.08	9316	2000	
Sn	120	2	115	41.905	ppb	41.905	2.51	20410	2000	
Sb	121	2	115	40.873	ppb	40.873	0.91	17006	1000	
Ba	137	2	115	82.546	ppb	82.546	6.99	8839	5000	
W	182	2	165	41.088	ppb	41.088	1.15	206641	100	
Pt	195	2	165	-0.009	ppb	-0.009	-129.70	107	100	
Tl	205	2	165	41.644	ppb	41.644	0.46	268201	2000	
Pb	208	2	165	41.514	ppb	41.514	0.57	342915	5000	
Th	232	2	165	40.614	ppb	40.614	1.60	395940	2000	
U	238	2	165	44.041	ppb	44.041	0.24	500931	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1484410	0.47	1554733	95.48	60	120	
Sc (IS)	45	1	HMI H2	44224379	1.27	46339121	95.44	60	120	
Sc (IS)	45	2	HMI He	428002	1.10	445795	96.01	60	120	
Sc (IS)	45	3	No Gas	161718231	1.71	164326821	98.41	60	120	
Ge Internal Standard	72	1	HMI H2	20894901	1.03	22097711	94.56	60	120	
Ge Internal Standard	72	2	HMI He	600640	0.80	629677	95.39	60	120	
In Internal Standard	115	2	HMI He	1296738	0.90	1367430	94.83	60	120	
Ho-165	165	2	HMI He	11535921	0.06	12033141	95.87	60	120	

Sample Report

Sample Table

Sample Name	280-104844-a-3-i msd
Data File Name	042SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:31:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	36.157	ppb	36.157	8.83	187086	500000	
Li	7	2	45	55.301	ppb	55.301	20.33	10173	500000	
Li	7	3	45	53.376	ppb	53.376	4.80	15178614	50000	
Be	9	1	6	36.032	ppb	36.032	6.09	15874	2000	
B	11	1	6	28.126	ppb	28.126	1.09	17936	2000	
Na	23	1	45	18173.597	ppb	18173.597	0.67	76657712	2000	>LDR
Na	23	2	45	18475.621	ppb	18475.621	0.69	2555127	400000	
Mg	24	2	45	16875.408	ppb	16875.408	1.81	955164	400000	
Al	27	2	45	434.833	ppb	434.833	3.58	4484	400000	
K	39	1	45	6223.399	ppb	6223.399	1.14	33010797	400000	
K	39	2	45	7633.395	ppb	7633.395	2.22	134629	400000	
Ca	40	1	45	57196.399	ppb	57196.399	0.33	364548888	400000	
Ca	44	2	45	59102.019	ppb	59102.019	2.07	61730	400000	
V	51	2	72	63.168	ppb	63.168	3.05	44102	2000	
Cr	52	2	72	49.661	ppb	49.661	1.93	47875	5000	
Mn	55	2	72	41.249	ppb	41.249	2.12	10120	10000	
Fe	57	2	72	463.816	ppb	463.816	6.02	8192	400000	
Co	59	2	72	40.843	ppb	40.843	0.49	86875	2000	
Ni	60	2	72	56.972	ppb	56.972	2.73	38466	5000	
Cu	63	2	72	40.768	ppb	40.768	3.35	82124	5000	
Zn	66	2	72	38.855	ppb	38.855	4.54	6341	5000	
As	75	2	72	45.563	ppb	45.563	2.52	4185	2000	
Se	78	1	72	40.918	ppb	40.918	1.75	18619	2000	
Sr	88	2	72	314.295	ppb	314.295	2.20	54352	4000	
Zr	90	2	72	5191.079	ppb	5191.079	1.70	33106	1000	>LDR
Nb	93	2	72	-0.012	ppb	-0.012	-232.81	293	200	
Mo	95	2	115	42.817	ppb	42.817	3.88	29960	2000	
Pd	105	2	115	0.003	ppb	0.003	380.15	13	100	
Ag	107	2	115	39.867	ppb	39.867	1.26	111450	100	
Cd	111	2	115	39.389	ppb	39.389	2.38	8656	2000	
Sn	120	2	115	41.077	ppb	41.077	1.12	19502	2000	
Sb	121	2	115	40.029	ppb	40.029	4.58	16239	1000	
Ba	137	2	115	85.973	ppb	85.973	1.87	8969	5000	
W	182	2	165	41.616	ppb	41.616	0.59	204642	100	
Pt	195	2	165	-0.003	ppb	-0.003	-243.99	137	100	
Tl	205	2	165	40.513	ppb	40.513	1.17	255112	2000	
Pb	208	2	165	40.881	ppb	40.881	0.43	330196	5000	
Th	232	2	165	40.177	ppb	40.177	2.38	382995	2000	
U	238	2	165	43.291	ppb	43.291	0.91	481463	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1487550	2.38	1554733	95.68	60	120	
Sc (IS)	45	1	HMI H2	43745324	0.34	46339121	94.40	60	120	
Sc (IS)	45	2	HMI He	417483	1.97	445795	93.65	60	120	
Sc (IS)	45	3	No Gas	159243758	0.96	164326821	96.91	60	120	
Ge Internal Standard	72	1	HMI H2	20598875	0.39	22097711	93.22	60	120	
Ge Internal Standard	72	2	HMI He	589521	0.61	629677	93.62	60	120	
In Internal Standard	115	2	HMI He	1263950	0.79	1367430	92.43	60	120	
Ho-165	165	2	HMI He	11279741	0.51	12033141	93.74	60	120	

Sample Report

Sample Table

Sample Name	280-104844-a-4-b
Data File Name	043SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:35:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399632 6020B
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-2.717	ppb	-2.717	-100.74	170035	500000	
Li	7	2	45	0.809	ppb	0.809	3970.27	9103	500000	
Li	7	3	45	6.431	ppb	6.431	36.21	13626395	50000	
Be	9	1	6	0.016	ppb	0.016	147.61	10	2000	
B	11	1	6	17.860	ppb	17.860	6.55	11447	2000	
Na	23	1	45	27017.673	ppb	27017.673	1.67	114164008	2000	>LDR
Na	23	2	45	26703.337	ppb	26703.337	2.64	3779587	400000	
Mg	24	2	45	16640.804	ppb	16640.804	0.98	965421	400000	
Al	27	2	45	42.235	ppb	42.235	8.21	467	400000	
K	39	1	45	4463.842	ppb	4463.842	1.34	26293490	400000	
K	39	2	45	5738.210	ppb	5738.210	0.73	104993	400000	
Ca	40	1	45	86286.491	ppb	86286.491	1.65	551350458	400000	
Ca	44	2	45	87368.748	ppb	87368.748	1.52	93479	400000	
V	51	2	72	4.986	ppb	4.986	7.24	3894	2000	
Cr	52	2	72	27.506	ppb	27.506	1.23	26961	5000	
Mn	55	2	72	0.823	ppb	0.823	6.73	223	10000	
Fe	57	2	72	41.433	ppb	41.433	24.56	777	400000	
Co	59	2	72	0.122	ppb	0.122	31.36	263	2000	
Ni	60	2	72	1.931	ppb	1.931	7.12	1563	5000	
Cu	63	2	72	-0.030	ppb	-0.030	-319.02	2587	5000	
Zn	66	2	72	2.742	ppb	2.742	22.66	613	5000	
As	75	2	72	2.002	ppb	2.002	2.28	195	2000	
Se	78	1	72	1.425	ppb	1.425	5.05	664	2000	
Sr	88	2	72	416.465	ppb	416.465	1.07	73020	4000	
Zr	90	2	72	61.039	ppb	61.039	26.01	463	1000	
Nb	93	2	72	-0.034	ppb	-0.034	-77.43	240	200	
Mo	95	2	115	1.382	ppb	1.382	5.45	1000	2000	
Pd	105	2	115	0.008	ppb	0.008	250.20	20	100	
Ag	107	2	115	0.033	ppb	0.033	69.29	117	100	
Cd	111	2	115	0.002	ppb	0.002	2902.02	7	2000	
Sn	120	2	115	0.164	ppb	0.164	103.18	200	2000	
Sb	121	2	115	0.385	ppb	0.385	25.74	180	1000	
Ba	137	2	115	67.829	ppb	67.829	4.04	7185	5000	
W	182	2	165	0.288	ppb	0.288	11.42	1697	100	
Pt	195	2	165	0.001	ppb	0.001	488.55	163	100	
Tl	205	2	165	0.035	ppb	0.035	4.22	270	2000	
Pb	208	2	165	0.136	ppb	0.136	6.87	1783	5000	
Th	232	2	165	0.219	ppb	0.219	4.25	2587	2000	
U	238	2	165	21.486	ppb	21.486	2.17	244272	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1462631	1.75	1554733	94.08	60	120	
Sc (IS)	45	1	HMI H2	43861821	0.41	46339121	94.65	60	120	
Sc (IS)	45	2	HMI He	427846	1.16	445795	95.97	60	120	
Sc (IS)	45	3	No Gas	159728611	0.73	164326821	97.20	60	120	
Ge Internal Standard	72	1	HMI H2	20637115	0.59	22097711	93.39	60	120	
Ge Internal Standard	72	2	HMI He	597674	1.06	629677	94.92	60	120	
In Internal Standard	115	2	HMI He	1283485	0.85	1367430	93.86	60	120	
Ho-165	165	2	HMI He	11529039	0.23	12033141	95.81	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	044_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:39:12-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	502.554	ppb	1.245	393228	500	100.5	90	110	
Li	7	2	45	548.438	ppb	4.311	21687	500	109.7	90	110	
Li	7	3	45	518.940	ppb	1.672	29388335	500	103.8	90	110	
Be	9	1	6	47.422	ppb	1.287	20756	50	94.8	90	110	
B	11	1	6	41.131	ppb	1.624	25709	50	82.3	90	110	>+\-10%
Na	23	1	45	5080.122	ppb	0.954	21365745	5000	101.6	90	110	
Na	23	2	45	4960.800	ppb	0.784	690336	5000	99.2	90	110	
Mg	24	2	45	5191.530	ppb	0.805	292302	5000	103.8	90	110	
Al	27	2	45	5081.377	ppb	0.743	51851	5000	101.6	90	110	
K	39	1	45	4895.402	ppb	0.442	27622628	5000	97.9	90	110	
K	39	2	45	5145.484	ppb	1.609	91849	5000	102.9	90	110	
Ca	40	1	45	5028.376	ppb	0.816	31843182	5000	100.6	90	110	
Ca	44	2	45	5116.419	ppb	6.886	5324	5000	102.3	90	110	
V	51	2	72	50.721	ppb	2.388	35222	50	101.4	90	110	
Cr	52	2	72	49.967	ppb	3.437	47822	50	99.9	90	110	
Mn	55	2	72	50.115	ppb	0.458	12201	50	100.2	90	110	
Fe	57	2	72	5071.367	ppb	0.798	88556	5000	101.4	90	110	
Co	59	2	72	50.764	ppb	1.901	107174	50	101.5	90	110	
Ni	60	2	72	50.369	ppb	2.120	33783	50	100.7	90	110	
Cu	63	2	72	49.374	ppb	0.788	98187	50	98.7	90	110	
Zn	66	2	72	48.134	ppb	2.567	7759	50	96.3	90	110	
As	75	2	72	49.073	ppb	0.749	4474	50	98.1	90	110	
Se	78	1	72	50.801	ppb	1.841	22981	50	101.6	90	110	
Sr	88	2	72	46.799	ppb	3.469	8042	50	93.6	90	110	
Zr	90	2	72	78.523	ppb	26.558	563	50	157.0	90	110	>+\-10%
Nb	93	2	72	98.646	ppb	1.274	250339	100	98.6	90	110	
Mo	95	2	115	48.930	ppb	2.634	34302	50	97.9	90	110	
Pd	105	2	115	51.813	ppb	0.854	68705	50	103.6	90	110	
Ag	107	2	115	51.327	ppb	1.615	143754	50	102.7	90	110	
Cd	111	2	115	49.701	ppb	3.990	10941	50	99.4	90	110	
Sn	120	2	115	51.271	ppb	4.657	24368	50	102.5	90	110	
Sb	121	2	115	48.313	ppb	0.990	19632	50	96.6	90	110	
Ba	137	2	115	53.061	ppb	0.468	5548	50	106.1	90	110	
W	182	2	165	51.421	ppb	0.941	255010	50	102.8	90	110	
Pt	195	2	165	51.665	ppb	1.199	284309	50	103.3	90	110	
Tl	205	2	165	51.407	ppb	0.577	326541	50	102.8	90	110	
Pb	208	2	165	51.324	ppb	0.491	418002	50	102.6	90	110	
Th	232	2	165	50.529	ppb	0.920	485754	50	101.1	90	110	
U	238	2	165	51.489	ppb	1.106	577630	50	103.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1476741	0.60	1554733	94.98	60	120	
Sc (IS)	45	1	HMI H2	43328043	0.26	46339121	93.50	60	120	
Sc (IS)	45	2	HMI He	415084	0.90	445795	93.11	60	120	
Sc (IS)	45	3	No Gas	151012551	0.39	164326821	91.90	60	120	
Ge Internal Standard	72	1	HMI H2	20480557	0.85	22097711	92.68	60	120	
Ge Internal Standard	72	2	HMI He	585167	1.09	629677	92.93	60	120	
In Internal Standard	115	2	HMI He	1266630	1.66	1367430	92.63	60	120	
Ho-165	165	2	HMI He	11378501	0.37	12033141	94.56	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	045_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:43:01-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	1.871	ppb	78.5	12663056	10	
Be	9	1	6	-0.007	ppb	0.0	0	0.5	
B	11	1	6	0.252	ppb	13.7	867	0.5	
Na	23	1	45	13.066	ppb	5.5	252660	25	
Na	23	2	45	12.273	ppb	9.7	12765	25	
Mg	24	2	45	-0.273	ppb	-328.5	127	25	
Al	27	2	45	0.175	ppb	1306.5	23	15	
K	39	1	45	-116.738	ppb	-29.3	8502396	50	
K	39	2	45	12.515	ppb	119.2	5068	50	
Ca	40	1	45	5.977	ppb	11.0	147935	50	
Ca	44	2	45	33.500	ppb	50.2	50	25	>RL
V	51	2	72	0.316	ppb	40.7	603	1	
Cr	52	2	72	-0.011	ppb	-802.3	163	1	
Mn	55	2	72	0.034	ppb	281.2	27	0.5	
Fe	57	2	72	1.296	ppb	156.8	60	25	
Co	59	2	72	0.013	ppb	107.3	27	0.5	
Ni	60	2	72	-0.032	ppb	-162.7	223	1	
Cu	63	2	72	0.163	ppb	54.3	2907	1	
Zn	66	2	72	-0.386	ppb	-32.2	107	5	
As	75	2	72	-0.043	ppb	-105.2	5	1	
Se	78	1	72	0.005	ppb	263.9	17	1	
Sr	88	2	72	0.024	ppb	373.5	13	0.5	
Zr	90	2	72	-2.355	ppb	-216.9	53	1	
Nb	93	2	72	0.632	ppb	17.7	1927	2	
Mo	95	2	115	0.077	ppb	72.7	73	0.5	
Pd	105	2	115	0.038	ppb	86.6	60	1	
Ag	107	2	115	0.002	ppb	115.7	27	1	
Cd	111	2	115	0.031	ppb	328.2	13	0.5	
Sn	120	2	115	0.089	ppb	99.5	163	1	
Sb	121	2	115	0.298	ppb	58.9	143	0.6	
Ba	137	2	115	0.096	ppb	100.4	10	0.5	
W	182	2	165	0.039	ppb	11.2	447	1	
Pt	195	2	165	-0.014	ppb	-23.5	80	1	
Tl	205	2	165	0.022	ppb	45.1	183	0.1	
Pb	208	2	165	0.024	ppb	61.3	850	0.5	
Th	232	2	165	0.079	ppb	17.7	1213	1	
U	238	2	165	0.009	ppb	36.2	173	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1488923	1.43	1554733	95.77	60	120	
Sc (IS)	45	1	HMI H2	43461546	0.47	46339121	93.79	60	120	
Sc (IS)	45	2	HMI He	412148	0.12	445795	92.45	60	120	
Sc (IS)	45	3	No Gas	150149888	0.84	164326821	91.37	60	120	
Ge Internal Standard	72	1	HMI H2	20730146	0.22	22097711	93.81	60	120	
Ge Internal Standard	72	2	HMI He	585210	1.25	629677	92.94	60	120	
In Internal Standard	115	2	HMI He	1278097	1.64	1367430	93.47	60	120	
Ho-165	165	2	HMI He	11421168	1.87	12033141	94.91	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	046LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:46:49-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	19.114	ppb	20.245	13301672	50	38.2	70	130	>+/-30%
Be	9	1	6	0.912	ppb	20.384	403	1	91.2	70	130	
Na	23	2	45	60.408	ppb	3.972	19464	50	120.8	70	130	
Mg	24	2	45	51.716	ppb	3.937	3057	50	103.4	70	130	
Al	27	2	45	36.384	ppb	4.953	393	30	121.3	70	130	
K	39	2	45	98.184	ppb	4.422	6558	100	98.2	70	130	
Ca	44	2	45	74.492	ppb	37.835	93	50	149.0	70	130	>+/-30%
V	51	2	72	5.128	ppb	4.853	3921	5	102.6	70	130	
Cr	52	2	72	2.189	ppb	8.603	2267	2	109.4	70	130	
Mn	55	2	72	0.978	ppb	40.618	257	1	97.8	70	130	
Fe	57	2	72	56.298	ppb	18.802	1023	50	112.6	70	130	
Co	59	2	72	0.982	ppb	3.951	2080	1	98.2	70	130	
Ni	60	2	72	2.060	ppb	11.354	1620	2	103.0	70	130	
Cu	63	2	72	2.321	ppb	6.657	7105	2	116.0	70	130	
Zn	66	2	72	10.782	ppb	6.712	1874	10	107.8	70	130	
As	75	2	72	4.327	ppb	9.789	403	5	86.5	70	130	
Se	78	1	72	4.932	ppb	6.560	2248	5	98.6	70	130	
Sr	88	2	72	0.623	ppb	27.800	117	1	62.3	70	130	>+/-30%
Zr	90	2	72	18.101	ppb	64.832	183	0.5	3620.1	70	130	>+/-30%
Nb	93	2	72	0.751	ppb	3.407	2234	2	37.6	70	130	>+/-30%
Mo	95	2	115	1.894	ppb	6.199	1350	2	94.7	70	130	
Pd	105	2	115	0.023	ppb	54.966	40	1	2.3	70	130	>+/-30%
Ag	107	2	115	4.999	ppb	0.914	14066	5	100.0	70	130	
Cd	111	2	115	0.938	ppb	33.610	213	1	93.8	70	130	
Sn	120	2	115	9.812	ppb	0.599	4774	10	98.1	70	130	
Sb	121	2	115	2.188	ppb	16.244	913	2	109.4	70	130	
Ba	137	2	115	1.244	ppb	43.768	130	1	124.4	70	130	
W	182	2	165	4.938	ppb	4.224	24600	1	493.8	70	130	>+/-30%
Pt	195	2	165	0.008	ppb	136.008	197	1	0.8	70	130	>+/-30%
Tl	205	2	165	1.059	ppb	0.070	6738	1	105.9	70	130	
Pb	208	2	165	1.067	ppb	2.135	9288	1	106.7	70	130	
Th	232	2	165	2.034	ppb	1.693	19893	2	101.7	70	130	
U	238	2	165	0.996	ppb	3.967	11191	1	99.6	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1479819	0.57	1554733	95.18	60	120	
Sc (IS)	45	1	HMI H2	43413329	1.34	46339121	93.69	60	120	
Sc (IS)	45	2	HMI He	415530	2.01	445795	93.21	60	120	
Sc (IS)	45	3	No Gas	151136534	0.26	164326821	91.97	60	120	
Ge Internal Standard	72	1	HMI H2	20506493	1.00	22097711	92.80	60	120	
Ge Internal Standard	72	2	HMI He	586864	0.70	629677	93.20	60	120	
In Internal Standard	115	2	HMI He	1270470	1.22	1367430	92.91	60	120	
Ho-165	165	2	HMI He	11327311	0.55	12033141	94.13	60	120	

Blank Report

Sample Table

Sample Name	mb 280-399570/1-a
Data File Name	047_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:50:40-07:00
Sample Type	Blank
Dilution	1
Comment	399570 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	2.222	ppb	64.65000313	172033	0.5
Li	7	2	45	14.431	ppb	65.53889373	9346	0.5
Li	7	3	45	3.443	ppb	93.09120549	13614336	10
Be	9	1	6	-0.007	ppb	0	0	0.5
B	11	1	6	-0.278	ppb	-62.50762093	550	0.5
Na	23	1	45	22.975	ppb	5.486706885	296379	25
Na	23	2	45	19.973	ppb	25.96589081	14206	25
Mg	24	2	45	1.804	ppb	56.40663264	250	25
Al	27	2	45	34.357	ppb	11.77860867	380	15
K	39	1	45	-1083.246	ppb	-0.166851951	4837041	50
K	39	2	45	14.860	ppb	34.75845233	5251	50
Ca	40	1	45	7.736	ppb	5.819073822	160318	50
Ca	44	2	45	19.666	ppb	57.71950332	37	25
V	51	2	72	-0.145	ppb	-70.37327538	293	1
Cr	52	2	72	0.127	ppb	42.60777795	300	1
Mn	55	2	72	0.219	ppb	64.76203478	73	0.5
Fe	57	2	72	6.477	ppb	47.67142679	153	25
Co	59	2	72	0.009	ppb	132.3753964	20	0.5
Ni	60	2	72	0.005	ppb	2580.633447	253	1
Cu	63	2	72	-0.621	ppb	-18.67090999	1417	1
Zn	66	2	72	2.789	ppb	22.29162848	620	5
As	75	2	72	-0.037	ppb	-119.2220373	5	1
Se	78	1	72	-0.001	ppb	-4839.913416	15	1
Sr	88	2	72	-0.016	ppb	-408.6730235	7	0.5
Zr	90	2	72	-4.086	ppb	-57.21690651	43	1
Nb	93	2	72	-0.012	ppb	-203.480261	297	2
Mo	95	2	115	-0.017	ppb	-95.86760022	7	0.5
Pd	105	2	115	-0.002	ppb	-423.4511689	7	1
Ag	107	2	115	0.002	ppb	625.9758408	27	1
Cd	111	2	115	-0.013	ppb	-198.4000653	3	0.5
Sn	120	2	115	-0.017	ppb	-198.4647593	113	1
Sb	121	2	115	0.134	ppb	67.79560216	77	0.6
Ba	137	2	115	0.253	ppb	94.74025507	27	0.5
W	182	2	165	0.044	ppb	30.05610435	470	1
Pt	195	2	165	-0.017	ppb	-18.13995949	60	1
Tl	205	2	165	0.015	ppb	67.24287634	137	0.1
Pb	208	2	165	0.203	ppb	8.286277588	2337	0.5
Th	232	2	165	0.040	ppb	18.55285982	840	1
U	238	2	165	0.006	ppb	120.8716809	130	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1510055	0.93	1554733	97.13	60	120	
Sc (IS)	45	1	HMI H2	43802234	0.27	46339121	94.53	60	120	
Sc (IS)	45	2	HMI He	423764	1.10	445795	95.06	60	120	
Sc (IS)	45	3	No Gas	160793478	0.38	164326821	97.85	60	120	
Ge Internal Standard	72	1	HMI H2	20753295	0.66	22097711	93.92	60	120	
Ge Internal Standard	72	2	HMI He	597335	0.42	629677	94.86	60	120	
In Internal Standard	115	2	HMI He	1278521	0.76	1367430	93.50	60	120	
Ho-165	165	2	HMI He	11504248	1.24	12033141	95.60	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-399570/2-a
Data File Name	048_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:54:29-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399570 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	40.366	40.366	ppb	11.568	189635	400	10.1	80	120	>+/-20%
Li	7	2	45	65.773	65.773	ppb	11.854	10607	400	16.4	80	120	>+/-20%
Li	7	3	45	45.684	45.684	ppb	4.036	14712898	400	11.4	80	120	>+/-20%
Be	9	1	6	37.262	37.262	ppb	3.626	16618	40	93.2	80	120	
Na	23	2	45	-11.203	-11.203	ppb	-47.041	9870	40	-28.0	80	120	>+/-20%
Mg	24	2	45	0.703	0.703	ppb	65.394	187	40	1.8	80	120	>+/-20%
Al	27	2	45	412.803	412.803	ppb	3.676	4334	40	1032.0	80	120	>+/-20%
K	39	2	45	-6.631	-6.631	ppb	-241.400	4894	40	-16.6	80	120	>+/-20%
Ca	44	2	45	260.553	260.553	ppb	15.395	293	40	651.4	80	120	>+/-20%
V	51	2	72	39.873	39.873	ppb	2.629	28313	40	99.7	80	120	
Cr	52	2	72	40.106	40.106	ppb	2.010	39154	40	100.3	80	120	
Mn	55	2	72	41.041	41.041	ppb	2.698	10187	40	102.6	80	120	
Fe	57	2	72	401.594	401.594	ppb	3.072	7182	40	1004.0	80	120	>+/-20%
Co	59	2	72	41.405	41.405	ppb	4.072	89086	40	103.5	80	120	
Ni	60	2	72	40.395	40.395	ppb	3.026	27666	40	101.0	80	120	
Cu	63	2	72	40.524	40.524	ppb	1.765	82616	40	101.3	80	120	
Zn	66	2	72	39.823	39.823	ppb	4.862	6575	40	99.6	80	120	
As	75	2	72	37.699	37.699	ppb	1.914	3505	40	94.2	80	120	
Se	78	1	72	39.453	39.453	ppb	1.180	18068	40	98.6	80	120	
Nb	93	2	72	-0.035	-0.035	ppb	-31.727	237	40	-0.1	80	120	>+/-20%
Mo	95	2	115	40.395	40.395	ppb	0.982	28634	40	101.0	80	120	
Pd	105	2	115	-0.005	-0.005	ppb	-92.238	3	40	0.0	80	120	>+/-20%
Ag	107	2	115	41.296	41.296	ppb	1.320	116920	40	103.2	80	120	
Cd	111	2	115	40.597	40.597	ppb	6.307	9033	40	101.5	80	120	
Sn	120	2	115	40.125	40.125	ppb	1.738	19298	40	100.3	80	120	
Sb	121	2	115	36.730	36.730	ppb	3.615	15087	40	91.8	80	120	
Ba	137	2	115	41.685	41.685	ppb	5.441	4407	40	104.2	80	120	
W	182	2	165	39.972	39.972	ppb	2.720	200401	40	99.9	80	120	
Pt	195	2	165	-0.019	-0.019	ppb	-19.547	50	40	0.0	80	120	>+/-20%
Tl	205	2	165	41.304	41.304	ppb	1.475	265203	40	103.3	80	120	
Pb	208	2	165	41.462	41.462	ppb	1.689	341442	40	103.7	80	120	
Th	232	2	165	39.719	39.719	ppb	2.484	385999	40	99.3	80	120	
U	238	2	165	40.797	40.797	ppb	1.153	462640	40	102.0	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1504866	1.58	1554733	96.79	60	120	
Sc (IS)	45	1	HMI H2	43897349	0.09	46339121	94.73	60	120	
Sc (IS)	45	2	HMI He	425014	1.71	445795	95.34	60	120	
Sc (IS)	45	3	No Gas	157056271	0.45	164326821	95.58	60	120	
Ge Internal Standard	72	1	HMI H2	20729506	0.15	22097711	93.81	60	120	
Ge Internal Standard	72	2	HMI He	596472	1.05	629677	94.73	60	120	
In Internal Standard	115	2	HMI He	1280313	1.53	1367430	93.63	60	120	
Ho-165	165	2	HMI He	11502425	1.53	12033141	95.59	60	120	

Sample Report

Sample Table

Sample Name	280-104769-a-1-a
Data File Name	049SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T13:58:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399570 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	8.490	ppb	8.490	47.14	171106	500000	
Li	7	2	45	11.696	ppb	11.696	80.39	9023	500000	
Li	7	3	45	17.003	ppb	17.003	21.41	13522183	50000	
Be	9	1	6	0.039	ppb	0.039	119.10	20	2000	
B	11	1	6	15.408	ppb	15.408	6.38	9916	2000	
Na	23	1	45	14085.310	ppb	14085.310	0.45	58257084	2000	>LDR
Na	23	2	45	14473.562	ppb	14473.562	2.83	1977496	400000	
Mg	24	2	45	13247.895	ppb	13247.895	2.11	740057	400000	
Al	27	2	45	8.975	ppb	8.975	89.52	113	400000	
K	39	1	45	1687.004	ppb	1687.004	0.49	15201520	400000	
K	39	2	45	2923.354	ppb	2923.354	0.62	53894	400000	
Ca	40	1	45	58918.729	ppb	58918.729	0.99	367939848	400000	
Ca	44	2	45	59509.364	ppb	59509.364	1.21	61321	400000	
V	51	2	72	0.878	ppb	0.878	14.56	987	2000	
Cr	52	2	72	0.242	ppb	0.242	14.35	403	5000	
Mn	55	2	72	28.716	ppb	28.716	8.43	6978	10000	
Fe	57	2	72	33.244	ppb	33.244	15.96	617	400000	
Co	59	2	72	0.057	ppb	0.057	30.51	120	2000	
Ni	60	2	72	0.261	ppb	0.261	61.91	417	5000	
Cu	63	2	72	3.556	ppb	3.556	8.34	9450	5000	
Zn	66	2	72	12.215	ppb	12.215	12.49	2087	5000	
As	75	2	72	5.994	ppb	5.994	7.23	552	2000	
Se	78	1	72	0.249	ppb	0.249	23.67	125	2000	
Sr	88	2	72	247.642	ppb	247.642	2.24	42423	4000	
Zr	90	2	72	71.158	ppb	71.158	7.21	517	1000	
Nb	93	2	72	-0.044	ppb	-0.044	-34.14	210	200	
Mo	95	2	115	3.222	ppb	3.222	14.50	2244	2000	
Pd	105	2	115	-0.007	ppb	-0.007	0.00	0	100	
Ag	107	2	115	0.020	ppb	0.020	64.99	77	100	
Cd	111	2	115	-0.012	ppb	-0.012	-221.95	3	2000	
Sn	120	2	115	-0.012	ppb	-0.012	-813.20	113	2000	
Sb	121	2	115	0.688	ppb	0.688	21.60	297	1000	
Ba	137	2	115	58.634	ppb	58.634	5.85	6041	5000	
W	182	2	165	0.503	ppb	0.503	6.53	2734	100	
Pt	195	2	165	-0.020	ppb	-0.020	-10.54	47	100	
Tl	205	2	165	0.024	ppb	0.024	49.72	190	2000	
Pb	208	2	165	0.219	ppb	0.219	13.53	2430	5000	
Th	232	2	165	0.186	ppb	0.186	11.07	2224	2000	
U	238	2	165	12.603	ppb	12.603	0.59	141028	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1453901	0.50	1554733	93.51	60	120	
Sc (IS)	45	1	HMI H2	42861966	0.19	46339121	92.50	60	120	
Sc (IS)	45	2	HMI He	412058	2.19	445795	92.43	60	120	
Sc (IS)	45	3	No Gas	154435048	1.30	164326821	93.98	60	120	
Ge Internal Standard	72	1	HMI H2	20195213	0.54	22097711	91.39	60	120	
Ge Internal Standard	72	2	HMI He	583857	1.44	629677	92.72	60	120	
In Internal Standard	115	2	HMI He	1248819	1.79	1367430	91.33	60	120	
Ho-165	165	2	HMI He	11345973	1.03	12033141	94.29	60	120	

Sample Report

Sample Table

Sample Name	280-104769-a-1-aSD@5
Data File Name	050SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:02:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399570 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	8.934	ppb	8.934	103.63	171533	500000	
Li	7	2	45	21.242	ppb	21.242	77.85	8993	500000	
Li	7	3	45	8.738	ppb	8.738	54.37	12975734	50000	
Be	9	1	6	-0.007	ppb	-0.007	0.00	0	2000	
B	11	1	6	3.228	ppb	3.228	3.20	2714	2000	
Na	23	1	45	2923.165	ppb	2923.165	0.43	12262157	2000	
Na	23	2	45	2977.982	ppb	2977.982	4.04	404095	400000	
Mg	24	2	45	2801.484	ppb	2801.484	4.14	152233	400000	
Al	27	2	45	3.601	ppb	3.601	97.90	57	400000	
K	39	1	45	17.571	ppb	17.571	49.76	8905479	400000	
K	39	2	45	604.376	ppb	604.376	5.06	14576	400000	
Ca	40	1	45	12157.172	ppb	12157.172	0.29	76113017	400000	
Ca	44	2	45	12638.915	ppb	12638.915	3.51	12672	400000	
V	51	2	72	0.153	ppb	0.153	109.88	483	2000	
Cr	52	2	72	0.064	ppb	0.064	47.23	230	5000	
Mn	55	2	72	6.087	ppb	6.087	7.96	1470	10000	
Fe	57	2	72	3.527	ppb	3.527	64.11	97	400000	
Co	59	2	72	0.016	ppb	0.016	45.27	33	2000	
Ni	60	2	72	0.081	ppb	0.081	73.12	293	5000	
Cu	63	2	72	1.501	ppb	1.501	15.10	5394	5000	
Zn	66	2	72	2.602	ppb	2.602	21.34	567	5000	
As	75	2	72	1.296	ppb	1.296	11.06	124	2000	
Se	78	1	72	0.044	ppb	0.044	31.43	35	2000	
Sr	88	2	72	53.132	ppb	53.132	5.05	8959	4000	
Zr	90	2	72	6.440	ppb	6.440	118.20	107	1000	
Nb	93	2	72	-0.088	ppb	-0.088	-32.61	97	200	
Mo	95	2	115	0.716	ppb	0.716	19.24	507	2000	
Pd	105	2	115	0.006	ppb	0.006	204.41	17	100	
Ag	107	2	115	0.005	ppb	0.005	190.93	33	100	
Cd	111	2	115	-0.028	ppb	-0.028	0.00	0	2000	
Sn	120	2	115	0.100	ppb	0.100	182.15	163	2000	
Sb	121	2	115	0.140	ppb	0.140	25.55	77	1000	
Ba	137	2	115	13.224	ppb	13.224	5.64	1347	5000	
W	182	2	165	0.108	ppb	0.108	1.88	760	100	
Pt	195	2	165	-0.018	ppb	-0.018	-39.95	57	100	
Tl	205	2	165	0.010	ppb	0.010	44.88	100	2000	
Pb	208	2	165	0.073	ppb	0.073	11.43	1210	5000	
Th	232	2	165	0.002	ppb	0.002	575.78	453	2000	
U	238	2	165	2.662	ppb	2.662	4.33	29032	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1501636	0.32	1554733	96.58	60	120	
Sc (IS)	45	1	HMI H2	42921671	0.58	46339121	92.63	60	120	
Sc (IS)	45	2	HMI He	400562	1.35	445795	89.85	60	120	
Sc (IS)	45	3	No Gas	151244878	0.98	164326821	92.04	60	120	
Ge Internal Standard	72	1	HMI H2	20494469	0.40	22097711	92.74	60	120	
Ge Internal Standard	72	2	HMI He	574425	0.80	629677	91.23	60	120	
In Internal Standard	115	2	HMI He	1234434	1.54	1367430	90.27	60	120	
Ho-165	165	2	HMI He	11043135	1.57	12033141	91.77	60	120	

Sample Report

Sample Table

Sample Name	280-104769-a-1-b ms
Data File Name	051SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:05:56-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399570 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	43.147	ppb	43.147	7.11	188386	500000	
Li	7	2	45	69.702	ppb	69.702	39.80	10307	500000	
Li	7	3	45	56.780	ppb	56.780	9.75	14582059	50000	
Be	9	1	6	36.271	ppb	36.271	2.17	15837	2000	
B	11	1	6	37.501	ppb	37.501	1.72	23442	2000	
Na	23	1	45	14028.460	ppb	14028.460	2.31	58633544	2000	>LDR
Na	23	2	45	14616.451	ppb	14616.451	6.05	1984020	400000	
Mg	24	2	45	13309.103	ppb	13309.103	7.21	738347	400000	
Al	27	2	45	413.100	ppb	413.100	8.57	4174	400000	
K	39	1	45	1685.687	ppb	1685.687	3.21	15358308	400000	
K	39	2	45	2895.483	ppb	2895.483	5.67	53072	400000	
Ca	40	1	45	58626.546	ppb	58626.546	2.31	369974274	400000	
Ca	44	2	45	60902.009	ppb	60902.009	4.67	62356	400000	
V	51	2	72	40.324	ppb	40.324	3.63	27936	2000	
Cr	52	2	72	39.648	ppb	39.648	4.67	37768	5000	
Mn	55	2	72	68.872	ppb	68.872	8.01	16658	10000	
Fe	57	2	72	384.756	ppb	384.756	1.01	6722	400000	
Co	59	2	72	39.464	ppb	39.464	5.07	82863	2000	
Ni	60	2	72	37.373	ppb	37.373	4.61	24998	5000	
Cu	63	2	72	42.522	ppb	42.522	5.69	84445	5000	
Zn	66	2	72	49.646	ppb	49.646	3.96	7955	5000	
As	75	2	72	43.953	ppb	43.953	5.49	3985	2000	
Se	78	1	72	38.373	ppb	38.373	2.23	17326	2000	
Sr	88	2	72	280.384	ppb	280.384	5.35	47861	4000	
Zr	90	2	72	4990.858	ppb	4990.858	5.58	31423	1000	
Nb	93	2	72	-0.067	ppb	-0.067	-32.35	153	200	
Mo	95	2	115	43.553	ppb	43.553	9.06	30017	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-104.40	3	100	
Ag	107	2	115	40.113	ppb	40.113	4.65	110565	100	
Cd	111	2	115	38.686	ppb	38.686	9.79	8372	2000	
Sn	120	2	115	39.390	ppb	39.390	7.16	18434	2000	
Sb	121	2	115	38.156	ppb	38.156	10.39	15241	1000	
Ba	137	2	115	100.406	ppb	100.406	5.65	10327	5000	
W	182	2	165	40.634	ppb	40.634	6.69	200115	100	
Pt	195	2	165	-0.019	ppb	-0.019	-1.91	50	100	
Tl	205	2	165	40.078	ppb	40.078	5.14	252845	2000	
Pb	208	2	165	39.963	ppb	39.963	6.13	323318	5000	
Th	232	2	165	39.068	ppb	39.068	5.49	373086	2000	
U	238	2	165	52.737	ppb	52.737	7.16	587289	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1472959	0.86	1554733	94.74	60	120	
Sc (IS)	45	1	HMI H2	43323779	1.59	46339121	93.49	60	120	
Sc (IS)	45	2	HMI He	409877	4.11	445795	91.94	60	120	
Sc (IS)	45	3	No Gas	151830771	0.56	164326821	92.40	60	120	
Ge Internal Standard	72	1	HMI H2	20435734	0.83	22097711	92.48	60	120	
Ge Internal Standard	72	2	HMI He	582463	2.83	629677	92.50	60	120	
In Internal Standard	115	2	HMI He	1247737	3.83	1367430	91.25	60	120	
Ho-165	165	2	HMI He	11315726	3.93	12033141	94.04	60	120	

Sample Report

Sample Table

Sample Name	280-104769-a-1-c msd
Data File Name	052SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:09:42-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399570 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	42.976	ppb	42.976	5.48	185639	500000	
Li	7	2	45	79.279	ppb	79.279	12.65	10500	500000	
Li	7	3	45	63.116	ppb	63.116	6.57	14180221	50000	
Be	9	1	6	36.837	ppb	36.837	0.47	15837	2000	
B	11	1	6	40.172	ppb	40.172	0.24	24680	2000	
Na	23	1	45	14845.930	ppb	14845.930	1.42	61165126	2000	>LDR
Na	23	2	45	15180.922	ppb	15180.922	1.07	2054844	400000	
Mg	24	2	45	13810.789	ppb	13810.789	0.63	764457	400000	
Al	27	2	45	390.145	ppb	390.145	11.71	3934	400000	
K	39	1	45	1822.641	ppb	1822.641	2.54	15656163	400000	
K	39	2	45	3006.392	ppb	3006.392	1.64	54770	400000	
Ca	40	1	45	62196.585	ppb	62196.585	0.94	386981034	400000	
Ca	44	2	45	63734.411	ppb	63734.411	1.58	65068	400000	
V	51	2	72	41.540	ppb	41.540	3.09	28697	2000	
Cr	52	2	72	39.608	ppb	39.608	1.41	37640	5000	
Mn	55	2	72	69.516	ppb	69.516	1.87	16785	10000	
Fe	57	2	72	412.672	ppb	412.672	4.25	7185	400000	
Co	59	2	72	39.589	ppb	39.589	1.63	82936	2000	
Ni	60	2	72	38.471	ppb	38.471	2.00	25663	5000	
Cu	63	2	72	43.869	ppb	43.869	1.67	86849	5000	
Zn	66	2	72	50.371	ppb	50.371	3.75	8049	5000	
As	75	2	72	45.091	ppb	45.091	3.65	4080	2000	
Se	78	1	72	39.512	ppb	39.512	0.94	17517	2000	
Sr	88	2	72	298.577	ppb	298.577	2.95	50855	4000	
Zr	90	2	72	5177.066	ppb	5177.066	1.68	32518	1000	>LDR
Nb	93	2	72	-0.073	ppb	-0.073	-41.37	137	200	
Mo	95	2	115	43.147	ppb	43.147	2.64	29913	2000	
Pd	105	2	115	0.006	ppb	0.006	281.92	17	100	
Ag	107	2	115	40.299	ppb	40.299	0.36	111595	100	
Cd	111	2	115	39.909	ppb	39.909	3.01	8689	2000	
Sn	120	2	115	41.929	ppb	41.929	2.50	19716	2000	
Sb	121	2	115	40.250	ppb	40.250	2.78	16168	1000	
Ba	137	2	115	102.015	ppb	102.015	1.04	10544	5000	
W	182	2	165	41.001	ppb	41.001	0.80	202398	100	
Pt	195	2	165	-0.012	ppb	-0.012	-98.10	87	100	
Tl	205	2	165	41.066	ppb	41.066	0.79	259604	2000	
Pb	208	2	165	40.770	ppb	40.770	1.19	330564	5000	
Th	232	2	165	40.204	ppb	40.204	1.85	384688	2000	
U	238	2	165	54.230	ppb	54.230	2.19	605368	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1450500	0.81	1554733	93.30	60	120	
Sc (IS)	45	1	HMI H2	42705776	0.60	46339121	92.16	60	120	
Sc (IS)	45	2	HMI He	408175	0.24	445795	91.56	60	120	
Sc (IS)	45	3	No Gas	145603758	2.17	164326821	88.61	60	120	
Ge Internal Standard	72	1	HMI H2	20067427	0.83	22097711	90.81	60	120	
Ge Internal Standard	72	2	HMI He	580609	0.58	629677	92.21	60	120	
In Internal Standard	115	2	HMI He	1252050	0.99	1367430	91.56	60	120	
Ho-165	165	2	HMI He	11323748	1.10	12033141	94.10	60	120	

Sample Report

Sample Table

Sample Name	280-104769-a-1-a PDS
Data File Name	053SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:13:30-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399570 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	206.109	ppb	206.109	1.21	256141	500000	
Li	7	2	45	239.327	ppb	239.327	11.26	14263	500000	
Li	7	3	45	220.589	ppb	220.589	1.41	19804038	50000	
Be	9	1	6	193.378	ppb	193.378	2.26	81124	2000	
B	11	1	6	15.393	ppb	15.393	3.28	9646	2000	
Na	23	1	45	13665.842	ppb	13665.842	1.84	56055442	2000	>LDR
Na	23	2	45	13788.912	ppb	13788.912	2.17	1876768	400000	
Mg	24	2	45	12769.676	ppb	12769.676	1.21	710471	400000	
Al	27	2	45	2033.457	ppb	2033.457	5.56	20512	400000	
K	39	1	45	1588.665	ppb	1588.665	3.58	14706569	400000	
K	39	2	45	2802.226	ppb	2802.226	3.50	51638	400000	
Ca	40	1	45	57151.243	ppb	57151.243	1.72	353935741	400000	
Ca	44	2	45	58202.856	ppb	58202.856	3.25	59723	400000	
V	51	2	72	205.922	ppb	205.922	2.23	141368	2000	
Cr	52	2	72	206.430	ppb	206.430	1.73	196363	5000	
Mn	55	2	72	230.075	ppb	230.075	2.16	55791	10000	
Fe	57	2	72	1974.396	ppb	1974.396	0.76	34394	400000	
Co	59	2	72	202.238	ppb	202.238	2.09	425618	2000	
Ni	60	2	72	197.164	ppb	197.164	0.27	131150	5000	
Cu	63	2	72	203.915	ppb	203.915	1.42	396170	5000	
Zn	66	2	72	218.242	ppb	218.242	1.80	34478	5000	
As	75	2	72	198.295	ppb	198.295	1.55	17994	2000	
Se	78	1	72	198.094	ppb	198.094	3.15	88163	2000	
Sr	88	2	72	434.899	ppb	434.899	2.30	74407	4000	
Zr	90	2	72	25719.379	ppb	25719.379	1.15	162061	1000	>LDR
Nb	93	2	72	0.446	ppb	0.446	14.93	1447	200	
Mo	95	2	115	200.209	ppb	200.209	0.56	139184	2000	
Pd	105	2	115	0.054	ppb	0.054	65.91	80	100	
Ag	107	2	115	51.081	ppb	51.081	1.65	141919	100	
Cd	111	2	115	205.920	ppb	205.920	2.13	44950	2000	
Sn	120	2	115	203.836	ppb	203.836	2.15	95696	2000	
Sb	121	2	115	203.284	ppb	203.284	0.50	81861	1000	
Ba	137	2	115	270.316	ppb	270.316	2.70	28038	5000	
W	182	2	165	208.579	ppb	208.579	1.88	1033055	100	
Pt	195	2	165	0.012	ppb	0.012	44.85	220	100	
Tl	205	2	165	211.021	ppb	211.021	2.02	1339535	2000	
Pb	208	2	165	205.262	ppb	205.262	1.45	1668880	5000	
Th	232	2	165	217.447	ppb	217.447	1.87	2087911	2000	
U	238	2	165	231.965	ppb	231.965	1.78	2600668	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1415855	1.47	1554733	91.07	60	120	
Sc (IS)	45	1	HMI H2	42509219	1.05	46339121	91.74	60	120	
Sc (IS)	45	2	HMI He	410323	1.73	445795	92.04	60	120	
Sc (IS)	45	3	No Gas	151199018	0.54	164326821	92.01	60	120	
Ge Internal Standard	72	1	HMI H2	20164518	1.41	22097711	91.25	60	120	
Ge Internal Standard	72	2	HMI He	583405	1.69	629677	92.65	60	120	
In Internal Standard	115	2	HMI He	1256330	1.53	1367430	91.88	60	120	
Ho-165	165	2	HMI He	11374100	1.54	12033141	94.52	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	054_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:17:16-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	496.264	ppb	1.200	385235	500	99.3	90	110	
Li	7	2	45	547.367	ppb	10.791	20942	500	109.5	90	110	
Li	7	3	45	522.656	ppb	1.700	28303010	500	104.5	90	110	
Be	9	1	6	44.503	ppb	2.115	18994	50	89.0	90	110	>+\-10%
B	11	1	6	41.429	ppb	2.486	25241	50	82.9	90	110	>+\-10%
Na	23	1	45	5040.894	ppb	0.232	20920830	5000	100.8	90	110	
Na	23	2	45	5013.830	ppb	1.096	674536	5000	100.3	90	110	
Mg	24	2	45	5225.339	ppb	0.962	284471	5000	104.5	90	110	
Al	27	2	45	5220.958	ppb	4.406	51503	5000	104.4	90	110	
K	39	1	45	4788.981	ppb	0.738	26854247	5000	95.8	90	110	
K	39	2	45	5196.420	ppb	1.570	89634	5000	103.9	90	110	
Ca	40	1	45	4957.418	ppb	0.690	30978225	5000	99.1	90	110	
Ca	44	2	45	5469.954	ppb	2.629	5504	5000	109.4	90	110	
V	51	2	72	49.043	ppb	4.245	33599	50	98.1	90	110	
Cr	52	2	72	50.444	ppb	1.601	47597	50	100.9	90	110	
Mn	55	2	72	50.540	ppb	3.782	12131	50	101.1	90	110	
Fe	57	2	72	5077.245	ppb	0.352	87437	5000	101.5	90	110	
Co	59	2	72	51.128	ppb	1.397	106464	50	102.3	90	110	
Ni	60	2	72	50.016	ppb	1.783	33085	50	100.0	90	110	
Cu	63	2	72	49.408	ppb	2.169	96894	50	98.8	90	110	
Zn	66	2	72	50.704	ppb	4.195	8052	50	101.4	90	110	
As	75	2	72	48.698	ppb	0.827	4378	50	97.4	90	110	
Se	78	1	72	50.244	ppb	1.001	22341	50	100.5	90	110	
Sr	88	2	72	49.446	ppb	7.441	8376	50	98.9	90	110	
Zr	90	2	72	79.645	ppb	6.654	563	50	159.3	90	110	>+\-10%
Nb	93	2	72	99.821	ppb	1.527	249819	100	99.8	90	110	
Mo	95	2	115	49.675	ppb	1.208	34352	50	99.3	90	110	
Pd	105	2	115	51.737	ppb	3.319	67675	50	103.5	90	110	
Ag	107	2	115	50.997	ppb	0.502	140900	50	102.0	90	110	
Cd	111	2	115	51.700	ppb	2.924	11227	50	103.4	90	110	
Sn	120	2	115	50.834	ppb	0.712	23824	50	101.7	90	110	
Sb	121	2	115	50.088	ppb	2.700	20069	50	100.2	90	110	
Ba	137	2	115	51.921	ppb	6.383	5354	50	103.8	90	110	
W	182	2	165	52.853	ppb	2.368	258706	50	105.7	90	110	
Pt	195	2	165	52.436	ppb	1.588	284836	50	104.9	90	110	
Tl	205	2	165	52.140	ppb	0.087	326947	50	104.3	90	110	
Pb	208	2	165	51.679	ppb	1.151	415454	50	103.4	90	110	
Th	232	2	165	51.504	ppb	2.307	488760	50	103.0	90	110	
U	238	2	165	52.438	ppb	1.308	580703	50	104.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1439815	1.28	1554733	92.61	60	120	
Sc (IS)	45	1	HMI H2	42752368	0.32	46339121	92.26	60	120	
Sc (IS)	45	2	HMI He	401342	0.61	445795	90.03	60	120	
Sc (IS)	45	3	No Gas	144848785	1.49	164326821	88.15	60	120	
Ge Internal Standard	72	1	HMI H2	20129514	0.87	22097711	91.09	60	120	
Ge Internal Standard	72	2	HMI He	577097	1.28	629677	91.65	60	120	
In Internal Standard	115	2	HMI He	1249266	1.27	1367430	91.36	60	120	
Ho-165	165	2	HMI He	11232241	0.95	12033141	93.34	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	055_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:21:04-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	0.312	ppb	1413.6	12364212	10	
Be	9	1	6	0.000	ppb	5565.0	3	0.5	
B	11	1	6	0.418	ppb	27.0	953	0.5	
Na	23	1	45	8.774	ppb	6.4	229632	25	
Na	23	2	45	2.226	ppb	214.7	11501	25	
Mg	24	2	45	-0.166	ppb	-605.9	133	25	
Al	27	2	45	0.141	ppb	1043.5	23	15	
K	39	1	45	-126.912	ppb	-18.0	8279659	50	
K	39	2	45	-24.044	ppb	-29.7	4494	50	
Ca	40	1	45	5.387	ppb	1.9	141071	50	
Ca	44	2	45	-8.470	ppb	-133.9	7	25	
V	51	2	72	0.200	ppb	62.4	530	1	
Cr	52	2	72	-0.013	ppb	-179.1	163	1	
Mn	55	2	72	-0.008	ppb	-775.8	17	0.5	
Fe	57	2	72	0.511	ppb	117.4	47	25	
Co	59	2	72	0.009	ppb	48.2	20	0.5	
Ni	60	2	72	-0.016	ppb	-99.0	237	1	
Cu	63	2	72	0.290	ppb	40.8	3184	1	
Zn	66	2	72	0.067	ppb	492.2	180	5	
As	75	2	72	-0.001	ppb	-890.4	8	1	
Se	78	1	72	0.018	ppb	152.8	23	1	
Sr	88	2	72	0.043	ppb	206.8	17	0.5	
Zr	90	2	72	6.996	ppb	57.0	113	1	>RL
Nb	93	2	72	0.623	ppb	7.2	1920	2	
Mo	95	2	115	-0.003	ppb	-508.5	17	0.5	
Pd	105	2	115	0.027	ppb	82.2	47	1	
Ag	107	2	115	0.007	ppb	27.1	43	1	
Cd	111	2	115	-0.028	ppb	0.0	0	0.5	
Sn	120	2	115	0.045	ppb	225.4	147	1	
Sb	121	2	115	0.281	ppb	14.4	140	0.6	
Ba	137	2	115	0.030	ppb	173.2	3	0.5	
W	182	2	165	0.028	ppb	112.7	397	1	
Pt	195	2	165	-0.006	ppb	-101.9	123	1	
Tl	205	2	165	0.027	ppb	55.4	220	0.1	
Pb	208	2	165	0.023	ppb	91.4	873	0.5	
Th	232	2	165	0.088	ppb	10.2	1337	1	
U	238	2	165	0.010	ppb	46.1	180	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1467073	2.34	1554733	94.36	60	120	
Sc (IS)	45	1	HMI H2	42517239	0.41	46339121	91.75	60	120	
Sc (IS)	45	2	HMI He	415955	1.89	445795	93.31	60	120	
Sc (IS)	45	3	No Gas	147183534	0.48	164326821	89.57	60	120	
Ge Internal Standard	72	1	HMI H2	20167730	0.80	22097711	91.27	60	120	
Ge Internal Standard	72	2	HMI He	591605	2.11	629677	93.95	60	120	
In Internal Standard	115	2	HMI He	1307868	2.43	1367430	95.64	60	120	
Ho-165	165	2	HMI He	11741819	1.75	12033141	97.58	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	056LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:24:51-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	16.039	ppb	23.302	12677858	50	32.1	70	130	>+/-30%
Be	9	1	6	1.002	ppb	8.178	433	1	100.2	70	130	
Na	23	2	45	50.927	ppb	6.483	17759	50	101.9	70	130	
Mg	24	2	45	51.937	ppb	15.167	2997	50	103.9	70	130	
Al	27	2	45	42.945	ppb	7.425	450	30	143.1	70	130	>+/-30%
K	39	2	45	101.785	ppb	19.835	6468	100	101.8	70	130	
Ca	44	2	45	89.705	ppb	54.087	107	50	179.4	70	130	>+/-30%
V	51	2	72	4.730	ppb	4.645	3584	5	94.6	70	130	
Cr	52	2	72	2.139	ppb	6.286	2180	2	106.9	70	130	
Mn	55	2	72	0.814	ppb	10.206	213	1	81.4	70	130	
Fe	57	2	72	52.303	ppb	7.560	937	50	104.6	70	130	
Co	59	2	72	0.957	ppb	5.414	1990	1	95.7	70	130	
Ni	60	2	72	2.070	ppb	4.810	1600	2	103.5	70	130	
Cu	63	2	72	2.230	ppb	6.074	6808	2	111.5	70	130	
Zn	66	2	72	10.677	ppb	9.165	1824	10	106.8	70	130	
As	75	2	72	4.606	ppb	9.687	422	5	92.1	70	130	
Se	78	1	72	4.709	ppb	5.906	2103	5	94.2	70	130	
Sr	88	2	72	0.752	ppb	35.791	137	1	75.2	70	130	
Zr	90	2	72	2.577	ppb	218.823	83	0.5	515.4	70	130	>+/-30%
Nb	93	2	72	0.629	ppb	17.176	1890	2	31.4	70	130	>+/-30%
Mo	95	2	115	1.736	ppb	16.643	1227	2	86.8	70	130	
Pd	105	2	115	0.008	ppb	95.030	20	1	0.8	70	130	>+/-30%
Ag	107	2	115	4.857	ppb	2.281	13543	5	97.1	70	130	
Cd	111	2	115	1.085	ppb	23.160	243	1	108.5	70	130	
Sn	120	2	115	9.754	ppb	8.630	4701	10	97.5	70	130	
Sb	121	2	115	2.094	ppb	8.143	867	2	104.7	70	130	
Ba	137	2	115	1.278	ppb	40.419	133	1	127.8	70	130	
W	182	2	165	4.937	ppb	2.859	24793	1	493.7	70	130	>+/-30%
Pt	195	2	165	0.016	ppb	102.990	243	1	1.6	70	130	>+/-30%
Tl	205	2	165	1.083	ppb	4.467	6945	1	108.3	70	130	
Pb	208	2	165	1.040	ppb	8.319	9142	1	104.0	70	130	
Th	232	2	165	2.043	ppb	3.232	20134	2	102.1	70	130	
U	238	2	165	1.015	ppb	5.315	11485	1	101.5	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1448644	0.85	1554733	93.18	60	120	
Sc (IS)	45	1	HMI H2	42337233	0.60	46339121	91.36	60	120	
Sc (IS)	45	2	HMI He	406131	0.98	445795	91.10	60	120	
Sc (IS)	45	3	No Gas	145132328	0.62	164326821	88.32	60	120	
Ge Internal Standard	72	1	HMI H2	20093465	0.61	22097711	90.93	60	120	
Ge Internal Standard	72	2	HMI He	576712	1.11	629677	91.59	60	120	
In Internal Standard	115	2	HMI He	1259134	1.41	1367430	92.08	60	120	
Ho-165	165	2	HMI He	11418986	1.46	12033141	94.90	60	120	

Blank Report

Sample Table

Sample Name	mb 280-399616/1-a
Data File Name	057_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:28:39-07:00
Sample Type	Blank
Dilution	1
Comment	399616 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	5.513	ppb	47.40978257	166710	0.5
Li	7	2	45	21.670	ppb	29.51829027	9146	0.5
Li	7	3	45	-1.922	ppb	-172.7536389	12676663	10
Be	9	1	6	-0.007	ppb	0	0	0.5
B	11	1	6	0.056	ppb	190.8889187	720	0.5
Na	23	1	45	-0.746	ppb	-95.75994461	188752	25
Na	23	2	45	-4.704	ppb	-110.602063	10310	25
Mg	24	2	45	0.515	ppb	270.0317911	167	25
Al	27	2	45	3.479	ppb	66.7600491	57	15
K	39	1	45	-1082.757	ppb	-1.039751345	4649023	50
K	39	2	45	-4.574	ppb	-580.7605009	4721	50
Ca	40	1	45	-0.012	ppb	-2238.087642	106535	50
Ca	44	2	45	-5.061	ppb	-201.7868646	10	25
V	51	2	72	-0.076	ppb	-67.32903375	330	1
Cr	52	2	72	0.042	ppb	154.4784066	210	1
Mn	55	2	72	0.090	ppb	43.30557771	40	0.5
Fe	57	2	72	1.764	ppb	72.60221528	67	25
Co	59	2	72	0.011	ppb	48.66478818	23	0.5
Ni	60	2	72	-0.063	ppb	-117.1893396	200	1
Cu	63	2	72	-0.661	ppb	-11.08593097	1290	1
Zn	66	2	72	0.075	ppb	126.0495301	177	5
As	75	2	72	-0.028	ppb	-229.7322134	6	1
Se	78	1	72	-0.003	ppb	-831.8564186	13	1
Sr	88	2	72	0.006	ppb	1027.496449	10	0.5
Zr	90	2	72	5.302	ppb	141.769323	100	1
Nb	93	2	72	-0.047	ppb	-50.34255764	200	2
Mo	95	2	115	0.017	ppb	228.0228412	30	0.5
Pd	105	2	115	0.001	ppb	1506.337191	10	1
Ag	107	2	115	-0.003	ppb	-194.7244204	13	1
Cd	111	2	115	-0.028	ppb	0	0	0.5
Sn	120	2	115	0.031	ppb	274.2164173	133	1
Sb	121	2	115	0.072	ppb	95.16187726	50	0.6
Ba	137	2	115	0.127	ppb	86.61742255	13	0.5
W	182	2	165	0.069	ppb	25.95851714	583	1
Pt	195	2	165	-0.001	ppb	-587.1024835	147	1
Tl	205	2	165	0.015	ppb	35.19932682	137	0.1
Pb	208	2	165	-0.002	ppb	-248.4724178	633	0.5
Th	232	2	165	0.043	ppb	15.31908283	853	1
U	238	2	165	0.002	ppb	205.3794511	90	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1437073	1.43	1554733	92.43	60	120	
Sc (IS)	45	1	HMI H2	42084049	0.29	46339121	90.82	60	120	
Sc (IS)	45	2	HMI He	406985	3.73	445795	91.29	60	120	
Sc (IS)	45	3	No Gas	151768178	0.90	164326821	92.36	60	120	
Ge Internal Standard	72	1	HMI H2	20111225	0.71	22097711	91.01	60	120	
Ge Internal Standard	72	2	HMI He	576625	1.65	629677	91.57	60	120	
In Internal Standard	115	2	HMI He	1256337	2.06	1367430	91.88	60	120	
Ho-165	165	2	HMI He	11278988	1.94	12033141	93.73	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-399616/2-a
Data File Name	058_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:32:27-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399616 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	43.514	43.514	ppb	5.057	184927	400	10.9	80	120	>+/-20%
Li	7	2	45	70.615	70.615	ppb	20.606	10437	400	17.7	80	120	>+/-20%
Li	7	3	45	40.489	40.489	ppb	3.527	13782221	400	10.1	80	120	>+/-20%
Be	9	1	6	36.427	36.427	ppb	3.951	15620	40	91.1	80	120	
Na	23	2	45	-14.251	-14.251	ppb	-8.136	9193	40	-35.6	80	120	>+/-20%
Mg	24	2	45	0.014	0.014	ppb	8403.763	143	40	0.0	80	120	>+/-20%
Al	27	2	45	365.969	365.969	ppb	7.884	3741	40	914.9	80	120	>+/-20%
K	39	2	45	-13.135	-13.135	ppb	-44.887	4654	40	-32.8	80	120	>+/-20%
Ca	44	2	45	216.344	216.344	ppb	61.785	240	40	540.9	80	120	>+/-20%
V	51	2	72	38.674	38.674	ppb	2.447	27168	40	96.7	80	120	
Cr	52	2	72	40.332	40.332	ppb	1.856	38926	40	100.8	80	120	
Mn	55	2	72	40.357	40.357	ppb	4.476	9903	40	100.9	80	120	
Fe	57	2	72	415.186	415.186	ppb	0.702	7342	40	1038.0	80	120	>+/-20%
Co	59	2	72	40.523	40.523	ppb	2.066	86219	40	101.3	80	120	
Ni	60	2	72	39.174	39.174	ppb	6.923	26527	40	97.9	80	120	
Cu	63	2	72	39.089	39.089	ppb	0.151	78892	40	97.7	80	120	
Zn	66	2	72	36.643	36.643	ppb	5.950	5991	40	91.6	80	120	
As	75	2	72	36.594	36.594	ppb	3.242	3364	40	91.5	80	120	
Se	78	1	72	39.129	39.129	ppb	1.346	17399	40	97.8	80	120	
Nb	93	2	72	-0.015	-0.015	ppb	-103.379	287	40	0.0	80	120	>+/-20%
Mo	95	2	115	39.818	39.818	ppb	3.496	28297	40	99.5	80	120	
Pd	105	2	115	0.010	0.010	ppb	42.979	23	40	0.0	80	120	>+/-20%
Ag	107	2	115	39.743	39.743	ppb	2.224	112833	40	99.4	80	120	
Cd	111	2	115	40.321	40.321	ppb	1.846	8999	40	100.8	80	120	
Sn	120	2	115	39.424	39.424	ppb	2.605	19018	40	98.6	80	120	
Sb	121	2	115	37.945	37.945	ppb	2.690	15634	40	94.9	80	120	
Ba	137	2	115	40.049	40.049	ppb	5.941	4244	40	100.1	80	120	
W	182	2	165	39.671	39.671	ppb	1.339	198540	40	99.2	80	120	
Pt	195	2	165	-0.001	-0.001	ppb	-535.231	150	40	0.0	80	120	>+/-20%
Tl	205	2	165	40.515	40.515	ppb	0.926	259633	40	101.3	80	120	
Pb	208	2	165	40.769	40.769	ppb	1.439	335087	40	101.9	80	120	
Th	232	2	165	39.170	39.170	ppb	1.095	379969	40	97.9	80	120	
U	238	2	165	39.837	39.837	ppb	1.189	450855	40	99.6	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1446885	0.53	1554733	93.06	60	120	
Sc (IS)	45	1	HMI H2	42488396	0.45	46339121	91.69	60	120	
Sc (IS)	45	2	HMI He	413647	0.76	445795	92.79	60	120	
Sc (IS)	45	3	No Gas	148884598	0.61	164326821	90.60	60	120	
Ge Internal Standard	72	1	HMI H2	20127718	0.40	22097711	91.09	60	120	
Ge Internal Standard	72	2	HMI He	589766	1.16	629677	93.66	60	120	
In Internal Standard	115	2	HMI He	1283799	0.77	1367430	93.88	60	120	
Ho-165	165	2	HMI He	11479330	1.17	12033141	95.40	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	059_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:36:14-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	498.111	ppb	1.187	379969	500	99.6	90	110	
Li	7	2	45	531.790	ppb	6.579	20732	500	106.4	90	110	
Li	7	3	45	540.336	ppb	1.189	27942810	500	108.1	90	110	
Be	9	1	6	46.891	ppb	4.519	19841	50	93.8	90	110	
B	11	1	6	40.831	ppb	2.276	24680	50	81.7	90	110	>+\-10%
Na	23	1	45	4987.378	ppb	0.398	20374776	5000	99.7	90	110	
Na	23	2	45	4859.710	ppb	3.226	658779	5000	97.2	90	110	
Mg	24	2	45	5046.132	ppb	2.542	276710	5000	100.9	90	110	
Al	27	2	45	4910.039	ppb	4.574	48776	5000	98.2	90	110	
K	39	1	45	4812.613	ppb	0.818	26519113	5000	96.3	90	110	
K	39	2	45	5052.902	ppb	3.827	87906	5000	101.1	90	110	
Ca	40	1	45	4939.599	ppb	0.189	30381664	5000	98.8	90	110	
Ca	44	2	45	4930.785	ppb	10.323	4993	5000	98.6	90	110	
V	51	2	72	48.981	ppb	0.318	33329	50	98.0	90	110	
Cr	52	2	72	49.787	ppb	1.809	46651	50	99.6	90	110	
Mn	55	2	72	47.921	ppb	2.612	11424	50	95.8	90	110	
Fe	57	2	72	4926.154	ppb	2.407	84229	5000	98.5	90	110	
Co	59	2	72	49.525	ppb	3.074	102377	50	99.0	90	110	
Ni	60	2	72	48.968	ppb	3.191	32167	50	97.9	90	110	
Cu	63	2	72	48.672	ppb	2.770	94816	50	97.3	90	110	
Zn	66	2	72	47.182	ppb	0.765	7452	50	94.4	90	110	
As	75	2	72	49.609	ppb	0.776	4429	50	99.2	90	110	
Se	78	1	72	50.603	ppb	2.785	22285	50	101.2	90	110	
Sr	88	2	72	48.744	ppb	5.419	8199	50	97.5	90	110	
Zr	90	2	72	104.818	ppb	25.917	713	50	209.6	90	110	>+\-10%
Nb	93	2	72	98.321	ppb	3.042	244310	100	98.3	90	110	
Mo	95	2	115	47.505	ppb	3.577	32869	50	95.0	90	110	
Pd	105	2	115	50.618	ppb	6.317	66191	50	101.2	90	110	
Ag	107	2	115	50.571	ppb	3.258	139780	50	101.1	90	110	
Cd	111	2	115	50.056	ppb	2.928	10877	50	100.1	90	110	
Sn	120	2	115	50.879	ppb	5.395	23848	50	101.8	90	110	
Sb	121	2	115	49.743	ppb	2.778	19946	50	99.5	90	110	
Ba	137	2	115	50.999	ppb	7.213	5258	50	102.0	90	110	
W	182	2	165	51.259	ppb	2.969	254134	50	102.5	90	110	
Pt	195	2	165	50.840	ppb	3.257	279685	50	101.7	90	110	
Tl	205	2	165	50.957	ppb	2.777	323595	50	101.9	90	110	
Pb	208	2	165	50.673	ppb	2.760	412590	50	101.3	90	110	
Th	232	2	165	49.478	ppb	3.177	475511	50	99.0	90	110	
U	238	2	165	50.379	ppb	3.545	564976	50	100.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1427848	0.78	1554733	91.84	60	120	
Sc (IS)	45	1	HMI H2	42079295	0.37	46339121	90.81	60	120	
Sc (IS)	45	2	HMI He	404421	2.63	445795	90.72	60	120	
Sc (IS)	45	3	No Gas	140295825	0.66	164326821	85.38	60	120	
Ge Internal Standard	72	1	HMI H2	19937759	0.29	22097711	90.23	60	120	
Ge Internal Standard	72	2	HMI He	573116	1.84	629677	91.02	60	120	
In Internal Standard	115	2	HMI He	1250601	2.99	1367430	91.46	60	120	
Ho-165	165	2	HMI He	11379454	2.03	12033141	94.57	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	060_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:40:01-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	3.390	ppb	123.2	12265256	10	
Be	9	1	6	0.023	ppb	113.8	13	0.5	
B	11	1	6	0.127	ppb	190.4	780	0.5	
Na	23	1	45	4.871	ppb	10.3	210906	25	
Na	23	2	45	3.067	ppb	158.4	11204	25	
Mg	24	2	45	-0.340	ppb	-173.4	120	25	
Al	27	2	45	4.262	ppb	88.5	63	15	
K	39	1	45	-145.514	ppb	-16.7	8103723	50	
K	39	2	45	-23.639	ppb	-150.8	4337	50	
Ca	40	1	45	3.889	ppb	9.8	130083	50	
Ca	44	2	45	27.938	ppb	86.7	43	25	>RL
V	51	2	72	0.348	ppb	49.6	610	1	
Cr	52	2	72	0.041	ppb	67.2	207	1	
Mn	55	2	72	-0.048	ppb	-102.2	7	0.5	
Fe	57	2	72	-0.418	ppb	-708.4	30	25	
Co	59	2	72	0.005	ppb	2.6	10	0.5	
Ni	60	2	72	-0.044	ppb	-171.1	210	1	
Cu	63	2	72	0.105	ppb	145.2	2724	1	
Zn	66	2	72	0.328	ppb	79.6	213	5	
As	75	2	72	0.017	ppb	395.1	10	1	
Se	78	1	72	0.016	ppb	176.8	21	1	
Sr	88	2	72	-0.013	ppb	-525.2	7	0.5	
Zr	90	2	72	2.700	ppb	66.6	83	1	>RL
Nb	93	2	72	0.652	ppb	11.6	1927	2	
Mo	95	2	115	0.065	ppb	57.8	63	0.5	
Pd	105	2	115	0.033	ppb	69.5	53	1	
Ag	107	2	115	0.008	ppb	56.5	43	1	
Cd	111	2	115	-0.028	ppb	0.0	0	0.5	
Sn	120	2	115	0.074	ppb	33.4	153	1	
Sb	121	2	115	0.297	ppb	20.9	140	0.6	
Ba	137	2	115	0.097	ppb	101.4	10	0.5	
W	182	2	165	0.045	ppb	39.1	467	1	
Pt	195	2	165	-0.004	ppb	-403.9	133	1	
Tl	205	2	165	0.027	ppb	12.2	210	0.1	
Pb	208	2	165	0.013	ppb	37.8	757	0.5	
Th	232	2	165	0.069	ppb	7.9	1097	1	
U	238	2	165	0.007	ppb	31.3	147	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1469659	0.28	1554733	94.53	60	120	
Sc (IS)	45	1	HMI H2	41968763	0.91	46339121	90.57	60	120	
Sc (IS)	45	2	HMI He	401072	1.90	445795	89.97	60	120	
Sc (IS)	45	3	No Gas	144889891	1.38	164326821	88.17	60	120	
Ge Internal Standard	72	1	HMI H2	19933358	0.38	22097711	90.21	60	120	
Ge Internal Standard	72	2	HMI He	571621	2.64	629677	90.78	60	120	
In Internal Standard	115	2	HMI He	1248431	2.78	1367430	91.30	60	120	
Ho-165	165	2	HMI He	11290499	2.58	12033141	93.83	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	061LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:43:50-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	14.323	ppb	18.532	12558254	50	28.6	70	130	>+/-30%
Be	9	1	6	0.903	ppb	23.007	393	1	90.3	70	130	
Na	23	2	45	48.776	ppb	1.509	17239	50	97.6	70	130	
Mg	24	2	45	56.574	ppb	7.958	3210	50	113.1	70	130	
Al	27	2	45	38.866	ppb	23.982	403	30	129.6	70	130	
K	39	2	45	84.070	ppb	13.360	6095	100	84.1	70	130	
Ca	44	2	45	44.580	ppb	88.613	60	50	89.2	70	130	
V	51	2	72	4.871	ppb	11.642	3654	5	97.4	70	130	
Cr	52	2	72	1.858	ppb	15.290	1904	2	92.9	70	130	
Mn	55	2	72	1.100	ppb	7.786	280	1	110.0	70	130	
Fe	57	2	72	56.333	ppb	9.047	1000	50	112.7	70	130	
Co	59	2	72	1.074	ppb	3.570	2220	1	107.4	70	130	
Ni	60	2	72	1.991	ppb	11.977	1537	2	99.5	70	130	
Cu	63	2	72	2.199	ppb	10.559	6702	2	109.9	70	130	
Zn	66	2	72	10.710	ppb	15.432	1820	10	107.1	70	130	
As	75	2	72	4.671	ppb	9.397	424	5	93.4	70	130	
Se	78	1	72	4.867	ppb	6.381	2136	5	97.3	70	130	
Sr	88	2	72	0.917	ppb	21.907	163	1	91.7	70	130	
Zr	90	2	72	14.549	ppb	19.134	157	0.5	2909.9	70	130	>+/-30%
Nb	93	2	72	0.654	ppb	10.800	1937	2	32.7	70	130	>+/-30%
Mo	95	2	115	1.953	ppb	18.847	1377	2	97.6	70	130	
Pd	105	2	115	0.008	ppb	161.429	20	1	0.8	70	130	>+/-30%
Ag	107	2	115	4.884	ppb	1.854	13586	5	97.7	70	130	
Cd	111	2	115	0.980	ppb	11.390	220	1	98.0	70	130	
Sn	120	2	115	9.489	ppb	6.216	4571	10	94.9	70	130	
Sb	121	2	115	2.215	ppb	8.336	913	2	110.7	70	130	
Ba	137	2	115	1.029	ppb	5.597	107	1	102.9	70	130	
W	182	2	165	4.990	ppb	4.388	24967	1	499.0	70	130	>+/-30%
Pt	195	2	165	0.008	ppb	179.898	200	1	0.8	70	130	>+/-30%
Tl	205	2	165	1.018	ppb	7.268	6505	1	101.8	70	130	
Pb	208	2	165	1.094	ppb	7.519	9545	1	109.4	70	130	
Th	232	2	165	2.013	ppb	3.595	19770	2	100.6	70	130	
U	238	2	165	1.062	ppb	2.272	11979	1	106.2	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1455793	1.90	1554733	93.64	60	120	
Sc (IS)	45	1	HMI H2	41460542	1.07	46339121	89.47	60	120	
Sc (IS)	45	2	HMI He	400772	1.38	445795	89.90	60	120	
Sc (IS)	45	3	No Gas	144366881	0.57	164326821	87.85	60	120	
Ge Internal Standard	72	1	HMI H2	19756401	0.60	22097711	89.40	60	120	
Ge Internal Standard	72	2	HMI He	573058	1.29	629677	91.01	60	120	
In Internal Standard	115	2	HMI He	1256227	1.23	1367430	91.87	60	120	
Ho-165	165	2	HMI He	11374595	0.90	12033141	94.53	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-3-b
Data File Name	062SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:47:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	130.041	ppb	130.041	4.20	212697	500000	
Li	7	2	45	118.975	ppb	118.975	3.75	11714	500000	
Li	7	3	45	112.609	ppb	112.609	6.28	15608736	50000	
Be	9	1	6	0.010	ppb	0.010	300.99	7	2000	
B	11	1	6	96.899	ppb	96.899	2.03	52074	2000	
Na	23	1	45	185943.286	ppb	185943.286	0.85	725714363	2000	>LDR
Na	23	2	45	175711.090	ppb	175711.090	2.40	24285090	400000	
Mg	24	2	45	41972.453	ppb	41972.453	2.68	2383615	400000	
Al	27	2	45	5.000	ppb	5.000	62.85	73	400000	
K	39	1	45	7169.166	ppb	7169.166	1.06	33998092	400000	
K	39	2	45	8011.822	ppb	8011.822	1.39	141547	400000	
Ca	40	1	45	185592.088	ppb	185592.088	0.50	1096851690	400000	
Ca	44	2	45	191808.049	ppb	191808.049	1.81	200903	400000	
V	51	2	72	5.767	ppb	5.767	6.37	4351	2000	
Cr	52	2	72	0.912	ppb	0.912	14.99	1043	5000	
Mn	55	2	72	0.088	ppb	0.088	80.54	40	10000	
Fe	57	2	72	3.225	ppb	3.225	80.57	93	400000	
Co	59	2	72	0.014	ppb	0.014	66.22	30	2000	
Ni	60	2	72	-0.027	ppb	-0.027	-344.99	227	5000	
Cu	63	2	72	-0.503	ppb	-0.503	-14.56	1617	5000	
Zn	66	2	72	0.205	ppb	0.205	77.91	200	5000	
As	75	2	72	0.962	ppb	0.962	9.89	96	2000	
Se	78	1	72	2.150	ppb	2.150	5.26	919	2000	
Sr	88	2	72	1702.432	ppb	1702.432	2.50	292370	4000	
Zr	90	2	72	-7.629	ppb	-7.629	-20.94	20	1000	
Nb	93	2	72	-0.051	ppb	-0.051	-31.64	193	200	
Mo	95	2	115	4.612	ppb	4.612	4.17	3317	2000	
Pd	105	2	115	0.003	ppb	0.003	151.27	13	100	
Ag	107	2	115	0.006	ppb	0.006	148.32	40	100	
Cd	111	2	115	-0.013	ppb	-0.013	-195.81	3	2000	
Sn	120	2	115	0.036	ppb	0.036	346.60	140	2000	
Sb	121	2	115	0.060	ppb	0.060	63.00	47	1000	
Ba	137	2	115	121.189	ppb	121.189	4.79	12932	5000	
W	182	2	165	0.112	ppb	0.112	19.00	827	100	
Pt	195	2	165	0.003	ppb	0.003	279.05	173	100	
Tl	205	2	165	0.015	ppb	0.015	12.29	137	2000	
Pb	208	2	165	0.011	ppb	0.011	86.97	767	5000	
Th	232	2	165	0.073	ppb	0.073	15.70	1180	2000	
U	238	2	165	7.795	ppb	7.795	1.21	89722	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1290170	1.17	1554733	82.98	60	120	
Sc (IS)	45	1	HMI H2	40573139	1.17	46339121	87.56	60	120	
Sc (IS)	45	2	HMI He	418841	0.43	445795	93.95	60	120	
Sc (IS)	45	3	No Gas	144597918	0.69	164326821	87.99	60	120	
Ge Internal Standard	72	1	HMI H2	19071021	1.24	22097711	86.30	60	120	
Ge Internal Standard	72	2	HMI He	585478	0.57	629677	92.98	60	120	
In Internal Standard	115	2	HMI He	1292744	0.86	1367430	94.54	60	120	
Ho-165	165	2	HMI He	11666239	0.80	12033141	96.95	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-3-bSD@5
Data File Name	063SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:51:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	22.205	ppb	22.205	16.44	176718	500000	
Li	7	2	45	9.686	ppb	9.686	68.67	9393	500000	
Li	7	3	45	7.156	ppb	7.156	37.73	12371706	50000	
Be	9	1	6	-0.007	ppb	-0.007	0.00	0	2000	
B	11	1	6	17.689	ppb	17.689	3.32	10790	2000	
Na	23	1	45	35340.684	ppb	35340.684	0.65	145517941	2000	>LDR
Na	23	2	45	33776.403	ppb	33776.403	1.53	4813765	400000	
Mg	24	2	45	7784.020	ppb	7784.020	2.21	455055	400000	
Al	27	2	45	3.860	ppb	3.860	62.61	63	400000	
K	39	1	45	1075.082	ppb	1075.082	1.84	12857681	400000	
K	39	2	45	1519.468	ppb	1519.468	1.57	31745	400000	
Ca	40	1	45	34911.158	ppb	34911.158	0.56	217527277	400000	
Ca	44	2	45	35464.895	ppb	35464.895	3.38	38238	400000	
V	51	2	72	0.965	ppb	0.965	7.77	1100	2000	
Cr	52	2	72	0.122	ppb	0.122	25.92	303	5000	
Mn	55	2	72	0.028	ppb	0.028	321.76	27	10000	
Fe	57	2	72	3.708	ppb	3.708	157.89	107	400000	
Co	59	2	72	0.005	ppb	0.005	173.21	10	2000	
Ni	60	2	72	-0.062	ppb	-0.062	-141.04	213	5000	
Cu	63	2	72	0.721	ppb	0.721	38.82	4177	5000	
Zn	66	2	72	0.612	ppb	0.612	62.97	277	5000	
As	75	2	72	0.071	ppb	0.071	76.84	16	2000	
Se	78	1	72	0.499	ppb	0.499	31.19	240	2000	
Sr	88	2	72	310.605	ppb	310.605	1.39	55888	4000	
Zr	90	2	72	-5.771	ppb	-5.771	-83.87	33	1000	
Nb	93	2	72	-0.079	ppb	-0.079	-21.40	127	200	
Mo	95	2	115	0.914	ppb	0.914	15.45	707	2000	
Pd	105	2	115	-0.002	ppb	-0.002	-343.26	7	100	
Ag	107	2	115	0.000	ppb	0.000	6156.90	23	100	
Cd	111	2	115	-0.028	ppb	-0.028	0.00	0	2000	
Sn	120	2	115	0.042	ppb	0.042	289.03	150	2000	
Sb	121	2	115	0.024	ppb	0.024	202.57	33	1000	
Ba	137	2	115	22.816	ppb	22.816	7.84	2557	5000	
W	182	2	165	0.038	ppb	0.038	6.60	460	100	
Pt	195	2	165	-0.015	ppb	-0.015	-40.16	73	100	
Tl	205	2	165	0.005	ppb	0.005	44.22	77	2000	
Pb	208	2	165	0.010	ppb	0.010	248.49	777	5000	
Th	232	2	165	-0.010	ppb	-0.010	-37.04	367	2000	
U	238	2	165	1.472	ppb	1.472	4.88	17364	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1390269	0.95	1554733	89.42	60	120	
Sc (IS)	45	1	HMI H2	42756921	0.26	46339121	92.27	60	120	
Sc (IS)	45	2	HMI He	431081	0.80	445795	96.70	60	120	
Sc (IS)	45	3	No Gas	144766718	0.77	164326821	88.10	60	120	
Ge Internal Standard	72	1	HMI H2	20474687	0.78	22097711	92.66	60	120	
Ge Internal Standard	72	2	HMI He	613379	0.19	629677	97.41	60	120	
In Internal Standard	115	2	HMI He	1357720	0.57	1367430	99.29	60	120	
Ho-165	165	2	HMI He	11915526	0.76	12033141	99.02	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-3-c ms
Data File Name	064SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:55:12-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	145.822	ppb	145.822	2.51	228737	500000	
Li	7	2	45	132.520	ppb	132.520	16.91	12585	500000	
Li	7	3	45	141.733	ppb	141.733	3.85	16826355	50000	
Be	9	1	6	37.679	ppb	37.679	7.08	14570	2000	
B	11	1	6	123.448	ppb	123.448	1.83	66941	2000	
Na	23	1	45	184297.496	ppb	184297.496	1.25	750244309	2000	>LDR
Na	23	2	45	177107.205	ppb	177107.205	1.88	25605306	400000	
Mg	24	2	45	42413.987	ppb	42413.987	2.58	2519501	400000	
Al	27	2	45	419.840	ppb	419.840	2.71	4544	400000	
K	39	1	45	7261.003	ppb	7261.003	0.64	35805890	400000	
K	39	2	45	8171.510	ppb	8171.510	2.21	150916	400000	
Ca	40	1	45	186730.590	ppb	186730.590	0.85	1151091103	400000	
Ca	44	2	45	196437.460	ppb	196437.460	1.92	215218	400000	
V	51	2	72	44.992	ppb	44.992	0.03	33008	2000	
Cr	52	2	72	39.592	ppb	39.592	2.65	39986	5000	
Mn	55	2	72	39.379	ppb	39.379	2.65	10113	10000	
Fe	57	2	72	413.612	ppb	413.612	4.85	7649	400000	
Co	59	2	72	37.494	ppb	37.494	0.40	83516	2000	
Ni	60	2	72	36.332	ppb	36.332	7.31	25749	5000	
Cu	63	2	72	36.512	ppb	36.512	3.32	77265	5000	
Zn	66	2	72	42.034	ppb	42.034	4.11	7165	5000	
As	75	2	72	38.313	ppb	38.313	6.98	3682	2000	
Se	78	1	72	40.360	ppb	40.360	2.50	17654	2000	
Sr	88	2	72	1770.035	ppb	1770.035	0.64	320503	4000	
Zr	90	2	72	5138.520	ppb	5138.520	0.99	34312	1000	>LDR
Nb	93	2	72	-0.032	ppb	-0.032	-25.48	253	200	
Mo	95	2	115	41.042	ppb	41.042	1.96	30885	2000	
Pd	105	2	115	0.016	ppb	0.016	105.63	33	100	
Ag	107	2	115	36.750	ppb	36.750	2.62	110430	100	
Cd	111	2	115	39.020	ppb	39.020	3.88	9216	2000	
Sn	120	2	115	41.237	ppb	41.237	1.90	21050	2000	
Sb	121	2	115	39.696	ppb	39.696	2.66	17310	1000	
Ba	137	2	115	165.679	ppb	165.679	1.47	18591	5000	
W	182	2	165	40.254	ppb	40.254	2.35	210872	100	
Pt	195	2	165	-0.007	ppb	-0.007	-49.40	123	100	
Tl	205	2	165	38.728	ppb	38.728	2.29	259798	2000	
Pb	208	2	165	38.750	ppb	38.750	2.42	333440	5000	
Th	232	2	165	38.978	ppb	38.978	2.22	395827	2000	
U	238	2	165	47.712	ppb	47.712	3.27	565184	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1305064	0.83	1554733	83.94	60	120	
Sc (IS)	45	1	HMI H2	42320340	0.88	46339121	91.33	60	120	
Sc (IS)	45	2	HMI He	438230	2.11	445795	98.30	60	120	
Sc (IS)	45	3	No Gas	147397521	1.01	164326821	89.70	60	120	
Ge Internal Standard	72	1	HMI H2	19803006	0.89	22097711	89.62	60	120	
Ge Internal Standard	72	2	HMI He	617286	2.68	629677	98.03	60	120	
In Internal Standard	115	2	HMI He	1359162	2.60	1367430	99.40	60	120	
Ho-165	165	2	HMI He	12020799	2.64	12033141	99.90	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-3-d msd
Data File Name	065SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T14:59:01-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	160.900	ppb	160.900	6.02	233592	500000	
Li	7	2	45	119.372	ppb	119.372	19.46	12595	500000	
Li	7	3	45	139.801	ppb	139.801	3.16	16507541	50000	
Be	9	1	6	40.797	ppb	40.797	8.63	15634	2000	
B	11	1	6	131.867	ppb	131.867	5.65	70833	2000	
Na	23	1	45	198956.345	ppb	198956.345	5.77	803438788	2000	>LDR
Na	23	2	45	181045.143	ppb	181045.143	0.34	26875430	400000	
Mg	24	2	45	43112.639	ppb	43112.639	1.16	2629565	400000	
Al	27	2	45	414.520	ppb	414.520	4.74	4604	400000	
K	39	1	45	7835.333	ppb	7835.333	6.85	37647598	400000	
K	39	2	45	8489.726	ppb	8489.726	1.02	160796	400000	
Ca	40	1	45	202101.764	ppb	202101.764	6.21	1235776702	400000	
Ca	44	2	45	205420.516	ppb	205420.516	0.58	231087	400000	
V	51	2	72	45.814	ppb	45.814	1.50	34454	2000	
Cr	52	2	72	40.539	ppb	40.539	1.98	41990	5000	
Mn	55	2	72	39.049	ppb	39.049	4.58	10283	10000	
Fe	57	2	72	403.143	ppb	403.143	4.41	7649	400000	
Co	59	2	72	38.120	ppb	38.120	1.15	87046	2000	
Ni	60	2	72	36.064	ppb	36.064	0.91	26240	5000	
Cu	63	2	72	35.929	ppb	35.929	1.49	78035	5000	
Zn	66	2	72	36.773	ppb	36.773	2.69	6455	5000	
As	75	2	72	37.884	ppb	37.884	3.06	3737	2000	
Se	78	1	72	42.542	ppb	42.542	4.71	18658	2000	
Sr	88	2	72	1833.075	ppb	1833.075	1.45	340238	4000	
Zr	90	2	72	5315.190	ppb	5315.190	1.15	36393	1000	>LDR
Nb	93	2	72	-0.079	ppb	-0.079	-33.36	133	200	
Mo	95	2	115	40.332	ppb	40.332	1.23	31476	2000	
Pd	105	2	115	0.002	ppb	0.002	199.96	13	100	
Ag	107	2	115	36.817	ppb	36.817	0.47	114785	100	
Cd	111	2	115	38.776	ppb	38.776	1.66	9503	2000	
Sn	120	2	115	41.718	ppb	41.718	1.73	22085	2000	
Sb	121	2	115	39.964	ppb	39.964	2.83	18080	1000	
Ba	137	2	115	165.992	ppb	165.992	0.82	19315	5000	
W	182	2	165	40.931	ppb	40.931	1.26	219026	100	
Pt	195	2	165	-0.016	ppb	-0.016	-33.37	73	100	
Tl	205	2	165	38.750	ppb	38.750	0.88	265545	2000	
Pb	208	2	165	38.702	ppb	38.702	1.29	340196	5000	
Th	232	2	165	39.132	ppb	39.132	1.03	405931	2000	
U	238	2	165	48.018	ppb	48.018	0.70	581157	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1294614	2.41	1554733	83.27	60	120	
Sc (IS)	45	1	HMI H2	42025254	2.80	46339121	90.69	60	120	
Sc (IS)	45	2	HMI He	449867	1.17	445795	100.91	60	120	
Sc (IS)	45	3	No Gas	145126038	0.94	164326821	88.32	60	120	
Ge Internal Standard	72	1	HMI H2	19869822	2.67	22097711	89.92	60	120	
Ge Internal Standard	72	2	HMI He	632881	1.04	629677	100.51	60	120	
In Internal Standard	115	2	HMI He	1409679	1.00	1367430	103.09	60	120	
Ho-165	165	2	HMI He	12275581	1.13	12033141	102.01	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-3-b PDS
Data File Name	066SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:02:53-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	110.610	ppb	110.610	4.10	215521	500000	
Li	7	2	45	68.374	ppb	68.374	6.75	11521	500000	
Li	7	3	45	87.978	ppb	87.978	3.86	14801326	50000	
Be	9	1	6	200.203	ppb	200.203	1.12	77974	2000	
B	11	1	6	100.731	ppb	100.731	1.14	55123	2000	
Na	23	1	45	183882.740	ppb	183882.740	1.01	755995349	2000	>LDR
Na	23	2	45	170749.992	ppb	170749.992	1.67	25850905	400000	
Mg	24	2	45	40892.984	ppb	40892.984	0.69	2544087	400000	
Al	27	2	45	2051.084	ppb	2051.084	2.86	23152	400000	
K	39	1	45	7200.904	ppb	7200.904	1.13	35934023	400000	
K	39	2	45	8011.056	ppb	8011.056	1.57	155039	400000	
Ca	40	1	45	185537.537	ppb	185537.537	0.81	1155107343	400000	
Ca	44	2	45	193275.060	ppb	193275.060	1.16	221756	400000	
V	51	2	72	202.948	ppb	202.948	0.17	153167	2000	
Cr	52	2	72	198.359	ppb	198.359	2.45	207368	5000	
Mn	55	2	72	202.488	ppb	202.488	1.19	53949	10000	
Fe	57	2	72	1958.744	ppb	1958.744	1.04	37500	400000	
Co	59	2	72	192.553	ppb	192.553	0.75	445436	2000	
Ni	60	2	72	180.977	ppb	180.977	0.35	132324	5000	
Cu	63	2	72	184.949	ppb	184.949	0.32	395241	5000	
Zn	66	2	72	194.403	ppb	194.403	0.94	33776	5000	
As	75	2	72	187.593	ppb	187.593	0.78	18712	2000	
Se	78	1	72	198.317	ppb	198.317	0.37	87619	2000	
Sr	88	2	72	1713.801	ppb	1713.801	1.00	322319	4000	
Zr	90	2	72	26469.055	ppb	26469.055	0.38	183291	1000	>LDR
Nb	93	2	72	0.487	ppb	0.487	8.37	1707	200	
Mo	95	2	115	190.979	ppb	190.979	3.81	151920	2000	
Pd	105	2	115	0.041	ppb	0.041	19.34	73	100	
Ag	107	2	115	42.280	ppb	42.280	5.72	134335	100	
Cd	111	2	115	193.886	ppb	193.886	4.40	48433	2000	
Sn	120	2	115	203.477	ppb	203.477	1.73	109408	2000	
Sb	121	2	115	200.067	ppb	200.067	1.43	92250	1000	
Ba	137	2	115	329.633	ppb	329.633	2.27	39133	5000	
W	182	2	165	199.053	ppb	199.053	0.67	1083865	100	
Pt	195	2	165	0.025	ppb	0.025	62.39	320	100	
Tl	205	2	165	195.776	ppb	195.776	1.14	1366207	2000	
Pb	208	2	165	192.330	ppb	192.330	1.36	1719098	5000	
Th	232	2	165	0.566	ppb	0.566	1.57	6465	2000	
U	238	2	165	211.913	ppb	211.913	1.08	2612013	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1314212	0.32	1554733	84.53	60	120	
Sc (IS)	45	1	HMI H2	42742208	1.44	46339121	92.24	60	120	
Sc (IS)	45	2	HMI He	458861	1.67	445795	102.93	60	120	
Sc (IS)	45	3	No Gas	144123308	1.01	164326821	87.71	60	120	
Ge Internal Standard	72	1	HMI H2	20012101	0.79	22097711	90.56	60	120	
Ge Internal Standard	72	2	HMI He	641179	1.56	629677	101.83	60	120	
In Internal Standard	115	2	HMI He	1439077	4.54	1367430	105.24	60	120	
Ho-165	165	2	HMI He	12502813	1.49	12033141	103.90	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	067_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:06:41-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	455.070	ppb	0.835	376360	500	91.0	90	110	
Li	7	2	45	387.450	ppb	1.606	19928	500	77.5	90	110	>+\-10%
Li	7	3	45	425.241	ppb	1.565	24728573	500	85.0	90	110	>+\-10%
Be	9	1	6	46.545	ppb	5.238	19384	50	93.1	90	110	
B	11	1	6	45.204	ppb	5.267	26817	50	90.4	90	110	
Na	23	1	45	5200.828	ppb	0.675	22121871	5000	104.0	90	110	
Na	23	2	45	4786.629	ppb	1.869	741620	5000	95.7	90	110	
Mg	24	2	45	5040.729	ppb	0.878	315843	5000	100.8	90	110	
Al	27	2	45	5199.725	ppb	1.397	59036	5000	104.0	90	110	
K	39	1	45	5137.376	ppb	1.122	28877118	5000	102.7	90	110	
K	39	2	45	5158.474	ppb	0.354	102448	5000	103.2	90	110	
Ca	40	1	45	5186.348	ppb	0.735	33220530	5000	103.7	90	110	
Ca	44	2	45	5255.808	ppb	8.486	6085	5000	105.1	90	110	
V	51	2	72	48.121	ppb	0.522	37377	50	96.2	90	110	
Cr	52	2	72	47.992	ppb	2.440	51331	50	96.0	90	110	
Mn	55	2	72	49.145	ppb	6.344	13372	50	98.3	90	110	
Fe	57	2	72	4808.333	ppb	0.997	93847	5000	96.2	90	110	
Co	59	2	72	48.209	ppb	1.938	113757	50	96.4	90	110	
Ni	60	2	72	46.707	ppb	0.654	35039	50	93.4	90	110	
Cu	63	2	72	46.423	ppb	1.239	103363	50	92.8	90	110	
Zn	66	2	72	48.633	ppb	3.740	8759	50	97.3	90	110	
As	75	2	72	49.058	ppb	1.820	4999	50	98.1	90	110	
Se	78	1	72	49.407	ppb	1.508	22762	50	98.8	90	110	
Sr	88	2	72	52.271	ppb	1.649	10037	50	104.5	90	110	
Zr	90	2	72	81.294	ppb	20.106	650	50	162.6	90	110	>+\-10%
Nb	93	2	72	97.022	ppb	0.989	275221	100	97.0	90	110	
Mo	95	2	115	43.827	ppb	5.562	37187	50	87.7	90	110	>+\-10%
Pd	105	2	115	45.421	ppb	3.342	72912	50	90.8	90	110	
Ag	107	2	115	45.196	ppb	4.459	153222	50	90.4	90	110	
Cd	111	2	115	47.212	ppb	2.598	12589	50	94.4	90	110	
Sn	120	2	115	47.766	ppb	3.052	27487	50	95.5	90	110	
Sb	121	2	115	47.114	ppb	2.244	23180	50	94.2	90	110	
Ba	137	2	115	51.988	ppb	6.388	6585	50	104.0	90	110	
W	182	2	165	48.165	ppb	1.362	265459	50	96.3	90	110	
Pt	195	2	165	46.783	ppb	1.521	286111	50	93.6	90	110	
Tl	205	2	165	49.462	ppb	1.188	349175	50	98.9	90	110	
Pb	208	2	165	49.502	ppb	0.523	448073	50	99.0	90	110	
Th	232	2	165	48.354	ppb	0.243	516618	50	96.7	90	110	
U	238	2	165	48.953	ppb	1.515	610317	50	97.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1405557	1.46	1554733	90.41	60	120	
Sc (IS)	45	1	HMI H2	43828648	0.43	46339121	94.58	60	120	
Sc (IS)	45	2	HMI He	461907	1.01	445795	103.61	60	120	
Sc (IS)	45	3	No Gas	141605771	0.71	164326821	86.17	60	120	
Ge Internal Standard	72	1	HMI H2	20857406	0.36	22097711	94.39	60	120	
Ge Internal Standard	72	2	HMI He	654037	0.70	629677	103.87	60	120	
In Internal Standard	115	2	HMI He	1534242	2.98	1367430	112.20	60	120	
Ho-165	165	2	HMI He	12644951	0.43	12033141	105.08	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	068_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:10:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-39.853	ppb	-11.6	10705189	10	
Be	9	1	6	0.017	ppb	139.1	10	0.5	
B	11	1	6	1.477	ppb	23.3	1480	0.5	>RL
Na	23	1	45	43.132	ppb	10.5	367228	25	>RL
Na	23	2	45	19.292	ppb	9.3	15771	25	
Mg	24	2	45	0.886	ppb	98.4	220	25	
Al	27	2	45	0.449	ppb	383.2	30	15	
K	39	1	45	69.312	ppb	135.7	8947502	50	>RL
K	39	2	45	-38.197	ppb	-26.0	4848	50	
Ca	40	1	45	10.706	ppb	18.2	172542	50	
Ca	44	2	45	24.436	ppb	131.4	47	25	
V	51	2	72	0.182	ppb	66.8	587	1	
Cr	52	2	72	0.017	ppb	362.1	217	1	
Mn	55	2	72	0.031	ppb	113.7	30	0.5	
Fe	57	2	72	2.205	ppb	80.0	87	25	
Co	59	2	72	0.021	ppb	87.3	50	0.5	
Ni	60	2	72	-0.022	ppb	-496.4	263	1	
Cu	63	2	72	0.014	ppb	765.1	3000	1	
Zn	66	2	72	0.820	ppb	48.3	340	5	
As	75	2	72	0.013	ppb	80.5	11	1	
Se	78	1	72	0.008	ppb	290.7	19	1	
Sr	88	2	72	0.031	ppb	253.2	17	0.5	
Zr	90	2	72	-0.684	ppb	-413.7	73	1	
Nb	93	2	72	0.628	ppb	17.8	2197	2	
Mo	95	2	115	0.027	ppb	65.7	47	0.5	
Pd	105	2	115	0.047	ppb	33.4	90	1	
Ag	107	2	115	0.016	ppb	45.5	83	1	
Cd	111	2	115	0.009	ppb	736.9	10	0.5	
Sn	120	2	115	0.162	ppb	59.8	247	1	
Sb	121	2	115	0.366	ppb	3.7	213	0.6	
Ba	137	2	115	0.128	ppb	91.7	17	0.5	
W	182	2	165	0.065	ppb	40.2	647	1	
Pt	195	2	165	-0.007	ppb	-155.0	130	1	
Tl	205	2	165	0.025	ppb	25.2	223	0.1	
Pb	208	2	165	0.007	ppb	216.4	810	0.5	
Th	232	2	165	0.073	ppb	17.6	1303	1	
U	238	2	165	0.014	ppb	63.5	247	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1365933	3.68	1554733	87.86	60	120	
Sc (IS)	45	1	HMI H2	42246508	4.51	46339121	91.17	60	120	
Sc (IS)	45	2	HMI He	473773	0.36	445795	106.28	60	120	
Sc (IS)	45	3	No Gas	141923218	1.17	164326821	86.37	60	120	
Ge Internal Standard	72	1	HMI H2	20345698	3.65	22097711	92.07	60	120	
Ge Internal Standard	72	2	HMI He	670990	0.56	629677	106.56	60	120	
In Internal Standard	115	2	HMI He	1588973	0.78	1367430	116.20	60	120	
Ho-165	165	2	HMI He	12906781	1.25	12033141	107.26	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	069LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:14:18-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-26.227	ppb	-13.059	11016666	50	-52.5	70	130	>+/-30%
Be	9	1	6	1.028	ppb	20.841	433	1	102.8	70	130	
Na	23	2	45	61.369	ppb	7.082	21590	50	122.7	70	130	
Mg	24	2	45	48.879	ppb	1.602	3194	50	97.8	70	130	
Al	27	2	45	35.371	ppb	25.231	420	30	117.9	70	130	
K	39	2	45	72.969	ppb	52.084	6748	100	73.0	70	130	
Ca	44	2	45	65.916	ppb	42.589	93	50	131.8	70	130	>+/-30%
V	51	2	72	4.660	ppb	18.036	4001	5	93.2	70	130	
Cr	52	2	72	2.062	ppb	15.726	2387	2	103.1	70	130	
Mn	55	2	72	1.261	ppb	4.695	363	1	126.1	70	130	
Fe	57	2	72	52.109	ppb	15.069	1057	50	104.2	70	130	
Co	59	2	72	0.949	ppb	11.530	2234	1	94.9	70	130	
Ni	60	2	72	1.965	ppb	16.479	1733	2	98.2	70	130	
Cu	63	2	72	2.214	ppb	1.796	7679	2	110.7	70	130	
Zn	66	2	72	10.227	ppb	6.098	1987	10	102.3	70	130	
As	75	2	72	4.524	ppb	8.336	469	5	90.5	70	130	
Se	78	1	72	5.158	ppb	1.879	2396	5	103.2	70	130	
Sr	88	2	72	0.995	ppb	44.871	200	1	99.5	70	130	
Zr	90	2	72	13.338	ppb	65.546	170	0.5	2667.7	70	130	>+/-30%
Nb	93	2	72	0.631	ppb	21.977	2144	2	31.6	70	130	>+/-30%
Mo	95	2	115	1.579	ppb	10.333	1387	2	78.9	70	130	
Pd	105	2	115	0.018	ppb	63.790	40	1	1.8	70	130	>+/-30%
Ag	107	2	115	4.485	ppb	5.248	15468	5	89.7	70	130	
Cd	111	2	115	0.832	ppb	27.968	233	1	83.2	70	130	
Sn	120	2	115	9.130	ppb	6.934	5454	10	91.3	70	130	
Sb	121	2	115	2.363	ppb	12.738	1203	2	118.2	70	130	
Ba	137	2	115	1.122	ppb	31.963	143	1	112.2	70	130	
W	182	2	165	4.739	ppb	2.602	25915	1	473.9	70	130	>+/-30%
Pt	195	2	165	0.006	ppb	35.514	207	1	0.6	70	130	>+/-30%
Tl	205	2	165	1.071	ppb	5.419	7472	1	107.1	70	130	
Pb	208	2	165	1.026	ppb	4.996	9825	1	102.6	70	130	
Th	232	2	165	2.053	ppb	1.674	22026	2	102.7	70	130	
U	238	2	165	1.048	ppb	6.401	12913	1	104.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1413752	0.94	1554733	90.93	60	120	
Sc (IS)	45	1	HMI H2	43936839	0.07	46339121	94.82	60	120	
Sc (IS)	45	2	HMI He	458014	3.04	445795	102.74	60	120	
Sc (IS)	45	3	No Gas	140625801	0.41	164326821	85.58	60	120	
Ge Internal Standard	72	1	HMI H2	20910156	0.72	22097711	94.63	60	120	
Ge Internal Standard	72	2	HMI He	653386	1.98	629677	103.77	60	120	
In Internal Standard	115	2	HMI He	1559204	4.14	1367430	114.02	60	120	
Ho-165	165	2	HMI He	12428887	1.26	12033141	103.29	60	120	

Blank Report

Sample Table

Sample Name	mb 280-399616/1-a
Data File Name	070_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:18:20-07:00
Sample Type	Blank
Dilution	1
Comment	399616 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-18.898	ppb	-22.20887637	163169	0.5
Li	7	2	45	-42.816	ppb	-12.72007539	8726	0.5
Li	7	3	45	-40.587	ppb	-4.658308652	10701218	10
Be	9	1	6	0.001	ppb	1702.926304	3	0.5
B	11	1	6	0.477	ppb	90.99126018	937	0.5
Na	23	1	45	9.386	ppb	6.034726441	240105	25
Na	23	2	45	1.690	ppb	22.8544699	12741	25
Mg	24	2	45	0.110	ppb	724.9832975	167	25
Al	27	2	45	2.573	ppb	82.3558126	53	15
K	39	1	45	-1031.116	ppb	-1.505295384	5058561	50
K	39	2	45	-51.141	ppb	-21.47366335	4501	50
Ca	40	1	45	2.096	ppb	7.937141616	124836	50
Ca	44	2	45	5.056	ppb	432.5187889	23	25
V	51	2	72	-0.135	ppb	-28.72790006	330	1
Cr	52	2	72	0.064	ppb	86.27094615	263	1
Mn	55	2	72	0.143	ppb	117.7794358	60	0.5
Fe	57	2	72	4.692	ppb	56.78745972	133	25
Co	59	2	72	0.013	ppb	88.98057609	30	0.5
Ni	60	2	72	-0.113	ppb	-2.626270722	190	1
Cu	63	2	72	-0.660	ppb	-5.463078446	1473	1
Zn	66	2	72	0.274	ppb	102.2559857	237	5
As	75	2	72	-0.010	ppb	-988.818815	8	1
Se	78	1	72	-0.004	ppb	-340.4715708	13	1
Sr	88	2	72	-0.019	ppb	-317.5681426	7	0.5
Zr	90	2	72	0.052	ppb	11207.72099	77	1
Nb	93	2	72	-0.061	ppb	-27.35015207	187	2
Mo	95	2	115	-0.015	ppb	-1.14856949	10	0.5
Pd	105	2	115	-0.005	ppb	-70.13187969	3	1
Ag	107	2	115	0.007	ppb	41.07664237	50	1
Cd	111	2	115	-0.028	ppb	0	0	0.5
Sn	120	2	115	0.079	ppb	71.31897327	197	1
Sb	121	2	115	0.032	ppb	125.0804035	43	0.6
Ba	137	2	115	0.077	ppb	100.1565882	10	0.5
W	182	2	165	0.053	ppb	22.33608314	573	1
Pt	195	2	165	-0.004	ppb	-174.3557163	147	1
Tl	205	2	165	0.015	ppb	10.06425747	150	0.1
Pb	208	2	165	0.000	ppb	-2427.649778	730	0.5
Th	232	2	165	0.037	ppb	17.85074989	897	1
U	238	2	165	0.005	ppb	106.6325555	133	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1389984	0.79	1554733	89.40	60	120	
Sc (IS)	45	1	HMI H2	43979218	0.43	46339121	94.91	60	120	
Sc (IS)	45	2	HMI He	463649	2.14	445795	104.01	60	120	
Sc (IS)	45	3	No Gas	142154635	0.74	164326821	86.51	60	120	
Ge Internal Standard	72	1	HMI H2	20883314	0.23	22097711	94.50	60	120	
Ge Internal Standard	72	2	HMI He	656911	1.18	629677	104.33	60	120	
In Internal Standard	115	2	HMI He	1584731	1.54	1367430	115.89	60	120	
Ho-165	165	2	HMI He	12717422	0.33	12033141	105.69	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-399616/2-a
Data File Name	071_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:22:07-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399616 6020A
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	17.861	17.861	ppb	53.021	181815	400	4.5	80	120	>+/-20%
Li	7	2	45	-20.431	-20.431	ppb	-129.912	9249	400	-5.1	80	120	>+/-20%
Li	7	3	45	4.218	4.218	ppb	48.230	11535124	400	1.1	80	120	>+/-20%
Be	9	1	6	36.660	36.660	ppb	7.337	15424	40	91.7	80	120	
Na	23	2	45	-11.359	-11.359	ppb	-43.495	10654	40	-28.4	80	120	>+/-20%
Mg	24	2	45	0.315	0.315	ppb	488.431	177	40	0.8	80	120	>+/-20%
Al	27	2	45	416.884	416.884	ppb	3.734	4741	40	1042.2	80	120	>+/-20%
K	39	2	45	-34.392	-34.392	ppb	-51.621	4774	40	-86.0	80	120	>+/-20%
Ca	44	2	45	299.195	299.195	ppb	34.408	363	40	748.0	80	120	>+/-20%
V	51	2	72	39.146	39.146	ppb	4.576	30524	40	97.9	80	120	
Cr	52	2	72	38.569	38.569	ppb	2.538	41355	40	96.4	80	120	
Mn	55	2	72	39.974	39.974	ppb	7.731	10894	40	99.9	80	120	
Fe	57	2	72	405.745	405.745	ppb	1.362	7969	40	1014.4	80	120	>+/-20%
Co	59	2	72	38.937	38.937	ppb	2.251	92017	40	97.3	80	120	
Ni	60	2	72	37.500	37.500	ppb	2.775	28223	40	93.8	80	120	
Cu	63	2	72	37.614	37.614	ppb	0.692	84418	40	94.0	80	120	
Zn	66	2	72	38.979	38.979	ppb	0.523	7068	40	97.4	80	120	
As	75	2	72	36.178	36.178	ppb	4.458	3694	40	90.4	80	120	
Se	78	1	72	37.275	37.275	ppb	4.751	17314	40	93.2	80	120	
Nb	93	2	72	-0.034	-0.034	ppb	-46.881	263	40	-0.1	80	120	>+/-20%
Mo	95	2	115	36.055	36.055	ppb	0.838	31012	40	90.1	80	120	
Pd	105	2	115	0.001	0.001	ppb	781.530	13	40	0.0	80	120	>+/-20%
Ag	107	2	115	36.492	36.492	ppb	0.963	125379	40	91.2	80	120	
Cd	111	2	115	36.250	36.250	ppb	3.813	9793	40	90.6	80	120	
Sn	120	2	115	37.724	37.724	ppb	3.069	22025	40	94.3	80	120	
Sb	121	2	115	35.914	35.914	ppb	0.971	17903	40	89.8	80	120	
Ba	137	2	115	41.929	41.929	ppb	4.759	5374	40	104.8	80	120	
W	182	2	165	37.989	37.989	ppb	3.077	209128	40	95.0	80	120	
Pt	195	2	165	-0.005	-0.005	ppb	-107.177	143	40	0.0	80	120	>+/-20%
Tl	205	2	165	40.097	40.097	ppb	3.378	282626	40	100.2	80	120	
Pb	208	2	165	40.224	40.224	ppb	2.661	363693	40	100.6	80	120	
Th	232	2	165	38.616	38.616	ppb	4.557	412014	40	96.5	80	120	
U	238	2	165	39.366	39.366	ppb	3.510	490053	40	98.4	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1420376	1.42	1554733	91.36	60	120	
Sc (IS)	45	1	HMI H2	44486893	2.40	46339121	96.00	60	120	
Sc (IS)	45	2	HMI He	460168	2.46	445795	103.22	60	120	
Sc (IS)	45	3	No Gas	135968228	0.56	164326821	82.74	60	120	
Ge Internal Standard	72	1	HMI H2	21035765	1.78	22097711	95.19	60	120	
Ge Internal Standard	72	2	HMI He	654984	0.69	629677	104.02	60	120	
In Internal Standard	115	2	HMI He	1553353	1.16	1367430	113.60	60	120	
Ho-165	165	2	HMI He	12629941	1.60	12033141	104.96	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-1-d
Data File Name	072SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:25:53-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	99.675	ppb	99.675	14.60	203757	500000	
Li	7	2	45	35.859	ppb	35.859	21.79	10710	500000	
Li	7	3	45	60.623	ppb	60.623	2.04	13740462	50000	
Be	9	1	6	0.055	ppb	0.055	32.68	23	2000	
B	11	1	6	91.159	ppb	91.159	4.69	48454	2000	
Na	23	1	45	165404.196	ppb	165404.196	4.63	657411364	2000	>LDR
Na	23	2	45	143422.081	ppb	143422.081	1.59	21783030	400000	
Mg	24	2	45	35864.733	ppb	35864.733	1.05	2238131	400000	
Al	27	2	45	8.807	ppb	8.807	48.46	123	400000	
K	39	1	45	6860.210	ppb	6860.210	5.02	33502012	400000	
K	39	2	45	7295.775	ppb	7295.775	1.83	142118	400000	
Ca	40	1	45	170411.837	ppb	170411.837	5.49	1025463131	400000	
Ca	44	2	45	168010.050	ppb	168010.050	2.67	193380	400000	
V	51	2	72	5.677	ppb	5.677	9.43	4717	2000	
Cr	52	2	72	1.050	ppb	1.050	4.40	1293	5000	
Mn	55	2	72	0.148	ppb	0.148	51.43	60	10000	
Fe	57	2	72	9.492	ppb	9.492	13.22	223	400000	
Co	59	2	72	0.031	ppb	0.031	60.85	73	2000	
Ni	60	2	72	-0.035	ppb	-0.035	-208.48	243	5000	
Cu	63	2	72	-0.522	ppb	-0.522	-13.68	1740	5000	
Zn	66	2	72	0.281	ppb	0.281	130.75	233	5000	
As	75	2	72	1.127	ppb	1.127	12.21	122	2000	
Se	78	1	72	2.379	ppb	2.379	12.39	1040	2000	
Sr	88	2	72	1518.833	ppb	1518.833	2.28	287062	4000	
Zr	90	2	72	68.710	ppb	68.710	14.85	553	1000	
Nb	93	2	72	-0.079	ppb	-0.079	-11.05	133	200	
Mo	95	2	115	1.097	ppb	1.097	10.30	933	2000	
Pd	105	2	115	0.011	ppb	0.011	159.87	27	100	
Ag	107	2	115	0.008	ppb	0.008	142.09	50	100	
Cd	111	2	115	-0.002	ppb	-0.002	-2054.02	7	2000	
Sn	120	2	115	0.149	ppb	0.149	101.24	223	2000	
Sb	121	2	115	0.240	ppb	0.240	36.96	140	1000	
Ba	137	2	115	90.576	ppb	90.576	9.07	11211	5000	
W	182	2	165	0.153	ppb	0.153	11.87	1107	100	
Pt	195	2	165	-0.008	ppb	-0.008	-128.44	123	100	
Tl	205	2	165	0.024	ppb	0.024	36.44	213	2000	
Pb	208	2	165	0.009	ppb	0.009	66.82	803	5000	
Th	232	2	165	0.169	ppb	0.169	10.95	2274	2000	
U	238	2	165	5.513	ppb	5.513	1.84	68053	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1276287	3.68	1554733	82.09	60	120	
Sc (IS)	45	1	HMI H2	41350067	2.68	46339121	89.23	60	120	
Sc (IS)	45	2	HMI He	460219	1.18	445795	103.24	60	120	
Sc (IS)	45	3	No Gas	141852155	0.36	164326821	86.32	60	120	
Ge Internal Standard	72	1	HMI H2	19548327	2.91	22097711	88.46	60	120	
Ge Internal Standard	72	2	HMI He	644295	0.84	629677	102.32	60	120	
In Internal Standard	115	2	HMI He	1504487	5.68	1367430	110.02	60	120	
Ho-165	165	2	HMI He	12508010	0.57	12033141	103.95	60	120	

Sample Report

Sample Table

Sample Name	280-104707-d-4-b
Data File Name	073SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:29:41-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399616 6020A
ISTD Ref FileName	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	119.927	ppb	119.927	5.05	213324	500000	
Li	7	2	45	63.868	ppb	63.868	17.40	11537	500000	
Li	7	3	45	84.747	ppb	84.747	4.05	14349022	50000	
Be	9	1	6	0.010	ppb	0.010	295.67	7	2000	
B	11	1	6	108.028	ppb	108.028	5.56	57293	2000	
Na	23	1	45	200588.866	ppb	200588.866	4.43	800585775	2000	>LDR
Na	23	2	45	171920.168	ppb	171920.168	1.97	26332737	400000	
Mg	24	2	45	42051.537	ppb	42051.537	1.61	2646668	400000	
Al	27	2	45	3.438	ppb	3.438	61.18	63	400000	
K	39	1	45	7983.118	ppb	7983.118	4.23	37752982	400000	
K	39	2	45	8311.124	ppb	8311.124	1.46	162548	400000	
Ca	40	1	45	204285.485	ppb	204285.485	4.14	1234723075	400000	
Ca	44	2	45	198995.548	ppb	198995.548	0.35	231011	400000	
V	51	2	72	5.821	ppb	5.821	4.42	4908	2000	
Cr	52	2	72	0.799	ppb	0.799	9.00	1047	5000	
Mn	55	2	72	0.192	ppb	0.192	57.25	73	10000	
Fe	57	2	72	7.934	ppb	7.934	8.34	197	400000	
Co	59	2	72	0.020	ppb	0.020	66.66	47	2000	
Ni	60	2	72	-0.036	ppb	-0.036	-119.60	247	5000	
Cu	63	2	72	-0.579	ppb	-0.579	-4.52	1643	5000	
Zn	66	2	72	0.053	ppb	0.053	149.67	197	5000	
As	75	2	72	1.267	ppb	1.267	0.49	139	2000	
Se	78	1	72	2.063	ppb	2.063	8.39	905	2000	
Sr	88	2	72	1755.137	ppb	1755.137	1.89	337197	4000	
Zr	90	2	72	21.241	ppb	21.241	8.63	227	1000	
Nb	93	2	72	-0.079	ppb	-0.079	-3.11	137	200	
Mo	95	2	115	0.988	ppb	0.988	6.67	863	2000	
Pd	105	2	115	-0.001	ppb	-0.001	-1258.24	10	100	
Ag	107	2	115	0.012	ppb	0.012	48.91	67	100	
Cd	111	2	115	-0.015	ppb	-0.015	-139.83	3	2000	
Sn	120	2	115	-0.011	ppb	-0.011	-247.17	140	2000	
Sb	121	2	115	0.082	ppb	0.082	28.12	67	1000	
Ba	137	2	115	117.700	ppb	117.700	4.01	14931	5000	
W	182	2	165	0.135	ppb	0.135	19.25	1023	100	
Pt	195	2	165	-0.017	ppb	-0.017	-34.48	70	100	
Tl	205	2	165	0.006	ppb	0.006	42.87	90	2000	
Pb	208	2	165	-0.010	ppb	-0.010	-98.41	637	5000	
Th	232	2	165	0.045	ppb	0.045	8.84	977	2000	
U	238	2	165	7.795	ppb	7.795	2.75	97486	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1276083	3.19	1554733	82.08	60	120	
Sc (IS)	45	1	HMI H2	41520767	2.47	46339121	89.60	60	120	
Sc (IS)	45	2	HMI He	464229	1.43	445795	104.14	60	120	
Sc (IS)	45	3	No Gas	140663161	0.61	164326821	85.60	60	120	
Ge Internal Standard	72	1	HMI H2	19546531	2.87	22097711	88.46	60	120	
Ge Internal Standard	72	2	HMI He	655061	1.24	629677	104.03	60	120	
In Internal Standard	115	2	HMI He	1536950	1.81	1367430	112.40	60	120	
Ho-165	165	2	HMI He	12678385	1.33	12033141	105.36	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	074_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:33:30-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	450.939	ppb	0.945	378398	500	90.2	90	110	
Li	7	2	45	398.840	ppb	13.153	19818	500	79.8	90	110	>+\-10%
Li	7	3	45	412.022	ppb	1.014	24702278	500	82.4	90	110	>+\-10%
Be	9	1	6	47.995	ppb	4.494	19881	50	96.0	90	110	
B	11	1	6	45.775	ppb	1.198	27004	50	91.5	90	110	
Na	23	1	45	5168.077	ppb	0.297	22212726	5000	103.4	90	110	
Na	23	2	45	4963.580	ppb	3.027	753690	5000	99.3	90	110	
Mg	24	2	45	5221.662	ppb	2.433	320825	5000	104.4	90	110	
Al	27	2	45	5521.035	ppb	2.987	61478	5000	110.4	90	110	>+\-10%
K	39	1	45	5159.294	ppb	0.960	29263357	5000	103.2	90	110	
K	39	2	45	5465.732	ppb	2.829	106126	5000	109.3	90	110	
Ca	40	1	45	5172.910	ppb	0.798	33479068	5000	103.5	90	110	
Ca	44	2	45	5686.853	ppb	8.225	6455	5000	113.7	90	110	>+\-10%
V	51	2	72	49.583	ppb	0.658	38185	50	99.2	90	110	
Cr	52	2	72	50.720	ppb	3.430	53799	50	101.4	90	110	
Mn	55	2	72	51.108	ppb	2.256	13793	50	102.2	90	110	
Fe	57	2	72	5051.434	ppb	2.581	97772	5000	101.0	90	110	
Co	59	2	72	49.618	ppb	2.813	116116	50	99.2	90	110	
Ni	60	2	72	47.667	ppb	1.663	35470	50	95.3	90	110	
Cu	63	2	72	47.421	ppb	2.753	104654	50	94.8	90	110	
Zn	66	2	72	50.294	ppb	4.576	8979	50	100.6	90	110	
As	75	2	72	50.579	ppb	4.248	5111	50	101.2	90	110	
Se	78	1	72	50.269	ppb	1.889	23404	50	100.5	90	110	
Sr	88	2	72	54.151	ppb	3.766	10313	50	108.3	90	110	
Zr	90	2	72	84.307	ppb	11.129	667	50	168.6	90	110	>+\-10%
Nb	93	2	72	102.057	ppb	1.698	287120	100	102.1	90	110	
Mo	95	2	115	46.366	ppb	4.845	38384	50	92.7	90	110	
Pd	105	2	115	47.632	ppb	2.377	74596	50	95.3	90	110	
Ag	107	2	115	47.445	ppb	3.224	156941	50	94.9	90	110	
Cd	111	2	115	50.863	ppb	3.519	13239	50	101.7	90	110	
Sn	120	2	115	49.926	ppb	6.876	28001	50	99.9	90	110	
Sb	121	2	115	48.550	ppb	5.956	23303	50	97.1	90	110	
Ba	137	2	115	53.858	ppb	1.916	6655	50	107.7	90	110	
W	182	2	165	51.232	ppb	1.344	278142	50	102.5	90	110	
Pt	195	2	165	49.444	ppb	0.601	297879	50	98.9	90	110	
Tl	205	2	165	51.415	ppb	1.394	357539	50	102.8	90	110	
Pb	208	2	165	51.749	ppb	1.425	461368	50	103.5	90	110	
Th	232	2	165	50.941	ppb	2.385	536093	50	101.9	90	110	
U	238	2	165	51.297	ppb	2.302	629970	50	102.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1397575	0.05	1554733	89.89	60	120	
Sc (IS)	45	1	HMI H2	44285181	0.18	46339121	95.57	60	120	
Sc (IS)	45	2	HMI He	453132	2.62	445795	101.65	60	120	
Sc (IS)	45	3	No Gas	143775711	0.17	164326821	87.49	60	120	
Ge Internal Standard	72	1	HMI H2	21078425	0.46	22097711	95.39	60	120	
Ge Internal Standard	72	2	HMI He	648750	1.51	629677	103.03	60	120	
In Internal Standard	115	2	HMI He	1496407	2.49	1367430	109.43	60	120	
Ho-165	165	2	HMI He	12456814	0.74	12033141	103.52	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	075_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:37:17-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-38.733	ppb	-6.2	10739994	10	
Be	9	1	6	0.000	ppb	-6057.7	3	0.5	
B	11	1	6	1.055	ppb	36.7	1327	0.5	>RL
Na	23	1	45	36.989	ppb	18.3	373288	25	>RL
Na	23	2	45	27.622	ppb	23.5	16248	25	>RL
Mg	24	2	45	0.963	ppb	129.9	213	25	
Al	27	2	45	-0.026	ppb	-8058.8	23	15	
K	39	1	45	-131.658	ppb	-112.3	8945202	50	
K	39	2	45	-14.070	ppb	-77.3	5058	50	
Ca	40	1	45	7.557	ppb	34.7	166991	50	
Ca	44	2	45	14.313	ppb	217.6	33	25	
V	51	2	72	-0.008	ppb	-879.3	420	1	
Cr	52	2	72	0.009	ppb	797.9	200	1	
Mn	55	2	72	0.011	ppb	193.8	23	0.5	
Fe	57	2	72	1.331	ppb	55.6	67	25	
Co	59	2	72	0.004	ppb	100.2	10	0.5	
Ni	60	2	72	-0.035	ppb	-225.9	243	1	
Cu	63	2	72	0.012	ppb	97.8	2880	1	
Zn	66	2	72	0.014	ppb	3249.1	187	5	
As	75	2	72	0.050	ppb	161.1	14	1	
Se	78	1	72	0.040	ppb	69.2	35	1	
Sr	88	2	72	0.000	ppb	58975.2	10	0.5	
Zr	90	2	72	-0.741	ppb	-27.0	70	1	
Nb	93	2	72	0.692	ppb	7.9	2287	2	
Mo	95	2	115	0.016	ppb	337.6	33	0.5	
Pd	105	2	115	0.024	ppb	80.4	50	1	
Ag	107	2	115	0.008	ppb	45.0	53	1	
Cd	111	2	115	-0.028	ppb	0.0	0	0.5	
Sn	120	2	115	0.008	ppb	1322.4	147	1	
Sb	121	2	115	0.195	ppb	11.7	120	0.6	
Ba	137	2	115	0.025	ppb	173.2	3	0.5	
W	182	2	165	0.023	ppb	30.7	397	1	
Pt	195	2	165	0.000	ppb	-3592.7	167	1	
Tl	205	2	165	0.027	ppb	80.2	230	0.1	
Pb	208	2	165	0.000	ppb	-24049.2	713	0.5	
Th	232	2	165	0.069	ppb	30.9	1210	1	
U	238	2	165	0.009	ppb	85.2	187	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1460851	7.23	1554733	93.96	60	120	
Sc (IS)	45	1	HMI H2	46174841	6.91	46339121	99.65	60	120	
Sc (IS)	45	2	HMI He	451177	2.39	445795	101.21	60	120	
Sc (IS)	45	3	No Gas	141926331	0.71	164326821	86.37	60	120	
Ge Internal Standard	72	1	HMI H2	21712823	6.04	22097711	98.26	60	120	
Ge Internal Standard	72	2	HMI He	644811	1.97	629677	102.40	60	120	
In Internal Standard	115	2	HMI He	1503203	7.59	1367430	109.93	60	120	
Ho-165	165	2	HMI He	12438748	3.07	12033141	103.37	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	076LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:41:04-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-27.321	ppb	-23.707	11120645	50	-54.6	70	130	>+/-30%
Be	9	1	6	0.978	ppb	23.976	410	1	97.8	70	130	
Na	23	2	45	61.820	ppb	3.867	21784	50	123.6	70	130	
Mg	24	2	45	52.081	ppb	5.984	3407	50	104.2	70	130	
Al	27	2	45	26.091	ppb	22.739	320	30	87.0	70	130	
K	39	2	45	71.035	ppb	27.141	6758	100	71.0	70	130	
Ca	44	2	45	60.291	ppb	8.999	87	50	120.6	70	130	
V	51	2	72	4.506	ppb	6.449	3897	5	90.1	70	130	
Cr	52	2	72	1.806	ppb	3.953	2120	2	90.3	70	130	
Mn	55	2	72	1.014	ppb	2.853	297	1	101.4	70	130	
Fe	57	2	72	52.805	ppb	4.983	1073	50	105.6	70	130	
Co	59	2	72	1.035	ppb	5.585	2444	1	103.5	70	130	
Ni	60	2	72	1.759	ppb	9.048	1583	2	88.0	70	130	
Cu	63	2	72	2.337	ppb	2.670	7962	2	116.8	70	130	
Zn	66	2	72	10.577	ppb	17.499	2054	10	105.8	70	130	
As	75	2	72	4.487	ppb	9.909	466	5	89.7	70	130	
Se	78	1	72	5.287	ppb	4.844	2458	5	105.7	70	130	
Sr	88	2	72	1.305	ppb	47.811	260	1	130.5	70	130	>+/-30%
Zr	90	2	72	19.315	ppb	61.421	213	0.5	3863.0	70	130	>+/-30%
Nb	93	2	72	0.648	ppb	4.842	2197	2	32.4	70	130	>+/-30%
Mo	95	2	115	1.637	ppb	10.320	1430	2	81.9	70	130	
Pd	105	2	115	0.018	ppb	125.148	40	1	1.8	70	130	>+/-30%
Ag	107	2	115	4.378	ppb	0.887	15077	5	87.6	70	130	
Cd	111	2	115	0.933	ppb	12.267	260	1	93.3	70	130	
Sn	120	2	115	9.125	ppb	6.224	5438	10	91.3	70	130	
Sb	121	2	115	1.911	ppb	14.153	980	2	95.5	70	130	
Ba	137	2	115	1.145	ppb	12.188	147	1	114.5	70	130	
W	182	2	165	4.700	ppb	2.285	26049	1	470.0	70	130	>+/-30%
Pt	195	2	165	0.002	ppb	377.747	187	1	0.2	70	130	>+/-30%
Tl	205	2	165	1.023	ppb	1.756	7239	1	102.3	70	130	
Pb	208	2	165	0.995	ppb	3.280	9675	1	99.5	70	130	
Th	232	2	165	1.945	ppb	3.850	21172	2	97.3	70	130	
U	238	2	165	0.967	ppb	2.410	12072	1	96.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1404321	0.82	1554733	90.33	60	120	
Sc (IS)	45	1	HMI H2	43894221	0.03	46339121	94.72	60	120	
Sc (IS)	45	2	HMI He	460369	1.70	445795	103.27	60	120	
Sc (IS)	45	3	No Gas	142388845	0.92	164326821	86.65	60	120	
Ge Internal Standard	72	1	HMI H2	20931431	0.59	22097711	94.72	60	120	
Ge Internal Standard	72	2	HMI He	654818	1.65	629677	103.99	60	120	
In Internal Standard	115	2	HMI He	1554818	3.04	1367430	113.70	60	120	
Ho-165	165	2	HMI He	12592407	1.24	12033141	104.65	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	077WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:45:45-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.007	ppb	0	0	0.5
Na	23	2	45	-12.147	ppb	-37.72149763	10253	25
Mg	24	2	45	-0.154	ppb	-551.891427	143	25
Al	27	2	45	4.317	ppb	62.08349247	70	15
K	39	2	45	-20.746	ppb	-67.70508807	4911	50
Ca	44	2	45	2.293	ppb	973.3111991	20	25
V	51	2	72	0.077	ppb	88.15873351	480	1
Cr	52	2	72	0.061	ppb	120.4039191	253	1
Mn	55	2	72	0.013	ppb	611.6577479	23	0.5
Fe	57	2	72	3.359	ppb	84.09602401	103	25
Co	59	2	72	0.001	ppb	173.2050808	3	0.5
Ni	60	2	72	-0.063	ppb	-202.0916752	220	1
Cu	63	2	72	-0.712	ppb	-9.776672252	1323	1
Zn	66	2	72	0.056	ppb	439.155444	193	5
As	75	2	72	-0.028	ppb	-34.16001815	7	1
Se	78	1	72	-0.018	ppb	-74.20402463	7	1
Nb	93	2	72	-0.052	ppb	-19.89343344	207	2
Mo	95	2	115	-0.019	ppb	-67.48298529	7	0.5
Pd	105	2	115	0.020	ppb	18.79349714	43	1
Ag	107	2	115	0.005	ppb	121.2210467	43	1
Cd	111	2	115	-0.028	ppb	0	0	0.5
Sn	120	2	115	0.032	ppb	371.2111411	163	1
Sb	121	2	115	0.111	ppb	38.36872976	80	0.6
Ba	137	2	115	0.103	ppb	86.7136495	13	0.5
W	182	2	165	0.027	ppb	67.92072967	417	1
Pt	195	2	165	-0.011	ppb	-24.98081296	100	1
Tl	205	2	165	0.005	ppb	209.3978091	77	0.1
Pb	208	2	165	-0.029	ppb	-34.8287579	457	0.5
Th	232	2	165	0.012	ppb	122.1733649	613	1
U	238	2	165	-0.001	ppb	-181.1745034	53	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1412776	0.79	1554733	90.87	60	120	
Sc (IS)	45	1	HMI H2	43398118	0.89	46339121	93.65	60	120	
Sc (IS)	45	2	HMI He	447999	5.21	445795	100.49	60	120	
Sc (IS)	45	3	No Gas	142528258	0.09	164326821	86.73	60	120	
Ge Internal Standard	72	1	HMI H2	20533355	0.93	22097711	92.92	60	120	
Ge Internal Standard	72	2	HMI He	639123	3.49	629677	101.50	60	120	
In Internal Standard	115	2	HMI He	1509653	7.72	1367430	110.40	60	120	
Ho-165	165	2	HMI He	12424435	4.19	12033141	103.25	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	078WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:49:32-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.007	ppb	0	0	0.5
Na	23	2	45	-15.098	ppb	-37.09459079	9803	25
Mg	24	2	45	0.432	ppb	212.5893338	180	25
Al	27	2	45	3.344	ppb	99.10749443	60	15
K	39	2	45	-36.405	ppb	-18.2798738	4604	50
Ca	44	2	45	17.782	ppb	28.34157419	37	25
V	51	2	72	0.092	ppb	97.21281463	490	1
Cr	52	2	72	0.014	ppb	159.0912834	203	1
Mn	55	2	72	-0.001	ppb	-9061.585615	20	0.5
Fe	57	2	72	2.974	ppb	57.64106687	97	25
Co	59	2	72	0.001	ppb	173.2050808	3	0.5
Ni	60	2	72	-0.124	ppb	-93.80032312	177	1
Cu	63	2	72	-0.708	ppb	-8.78594224	1327	1
Zn	66	2	72	0.086	ppb	616.3351759	197	5
As	75	2	72	0.006	ppb	1189.195531	10	1
Se	78	1	72	0.005	ppb	250.4464934	17	1
Nb	93	2	72	-0.055	ppb	-7.642924966	200	2
Mo	95	2	115	0.002	ppb	399.1176267	23	0.5
Pd	105	2	115	0.002	ppb	618.5846347	13	1
Ag	107	2	115	0.004	ppb	182.6618753	40	1
Cd	111	2	115	-0.001	ppb	-3837.768354	7	0.5
Sn	120	2	115	-0.008	ppb	-486.0895829	137	1
Sb	121	2	115	0.095	ppb	71.31534121	70	0.6
Ba	137	2	115	0.026	ppb	173.2050808	3	0.5
W	182	2	165	0.019	ppb	44.20096566	377	1
Pt	195	2	165	-0.018	ppb	-53.28633582	63	1
Tl	205	2	165	0.006	ppb	39.64882777	83	0.1
Pb	208	2	165	-0.019	ppb	-51.53159626	547	0.5
Th	232	2	165	0.010	ppb	197.3603141	590	1
U	238	2	165	0.003	ppb	141.4227021	110	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1410753	0.94	1554733	90.74	60	120	
Sc (IS)	45	1	HMI H2	43060914	0.91	46339121	92.93	60	120	
Sc (IS)	45	2	HMI He	446837	0.43	445795	100.23	60	120	
Sc (IS)	45	3	No Gas	142046008	0.36	164326821	86.44	60	120	
Ge Internal Standard	72	1	HMI H2	20578341	0.23	22097711	93.12	60	120	
Ge Internal Standard	72	2	HMI He	636171	0.74	629677	101.03	60	120	
In Internal Standard	115	2	HMI He	1489272	3.39	1367430	108.91	60	120	
Ho-165	165	2	HMI He	12433936	1.27	12033141	103.33	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	079WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:53:20-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.007	ppb	0	0	0.5
Na	23	2	45	-15.758	ppb	-29.26800895	9590	25
Mg	24	2	45	0.359	ppb	184.4809572	173	25
Al	27	2	45	2.459	ppb	32.51115038	50	15
K	39	2	45	-33.774	ppb	-13.71951971	4601	50
Ca	44	2	45	3.251	ppb	296.7550728	20	25
V	51	2	72	0.030	ppb	370.9823094	440	1
Cr	52	2	72	-0.014	ppb	-140.8522895	173	1
Mn	55	2	72	0.091	ppb	221.5926126	43	0.5
Fe	57	2	72	3.301	ppb	72.45325168	103	25
Co	59	2	72	0.006	ppb	173.2050808	13	0.5
Ni	60	2	72	-0.116	ppb	-64.97464567	180	1
Cu	63	2	72	-0.769	ppb	-4.872323339	1193	1
Zn	66	2	72	-0.117	ppb	-458.4654445	160	5
As	75	2	72	-0.001	ppb	-4108.655177	9	1
Se	78	1	72	0.002	ppb	516.3930336	16	1
Nb	93	2	72	-0.079	ppb	-14.99698548	133	2
Mo	95	2	115	0.014	ppb	271.1537591	33	0.5
Pd	105	2	115	-0.005	ppb	-84.16557698	3	1
Ag	107	2	115	0.007	ppb	32.9040943	47	1
Cd	111	2	115	-0.001	ppb	-1927.951473	7	0.5
Sn	120	2	115	0.115	ppb	101.7863104	200	1
Sb	121	2	115	0.034	ppb	180.9068699	40	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.002	ppb	268.207333	283	1
Pt	195	2	165	-0.016	ppb	-48.78225225	70	1
Tl	205	2	165	0.003	ppb	91.60000534	67	0.1
Pb	208	2	165	-0.016	ppb	-47.94623609	577	0.5
Th	232	2	165	-0.008	ppb	-62.25106302	407	1
U	238	2	165	0.002	ppb	291.0092439	90	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1438032	0.62	1554733	92.49	60	120	
Sc (IS)	45	1	HMI H2	44281558	0.76	46339121	95.56	60	120	
Sc (IS)	45	2	HMI He	442023	3.16	445795	99.15	60	120	
Sc (IS)	45	3	No Gas	139214395	0.66	164326821	84.72	60	120	
Ge Internal Standard	72	1	HMI H2	21026230	0.15	22097711	95.15	60	120	
Ge Internal Standard	72	2	HMI He	633804	2.48	629677	100.66	60	120	
In Internal Standard	115	2	HMI He	1461007	4.74	1367430	106.84	60	120	
Ho-165	165	2	HMI He	12389435	2.99	12033141	102.96	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	080WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T15:57:08-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.001	ppb	2120.733364	3	0.5
Na	23	2	45	-16.659	ppb	-20.70257195	9243	25
Mg	24	2	45	-0.315	ppb	-426.0636198	130	25
Al	27	2	45	7.623	ppb	7.78944373	103	15
K	39	2	45	-34.431	ppb	-21.3865029	4477	50
Ca	44	2	45	6.608	ppb	453.0092857	23	25
V	51	2	72	0.063	ppb	204.6688152	453	1
Cr	52	2	72	0.107	ppb	43.70075225	290	1
Mn	55	2	72	0.066	ppb	87.01941316	37	0.5
Fe	57	2	72	3.133	ppb	12.44525935	97	25
Co	59	2	72	0.001	ppb	173.2050808	3	0.5
Ni	60	2	72	-0.015	ppb	-789.0772207	247	1
Cu	63	2	72	-0.796	ppb	-11.54263131	1103	1
Zn	66	2	72	-0.017	ppb	-2037.326176	173	5
As	75	2	72	0.023	ppb	59.42744675	11	1
Se	78	1	72	-0.003	ppb	-388.648464	13	1
Nb	93	2	72	-0.061	ppb	-26.29198086	177	2
Mo	95	2	115	0.008	ppb	397.9167219	27	0.5
Pd	105	2	115	0.004	ppb	89.17265704	17	1
Ag	107	2	115	0.002	ppb	6.9444869	30	1
Cd	111	2	115	-0.014	ppb	-172.5685694	3	0.5
Sn	120	2	115	-0.016	ppb	-484.7953616	123	1
Sb	121	2	115	0.000	ppb	-6618.408633	23	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.038	ppb	34.55915841	463	1
Pt	195	2	165	-0.020	ppb	-16.87203424	50	1
Tl	205	2	165	0.000	ppb	1052.222128	47	0.1
Pb	208	2	165	-0.022	ppb	-35.6160533	503	0.5
Th	232	2	165	0.008	ppb	99.00322398	553	1
U	238	2	165	0.001	ppb	386.0531715	77	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1411738	2.11	1554733	90.80	60	120	
Sc (IS)	45	1	HMI H2	43341226	1.18	46339121	93.53	60	120	
Sc (IS)	45	2	HMI He	431297	1.85	445795	96.75	60	120	
Sc (IS)	45	3	No Gas	141582115	0.56	164326821	86.16	60	120	
Ge Internal Standard	72	1	HMI H2	20659898	1.00	22097711	93.49	60	120	
Ge Internal Standard	72	2	HMI He	616661	1.69	629677	97.93	60	120	
In Internal Standard	115	2	HMI He	1383417	1.47	1367430	101.17	60	120	
Ho-165	165	2	HMI He	12060610	1.98	12033141	100.23	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	081WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:00:57-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	015CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.008	ppb	162.0788991	7	0.5
Na	23	2	45	-17.954	ppb	-11.7482655	9159	25
Mg	24	2	45	-0.249	ppb	-523.380804	137	25
Al	27	2	45	0.030	ppb	3470.138856	23	15
K	39	2	45	-28.880	ppb	-82.60843274	4631	50
Ca	44	2	45	3.368	ppb	272.1775132	20	25
V	51	2	72	0.024	ppb	411.6566029	430	1
Cr	52	2	72	0.048	ppb	81.98832316	233	1
Mn	55	2	72	0.013	ppb	433.2508028	23	0.5
Fe	57	2	72	3.392	ppb	77.48324452	103	25
Co	59	2	72	0.007	ppb	35.96751806	17	0.5
Ni	60	2	72	-0.165	ppb	-43.39444101	143	1
Cu	63	2	72	-0.781	ppb	-10.66850753	1147	1
Zn	66	2	72	-0.171	ppb	-96.13704263	150	5
As	75	2	72	-0.066	ppb	-48.25538321	3	1
Se	78	1	72	0.002	ppb	649.1384952	16	1
Nb	93	2	72	-0.073	ppb	-32.38406275	147	2
Mo	95	2	115	0.003	ppb	506.0045772	23	0.5
Pd	105	2	115	0.011	ppb	90.56109444	27	1
Ag	107	2	115	0.000	ppb	-27390.07473	23	1
Cd	111	2	115	-0.028	ppb	0	0	0.5
Sn	120	2	115	-0.121	ppb	-59.93123673	70	1
Sb	121	2	115	0.125	ppb	100.469388	80	0.6
Ba	137	2	115	0.030	ppb	173.2050808	3	0.5
W	182	2	165	0.017	ppb	46.79440156	360	1
Pt	195	2	165	-0.015	ppb	-52.9520235	77	1
Tl	205	2	165	0.001	ppb	784.1748455	50	0.1
Pb	208	2	165	-0.015	ppb	-59.71708941	577	0.5
Th	232	2	165	-0.002	ppb	-410.6249718	460	1
U	238	2	165	-0.001	ppb	-371.8725276	60	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1406238	3.73	1554733	90.45	60	120	
Sc (IS)	45	1	HMI H2	42206014	6.17	46339121	91.08	60	120	
Sc (IS)	45	2	HMI He	436078	2.57	445795	97.82	60	120	
Sc (IS)	45	3	No Gas	140523788	0.16	164326821	85.51	60	120	
Ge Internal Standard	72	1	HMI H2	20314526	5.77	22097711	91.93	60	120	
Ge Internal Standard	72	2	HMI He	624005	2.50	629677	99.10	60	120	
In Internal Standard	115	2	HMI He	1422134	5.55	1367430	104.00	60	120	
Ho-165	165	2	HMI He	12244177	1.34	12033141	101.75	60	120	

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	082CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:04:45-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	166737	0.00
Li	7	2	HMI He	8953	0.07
Li	7	3	No Gas	11116357	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	470	2.07
Na	23	1	HMI H2	198697	0.00
Na	23	2	HMI He	10653	0.02
Mg	24	2	HMI He	143	37.81
Al	27	2	HMI He	57	64.83
K	39	2	HMI He	4454	0.24
Ca	44	2	HMI He	27	81.19
Ti	47	2	HMI He	7	2598.08
V	51	2	HMI He	310	1.80
Cr	52	2	HMI He	217	19.79
Mn	55	2	HMI He	27	353.90
Fe	57	2	HMI He	67	56.62
Co	59	2	HMI He	3	5196.15
Ni	60	2	HMI He	267	2.15
Cu	63	2	HMI He	2257	0.43
Zn	66	2	HMI He	123	31.07
As	75	2	HMI He	7	701.41
Se	78	1	HMI H2	12	481.13
Sr	88	2	HMI He	13	324.76
Zr	90	2	HMI He	57	78.37
Nb	93	2	HMI He	73	95.42
Mo	95	2	HMI He	30	293.97
Pd	105	2	HMI He	10	1000.00
Ag	107	2	HMI He	37	171.77
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	173	19.21
Sb	121	2	HMI He	50	160.00
Ba	137	2	HMI He	3	5196.15
W	182	2	HMI He	277	15.14
Pt	195	2	HMI He	63	28.79
Tl	205	2	HMI He	57	78.37
Pb	208	2	HMI He	613	0.85
Th	232	2	HMI He	370	3.35
U	238	2	HMI He	43	187.02

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1444259	1.73
Sc (IS)	45	1	HMI H2	44158909	2.68
Sc (IS)	45	2	HMI He	445553	1.40
Sc (IS)	45	3	No Gas	142336898	0.22
Ge Internal Standard	72	1	HMI H2	20971771	2.73
Ge Internal Standard	72	2	HMI He	629274	0.48
In Internal Standard	115	2	HMI He	1441999	3.45
Ho-165	165	2	HMI He	12406552	1.40

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	083CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:08:34-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	571931	0.00
Li	7	2	HMI He	31073	0.01
Li	7	3	No Gas	38875348	0.00
Be	9	1	HMI H2	37829	0.00
B	11	1	HMI H2	53963	0.00
Na	23	1	HMI H2	40344984	0.00
Na	23	2	HMI He	1419389	0.00
Mg	24	2	HMI He	597131	0.00
Al	27	2	HMI He	110949	0.00
K	39	1	HMI H2	46111681	0.00
K	39	2	HMI He	188167	0.00
Ca	40	1	HMI H2	61317117	0.00
Ca	44	2	HMI He	11554	0.01
Ti	47	2	HMI He	7	2598.08
V	51	2	HMI He	71905	0.00
Cr	52	2	HMI He	97675	0.00
Mn	55	2	HMI He	25719	0.01
Fe	57	2	HMI He	180746	0.00
Co	59	2	HMI He	220532	0.00
Ni	60	2	HMI He	67492	0.00
Cu	63	2	HMI He	200372	0.00
Zn	66	2	HMI He	16238	0.02
As	75	2	HMI He	9602	0.03
Se	78	1	HMI H2	44022	0.00
Sr	88	2	HMI He	19084	0.00
Zr	90	2	HMI He	720	3.79
Nb	93	2	HMI He	543895	0.00
Mo	95	2	HMI He	73600	0.00
Pd	105	2	HMI He	139143	0.00
Ag	107	2	HMI He	296160	0.00
Cd	111	2	HMI He	24752	0.01
Sn	120	2	HMI He	53361	0.00
Sb	121	2	HMI He	44255	0.00
Ba	137	2	HMI He	11995	0.02
Nd	146	2	HMI He	63857	0.01
Sm	147	2	HMI He	55661	0.00
Sm	150	2	HMI He	55925	0.00
Gd	156	1	HMI H2	1093684	0.00
Gd	157	1	HMI H2	837223	0.00
W	182	2	HMI He	538970	0.00
Pt	195	2	HMI He	581175	0.00
Tl	205	2	HMI He	689803	0.00
Pb	208	2	HMI He	889930	0.00
Th	232	2	HMI He	1028242	0.00
U	238	2	HMI He	1212126	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1384428	1.17	1444259	95.86	60	120	
Sc (IS)	45	1	HMI H2	43139138	1.06	44158909	97.69	60	120	
Sc (IS)	45	2	HMI He	435885	1.50	445553	97.83	60	120	
Sc (IS)	45	3	No Gas	137483398	1.19	142336898	96.59	60	120	
Ge Internal Standard	72	1	HMI H2	20440246	0.58	20971771	97.47	60	120	
Ge Internal Standard	72	2	HMI He	624069	0.77	629274	99.17	60	120	
In Internal Standard	115	2	HMI He	1390348	1.26	1441999	96.42	60	120	
Ho-165	165	2	HMI He	12240388	0.49	12406552	98.66	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	084_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:12:22-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	567.501	ppb	5.293	371187	500	113.5	90	110	>+\-10%
Li	7	2	45	453.801	ppb	5.233	19641	500	90.8	90	110	
Li	7	3	45	493.379	ppb	1.042	24634377	500	98.7	90	110	
Be	9	1	6	54.033	ppb	3.307	20015	50	108.1	90	110	
B	11	1	6	38.703	ppb	3.204	20722	50	77.4	90	110	>+\-10%
Na	23	1	45	5581.662	ppb	6.362	21226109	5000	111.6	90	110	>+\-10%
Na	23	2	45	4559.165	ppb	1.118	679079	5000	91.2	90	110	
Mg	24	2	45	4677.651	ppb	0.343	290615	5000	93.6	90	110	
Al	27	2	45	4748.602	ppb	0.603	54840	5000	95.0	90	110	
K	39	1	45	5673.785	ppb	5.840	27968305	5000	113.5	90	110	>+\-10%
K	39	2	45	4714.777	ppb	2.201	94696	5000	94.3	90	110	
Ca	40	1	45	5677.414	ppb	6.435	32735954	5000	113.5	90	110	>+\-10%
Ca	44	2	45	4749.130	ppb	8.220	5721	5000	95.0	90	110	
Ti	47	2	45	-5061.978	ppb	0.000	0	50	-10124.0	90	110	>+\-10%
V	51	2	72	45.919	ppb	3.628	34350	50	91.8	90	110	
Cr	52	2	72	47.652	ppb	2.304	48293	50	95.3	90	110	
Mn	55	2	72	47.815	ppb	3.965	12752	50	95.6	90	110	
Fe	57	2	72	4639.663	ppb	3.561	86839	5000	92.8	90	110	
Co	59	2	72	46.187	ppb	2.064	105443	50	92.4	90	110	
Ni	60	2	72	46.727	ppb	3.360	32788	50	93.5	90	110	
Cu	63	2	72	46.141	ppb	0.808	96967	50	92.3	90	110	
Zn	66	2	72	46.890	ppb	4.991	7949	50	93.8	90	110	
As	75	2	72	46.766	ppb	3.202	4653	50	93.5	90	110	
Se	78	1	72	54.227	ppb	6.224	22906	50	108.5	90	110	
Sr	88	2	72	45.921	ppb	4.223	9083	50	91.8	90	110	
Zr	90	2	72	18.749	ppb	27.019	187	50	37.5	90	110	>+\-10%
Nb	93	2	72	92.979	ppb	2.674	261772	100	93.0	90	110	
Mo	95	2	115	44.065	ppb	4.422	35277	50	88.1	90	110	>+\-10%
Pd	105	2	115	45.290	ppb	3.265	68524	50	90.6	90	110	
Ag	107	2	115	44.633	ppb	5.029	143659	50	89.3	90	110	>+\-10%
Cd	111	2	115	42.430	ppb	1.915	11434	50	84.9	90	110	>+\-10%
Sn	120	2	115	44.391	ppb	2.702	25864	50	88.8	90	110	>+\-10%
Sb	121	2	115	44.707	ppb	3.043	21541	50	89.4	90	110	>+\-10%
Ba	137	2	115	43.656	ppb	11.633	5678	50	87.3	90	110	>+\-10%
W	182	2	165	44.963	ppb	2.123	254998	50	89.9	90	110	>+\-10%
Pt	195	2	165	45.430	ppb	1.019	277743	50	90.9	90	110	
Tl	205	2	165	45.992	ppb	2.125	333666	50	92.0	90	110	
Pb	208	2	165	45.012	ppb	3.588	421547	50	90.0	90	110	
Th	232	2	165	44.832	ppb	2.719	484953	50	89.7	90	110	>+\-10%
U	238	2	165	44.918	ppb	3.447	572520	50	89.8	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1356019	1.96	1444259	93.89	60	120	
Sc (IS)	45	1	HMI H2	40564747	3.45	44158909	91.86	60	120	
Sc (IS)	45	2	HMI He	453381	1.06	445553	101.76	60	120	
Sc (IS)	45	3	No Gas	137553135	0.56	142336898	96.64	60	120	
Ge Internal Standard	72	1	HMI H2	19636884	3.61	20971771	93.63	60	120	
Ge Internal Standard	72	2	HMI He	646072	1.65	629274	102.67	60	120	
In Internal Standard	115	2	HMI He	1513077	5.06	1441999	104.93	60	120	
Ho-165	165	2	HMI He	12875539	1.83	12406552	103.78	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	085_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:16:10-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	5.628	ppb	40.8	10995991	10	
Be	9	1	6	0.052	ppb	86.6	20	0.5	
B	11	1	6	0.907	ppb	2.1	943	0.5	>RL
Na	23	1	45	6.792	ppb	14.3	214788	25	
Na	23	2	45	0.379	ppb	450.6	10674	25	
Mg	24	2	45	0.725	ppb	127.3	187	25	
Al	27	2	45	-3.246	ppb	-26.4	20	15	
K	39	1	45	136.969	ppb	24.7	8587778	50	>RL
K	39	2	45	1.346	ppb	2004.0	4464	50	
Ca	40	1	45	1.866	ppb	35.4	124585	50	
Ca	44	2	45	-11.334	ppb	-41.1	13	25	
Ti	47	2	45	-2539.353	ppb	-172.1	3	0.5	
V	51	2	72	0.160	ppb	66.1	430	1	
Cr	52	2	72	-0.079	ppb	-23.8	140	1	
Mn	55	2	72	-0.078	ppb	-28.3	7	0.5	
Fe	57	2	72	0.725	ppb	278.9	80	25	
Co	59	2	72	0.005	ppb	230.7	13	0.5	
Ni	60	2	72	-0.096	ppb	-60.6	203	1	
Cu	63	2	72	0.053	ppb	195.8	2380	1	
Zn	66	2	72	0.263	ppb	158.0	167	5	
As	75	2	72	0.061	ppb	119.9	12	1	
Se	78	1	72	0.044	ppb	86.4	31	1	
Sr	88	2	72	-0.069	ppb	0.0	0	0.5	
Zr	90	2	72	3.710	ppb	324.5	83	1	>RL
Nb	93	2	72	0.827	ppb	14.6	2357	2	
Mo	95	2	115	0.015	ppb	109.5	43	0.5	
Pd	105	2	115	0.042	ppb	64.8	70	1	
Ag	107	2	115	0.007	ppb	207.3	60	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.075	ppb	-144.0	133	1	
Sb	121	2	115	0.184	ppb	42.5	137	0.6	
Ba	137	2	115	0.053	ppb	263.6	10	0.5	
W	182	2	165	0.060	ppb	26.9	603	1	
Pt	195	2	165	0.020	ppb	57.8	183	1	
Tl	205	2	165	0.024	ppb	17.6	223	0.1	
Pb	208	2	165	0.017	ppb	105.2	773	0.5	
Th	232	2	165	0.074	ppb	11.4	1147	1	
U	238	2	165	0.010	ppb	39.1	173	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1396310	1.21	1444259	96.68	60	120	
Sc (IS)	45	1	HMI H2	41833460	1.72	44158909	94.73	60	120	
Sc (IS)	45	2	HMI He	444211	2.13	445553	99.70	60	120	
Sc (IS)	45	3	No Gas	138754028	0.68	142336898	97.48	60	120	
Ge Internal Standard	72	1	HMI H2	20059593	0.92	20971771	95.65	60	120	
Ge Internal Standard	72	2	HMI He	634499	2.09	629274	100.83	60	120	
In Internal Standard	115	2	HMI He	1476232	6.55	1441999	102.37	60	120	
Ho-165	165	2	HMI He	12475687	1.43	12406552	100.56	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	086LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:19:59-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	16.389	ppb	18.150	11287112	50	32.8	70	130	>+/-30%
Be	9	1	6	0.972	ppb	25.470	373	1	97.2	70	130	
Na	23	2	45	53.540	ppb	5.258	17963	50	107.1	70	130	
Mg	24	2	45	50.849	ppb	5.218	3174	50	101.7	70	130	
Al	27	2	45	32.852	ppb	16.029	420	30	109.5	70	130	
K	39	2	45	116.214	ppb	8.053	6498	100	116.2	70	130	
Ca	44	2	45	58.728	ppb	82.594	93	50	117.5	70	130	
V	51	2	72	5.231	ppb	2.199	4021	5	104.6	70	130	
Cr	52	2	72	1.845	ppb	12.829	1997	2	92.3	70	130	
Mn	55	2	72	0.828	ppb	38.751	237	1	82.8	70	130	
Fe	57	2	72	50.852	ppb	6.219	977	50	101.7	70	130	
Co	59	2	72	1.020	ppb	7.993	2237	1	102.0	70	130	
Ni	60	2	72	2.147	ppb	10.367	1693	2	107.3	70	130	
Cu	63	2	72	2.785	ppb	4.702	7692	2	139.2	70	130	>+/-30%
Zn	66	2	72	9.989	ppb	10.720	1720	10	99.9	70	130	
As	75	2	72	4.801	ppb	1.995	463	5	96.0	70	130	
Se	78	1	72	5.244	ppb	1.763	2319	5	104.9	70	130	
Sr	88	2	72	0.866	ppb	29.352	177	1	86.6	70	130	
Zr	90	2	72	4.200	ppb	117.431	83	0.5	840.1	70	130	>+/-30%
Nb	93	2	72	0.951	ppb	6.957	2634	2	47.5	70	130	>+/-30%
Mo	95	2	115	1.947	ppb	5.113	1493	2	97.4	70	130	
Pd	105	2	115	0.028	ppb	18.904	50	1	2.8	70	130	>+/-30%
Ag	107	2	115	4.854	ppb	8.368	14700	5	97.1	70	130	
Cd	111	2	115	1.038	ppb	29.792	260	1	103.8	70	130	
Sn	120	2	115	9.317	ppb	6.982	5231	10	93.2	70	130	
Sb	121	2	115	2.033	ppb	3.502	970	2	101.7	70	130	
Ba	137	2	115	1.142	ppb	44.447	143	1	114.2	70	130	
W	182	2	165	5.067	ppb	2.204	27505	1	506.7	70	130	>+/-30%
Pt	195	2	165	0.043	ppb	19.947	310	1	4.3	70	130	>+/-30%
Tl	205	2	165	1.049	ppb	3.832	7279	1	104.9	70	130	
Pb	208	2	165	1.107	ppb	2.278	10435	1	110.7	70	130	
Th	232	2	165	2.000	ppb	4.380	20871	2	100.0	70	130	
U	238	2	165	1.079	ppb	8.279	13086	1	107.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1406821	1.16	1444259	97.41	60	120	
Sc (IS)	45	1	HMI H2	42844459	0.82	44158909	97.02	60	120	
Sc (IS)	45	2	HMI He	435759	1.50	445553	97.80	60	120	
Sc (IS)	45	3	No Gas	138571858	0.78	142336898	97.35	60	120	
Ge Internal Standard	72	1	HMI H2	20432696	0.23	20971771	97.43	60	120	
Ge Internal Standard	72	2	HMI He	618913	1.62	629274	98.35	60	120	
In Internal Standard	115	2	HMI He	1422990	6.03	1441999	98.68	60	120	
Ho-165	165	2	HMI He	12216761	2.00	12406552	98.47	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	087WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:23:52-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	-11.580	ppb	-25.7604495	8429	25
Mg	24	2	45	0.032	ppb	3599.227073	137	25
Al	27	2	45	-0.305	ppb	-55.13251777	50	15
K	39	2	45	13.134	ppb	7.035576096	4414	50
Ca	44	2	45	-1.481	ppb	-365.6541434	23	25
V	51	2	72	0.451	ppb	31.85972377	610	1
Cr	52	2	72	-0.039	ppb	-136.2741301	170	1
Mn	55	2	72	0.045	ppb	186.7399428	37	0.5
Fe	57	2	72	0.933	ppb	230.6904819	80	25
Co	59	2	72	0.005	ppb	148.5783368	13	0.5
Ni	60	2	72	-0.136	ppb	-46.36717713	167	1
Cu	63	2	72	-0.447	ppb	-16.55346558	1317	1
Zn	66	2	72	0.732	ppb	4.626784504	233	5
As	75	2	72	-0.006	ppb	-1515.258938	6	1
Se	78	1	72	0.017	ppb	115.1778118	19	1
Nb	93	2	72	0.080	ppb	16.39012225	283	2
Mo	95	2	115	0.040	ppb	85.7758904	57	0.5
Pd	105	2	115	0.010	ppb	146.8379302	23	1
Ag	107	2	115	-0.002	ppb	-238.9752291	27	1
Cd	111	2	115	0.015	ppb	173.2050808	3	0.5
Sn	120	2	115	-0.086	ppb	-103.1429081	117	1
Sb	121	2	115	-0.024	ppb	-189.7479099	37	0.6
Ba	137	2	115	0.030	ppb	165.2937706	7	0.5
W	182	2	165	0.036	ppb	53.54460264	443	1
Pt	195	2	165	0.005	ppb	96.51799228	90	1
Tl	205	2	165	0.006	ppb	78.71711504	97	0.1
Pb	208	2	165	-0.009	ppb	-134.5371692	507	0.5
Th	232	2	165	0.016	ppb	49.76021067	510	1
U	238	2	165	0.004	ppb	40.6950983	90	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1403484	0.55	1444259	97.18	60	120	
Sc (IS)	45	1	HMI H2	42075504	1.00	44158909	95.28	60	120	
Sc (IS)	45	2	HMI He	417969	3.61	445553	93.81	60	120	
Sc (IS)	45	3	No Gas	141186125	0.75	142336898	99.19	60	120	
Ge Internal Standard	72	1	HMI H2	19919104	0.38	20971771	94.98	60	120	
Ge Internal Standard	72	2	HMI He	605359	3.69	629274	96.20	60	120	
In Internal Standard	115	2	HMI He	1344031	4.20	1441999	93.21	60	120	
Ho-165	165	2	HMI He	11736085	2.81	12406552	94.60	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	088WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:27:39-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.008	ppb	173.2050808	3	0.5
Na	23	2	45	-14.375	ppb	-16.84509267	8229	25
Mg	24	2	45	0.273	ppb	432.1559202	153	25
Al	27	2	45	1.110	ppb	249.6078995	67	15
K	39	2	45	19.346	ppb	124.3163739	4624	50
Ca	44	2	45	-16.711	ppb	-30.66068327	7	25
V	51	2	72	0.275	ppb	17.96993728	493	1
Cr	52	2	72	0.066	ppb	77.16117791	273	1
Mn	55	2	72	0.002	ppb	3272.504641	27	0.5
Fe	57	2	72	1.801	ppb	138.9597606	97	25
Co	59	2	72	0.000	ppb	13655.88483	3	0.5
Ni	60	2	72	-0.069	ppb	-27.16880123	213	1
Cu	63	2	72	-0.469	ppb	-14.04163953	1283	1
Zn	66	2	72	0.339	ppb	40.29410383	173	5
As	75	2	72	0.037	ppb	111.0250629	10	1
Se	78	1	72	0.028	ppb	165.3460368	24	1
Nb	93	2	72	0.079	ppb	13.97798049	280	2
Mo	95	2	115	0.002	ppb	1377.288501	30	0.5
Pd	105	2	115	0.013	ppb	69.60144572	27	1
Ag	107	2	115	0.000	ppb	-1314.84365	33	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.111	ppb	-56.27257143	107	1
Sb	121	2	115	-0.009	ppb	-390.0821064	43	0.6
Ba	137	2	115	-0.027	ppb	0	0	0.5
W	182	2	165	0.019	ppb	47.96654949	370	1
Pt	195	2	165	0.002	ppb	173.6768113	73	1
Tl	205	2	165	0.005	ppb	127.6141179	90	0.1
Pb	208	2	165	-0.003	ppb	-367.4058296	567	0.5
Th	232	2	165	0.012	ppb	155.7583783	477	1
U	238	2	165	0.002	ppb	69.86095788	63	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1445720	1.02	1444259	100.10	60	120	
Sc (IS)	45	1	HMI H2	43206188	2.27	44158909	97.84	60	120	
Sc (IS)	45	2	HMI He	427163	1.19	445553	95.87	60	120	
Sc (IS)	45	3	No Gas	140883535	1.27	142336898	98.98	60	120	
Ge Internal Standard	72	1	HMI H2	20510514	1.54	20971771	97.80	60	120	
Ge Internal Standard	72	2	HMI He	610862	1.35	629274	97.07	60	120	
In Internal Standard	115	2	HMI He	1359534	1.57	1441999	94.28	60	120	
Ho-165	165	2	HMI He	12075914	1.63	12406552	97.33	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	089WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:31:27-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	082CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.009	ppb	173.2050808	3	0.5
Na	23	2	45	-12.489	ppb	-13.9419923	8372	25
Mg	24	2	45	-0.384	ppb	-252.7347427	113	25
Al	27	2	45	0.253	ppb	1364.496247	57	15
K	39	2	45	17.365	ppb	120.3966976	4521	50
Ca	44	2	45	13.786	ppb	305.3799808	40	25
V	51	2	72	0.170	ppb	36.53834997	413	1
Cr	52	2	72	-0.007	ppb	-1304.513026	200	1
Mn	55	2	72	-0.076	ppb	-60.72723351	7	0.5
Fe	57	2	72	1.153	ppb	160.3295259	83	25
Co	59	2	72	0.002	ppb	325.3653962	7	0.5
Ni	60	2	72	-0.178	ppb	-44.10827359	140	1
Cu	63	2	72	-0.491	ppb	-26.26675268	1217	1
Zn	66	2	72	0.461	ppb	31.38833599	190	5
As	75	2	72	0.053	ppb	51.83192994	11	1
Se	78	1	72	-0.011	ppb	-194.7118944	7	1
Nb	93	2	72	0.038	ppb	52.97764694	170	2
Mo	95	2	115	-0.017	ppb	-89.57963083	17	0.5
Pd	105	2	115	0.003	ppb	144.4122987	13	1
Ag	107	2	115	0.000	ppb	-4351.102709	33	1
Cd	111	2	115	0.029	ppb	173.2050808	7	0.5
Sn	120	2	115	0.013	ppb	280.3122523	170	1
Sb	121	2	115	-0.032	ppb	-145.4579762	33	0.6
Ba	137	2	115	0.000	ppb	15356.47862	3	0.5
W	182	2	165	0.023	ppb	64.68215306	390	1
Pt	195	2	165	0.004	ppb	85.69740528	87	1
Tl	205	2	165	-0.002	ppb	-195.1932943	43	0.1
Pb	208	2	165	-0.012	ppb	-84.92870181	487	0.5
Th	232	2	165	0.002	ppb	138.2116953	383	1
U	238	2	165	0.002	ppb	99.47230573	63	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1364056	2.33	1444259	94.45	60	120	
Sc (IS)	45	1	HMI H2	40497521	3.30	44158909	91.71	60	120	
Sc (IS)	45	2	HMI He	421352	1.87	445553	94.57	60	120	
Sc (IS)	45	3	No Gas	145248738	1.86	142336898	102.05	60	120	
Ge Internal Standard	72	1	HMI H2	19493848	2.60	20971771	92.95	60	120	
Ge Internal Standard	72	2	HMI He	601709	2.23	629274	95.62	60	120	
In Internal Standard	115	2	HMI He	1351696	3.61	1441999	93.74	60	120	
Ho-165	165	2	HMI He	12021141	2.43	12406552	96.89	60	120	

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	090CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:35:15-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	158211	0.00
Li	7	2	HMI He	8409	0.02
Li	7	3	No Gas	10802530	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	427	7.58
Na	23	1	HMI H2	177736	0.00
Na	23	2	HMI He	9936	0.02
Mg	24	2	HMI He	163	18.49
Al	27	2	HMI He	40	108.25
K	39	2	HMI He	4524	0.07
Ca	44	2	HMI He	13	859.23
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	430	4.81
Cr	52	2	HMI He	130	32.95
Mn	55	2	HMI He	27	214.81
Fe	57	2	HMI He	67	72.33
Co	59	2	HMI He	3	5196.15
Ni	60	2	HMI He	230	19.92
Cu	63	2	HMI He	1734	0.45
Zn	66	2	HMI He	107	5.07
As	75	2	HMI He	8	954.18
Se	78	1	HMI H2	13	129.90
Sr	88	2	HMI He	10	1000.00
Zr	90	2	HMI He	77	49.12
Nb	93	2	HMI He	190	15.42
Mo	95	2	HMI He	17	207.85
Pd	105	2	HMI He	3	5196.15
Ag	107	2	HMI He	20	0.00
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	87	20.34
Sb	121	2	HMI He	40	62.50
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	387	4.55
Pt	195	2	HMI He	90	65.32
Tl	205	2	HMI He	80	15.62
Pb	208	2	HMI He	2284	0.63
Th	232	2	HMI He	460	3.57
U	238	2	HMI He	43	30.75

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1374296	0.47
Sc (IS)	45	1	HMI H2	40981949	0.68
Sc (IS)	45	2	HMI He	426944	1.41
Sc (IS)	45	3	No Gas	135848058	3.43
Ge Internal Standard	72	1	HMI H2	19779503	0.07
Ge Internal Standard	72	2	HMI He	609146	1.97
In Internal Standard	115	2	HMI He	1366570	2.36
Ho-165	165	2	HMI He	12108279	1.81

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	091CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:39:03-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	568634	0.00
Li	7	2	HMI He	30593	0.00
Li	7	3	No Gas	38683678	0.00
Be	9	1	HMI H2	36958	0.01
B	11	1	HMI H2	52331	0.00
Na	23	1	HMI H2	39642745	0.00
Na	23	2	HMI He	1419517	0.00
Mg	24	2	HMI He	578570	0.00
Al	27	2	HMI He	107806	0.00
K	39	1	HMI H2	44591259	0.00
K	39	2	HMI He	182707	0.00
Ca	40	1	HMI H2	59732016	0.00
Ca	44	2	HMI He	10944	0.03
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	71523	0.00
Cr	52	2	HMI He	96659	0.00
Mn	55	2	HMI He	25386	0.00
Fe	57	2	HMI He	177031	0.00
Co	59	2	HMI He	214726	0.00
Ni	60	2	HMI He	65669	0.00
Cu	63	2	HMI He	197126	0.00
Zn	66	2	HMI He	16311	0.00
As	75	2	HMI He	9186	0.01
Se	78	1	HMI H2	43244	0.00
Sr	88	2	HMI He	17920	0.01
Zr	90	2	HMI He	713	0.60
Nb	93	2	HMI He	534619	0.00
Mo	95	2	HMI He	70708	0.00
Pd	105	2	HMI He	134852	0.00
Ag	107	2	HMI He	290837	0.00
Cd	111	2	HMI He	23714	0.01
Sn	120	2	HMI He	51907	0.00
Sb	121	2	HMI He	43543	0.01
Ba	137	2	HMI He	11955	0.03
Nd	146	2	HMI He	61789	0.00
Sm	147	2	HMI He	55223	0.00
Sm	150	2	HMI He	53057	0.00
Gd	156	1	HMI H2	1088925	0.00
Gd	157	1	HMI H2	828152	0.00
W	182	2	HMI He	530621	0.00
Pt	195	2	HMI He	571050	0.00
Tl	205	2	HMI He	682014	0.00
Pb	208	2	HMI He	868916	0.00
Th	232	2	HMI He	1008252	0.00
U	238	2	HMI He	1190410	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1367577	4.62	1374296	99.51	60	120	
Sc (IS)	45	1	HMI H2	42061918	3.93	40981949	102.64	60	120	
Sc (IS)	45	2	HMI He	429792	0.53	426944	100.67	60	120	
Sc (IS)	45	3	No Gas	132008041	1.13	135848058	97.17	60	120	
Ge Internal Standard	72	1	HMI H2	19948946	2.94	19779503	100.86	60	120	
Ge Internal Standard	72	2	HMI He	618559	1.08	609146	101.55	60	120	
In Internal Standard	115	2	HMI He	1375724	1.40	1366570	100.67	60	120	
Ho-165	165	2	HMI He	12288014	0.60	12108279	101.48	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	092_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:42:51-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	494.620	ppb	25.803	363138	500	98.9	90	110	
Li	7	2	45	492.010	ppb	1.944	19804	500	98.4	90	110	
Li	7	3	45	459.944	ppb	0.826	24554710	500	92.0	90	110	
Be	9	1	6	51.695	ppb	25.643	19057	50	103.4	90	110	
B	11	1	6	34.624	ppb	21.298	18413	50	69.2	90	110	>+\-10%
Na	23	1	45	5137.528	ppb	23.813	20272535	5000	102.8	90	110	
Na	23	2	45	4708.443	ppb	1.125	689397	5000	94.2	90	110	
Mg	24	2	45	4985.014	ppb	0.391	295249	5000	99.7	90	110	
Al	27	2	45	5029.407	ppb	0.668	55515	5000	100.6	90	110	
K	39	1	45	5177.092	ppb	28.679	27023418	5000	103.5	90	110	
K	39	2	45	4859.232	ppb	2.836	93246	5000	97.2	90	110	
Ca	40	1	45	5178.155	ppb	25.138	30683517	5000	103.6	90	110	
Ca	44	2	45	5350.191	ppb	6.464	6001	5000	107.0	90	110	
V	51	2	72	47.750	ppb	2.582	34714	50	95.5	90	110	
Cr	52	2	72	50.203	ppb	0.964	49075	50	100.4	90	110	
Mn	55	2	72	49.050	ppb	4.546	12588	50	98.1	90	110	
Fe	57	2	72	5055.255	ppb	2.017	90415	5000	101.1	90	110	
Co	59	2	72	50.056	ppb	1.801	108543	50	100.1	90	110	
Ni	60	2	72	49.532	ppb	1.165	32968	50	99.1	90	110	
Cu	63	2	72	49.012	ppb	2.492	98475	50	98.0	90	110	
Zn	66	2	72	47.489	ppb	6.359	7879	50	95.0	90	110	
As	75	2	72	50.572	ppb	4.078	4696	50	101.1	90	110	
Se	78	1	72	49.661	ppb	22.209	21352	50	99.3	90	110	
Sr	88	2	72	49.563	ppb	6.723	8973	50	99.1	90	110	
Zr	90	2	72	18.406	ppb	16.874	197	50	36.8	90	110	>+\-10%
Nb	93	2	72	98.435	ppb	0.642	265834	100	98.4	90	110	
Mo	95	2	115	49.446	ppb	3.708	35681	50	98.9	90	110	
Pd	105	2	115	51.732	ppb	2.250	71169	50	103.5	90	110	
Ag	107	2	115	48.957	ppb	1.452	145265	50	97.9	90	110	
Cd	111	2	115	50.288	ppb	2.269	12165	50	100.6	90	110	
Sn	120	2	115	50.025	ppb	1.892	26528	50	100.0	90	110	
Sb	121	2	115	50.252	ppb	3.568	22342	50	100.5	90	110	
Ba	137	2	115	48.641	ppb	8.358	5938	50	97.3	90	110	
W	182	2	165	49.322	ppb	0.608	262046	50	98.6	90	110	
Pt	195	2	165	49.081	ppb	0.363	280484	50	98.2	90	110	
Tl	205	2	165	49.512	ppb	1.152	337902	50	99.0	90	110	
Pb	208	2	165	49.557	ppb	0.947	431970	50	99.1	90	110	
Th	232	2	165	49.053	ppb	0.944	495094	50	98.1	90	110	
U	238	2	165	49.448	ppb	0.766	588923	50	98.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1390614	12.56	1374296	101.19	60	120	
Sc (IS)	45	1	HMI H2	42555949	13.79	40981949	103.84	60	120	
Sc (IS)	45	2	HMI He	439846	1.28	426944	103.02	60	120	
Sc (IS)	45	3	No Gas	138139855	0.43	135848058	101.69	60	120	
Ge Internal Standard	72	1	HMI H2	20190584	12.70	19779503	102.08	60	120	
Ge Internal Standard	72	2	HMI He	624673	0.79	609146	102.55	60	120	
In Internal Standard	115	2	HMI He	1403403	1.13	1366570	102.70	60	120	
Ho-165	165	2	HMI He	12293965	0.84	12108279	101.53	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	093_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:46:39-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-3.374	ppb	-52.1	10825731	10	
Be	9	1	6	0.026	ppb	173.2	10	0.5	
B	11	1	6	0.918	ppb	10.0	937	0.5	>RL
Na	23	1	45	4.087	ppb	22.9	204038	25	
Na	23	2	45	2.501	ppb	100.8	10477	25	
Mg	24	2	45	0.352	ppb	35.1	187	25	
Al	27	2	45	-0.364	ppb	-389.1	37	15	
K	39	1	45	-48.033	ppb	-49.4	8538887	50	
K	39	2	45	-13.539	ppb	-59.8	4364	50	
Ca	40	1	45	-2.095	ppb	-29.8	129334	50	
Ca	44	2	45	8.866	ppb	156.0	23	25	
V	51	2	72	0.131	ppb	42.4	530	1	
Cr	52	2	72	0.128	ppb	103.0	257	1	
Mn	55	2	72	-0.041	ppb	-201.2	17	0.5	
Fe	57	2	72	1.638	ppb	48.9	97	25	
Co	59	2	72	0.014	ppb	117.9	33	0.5	
Ni	60	2	72	-0.112	ppb	-34.1	160	1	
Cu	63	2	72	0.325	ppb	6.8	2404	1	
Zn	66	2	72	-0.136	ppb	-100.5	87	5	
As	75	2	72	0.056	ppb	64.9	14	1	
Se	78	1	72	0.032	ppb	73.3	28	1	
Sr	88	2	72	-0.019	ppb	-334.7	7	0.5	
Zr	90	2	72	-5.925	ppb	-27.6	40	1	
Nb	93	2	72	0.774	ppb	9.0	2267	2	
Mo	95	2	115	0.019	ppb	201.2	30	0.5	
Pd	105	2	115	0.046	ppb	71.0	67	1	
Ag	107	2	115	0.021	ppb	24.3	83	1	
Cd	111	2	115	0.028	ppb	173.2	7	0.5	
Sn	120	2	115	0.119	ppb	75.2	150	1	
Sb	121	2	115	0.242	ppb	42.7	147	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.029	ppb	68.3	543	1	
Pt	195	2	165	0.020	ppb	49.4	203	1	
Tl	205	2	165	0.023	ppb	103.5	237	0.1	
Pb	208	2	165	-0.122	ppb	-7.5	1257	0.5	
Th	232	2	165	0.084	ppb	4.5	1303	1	
U	238	2	165	0.015	ppb	29.3	217	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1418987	1.64	1374296	103.25	60	120	
Sc (IS)	45	1	HMI H2	43228646	1.68	40981949	105.48	60	120	
Sc (IS)	45	2	HMI He	434866	0.89	426944	101.86	60	120	
Sc (IS)	45	3	No Gas	137347081	0.70	135848058	101.10	60	120	
Ge Internal Standard	72	1	HMI H2	20483942	1.48	19779503	103.56	60	120	
Ge Internal Standard	72	2	HMI He	620402	1.20	609146	101.85	60	120	
In Internal Standard	115	2	HMI He	1386875	0.69	1366570	101.49	60	120	
Ho-165	165	2	HMI He	12241531	0.17	12108279	101.10	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	094LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:50:26-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	6.819	ppb	43.473	11139088	50	13.6	70	130	>+/-30%
Be	9	1	6	0.849	ppb	11.135	320	1	84.9	70	130	
Na	23	2	45	55.183	ppb	4.773	17832	50	110.4	70	130	
Mg	24	2	45	52.917	ppb	4.094	3234	50	105.8	70	130	
Al	27	2	45	29.182	ppb	22.055	357	30	97.3	70	130	
K	39	2	45	97.022	ppb	18.135	6298	100	97.0	70	130	
Ca	44	2	45	45.067	ppb	74.970	63	50	90.1	70	130	
V	51	2	72	5.008	ppb	5.220	4014	5	100.2	70	130	
Cr	52	2	72	1.949	ppb	4.115	2024	2	97.4	70	130	
Mn	55	2	72	1.212	ppb	24.952	337	1	121.2	70	130	
Fe	57	2	72	50.071	ppb	17.462	957	50	100.1	70	130	
Co	59	2	72	1.108	ppb	5.838	2394	1	110.8	70	130	
Ni	60	2	72	1.938	ppb	19.238	1507	2	96.9	70	130	
Cu	63	2	72	2.951	ppb	4.546	7562	2	147.5	70	130	>+/-30%
Zn	66	2	72	9.346	ppb	11.230	1630	10	93.5	70	130	
As	75	2	72	4.450	ppb	6.865	419	5	89.0	70	130	
Se	78	1	72	4.826	ppb	2.959	2125	5	96.5	70	130	
Sr	88	2	72	0.905	ppb	51.700	173	1	90.5	70	130	
Zr	90	2	72	1.361	ppb	350.976	87	0.5	272.2	70	130	>+/-30%
Nb	93	2	72	0.918	ppb	7.212	2657	2	45.9	70	130	>+/-30%
Mo	95	2	115	1.984	ppb	16.709	1443	2	99.2	70	130	
Pd	105	2	115	0.019	ppb	37.480	30	1	1.9	70	130	>+/-30%
Ag	107	2	115	4.940	ppb	4.212	14613	5	98.8	70	130	
Cd	111	2	115	1.121	ppb	24.325	270	1	112.1	70	130	
Sn	120	2	115	9.605	ppb	2.446	5144	10	96.0	70	130	
Sb	121	2	115	2.162	ppb	5.341	997	2	108.1	70	130	
Ba	137	2	115	0.795	ppb	11.358	97	1	79.5	70	130	
W	182	2	165	5.039	ppb	2.716	27010	1	503.9	70	130	>+/-30%
Pt	195	2	165	0.036	ppb	45.153	297	1	3.6	70	130	>+/-30%
Tl	205	2	165	1.018	ppb	8.332	6992	1	101.8	70	130	
Pb	208	2	165	0.878	ppb	13.515	9875	1	87.8	70	130	
Th	232	2	165	2.113	ppb	3.130	21689	2	105.7	70	130	
U	238	2	165	1.007	ppb	5.690	11978	1	100.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1389794	2.27	1374296	101.13	60	120	
Sc (IS)	45	1	HMI H2	41949618	1.06	40981949	102.36	60	120	
Sc (IS)	45	2	HMI He	431115	1.97	426944	100.98	60	120	
Sc (IS)	45	3	No Gas	137524408	0.15	135848058	101.23	60	120	
Ge Internal Standard	72	1	HMI H2	20179899	1.99	19779503	102.02	60	120	
Ge Internal Standard	72	2	HMI He	621595	1.35	609146	102.04	60	120	
In Internal Standard	115	2	HMI He	1397499	1.22	1366570	102.26	60	120	
Ho-165	165	2	HMI He	12246996	2.14	12108279	101.15	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	095LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T16:56:28-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	7.601	ppb	16.188	11158716	50	15.2	70	130	>+/-30%
Be	9	1	6	0.936	ppb	10.864	350	1	93.6	70	130	
Na	23	2	45	47.009	ppb	6.427	17189	50	94.0	70	130	
Mg	24	2	45	53.186	ppb	0.911	3350	50	106.4	70	130	
Al	27	2	45	25.595	ppb	5.654	327	30	85.3	70	130	
K	39	2	45	92.250	ppb	7.964	6408	100	92.2	70	130	
Ca	44	2	45	81.985	ppb	32.011	107	50	164.0	70	130	>+/-30%
V	51	2	72	4.562	ppb	9.742	3731	5	91.2	70	130	
Cr	52	2	72	2.190	ppb	4.966	2277	2	109.5	70	130	
Mn	55	2	72	1.086	ppb	27.324	307	1	108.6	70	130	
Fe	57	2	72	55.148	ppb	13.822	1057	50	110.3	70	130	
Co	59	2	72	1.114	ppb	3.663	2427	1	111.4	70	130	
Ni	60	2	72	2.152	ppb	2.725	1663	2	107.6	70	130	
Cu	63	2	72	1.962	ppb	0.769	5671	2	98.1	70	130	
Zn	66	2	72	9.749	ppb	19.272	1710	10	97.5	70	130	
As	75	2	72	4.698	ppb	11.495	446	5	94.0	70	130	
Se	78	1	72	5.189	ppb	3.760	2272	5	103.8	70	130	
Sr	88	2	72	1.213	ppb	26.413	230	1	121.3	70	130	
Zr	90	2	72	2.264	ppb	101.500	93	0.5	452.8	70	130	>+/-30%
Nb	93	2	72	0.273	ppb	9.119	937	2	13.7	70	130	>+/-30%
Mo	95	2	115	1.761	ppb	8.354	1370	2	88.1	70	130	
Pd	105	2	115	0.025	ppb	24.860	40	1	2.5	70	130	>+/-30%
Ag	107	2	115	4.633	ppb	3.771	14667	5	92.7	70	130	
Cd	111	2	115	0.953	ppb	21.641	247	1	95.3	70	130	
Sn	120	2	115	9.347	ppb	5.259	5358	10	93.5	70	130	
Sb	121	2	115	2.165	ppb	9.791	1067	2	108.3	70	130	
Ba	137	2	115	0.694	ppb	30.744	90	1	69.4	70	130	>+/-30%
W	182	2	165	4.613	ppb	1.329	25050	1	461.3	70	130	>+/-30%
Pt	195	2	165	0.049	ppb	95.515	377	1	4.9	70	130	>+/-30%
Tl	205	2	165	1.027	ppb	4.873	7142	1	102.7	70	130	
Pb	208	2	165	1.279	ppb	1.894	13510	1	127.9	70	130	
Th	232	2	165	1.903	ppb	2.050	19803	2	95.2	70	130	
U	238	2	165	1.017	ppb	4.810	12252	1	101.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1381702	0.79	1374296	100.54	60	120	
Sc (IS)	45	1	HMI H2	42163894	0.87	40981949	102.88	60	120	
Sc (IS)	45	2	HMI He	444339	1.34	426944	104.07	60	120	
Sc (IS)	45	3	No Gas	137484655	0.96	135848058	101.20	60	120	
Ge Internal Standard	72	1	HMI H2	20066518	0.46	19779503	101.45	60	120	
Ge Internal Standard	72	2	HMI He	627064	1.01	609146	102.94	60	120	
In Internal Standard	115	2	HMI He	1496388	3.57	1366570	109.50	60	120	
Ho-165	165	2	HMI He	12388644	1.50	12108279	102.32	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	096LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:00:21-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	10.837	ppb	48.405	11018482	50	21.7	70	130	>+/-30%
Be	9	1	6	1.119	ppb	5.302	423	1	111.9	70	130	
Na	23	2	45	49.151	ppb	5.012	16865	50	98.3	70	130	
Mg	24	2	45	48.842	ppb	10.761	2980	50	97.7	70	130	
Al	27	2	45	24.938	ppb	30.998	307	30	83.1	70	130	
K	39	2	45	88.221	ppb	6.437	6101	100	88.2	70	130	
Ca	44	2	45	81.744	ppb	84.299	103	50	163.5	70	130	>+/-30%
V	51	2	72	4.629	ppb	13.698	3707	5	92.6	70	130	
Cr	52	2	72	2.102	ppb	10.515	2150	2	105.1	70	130	
Mn	55	2	72	1.362	ppb	22.144	370	1	136.2	70	130	>+/-30%
Fe	57	2	72	60.348	ppb	5.501	1130	50	120.7	70	130	
Co	59	2	72	0.897	ppb	13.194	1920	1	89.7	70	130	
Ni	60	2	72	1.895	ppb	11.053	1463	2	94.7	70	130	
Cu	63	2	72	1.809	ppb	0.443	5268	2	90.4	70	130	
Zn	66	2	72	10.584	ppb	3.236	1814	10	105.8	70	130	
As	75	2	72	4.715	ppb	8.974	439	5	94.3	70	130	
Se	78	1	72	4.819	ppb	4.053	2103	5	96.4	70	130	
Sr	88	2	72	0.787	ppb	29.351	150	1	78.7	70	130	
Zr	90	2	72	3.581	ppb	72.128	100	0.5	716.1	70	130	>+/-30%
Nb	93	2	72	0.162	ppb	5.166	623	2	8.1	70	130	>+/-30%
Mo	95	2	115	1.993	ppb	3.292	1437	2	99.6	70	130	
Pd	105	2	115	0.017	ppb	25.175	27	1	1.7	70	130	>+/-30%
Ag	107	2	115	4.900	ppb	2.917	14383	5	98.0	70	130	
Cd	111	2	115	1.296	ppb	34.642	310	1	129.6	70	130	
Sn	120	2	115	9.222	ppb	3.615	4904	10	92.2	70	130	
Sb	121	2	115	2.218	ppb	14.770	1013	2	110.9	70	130	
Ba	137	2	115	1.298	ppb	42.237	157	1	129.8	70	130	
W	182	2	165	4.833	ppb	1.731	25792	1	483.3	70	130	>+/-30%
Pt	195	2	165	0.043	ppb	33.873	337	1	4.3	70	130	>+/-30%
Tl	205	2	165	1.043	ppb	3.290	7132	1	104.3	70	130	
Pb	208	2	165	1.301	ppb	4.441	13466	1	130.1	70	130	>+/-30%
Th	232	2	165	1.965	ppb	1.767	20090	2	98.2	70	130	
U	238	2	165	1.041	ppb	3.293	12322	1	104.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1396163	0.66	1374296	101.59	60	120	
Sc (IS)	45	1	HMI H2	42095493	0.95	40981949	102.72	60	120	
Sc (IS)	45	2	HMI He	428147	1.96	426944	100.28	60	120	
Sc (IS)	45	3	No Gas	134631238	2.24	135848058	99.10	60	120	
Ge Internal Standard	72	1	HMI H2	19992565	0.83	19779503	101.08	60	120	
Ge Internal Standard	72	2	HMI He	615374	1.50	609146	101.02	60	120	
In Internal Standard	115	2	HMI He	1386591	0.41	1366570	101.47	60	120	
Ho-165	165	2	HMI He	12179701	0.58	12108279	100.59	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA-4905066
Data File Name	097ICSA.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:04:30-07:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-32.957	ppb	-13.0	9905760	1	
Be	9	1	6	0.040	ppb	86.6	13	1	
B	11	1	6	0.318	ppb	95.1	540	1	
Na	23	1	45	94780.540	ppb	2.5	356044341	100000	
K	39	1	45	97704.198	ppb	3.1	343770542	100000	
Ca	40	1	45	97139.790	ppb	2.6	551028858	100000	
V	51	2	72	-0.198	ppb	-19.3	290	1	
Cr	52	2	72	1.357	ppb	8.5	1420	1	>RL or LOD
Mn	55	2	72	0.778	ppb	34.2	220	1	
Co	59	2	72	0.016	ppb	44.5	37	1	
Ni	60	2	72	0.084	ppb	101.6	283	1	
Cu	63	2	72	0.913	ppb	25.1	3484	1	
Zn	66	2	72	0.792	ppb	13.3	233	1	
As	75	2	72	0.066	ppb	162.1	14	1	
Se	78	1	72	0.084	ppb	46.6	47	1	
Sr	88	2	72	0.549	ppb	12.2	107	1	
Zr	90	2	72	-2.535	ppb	-180.5	60	1	
Nb	93	2	72	0.040	ppb	86.9	293	1	
Mo	95	2	115	1920.712	ppb	2.4	1347572	2000	
Pd	105	2	115	0.022	ppb	68.1	33	1	
Ag	107	2	115	0.013	ppb	81.4	57	1	
Cd	111	2	115	0.267	ppb	30.1	63	1	
Sn	120	2	115	0.165	ppb	83.7	173	1	
Sb	121	2	115	0.023	ppb	19.6	50	1	
Ba	137	2	115	0.088	ppb	173.2	10	1	
W	182	2	165	0.161	ppb	5.1	1237	1	
Pt	195	2	165	-0.008	ppb	-14.4	47	1	
Tl	205	2	165	0.012	ppb	17.8	160	1	
Pb	208	2	165	-0.092	ppb	-12.9	1510	1	
Th	232	2	165	0.032	ppb	41.9	777	1	
U	238	2	165	0.010	ppb	61.2	163	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1250474	1.13	1374296	90.99	60	120	
Sc (IS)	45	1	HMI H2	39981885	1.43	40981949	97.56	60	120	
Sc (IS)	45	2	HMI He	429234	3.32	426944	100.54	60	120	
Sc (IS)	45	3	No Gas	136634311	1.04	135848058	100.58	60	120	
Ge Internal Standard	72	1	HMI H2	18605228	0.81	19779503	94.06	60	120	
Ge Internal Standard	72	2	HMI He	609345	3.25	609146	100.03	60	120	
In Internal Standard	115	2	HMI He	1365935	3.87	1366570	99.95	60	120	
Ho-165	165	2	HMI He	12198616	2.70	12108279	100.75	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB-4905067
Data File Name	098ICSB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:08:16-07:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	832.081	ppb	2.397	492041	100	832.1	80	120	
Li	7	2	45	724.374	ppb	2.951	25615	100	724.4	80	120	>+\-20%
Li	7	3	45	769.390	ppb	0.754	32243769	100	769.4	80	120	
Be	9	1	6	104.193	ppb	2.869	34062	100	104.2	80	120	
B	11	1	6	62.276	ppb	1.355	28947	100	62.3	80	120	>+\-20%
Na	23	1	45	101150.357	ppb	1.366	392652687	100	101150.4	80	120	>+\-20%
K	39	1	45	106753.062	ppb	1.866	387384288	100	106753.1	80	120	
Ca	40	1	45	105821.916	ppb	1.658	620309297	100	105821.9	80	120	
V	51	2	72	92.672	ppb	1.317	67722	100	92.7	80	120	
Cr	52	2	72	95.111	ppb	1.633	93916	100	95.1	80	120	
Mn	55	2	72	95.503	ppb	3.569	24755	100	95.5	80	120	
Co	59	2	72	93.255	ppb	0.839	204492	100	93.3	80	120	
Ni	60	2	72	91.260	ppb	2.079	61216	100	91.3	80	120	
Cu	63	2	72	90.641	ppb	1.794	182652	100	90.6	80	120	
Zn	66	2	72	89.822	ppb	1.575	14977	100	89.8	80	120	
As	75	2	72	98.136	ppb	1.440	9205	100	98.1	80	120	
Se	78	1	72	97.020	ppb	2.038	40654	100	97.0	80	120	
Sr	88	2	72	103.623	ppb	9.125	18981	100	103.6	80	120	
Zr	90	2	72	9.407	ppb	62.928	140	100	9.4	80	120	>+\-20%
Nb	93	2	72	174.856	ppb	0.833	477425	100	174.9	80	120	
Mo	95	2	115	2000.393	ppb	3.546	1523706	100	2000.4	80	120	>+\-20%
Pd	105	2	115	85.548	ppb	6.091	124183	100	85.5	80	120	
Ag	107	2	115	85.720	ppb	4.893	268449	100	85.7	80	120	
Cd	111	2	115	90.905	ppb	5.819	23203	100	90.9	80	120	
Sn	120	2	115	92.515	ppb	3.628	51727	100	92.5	80	120	
Sb	121	2	115	94.347	ppb	3.124	44282	100	94.3	80	120	
Ba	137	2	115	93.131	ppb	1.281	12008	100	93.1	80	120	
W	182	2	165	90.229	ppb	1.501	487471	100	90.2	80	120	
Pt	195	2	165	86.250	ppb	0.614	501478	100	86.2	80	120	
Tl	205	2	165	90.826	ppb	1.880	630673	100	90.8	80	120	
Pb	208	2	165	92.031	ppb	1.940	814304	100	92.0	80	120	
Th	232	2	165	95.191	ppb	2.829	977135	100	95.2	80	120	
U	238	2	165	93.022	ppb	2.213	1127354	100	93.0	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1206634	0.38	1374296	87.80	60	120	
Sc (IS)	45	1	HMI H2	41310204	0.72	40981949	100.80	60	120	
Sc (IS)	45	2	HMI He	449428	1.33	426944	105.27	60	120	
Sc (IS)	45	3	No Gas	132238688	0.11	135848058	97.34	60	120	
Ge Internal Standard	72	1	HMI H2	19315718	1.30	19779503	97.66	60	120	
Ge Internal Standard	72	2	HMI He	631690	1.71	609146	103.70	60	120	
In Internal Standard	115	2	HMI He	1483581	5.12	1366570	108.56	60	120	
Ho-165	165	2	HMI He	12510107	0.39	12108279	103.32	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	099SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:12:01-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-33.489	ppb	-33.489	-5.10	152171	500000	
Li	7	2	45	-51.442	ppb	-51.442	-28.16	7912	500000	
Li	7	3	45	-42.724	ppb	-42.724	-4.76	9363764	50000	
Be	9	1	6	0.056	ppb	0.056	99.66	20	2000	
B	11	1	6	0.282	ppb	0.282	39.52	553	2000	
Na	23	1	45	55.504	ppb	55.504	4.68	410960	2000	
Na	23	2	45	33.794	ppb	33.794	6.28	15951	400000	
Mg	24	2	45	9.822	ppb	9.822	15.50	790	400000	
Al	27	2	45	7.158	ppb	7.158	9.12	127	400000	
K	39	1	45	147.273	ppb	147.273	11.14	9222378	400000	
K	39	2	45	18.219	ppb	18.219	21.06	5271	400000	
Ca	40	1	45	13.990	ppb	13.990	13.95	226995	400000	
Ca	44	2	45	7.508	ppb	7.508	130.46	23	400000	
V	51	2	72	-0.003	ppb	-0.003	-4082.25	470	2000	
Cr	52	2	72	0.086	ppb	0.086	46.32	233	5000	
Mn	55	2	72	0.026	ppb	0.026	216.59	37	10000	
Fe	57	2	72	16.172	ppb	16.172	17.46	383	400000	
Co	59	2	72	0.007	ppb	0.007	61.82	20	2000	
Ni	60	2	72	-0.041	ppb	-0.041	-247.85	223	5000	
Cu	63	2	72	0.190	ppb	0.190	29.29	2310	5000	
Zn	66	2	72	0.166	ppb	0.166	80.49	147	5000	
As	75	2	72	-0.001	ppb	-0.001	-4032.54	9	2000	
Se	78	1	72	0.007	ppb	0.007	367.21	17	2000	
Sr	88	2	72	0.012	ppb	0.012	485.42	13	4000	
Zr	90	2	72	-4.479	ppb	-4.479	-114.28	53	1000	
Nb	93	2	72	0.988	ppb	0.988	4.68	3070	200	
Mo	95	2	115	0.301	ppb	0.301	16.25	277	2000	
Pd	105	2	115	0.024	ppb	0.024	91.03	43	100	
Ag	107	2	115	0.008	ppb	0.008	130.23	53	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.087	ppb	0.087	45.94	160	2000	
Sb	121	2	115	0.052	ppb	0.052	102.05	77	1000	
Ba	137	2	115	0.047	ppb	0.047	173.21	7	5000	
W	182	2	165	0.016	ppb	0.016	125.12	493	100	
Pt	195	2	165	0.005	ppb	0.005	258.65	127	100	
Tl	205	2	165	0.022	ppb	0.022	43.94	240	2000	
Pb	208	2	165	-0.188	ppb	-0.188	-0.82	713	5000	
Th	232	2	165	0.056	ppb	0.056	18.20	1067	2000	
U	238	2	165	0.013	ppb	0.013	47.56	200	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1324196	0.51	1374296	96.35	60	120	
Sc (IS)	45	1	HMI H2	43027896	0.54	40981949	104.99	60	120	
Sc (IS)	45	2	HMI He	464298	1.66	426944	108.75	60	120	
Sc (IS)	45	3	No Gas	132970081	0.55	135848058	97.88	60	120	
Ge Internal Standard	72	1	HMI H2	20746649	0.86	19779503	104.89	60	120	
Ge Internal Standard	72	2	HMI He	670324	1.88	609146	110.04	60	120	
In Internal Standard	115	2	HMI He	1661403	3.03	1366570	121.57	60	120	IS Failed
Ho-165	165	2	HMI He	12743551	2.59	12108279	105.25	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	100_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:15:48-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	440.773	ppb	0.617	345555	500	88.2	90	110	>+\-10%
Li	7	2	45	367.852	ppb	4.362	17826	500	73.6	90	110	>+\-10%
Li	7	3	45	382.521	ppb	1.800	20891226	500	76.5	90	110	>+\-10%
Be	9	1	6	52.455	ppb	2.149	18296	50	104.9	90	110	
B	11	1	6	34.851	ppb	2.077	17462	50	69.7	90	110	>+\-10%
Na	23	1	45	5020.415	ppb	0.578	20239172	5000	100.4	90	110	
Na	23	2	45	4527.797	ppb	1.799	695907	5000	90.6	90	110	
Mg	24	2	45	4914.402	ppb	1.157	305363	5000	98.3	90	110	
Al	27	2	45	5177.857	ppb	1.493	59955	5000	103.6	90	110	
K	39	1	45	5315.194	ppb	0.473	28007761	5000	106.3	90	110	
K	39	2	45	5027.227	ppb	2.137	101038	5000	100.5	90	110	
Ca	40	1	45	5117.943	ppb	0.537	31019490	5000	102.4	90	110	
Ca	44	2	45	5174.292	ppb	2.481	6088	5000	103.5	90	110	
V	51	2	72	47.839	ppb	4.311	37396	50	95.7	90	110	
Cr	52	2	72	47.100	ppb	1.771	49516	50	94.2	90	110	
Mn	55	2	72	51.455	ppb	6.752	14196	50	102.9	90	110	
Fe	57	2	72	4954.833	ppb	0.871	95301	5000	99.1	90	110	
Co	59	2	72	47.035	ppb	0.246	109682	50	94.1	90	110	
Ni	60	2	72	48.729	ppb	2.367	34878	50	97.5	90	110	
Cu	63	2	72	46.771	ppb	1.526	101141	50	93.5	90	110	
Zn	66	2	72	46.435	ppb	0.493	8289	50	92.9	90	110	
As	75	2	72	49.474	ppb	2.748	4939	50	98.9	90	110	
Se	78	1	72	48.769	ppb	1.504	21597	50	97.5	90	110	
Sr	88	2	72	51.633	ppb	2.726	10053	50	103.3	90	110	
Zr	90	2	72	20.169	ppb	38.151	223	50	40.3	90	110	>+\-10%
Nb	93	2	72	97.520	ppb	2.041	283181	100	97.5	90	110	
Mo	95	2	115	45.027	ppb	1.875	37809	50	90.1	90	110	
Pd	105	2	115	46.052	ppb	0.907	73739	50	92.1	90	110	
Ag	107	2	115	43.142	ppb	1.582	148968	50	86.3	90	110	>+\-10%
Cd	111	2	115	46.156	ppb	5.496	12985	50	92.3	90	110	
Sn	120	2	115	46.406	ppb	1.413	28655	50	92.8	90	110	
Sb	121	2	115	46.451	ppb	2.398	24041	50	92.9	90	110	
Ba	137	2	115	47.985	ppb	3.657	6815	50	96.0	90	110	
W	182	2	165	47.945	ppb	1.136	265851	50	95.9	90	110	
Pt	195	2	165	46.499	ppb	1.606	277303	50	93.0	90	110	
Tl	205	2	165	48.884	ppb	1.418	348156	50	97.8	90	110	
Pb	208	2	165	49.325	ppb	1.736	448710	50	98.6	90	110	
Th	232	2	165	48.907	ppb	1.984	515101	50	97.8	90	110	
U	238	2	165	48.511	ppb	1.771	602941	50	97.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1287761	1.65	1374296	93.70	60	120	
Sc (IS)	45	1	HMI H2	42527361	0.28	40981949	103.77	60	120	
Sc (IS)	45	2	HMI He	461494	1.71	426944	108.09	60	120	
Sc (IS)	45	3	No Gas	129583985	0.60	135848058	95.39	60	120	
Ge Internal Standard	72	1	HMI H2	20405088	0.49	19779503	103.16	60	120	
Ge Internal Standard	72	2	HMI He	671713	0.75	609146	110.27	60	120	
In Internal Standard	115	2	HMI He	1633294	2.02	1366570	119.52	60	120	
Ho-165	165	2	HMI He	12830752	0.99	12108279	105.97	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	101_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:19:35-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-36.100	ppb	-3.0	9045639	10	
Be	9	1	6	0.068	ppb	65.6	23	0.5	
B	11	1	6	0.397	ppb	36.1	590	0.5	
Na	23	1	45	13.229	ppb	5.9	230221	25	
Na	23	2	45	3.018	ppb	90.0	11170	25	
Mg	24	2	45	0.979	ppb	28.0	237	25	
Al	27	2	45	-0.278	ppb	-516.9	40	15	
K	39	1	45	161.583	ppb	10.5	8894753	50	>RL
K	39	2	45	6.139	ppb	241.9	4994	50	
Ca	40	1	45	0.626	ppb	8.0	139418	50	
Ca	44	2	45	13.268	ppb	126.1	30	25	
V	51	2	72	-0.125	ppb	-55.4	373	1	
Cr	52	2	72	0.039	ppb	96.5	183	1	
Mn	55	2	72	-0.034	ppb	-104.9	20	0.5	
Fe	57	2	72	0.215	ppb	694.8	77	25	
Co	59	2	72	0.014	ppb	62.5	37	0.5	
Ni	60	2	72	-0.014	ppb	-563.4	240	1	
Cu	63	2	72	0.241	ppb	16.1	2404	1	
Zn	66	2	72	0.344	ppb	101.8	177	5	
As	75	2	72	0.045	ppb	198.8	14	1	
Se	78	1	72	0.049	ppb	47.6	35	1	
Sr	88	2	72	-0.004	ppb	-1228.9	10	0.5	
Zr	90	2	72	-4.923	ppb	-58.4	50	1	
Nb	93	2	72	0.833	ppb	14.6	2607	2	
Mo	95	2	115	0.096	ppb	24.2	100	0.5	
Pd	105	2	115	0.050	ppb	31.4	83	1	
Ag	107	2	115	-0.002	ppb	-168.1	17	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.113	ppb	20.2	173	1	
Sb	121	2	115	0.218	ppb	67.0	160	0.6	
Ba	137	2	115	0.048	ppb	173.2	7	0.5	
W	182	2	165	0.011	ppb	116.3	473	1	
Pt	195	2	165	0.018	ppb	65.8	203	1	
Tl	205	2	165	0.022	ppb	20.6	247	0.1	
Pb	208	2	165	-0.124	ppb	-10.3	1303	0.5	
Th	232	2	165	0.070	ppb	9.4	1237	1	
U	238	2	165	0.010	ppb	17.3	177	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1277607	0.46	1374296	92.96	60	120	
Sc (IS)	45	1	HMI H2	41261799	0.16	40981949	100.68	60	120	
Sc (IS)	45	2	HMI He	460343	1.63	426944	107.82	60	120	
Sc (IS)	45	3	No Gas	125924675	1.01	135848058	92.70	60	120	
Ge Internal Standard	72	1	HMI H2	19971983	0.23	19779503	100.97	60	120	
Ge Internal Standard	72	2	HMI He	666436	0.84	609146	109.40	60	120	
In Internal Standard	115	2	HMI He	1636804	2.09	1366570	119.77	60	120	
Ho-165	165	2	HMI He	12933696	0.49	12108279	106.82	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	102LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:23:23-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-24.769	ppb	-3.705	9730530	50	-49.5	70	130	>+/-30%
Be	9	1	6	0.954	ppb	14.263	330	1	95.4	70	130	
Na	23	2	45	43.267	ppb	5.379	17039	50	86.5	70	130	
Mg	24	2	45	48.492	ppb	7.018	3144	50	97.0	70	130	
Al	27	2	45	29.316	ppb	9.940	377	30	97.7	70	130	
K	39	2	45	75.140	ppb	24.055	6238	100	75.1	70	130	
Ca	44	2	45	51.533	ppb	78.155	73	50	103.1	70	130	
V	51	2	72	4.670	ppb	5.590	3991	5	93.4	70	130	
Cr	52	2	72	1.874	ppb	2.068	2064	2	93.7	70	130	
Mn	55	2	72	0.878	ppb	47.119	267	1	87.8	70	130	
Fe	57	2	72	47.324	ppb	14.505	963	50	94.6	70	130	
Co	59	2	72	1.024	ppb	11.483	2340	1	102.4	70	130	
Ni	60	2	72	1.932	ppb	5.578	1590	2	96.6	70	130	
Cu	63	2	72	1.682	ppb	5.110	5364	2	84.1	70	130	
Zn	66	2	72	10.499	ppb	0.685	1924	10	105.0	70	130	
As	75	2	72	4.556	ppb	13.295	453	5	91.1	70	130	
Se	78	1	72	4.792	ppb	1.823	2097	5	95.8	70	130	
Sr	88	2	72	0.911	ppb	50.763	183	1	91.1	70	130	
Zr	90	2	72	2.218	ppb	498.153	97	0.5	443.5	70	130	>+/-30%
Nb	93	2	72	0.808	ppb	10.561	2497	2	40.4	70	130	>+/-30%
Mo	95	2	115	1.880	ppb	8.251	1603	2	94.0	70	130	
Pd	105	2	115	0.026	ppb	35.024	47	1	2.6	70	130	>+/-30%
Ag	107	2	115	4.198	ppb	2.624	14587	5	84.0	70	130	
Cd	111	2	115	0.871	ppb	18.667	247	1	87.1	70	130	
Sn	120	2	115	8.558	ppb	1.262	5394	10	85.6	70	130	
Sb	121	2	115	1.666	ppb	6.567	913	2	83.3	70	130	
Ba	137	2	115	0.882	ppb	42.516	127	1	88.2	70	130	
W	182	2	165	4.527	ppb	4.419	25434	1	452.7	70	130	>+/-30%
Pt	195	2	165	0.044	ppb	21.559	360	1	4.4	70	130	>+/-30%
Tl	205	2	165	0.994	ppb	4.547	7155	1	99.4	70	130	
Pb	208	2	165	1.300	ppb	3.666	14166	1	130.0	70	130	>+/-30%
Th	232	2	165	1.946	ppb	3.874	20938	2	97.3	70	130	
U	238	2	165	0.992	ppb	2.599	12365	1	99.2	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1277895	0.66	1374296	92.99	60	120	
Sc (IS)	45	1	HMI H2	41576395	0.39	40981949	101.45	60	120	
Sc (IS)	45	2	HMI He	454733	1.97	426944	106.51	60	120	
Sc (IS)	45	3	No Gas	131048655	1.25	135848058	96.47	60	120	
Ge Internal Standard	72	1	HMI H2	20051151	0.49	19779503	101.37	60	120	
Ge Internal Standard	72	2	HMI He	657548	1.78	609146	107.95	60	120	
In Internal Standard	115	2	HMI He	1641489	2.54	1366570	120.12	60	120	IS Failed
Ho-165	165	2	HMI He	12816512	1.49	12108279	105.85	60	120	

Blank Report

Sample Table

Sample Name	mb 280-399821/1-a
Data File Name	103_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:27:11-07:00
Sample Type	Blank
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-24.057	ppb	-14.9265554	151620	0.5
Li	7	2	45	-45.662	ppb	-53.57191875	8055	0.5
Li	7	3	45	-37.767	ppb	-4.843020385	9288976	10
Be	9	1	6	0.095	ppb	124.1019788	33	0.5
B	11	1	6	11.173	ppb	2.905160566	5858	0.5
Na	23	1	45	91.582	ppb	0.815245687	540791	25
Na	23	2	45	71.988	ppb	15.70299762	21757	25
Mg	24	2	45	25.755	ppb	4.771461361	1790	25
Al	27	2	45	15.282	ppb	58.03947147	220	15
K	39	1	45	-934.693	ppb	-2.37189495	5070798	50
K	39	2	45	19.404	ppb	106.6033632	5294	50
Ca	40	1	45	213.414	ppb	2.070890923	1402889	50
Ca	44	2	45	204.811	ppb	20.72742484	257	25
V	51	2	72	-0.197	ppb	-46.71944646	317	1
Cr	52	2	72	0.476	ppb	6.68515738	637	1
Mn	55	2	72	0.430	ppb	34.17197463	147	0.5
Fe	57	2	72	15.272	ppb	10.84780864	363	25
Co	59	2	72	0.076	ppb	12.8473472	180	0.5
Ni	60	2	72	0.331	ppb	30.32259047	483	1
Cu	63	2	72	4.029	ppb	7.318304206	10347	1
Zn	66	2	72	3.621	ppb	3.89535802	747	5
As	75	2	72	0.106	ppb	32.27673986	20	1
Se	78	1	72	0.115	ppb	27.59354323	64	1
Sr	88	2	72	0.478	ppb	46.35475688	103	0.5
Zr	90	2	72	18.077	ppb	15.93542012	207	1
Nb	93	2	72	0.081	ppb	52.81991957	440	2
Mo	95	2	115	0.126	ppb	14.51856422	127	0.5
Pd	105	2	115	0.008	ppb	123.3796473	17	1
Ag	107	2	115	0.061	ppb	14.10304081	237	1
Cd	111	2	115	0.036	ppb	102.1476506	10	0.5
Sn	120	2	115	8.414	ppb	12.60323052	5331	1
Sb	121	2	115	0.016	ppb	249.4339794	57	0.6
Ba	137	2	115	0.556	ppb	56.1247479	80	0.5
W	182	2	165	0.081	ppb	17.94279457	863	1
Pt	195	2	165	0.016	ppb	42.9845094	190	1
Tl	205	2	165	0.131	ppb	15.75024063	1027	0.1
Pb	208	2	165	2.823	ppb	10.44926002	28195	0.5
Th	232	2	165	0.133	ppb	7.21278805	1900	1
U	238	2	165	0.148	ppb	14.37650612	1904	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1285094	1.27	1374296	93.51	60	120	
Sc (IS)	45	1	HMI H2	41795021	0.63	40981949	101.98	60	120	
Sc (IS)	45	2	HMI He	464928	3.61	426944	108.90	60	120	
Sc (IS)	45	3	No Gas	129960781	0.82	135848058	95.67	60	120	
Ge Internal Standard	72	1	HMI H2	20258513	0.07	19779503	102.42	60	120	
Ge Internal Standard	72	2	HMI He	664760	2.71	609146	109.13	60	120	
In Internal Standard	115	2	HMI He	1653197	3.17	1366570	120.97	60	120	IS Failed
Ho-165	165	2	HMI He	12967209	4.21	12108279	107.09	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-399821/2-a
Data File Name	104LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:31:02-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399821 SOIL 6020A DOD5
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	204.355	204.355	ppb	0.395	70806	200	102.2	80	120	
Na	23	2	45	70.474	70.474	ppb	12.786	21130	200	35.2	80	120	NewName Main CR1 Failed
Mg	24	2	45	29.787	29.787	ppb	11.062	2000	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	2061.035	2061.035	ppb	0.282	23596	200000	1.0	80	120	NewName Main CR1 Failed
K	39	2	45	21.635	21.635	ppb	7.579	5238	200000	0.0	80	120	NewName Main CR1 Failed
Ca	44	2	45	1408.183	1408.183	ppb	21.498	1643	200000	0.7	80	120	NewName Main CR1 Failed
V	51	2	72	190.146	190.146	ppb	2.101	143072	200	95.1	80	120	
Cr	52	2	72	197.446	197.446	ppb	1.402	201259	200	98.7	80	120	
(Cr)	53	2	72	196.146	196.146	ppb	1.218	24898	200	98.1	80	120	
Mn	55	2	72	200.548	200.548	ppb	0.580	53695	200	100.3	80	120	
Fe	57	2	72	1974.564	1974.564	ppb	3.121	36946	200000	1.0	80	120	NewName Main CR1 Failed
Co	59	2	72	195.500	195.500	ppb	0.928	442951	200	97.7	80	120	
Ni	60	2	72	194.410	194.410	ppb	0.956	134480	200	97.2	80	120	
Cu	63	2	72	192.164	192.164	ppb	0.158	398010	200	96.1	80	120	
Zn	66	2	72	194.058	194.058	ppb	4.635	33296	200	97.0	80	120	
As	75	2	72	186.513	186.513	ppb	1.290	18069	200	93.3	80	120	
Se	78	1	72	190.433	190.433	ppb	1.831	82567	200	95.2	80	120	
(Se)	82	1	72	180.900	180.900	ppb	3.137	37905	200	90.5	80	120	
Nb	93	2	72	0.104	0.104	ppb	25.458	497	400	0.0	80	120	NewName Main CR1 Failed
Mo	95	2	115	181.880	181.880	ppb	1.780	146409	200	90.9	80	120	
Pd	105	2	115	0.024	0.024	ppb	57.088	40	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	99.697	99.697	ppb	1.979	330115	200	49.8	80	120	NewName Main CR1 Failed
Cd	111	2	115	185.797	185.797	ppb	1.806	50155	200	92.9	80	120	
(Cd)	114	2	115	180.760	180.760	ppb	2.998	130969	200	90.4	80	120	
Sn	120	2	115	197.869	197.869	ppb	2.555	116803	200	98.9	80	120	
Sb	121	2	115	189.560	189.560	ppb	1.383	93953	200	94.8	80	110	
Ba	137	2	115	186.776	186.776	ppb	2.867	25427	200	93.4	80	120	
W	182	2	165	184.459	184.459	ppb	0.462	1012929	200	92.2	80	120	
Pt	195	2	165	0.000	0.000	ppb	3715.350	97	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	197.978	197.978	ppb	0.310	1397729	200	99.0	80	120	
(Pb)	206	2	165	201.420	201.420	ppb	0.883	435923	200	100.7	80	120	
(Pb)	207	2	165	205.232	205.232	ppb	1.351	403058	200	102.6	80	120	
Pb	208	2	165	202.740	202.740	ppb	0.754	1821182	200	101.4	80	120	
Th	232	2	165	205.494	205.494	ppb	0.819	2144412	200	102.7	80	120	
U	238	2	165	203.723	203.723	ppb	1.201	2510499	200	101.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1278965	0.52	1374296	93.06	60	120	
Sc (IS)	45	1	HMI H2	41621636	0.76	40981949	101.56	60	120	
Sc (IS)	45	2	HMI He	455742	1.24	426944	106.75	60	120	
Sc (IS)	45	3	No Gas	131647525	0.30	135848058	96.91	60	120	
Ge Internal Standard	72	1	HMI H2	19989040	0.70	19779503	101.06	60	120	
Ge Internal Standard	72	2	HMI He	652649	0.34	609146	107.14	60	120	
In Internal Standard	115	2	HMI He	1566664	2.98	1366570	114.64	60	120	
Ho-165	165	2	HMI He	12720384	0.39	12108279	105.06	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-22-b@10
Data File Name	105SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:34:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-12.507	ppb	-12.507	-60.49	147312	500000	
Li	7	2	45	-45.463	ppb	-45.463	-24.43	7805	500000	
Li	7	3	45	-29.293	ppb	-29.293	-2.99	9508643	50000	
Be	9	1	6	1.055	ppb	1.055	14.40	343	2000	
B	11	1	6	9.748	ppb	9.748	9.87	4824	2000	
Na	23	1	45	219.777	ppb	219.777	1.65	984065	2000	
Na	23	2	45	176.639	ppb	176.639	5.02	36504	400000	
Mg	24	2	45	21131.650	ppb	21131.650	5.06	1278098	400000	
Al	27	2	45	11632.341	ppb	11632.341	4.96	131113	400000	
K	39	1	45	3002.958	ppb	3002.958	2.50	18113364	400000	
K	39	2	45	2782.225	ppb	2782.225	3.95	56589	400000	
Ca	40	1	45	327072.585	ppb	327072.585	1.99	1827984133	400000	
Ca	44	2	45	296798.172	ppb	296798.172	5.47	339178	400000	
V	51	2	72	21.370	ppb	21.370	6.05	15811	2000	
Cr	52	2	72	36.222	ppb	36.222	7.47	35506	5000	
Mn	55	2	72	319.193	ppb	319.193	5.17	81935	10000	
Fe	57	2	72	11296.968	ppb	11296.968	5.47	202357	400000	
Co	59	2	72	5.150	ppb	5.150	3.40	11194	2000	
Ni	60	2	72	16.012	ppb	16.012	9.76	10834	5000	
Cu	63	2	72	1867.383	ppb	1867.383	4.87	3693516	5000	
Zn	66	2	72	256.306	ppb	256.306	4.14	42141	5000	
As	75	2	72	7.093	ppb	7.093	9.61	667	2000	
Se	78	1	72	0.654	ppb	0.654	19.19	277	2000	
Sr	88	2	72	785.845	ppb	785.845	4.32	142452	4000	
Zr	90	2	72	1398.750	ppb	1398.750	6.00	9079	1000	
Nb	93	2	72	0.287	ppb	0.287	25.16	973	200	
Mo	95	2	115	2.609	ppb	2.609	3.77	1920	2000	
Pd	105	2	115	0.005	ppb	0.005	156.17	10	100	
Ag	107	2	115	0.692	ppb	0.692	6.89	2097	100	
Cd	111	2	115	1.024	ppb	1.024	25.29	250	2000	
Sn	120	2	115	2.639	ppb	2.639	7.96	1500	2000	
Sb	121	2	115	19.173	ppb	19.173	4.19	8646	1000	
Ba	137	2	115	148.516	ppb	148.516	6.20	18314	5000	
W	182	2	165	0.254	ppb	0.254	2.92	1777	100	
Pt	195	2	165	0.015	ppb	0.015	26.52	180	100	
Tl	205	2	165	0.440	ppb	0.440	7.34	3150	2000	
Pb	208	2	165	21325.446	ppb	21325.446	3.80	188610408	5000	
Th	232	2	165	5.662	ppb	5.662	1.57	58729	2000	
U	238	2	165	2.080	ppb	2.080	6.50	25305	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1202427	2.16	1374296	87.49	60	120	
Sc (IS)	45	1	HMI H2	39398844	1.72	40981949	96.14	60	120	
Sc (IS)	45	2	HMI He	449554	1.53	426944	105.30	60	120	
Sc (IS)	45	3	No Gas	129746858	0.84	135848058	95.51	60	120	
Ge Internal Standard	72	1	HMI H2	18681588	1.41	19779503	94.45	60	120	
Ge Internal Standard	72	2	HMI He	626136	1.37	609146	102.79	60	120	
In Internal Standard	115	2	HMI He	1419148	1.24	1366570	103.85	60	120	
Ho-165	165	2	HMI He	12545075	1.69	12108279	103.61	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-23-b@10
Data File Name	106SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:38:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-21.492	ppb	-21.492	-23.60	144830	500000	
Li	7	2	45	-27.263	ppb	-27.263	-26.99	7935	500000	
Li	7	3	45	-40.186	ppb	-40.186	-10.10	9241074	50000	
Be	9	1	6	0.901	ppb	0.901	20.44	293	2000	
B	11	1	6	8.508	ppb	8.508	5.77	4277	2000	
Na	23	1	45	231.673	ppb	231.673	0.69	1034802	2000	
Na	23	2	45	193.666	ppb	193.666	4.15	37640	400000	
Mg	24	2	45	23479.345	ppb	23479.345	1.32	1370903	400000	
Al	27	2	45	11633.984	ppb	11633.984	0.89	126584	400000	
K	39	1	45	2869.192	ppb	2869.192	2.46	17775129	400000	
K	39	2	45	2777.698	ppb	2777.698	4.75	54546	400000	
Ca	40	1	45	389385.446	ppb	389385.446	1.29	2190554207	400000	
Ca	44	2	45	372660.460	ppb	372660.460	1.97	411147	400000	
V	51	2	72	22.727	ppb	22.727	4.42	16448	2000	
Cr	52	2	72	58.801	ppb	58.801	1.98	56429	5000	
Mn	55	2	72	333.073	ppb	333.073	0.42	83803	10000	
Fe	57	2	72	11772.169	ppb	11772.169	0.59	206707	400000	
Co	59	2	72	4.939	ppb	4.939	3.11	10520	2000	
Ni	60	2	72	16.497	ppb	16.497	3.32	10940	5000	
Cu	63	2	72	1707.640	ppb	1707.640	1.52	3310464	5000	
Zn	66	2	72	232.964	ppb	232.964	1.54	37547	5000	
As	75	2	72	7.358	ppb	7.358	7.33	678	2000	
Se	78	1	72	0.574	ppb	0.574	13.18	248	2000	
Sr	88	2	72	995.515	ppb	995.515	1.78	176857	4000	
Zr	90	2	72	1348.392	ppb	1348.392	0.63	8582	1000	
Nb	93	2	72	0.339	ppb	0.339	5.36	1090	200	
Mo	95	2	115	2.471	ppb	2.471	23.11	1800	2000	
Pd	105	2	115	0.014	ppb	0.014	57.09	23	100	
Ag	107	2	115	0.655	ppb	0.655	8.66	1974	100	
Cd	111	2	115	1.205	ppb	1.205	14.64	293	2000	
Sn	120	2	115	3.056	ppb	3.056	12.61	1710	2000	
Sb	121	2	115	19.459	ppb	19.459	3.31	8723	1000	
Ba	137	2	115	152.063	ppb	152.063	3.61	18648	5000	
W	182	2	165	0.115	ppb	0.115	10.67	987	100	
Pt	195	2	165	0.024	ppb	0.024	59.22	227	100	
Tl	205	2	165	0.337	ppb	0.337	2.01	2347	2000	
Pb	208	2	165	23306.718	ppb	23306.718	2.41	199092680	5000	
Th	232	2	165	5.273	ppb	5.273	4.32	52858	2000	
U	238	2	165	2.296	ppb	2.296	6.01	26981	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1206312	2.92	1374296	87.78	60	120	
Sc (IS)	45	1	HMI H2	39651563	0.93	40981949	96.75	60	120	
Sc (IS)	45	2	HMI He	433775	1.09	426944	101.60	60	120	
Sc (IS)	45	3	No Gas	130234631	0.68	135848058	95.87	60	120	
Ge Internal Standard	72	1	HMI H2	18907066	0.44	19779503	95.59	60	120	
Ge Internal Standard	72	2	HMI He	613478	1.59	609146	100.71	60	120	
In Internal Standard	115	2	HMI He	1411937	4.51	1366570	103.32	60	120	
Ho-165	165	2	HMI He	12115731	1.98	12108279	100.06	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-24-b@10
Data File Name	107SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:42:34-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-18.425	ppb	-18.425	-75.28	137784	500000	
Li	7	2	45	-40.362	ppb	-40.362	-48.45	7842	500000	
Li	7	3	45	-41.171	ppb	-41.171	-5.89	8968442	50000	
Be	9	1	6	0.703	ppb	0.703	21.25	217	2000	
B	11	1	6	19.189	ppb	19.189	1.57	8682	2000	
Na	23	1	45	532.284	ppb	532.284	8.07	2030352	2000	
Na	23	2	45	397.383	ppb	397.383	1.54	68408	400000	
Mg	24	2	45	22193.614	ppb	22193.614	2.93	1330163	400000	
Al	27	2	45	12014.210	ppb	12014.210	1.35	134243	400000	
K	39	1	45	3527.604	ppb	3527.604	11.84	18868870	400000	
K	39	2	45	2928.155	ppb	2928.155	2.00	58793	400000	
Ca	40	1	45	346796.866	ppb	346796.866	9.55	1837232186	400000	
Ca	44	2	45	287910.576	ppb	287910.576	1.74	326124	400000	
V	51	2	72	21.795	ppb	21.795	2.38	16171	2000	
Cr	52	2	72	44.131	ppb	44.131	0.29	43380	5000	
Mn	55	2	72	327.852	ppb	327.852	2.58	84423	10000	
Fe	57	2	72	11411.878	ppb	11411.878	2.66	205051	400000	
Co	59	2	72	5.008	ppb	5.008	2.62	10920	2000	
Ni	60	2	72	15.398	ppb	15.398	3.25	10467	5000	
Cu	63	2	72	2260.259	ppb	2260.259	2.13	4483875	5000	
Zn	66	2	72	297.929	ppb	297.929	2.13	49116	5000	
As	75	2	72	7.184	ppb	7.184	4.02	678	2000	
Se	78	1	72	0.599	ppb	0.599	20.27	248	2000	
Sr	88	2	72	743.546	ppb	743.546	2.27	135184	4000	
Zr	90	2	72	1457.454	ppb	1457.454	5.77	9490	1000	
Nb	93	2	72	0.348	ppb	0.348	23.98	1143	200	
Mo	95	2	115	2.533	ppb	2.533	7.00	1964	2000	
Pd	105	2	115	0.030	ppb	0.030	111.92	50	100	
Ag	107	2	115	0.594	ppb	0.594	23.44	1884	100	
Cd	111	2	115	0.951	ppb	0.951	23.74	243	2000	
Sn	120	2	115	3.502	ppb	3.502	15.54	2060	2000	
Sb	121	2	115	19.000	ppb	19.000	11.83	8993	1000	
Ba	137	2	115	145.095	ppb	145.095	3.54	18845	5000	
W	182	2	165	0.550	ppb	0.550	3.25	3377	100	
Pt	195	2	165	0.052	ppb	0.052	17.27	397	100	
Tl	205	2	165	0.260	ppb	0.260	3.74	1890	2000	
Pb	208	2	165	21651.605	ppb	21651.605	1.77	191451575	5000	
Th	232	2	165	5.423	ppb	5.423	2.90	56239	2000	
U	238	2	165	1.885	ppb	1.885	2.80	22931	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1141678	2.99	1374296	83.07	60	120	
Sc (IS)	45	1	HMI H2	37465965	5.40	40981949	91.42	60	120	
Sc (IS)	45	2	HMI He	445446	2.25	426944	104.33	60	120	
Sc (IS)	45	3	No Gas	126761715	0.21	135848058	93.31	60	120	
Ge Internal Standard	72	1	HMI H2	18079135	4.25	19779503	91.40	60	120	
Ge Internal Standard	72	2	HMI He	627884	1.42	609146	103.08	60	120	
In Internal Standard	115	2	HMI He	1495863	5.68	1366570	109.46	60	120	
Ho-165	165	2	HMI He	12539093	1.36	12108279	103.56	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-25-b@10
Data File Name	108SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:46:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-27.552	ppb	-27.552	-10.72	143103	500000	
Li	7	2	45	-45.930	ppb	-45.930	-16.50	7582	500000	
Li	7	3	45	-45.311	ppb	-45.311	-2.67	8857539	50000	
Be	9	1	6	0.828	ppb	0.828	30.46	267	2000	
B	11	1	6	12.358	ppb	12.358	7.25	5948	2000	
Na	23	1	45	336.943	ppb	336.943	1.37	1432952	2000	
Na	23	2	45	275.634	ppb	275.634	1.16	49725	400000	
Mg	24	2	45	23740.599	ppb	23740.599	1.65	1397785	400000	
Al	27	2	45	11607.574	ppb	11607.574	1.48	127360	400000	
K	39	1	45	3075.124	ppb	3075.124	1.16	18555416	400000	
K	39	2	45	2924.401	ppb	2924.401	2.61	57663	400000	
Ca	40	1	45	309079.379	ppb	309079.379	0.18	1746177041	400000	
Ca	44	2	45	298610.131	ppb	298610.131	0.97	332221	400000	
V	51	2	72	21.719	ppb	21.719	2.82	15938	2000	
Cr	52	2	72	33.188	ppb	33.188	3.49	32294	5000	
Mn	55	2	72	318.448	ppb	318.448	1.52	81114	10000	
Fe	57	2	72	11057.103	ppb	11057.103	2.42	196523	400000	
Co	59	2	72	4.914	ppb	4.914	8.15	10597	2000	
Ni	60	2	72	15.211	ppb	15.211	2.73	10227	5000	
Cu	63	2	72	1652.528	ppb	1652.528	0.68	3243795	5000	
Zn	66	2	72	226.847	ppb	226.847	1.69	37016	5000	
As	75	2	72	7.431	ppb	7.431	2.53	693	2000	
Se	78	1	72	0.435	ppb	0.435	16.61	192	2000	
Sr	88	2	72	814.800	ppb	814.800	2.38	146565	4000	
Zr	90	2	72	1327.495	ppb	1327.495	6.55	8552	1000	
Nb	93	2	72	0.428	ppb	0.428	3.28	1343	200	
Mo	95	2	115	1.962	ppb	1.962	11.50	1470	2000	
Pd	105	2	115	0.028	ppb	0.028	52.68	43	100	
Ag	107	2	115	0.472	ppb	0.472	6.18	1467	100	
Cd	111	2	115	1.056	ppb	1.056	5.50	263	2000	
Sn	120	2	115	1.681	ppb	1.681	1.70	1007	2000	
Sb	121	2	115	12.492	ppb	12.492	2.62	5751	1000	
Ba	137	2	115	152.727	ppb	152.727	1.32	19182	5000	
W	182	2	165	0.348	ppb	0.348	5.91	2230	100	
Pt	195	2	165	0.024	ppb	0.024	40.92	227	100	
Tl	205	2	165	0.229	ppb	0.229	3.23	1640	2000	
Pb	208	2	165	14006.477	ppb	14006.477	0.85	120919862	5000	
Th	232	2	165	5.183	ppb	5.183	1.59	52496	2000	
U	238	2	165	1.878	ppb	1.878	3.04	22317	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1187088	1.16	1374296	86.38	60	120	
Sc (IS)	45	1	HMI H2	39817539	0.54	40981949	97.16	60	120	
Sc (IS)	45	2	HMI He	437436	0.28	426944	102.46	60	120	
Sc (IS)	45	3	No Gas	126778878	0.24	135848058	93.32	60	120	
Ge Internal Standard	72	1	HMI H2	18975033	0.24	19779503	95.93	60	120	
Ge Internal Standard	72	2	HMI He	621113	1.50	609146	101.96	60	120	
In Internal Standard	115	2	HMI He	1445008	4.89	1366570	105.74	60	120	
Ho-165	165	2	HMI He	12241125	0.17	12108279	101.10	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-26-b@10
Data File Name	109SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:50:15-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-29.154	ppb	-29.154	-27.05	143198	500000	
Li	7	2	45	-53.173	ppb	-53.173	-20.83	7488	500000	
Li	7	3	45	-47.633	ppb	-47.633	-2.36	8679322	50000	
Be	9	1	6	0.526	ppb	0.526	31.45	170	2000	
B	11	1	6	9.523	ppb	9.523	2.08	4674	2000	
Na	23	1	45	283.421	ppb	283.421	1.46	1238987	2000	
Na	23	2	45	229.047	ppb	229.047	2.32	43446	400000	
Mg	24	2	45	22776.568	ppb	22776.568	0.90	1353632	400000	
Al	27	2	45	11346.849	ppb	11346.849	0.91	125674	400000	
K	39	1	45	3009.633	ppb	3009.633	2.64	18424223	400000	
K	39	2	45	2893.167	ppb	2893.167	1.43	57632	400000	
Ca	40	1	45	304842.047	ppb	304842.047	2.17	1730816401	400000	
Ca	44	2	45	300186.894	ppb	300186.894	0.70	337115	400000	
V	51	2	72	22.326	ppb	22.326	4.80	16495	2000	
Cr	52	2	72	59.043	ppb	59.043	2.46	57794	5000	
Mn	55	2	72	308.733	ppb	308.733	1.33	79235	10000	
Fe	57	2	72	11152.374	ppb	11152.374	2.21	199733	400000	
Co	59	2	72	4.710	ppb	4.710	5.25	10233	2000	
Ni	60	2	72	15.148	ppb	15.148	2.48	10263	5000	
Cu	63	2	72	921.944	ppb	921.944	2.73	1824008	5000	
Zn	66	2	72	151.664	ppb	151.664	1.15	24972	5000	
As	75	2	72	6.693	ppb	6.693	6.27	630	2000	
Se	78	1	72	0.407	ppb	0.407	13.13	181	2000	
Sr	88	2	72	813.661	ppb	813.661	1.71	147445	4000	
Zr	90	2	72	1297.969	ppb	1297.969	9.40	8429	1000	
Nb	93	2	72	0.458	ppb	0.458	22.74	1433	200	
Mo	95	2	115	2.034	ppb	2.034	2.59	1560	2000	
Pd	105	2	115	0.009	ppb	0.009	118.44	17	100	
Ag	107	2	115	0.539	ppb	0.539	6.87	1700	100	
Cd	111	2	115	1.131	ppb	1.131	26.30	287	2000	
Sn	120	2	115	1.712	ppb	1.712	11.86	1043	2000	
Sb	121	2	115	11.350	ppb	11.350	7.65	5331	1000	
Ba	137	2	115	156.533	ppb	156.533	2.55	20063	5000	
W	182	2	165	0.194	ppb	0.194	15.05	1430	100	
Pt	195	2	165	0.012	ppb	0.012	32.08	163	100	
Tl	205	2	165	0.208	ppb	0.208	17.76	1507	2000	
Pb	208	2	165	13092.760	ppb	13092.760	2.56	114275348	5000	
Th	232	2	165	5.102	ppb	5.102	5.55	52242	2000	
U	238	2	165	1.842	ppb	1.842	5.78	22123	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1188887	1.47	1374296	86.51	60	120	
Sc (IS)	45	1	HMI H2	40024794	1.56	40981949	97.66	60	120	
Sc (IS)	45	2	HMI He	441549	0.11	426944	103.42	60	120	
Sc (IS)	45	3	No Gas	125114431	0.73	135848058	92.10	60	120	
Ge Internal Standard	72	1	HMI H2	19097520	0.85	19779503	96.55	60	120	
Ge Internal Standard	72	2	HMI He	625728	0.08	609146	102.72	60	120	
In Internal Standard	115	2	HMI He	1474607	2.12	1366570	107.91	60	120	
Ho-165	165	2	HMI He	12378341	1.35	12108279	102.23	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-27-b@10
Data File Name	110SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:54:08-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-27.210	ppb	-27.210	-15.73	137069	500000	
Li	7	2	45	-51.322	ppb	-51.322	-34.72	7458	500000	
Li	7	3	45	-49.982	ppb	-49.982	-1.28	8397380	50000	
Be	9	1	6	0.834	ppb	0.834	20.87	257	2000	
B	11	1	6	7.844	ppb	7.844	5.47	3731	2000	
Na	23	1	45	247.467	ppb	247.467	2.69	1050825	2000	
Na	23	2	45	195.760	ppb	195.760	9.11	38238	400000	
Mg	24	2	45	24838.826	ppb	24838.826	7.25	1461117	400000	
Al	27	2	45	12946.524	ppb	12946.524	6.77	141945	400000	
K	39	1	45	3600.606	ppb	3600.606	3.31	19476121	400000	
K	39	2	45	3280.349	ppb	3280.349	7.89	64057	400000	
Ca	40	1	45	315811.971	ppb	315811.971	2.39	1707159975	400000	
Ca	44	2	45	292753.529	ppb	292753.529	8.55	325287	400000	
V	51	2	72	23.037	ppb	23.037	5.62	16815	2000	
Cr	52	2	72	39.997	ppb	39.997	9.63	38706	5000	
Mn	55	2	72	322.530	ppb	322.530	6.90	81810	10000	
Fe	57	2	72	12233.632	ppb	12233.632	8.64	216440	400000	
Co	59	2	72	5.225	ppb	5.225	8.09	11217	2000	
Ni	60	2	72	15.531	ppb	15.531	7.78	10393	5000	
Cu	63	2	72	540.564	ppb	540.564	7.25	1057656	5000	
Zn	66	2	72	116.001	ppb	116.001	9.64	18887	5000	
As	75	2	72	6.928	ppb	6.928	9.33	644	2000	
Se	78	1	72	0.470	ppb	0.470	14.20	199	2000	
Sr	88	2	72	791.228	ppb	791.228	6.87	141722	4000	
Zr	90	2	72	1440.017	ppb	1440.017	5.09	9239	1000	
Nb	93	2	72	0.426	ppb	0.426	12.29	1330	200	
Mo	95	2	115	1.310	ppb	1.310	10.50	1010	2000	
Pd	105	2	115	0.013	ppb	0.013	71.77	23	100	
Ag	107	2	115	0.279	ppb	0.279	6.85	883	100	
Cd	111	2	115	1.009	ppb	1.009	17.17	253	2000	
Sn	120	2	115	1.303	ppb	1.303	14.94	810	2000	
Sb	121	2	115	6.471	ppb	6.471	7.65	3040	1000	
Ba	137	2	115	152.921	ppb	152.921	11.74	19405	5000	
W	182	2	165	0.103	ppb	0.103	7.71	923	100	
Pt	195	2	165	0.011	ppb	0.011	105.78	153	100	
Tl	205	2	165	0.224	ppb	0.224	20.38	1583	2000	
Pb	208	2	165	9582.444	ppb	9582.444	7.48	81904318	5000	
Th	232	2	165	5.789	ppb	5.789	7.24	58003	2000	
U	238	2	165	1.872	ppb	1.872	6.30	22030	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1132621	1.91	1374296	82.41	60	120	
Sc (IS)	45	1	HMI H2	38107999	1.69	40981949	92.99	60	120	
Sc (IS)	45	2	HMI He	438070	4.86	426944	102.61	60	120	
Sc (IS)	45	3	No Gas	121932505	0.49	135848058	89.76	60	120	
Ge Internal Standard	72	1	HMI H2	18292588	1.42	19779503	92.48	60	120	
Ge Internal Standard	72	2	HMI He	619673	4.36	609146	101.73	60	120	
In Internal Standard	115	2	HMI He	1467716	7.18	1366570	107.40	60	120	
Ho-165	165	2	HMI He	12142187	3.79	12108279	100.28	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-58-b@10
Data File Name	111SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T17:57:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-25.785	ppb	-25.785	-34.22	139850	500000	
Li	7	2	45	-67.662	ppb	-67.662	-37.15	7198	500000	
Li	7	3	45	-44.359	ppb	-44.359	-8.14	8242454	50000	
Be	9	1	6	0.960	ppb	0.960	15.00	297	2000	
B	11	1	6	9.982	ppb	9.982	9.20	4674	2000	
Na	23	1	45	262.917	ppb	262.917	1.75	1124501	2000	
Na	23	2	45	199.888	ppb	199.888	2.11	39437	400000	
Mg	24	2	45	31608.928	ppb	31608.928	0.03	1888850	400000	
Al	27	2	45	19629.723	ppb	19629.723	1.02	218567	400000	
K	39	1	45	5057.981	ppb	5057.981	2.07	24649546	400000	
K	39	2	45	4574.684	ppb	4574.684	1.72	88894	400000	
Ca	40	1	45	195211.744	ppb	195211.744	1.86	1072698757	400000	
Ca	44	2	45	179074.319	ppb	179074.319	0.45	202213	400000	
V	51	2	72	28.503	ppb	28.503	2.72	21227	2000	
Cr	52	2	72	36.120	ppb	36.120	3.83	35900	5000	
Mn	55	2	72	491.887	ppb	491.887	1.96	127971	10000	
Fe	57	2	72	17185.435	ppb	17185.435	1.24	311992	400000	
Co	59	2	72	7.074	ppb	7.074	3.80	15581	2000	
Ni	60	2	72	18.779	ppb	18.779	2.91	12842	5000	
Cu	63	2	72	171.944	ppb	171.944	0.92	346309	5000	
Zn	66	2	72	92.078	ppb	92.078	5.74	15414	5000	
As	75	2	72	6.407	ppb	6.407	1.22	612	2000	
Se	78	1	72	0.274	ppb	0.274	38.83	123	2000	
Sr	88	2	72	413.983	ppb	413.983	3.09	76060	4000	
Zr	90	2	72	1987.443	ppb	1987.443	1.74	13042	1000	
Nb	93	2	72	0.409	ppb	0.409	17.94	1320	200	
Mo	95	2	115	1.283	ppb	1.283	10.16	1033	2000	
Pd	105	2	115	0.006	ppb	0.006	121.92	13	100	
Ag	107	2	115	0.086	ppb	0.086	16.55	303	100	
Cd	111	2	115	0.895	ppb	0.895	20.18	237	2000	
Sn	120	2	115	1.014	ppb	1.014	15.51	683	2000	
Sb	121	2	115	0.139	ppb	0.139	82.47	113	1000	
Ba	137	2	115	198.418	ppb	198.418	2.69	26515	5000	
W	182	2	165	0.075	ppb	0.075	18.14	810	100	
Pt	195	2	165	0.002	ppb	0.002	502.11	103	100	
Tl	205	2	165	0.229	ppb	0.229	10.79	1687	2000	
Pb	208	2	165	705.619	ppb	705.619	0.77	6286665	5000	
Th	232	2	165	8.447	ppb	8.447	1.51	87962	2000	
U	238	2	165	1.370	ppb	1.370	2.29	16806	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1139204	1.52	1374296	82.89	60	120	
Sc (IS)	45	1	HMI H2	38733631	1.49	40981949	94.51	60	120	
Sc (IS)	45	2	HMI He	443985	1.25	426944	103.99	60	120	
Sc (IS)	45	3	No Gas	117641258	1.12	135848058	86.60	60	120	
Ge Internal Standard	72	1	HMI H2	18554096	0.89	19779503	93.80	60	120	
Ge Internal Standard	72	2	HMI He	634330	0.71	609146	104.13	60	120	
In Internal Standard	115	2	HMI He	1537705	2.23	1366570	112.52	60	120	
Ho-165	165	2	HMI He	12627786	0.71	12108279	104.29	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	112_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:01:48-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	437.183	ppb	1.777	310616	500	87.4	90	110	>+\-10%
Li	7	2	45	335.813	ppb	13.377	16051	500	67.2	90	110	>+\-10%
Li	7	3	45	327.107	ppb	2.945	17707407	500	65.4	90	110	>+\-10%
Be	9	1	6	51.966	ppb	1.991	16084	50	103.9	90	110	
B	11	1	6	36.108	ppb	3.262	16041	50	72.2	90	110	>+\-10%
Na	23	1	45	5098.056	ppb	1.120	18549796	5000	102.0	90	110	
Na	23	2	45	4392.070	ppb	2.123	635592	5000	87.8	90	110	>+\-10%
Mg	24	2	45	4819.403	ppb	2.054	281812	5000	96.4	90	110	
Al	27	2	45	5112.029	ppb	3.554	55702	5000	102.2	90	110	
K	39	1	45	5518.360	ppb	2.148	25952130	5000	110.4	90	110	>+\-10%
K	39	2	45	5076.643	ppb	1.722	95987	5000	101.5	90	110	
Ca	40	1	45	5340.031	ppb	0.474	29212481	5000	106.8	90	110	
Ca	44	2	45	5374.195	ppb	3.971	5951	5000	107.5	90	110	
V	51	2	72	46.134	ppb	1.681	34324	50	92.3	90	110	
Cr	52	2	72	47.190	ppb	2.574	47210	50	94.4	90	110	
Mn	55	2	72	48.974	ppb	2.800	12858	50	97.9	90	110	
Fe	57	2	72	4800.695	ppb	2.134	87826	5000	96.0	90	110	
Co	59	2	72	46.192	ppb	2.062	102454	50	92.4	90	110	
Ni	60	2	72	46.282	ppb	2.772	31529	50	92.6	90	110	
Cu	63	2	72	45.607	ppb	2.664	93857	50	91.2	90	110	
Zn	66	2	72	46.843	ppb	2.419	7952	50	93.7	90	110	
As	75	2	72	48.090	ppb	1.264	4569	50	96.2	90	110	
Se	78	1	72	48.747	ppb	1.946	20017	50	97.5	90	110	
Sr	88	2	72	55.395	ppb	4.476	10257	50	110.8	90	110	>+\-10%
Zr	90	2	72	64.805	ppb	17.400	507	50	129.6	90	110	>+\-10%
Nb	93	2	72	96.969	ppb	1.626	267860	100	97.0	90	110	
Mo	95	2	115	44.116	ppb	0.549	35711	50	88.2	90	110	>+\-10%
Pd	105	2	115	44.849	ppb	4.687	69170	50	89.7	90	110	>+\-10%
Ag	107	2	115	42.947	ppb	3.281	142886	50	85.9	90	110	>+\-10%
Cd	111	2	115	45.422	ppb	2.240	12322	50	90.8	90	110	
Sn	120	2	115	46.259	ppb	3.437	27513	50	92.5	90	110	
Sb	121	2	115	48.096	ppb	2.570	23988	50	96.2	90	110	
Ba	137	2	115	47.946	ppb	7.415	6555	50	95.9	90	110	
W	182	2	165	46.323	ppb	2.456	249153	50	92.6	90	110	
Pt	195	2	165	45.444	ppb	1.493	262878	50	90.9	90	110	
Tl	205	2	165	47.105	ppb	1.079	325413	50	94.2	90	110	
Pb	208	2	165	49.767	ppb	0.886	439131	50	99.5	90	110	
Th	232	2	165	48.505	ppb	1.321	495544	50	97.0	90	110	
U	238	2	165	47.856	ppb	1.350	576965	50	95.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1142501	0.79	1374296	83.13	60	120	
Sc (IS)	45	1	HMI H2	38392108	1.06	40981949	93.68	60	120	
Sc (IS)	45	2	HMI He	434363	2.24	426944	101.74	60	120	
Sc (IS)	45	3	No Gas	118535765	0.40	135848058	87.26	60	120	
Ge Internal Standard	72	1	HMI H2	18920020	0.63	19779503	95.65	60	120	
Ge Internal Standard	72	2	HMI He	639017	1.44	609146	104.90	60	120	
In Internal Standard	115	2	HMI He	1574313	2.64	1366570	115.20	60	120	
Ho-165	165	2	HMI He	12444714	0.32	12108279	102.78	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	113_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:05:35-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-62.656	ppb	-4.8	7805158	10	
Be	9	1	6	0.031	ppb	101.4	10	0.5	
B	11	1	6	0.509	ppb	71.3	597	0.5	>RL
Na	23	1	45	-1.241	ppb	-122.7	163985	25	
Na	23	2	45	-15.866	ppb	-24.8	8012	25	
Mg	24	2	45	1.519	ppb	23.3	260	25	
Al	27	2	45	-0.729	ppb	-77.2	33	15	
K	39	1	45	167.168	ppb	33.5	8396579	50	>RL
K	39	2	45	8.171	ppb	371.2	4848	50	
Ca	40	1	45	5.747	ppb	22.3	159486	50	
Ca	44	2	45	14.579	ppb	124.6	30	25	
V	51	2	72	-0.295	ppb	-20.3	237	1	
Cr	52	2	72	0.058	ppb	69.8	197	1	
Mn	55	2	72	0.043	ppb	315.0	40	0.5	
Fe	57	2	72	-0.744	ppb	-46.4	57	25	
Co	59	2	72	0.007	ppb	160.2	20	0.5	
Ni	60	2	72	0.025	ppb	406.5	260	1	
Cu	63	2	72	0.328	ppb	34.8	2517	1	
Zn	66	2	72	0.507	ppb	69.8	200	5	
As	75	2	72	0.002	ppb	2588.7	9	1	
Se	78	1	72	0.027	ppb	125.3	24	1	
Sr	88	2	72	0.068	ppb	161.7	23	0.5	
Zr	90	2	72	-4.657	ppb	-117.9	50	1	
Nb	93	2	72	0.758	ppb	15.7	2324	2	
Mo	95	2	115	0.016	ppb	189.0	33	0.5	
Pd	105	2	115	0.016	ppb	99.7	30	1	
Ag	107	2	115	0.011	ppb	58.9	60	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.010	ppb	470.9	110	1	
Sb	121	2	115	0.076	ppb	107.6	87	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.004	ppb	392.8	423	1	
Pt	195	2	165	0.005	ppb	181.6	123	1	
Tl	205	2	165	0.011	ppb	67.1	163	0.1	
Pb	208	2	165	1.565	ppb	16.0	16331	0.5	>RL
Th	232	2	165	0.038	ppb	24.1	873	1	
U	238	2	165	0.012	ppb	18.7	187	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1187243	2.02	1374296	86.39	60	120	
Sc (IS)	45	1	HMI H2	38880904	2.95	40981949	94.87	60	120	
Sc (IS)	45	2	HMI He	443835	2.44	426944	103.96	60	120	
Sc (IS)	45	3	No Gas	117975005	0.84	135848058	86.84	60	120	
Ge Internal Standard	72	1	HMI H2	19138365	2.14	19779503	96.76	60	120	
Ge Internal Standard	72	2	HMI He	648227	1.37	609146	106.42	60	120	
In Internal Standard	115	2	HMI He	1635780	2.62	1366570	119.70	60	120	
Ho-165	165	2	HMI He	12654227	1.35	12108279	104.51	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	114LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:09:23-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-49.868	ppb	-8.120	7936134	50	-99.7	70	130	>+/-30%
Be	9	1	6	0.832	ppb	13.197	260	1	83.2	70	130	
Na	23	2	45	32.344	ppb	4.706	14943	50	64.7	70	130	>+/-30%
Mg	24	2	45	49.268	ppb	11.295	3090	50	98.5	70	130	
Al	27	2	45	29.722	ppb	3.678	370	30	99.1	70	130	
K	39	2	45	89.464	ppb	14.018	6305	100	89.5	70	130	
Ca	44	2	45	59.597	ppb	57.412	80	50	119.2	70	130	
V	51	2	72	3.974	ppb	11.851	3387	5	79.5	70	130	
Cr	52	2	72	1.864	ppb	5.149	2007	2	93.2	70	130	
Mn	55	2	72	0.866	ppb	31.833	257	1	86.6	70	130	
Fe	57	2	72	50.755	ppb	1.001	1003	50	101.5	70	130	
Co	59	2	72	0.913	ppb	9.061	2040	1	91.3	70	130	
Ni	60	2	72	1.675	ppb	6.453	1380	2	83.7	70	130	
Cu	63	2	72	1.804	ppb	7.246	5491	2	90.2	70	130	
Zn	66	2	72	9.308	ppb	8.148	1680	10	93.1	70	130	
As	75	2	72	4.355	ppb	2.684	424	5	87.1	70	130	
Se	78	1	72	5.053	ppb	3.609	2077	5	101.1	70	130	
Sr	88	2	72	0.894	ppb	41.018	177	1	89.4	70	130	
Zr	90	2	72	15.439	ppb	101.645	183	0.5	3087.7	70	130	>+/-30%
Nb	93	2	72	0.633	ppb	12.142	1957	2	31.6	70	130	>+/-30%
Mo	95	2	115	1.587	ppb	18.329	1333	2	79.4	70	130	
Pd	105	2	115	0.013	ppb	167.364	23	1	1.3	70	130	>+/-30%
Ag	107	2	115	4.128	ppb	4.658	14030	5	82.6	70	130	
Cd	111	2	115	0.735	ppb	7.882	203	1	73.5	70	130	
Sn	120	2	115	9.106	ppb	1.498	5611	10	91.1	70	130	
Sb	121	2	115	1.508	ppb	9.788	813	2	75.4	70	130	
Ba	137	2	115	0.884	ppb	20.536	123	1	88.4	70	130	
W	182	2	165	4.521	ppb	2.675	24953	1	452.1	70	130	>+/-30%
Pt	195	2	165	0.031	ppb	54.243	277	1	3.1	70	130	>+/-30%
Tl	205	2	165	0.967	ppb	4.986	6838	1	96.7	70	130	
Pb	208	2	165	2.981	ppb	16.216	28827	1	298.1	70	130	>+/-30%
Th	232	2	165	1.878	ppb	5.751	19863	2	93.9	70	130	
U	238	2	165	0.959	ppb	4.194	11728	1	95.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1156606	3.58	1374296	84.16	60	120	
Sc (IS)	45	1	HMI H2	38119050	3.29	40981949	93.01	60	120	
Sc (IS)	45	2	HMI He	440940	2.44	426944	103.28	60	120	
Sc (IS)	45	3	No Gas	115195555	0.97	135848058	84.80	60	120	
Ge Internal Standard	72	1	HMI H2	18845971	3.08	19779503	95.28	60	120	
Ge Internal Standard	72	2	HMI He	642802	1.11	609146	105.53	60	120	
In Internal Standard	115	2	HMI He	1606256	2.45	1366570	117.54	60	120	
Ho-165	165	2	HMI He	12586056	1.31	12108279	103.95	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-59-b
Data File Name	115SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:13:11-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	148.151	ppb	148.151	6.80	190247	500000	
Li	7	2	45	83.586	ppb	83.586	34.60	10367	500000	
Li	7	3	45	103.629	ppb	103.629	3.21	11615192	50000	
Be	9	1	6	13.810	ppb	13.810	3.78	3060	2000	
B	11	1	6	131.459	ppb	131.459	0.62	41147	2000	
Na	23	1	45	3076.045	ppb	3076.045	1.29	10539059	2000	
Na	23	2	45	2680.206	ppb	2680.206	2.26	389863	400000	
Mg	24	2	45	332595.692	ppb	332595.692	3.09	19340728	400000	
Al	27	2	45	229668.467	ppb	229668.467	3.62	2488308	400000	
K	39	1	45	54287.979	ppb	54287.979	0.75	174948571	400000	
K	39	2	45	53108.226	ppb	53108.226	2.82	955782	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2025305.538	ppb	2025305.538	3.02	2225731	400000	>LDR
V	51	2	72	357.285	ppb	357.285	2.82	241279	2000	
Cr	52	2	72	554.639	ppb	554.639	2.38	507907	5000	
Mn	55	2	72	6173.624	ppb	6173.624	3.61	1484916	10000	
Fe	57	2	72	205158.180	ppb	205158.180	3.20	3443302	400000	
Co	59	2	72	81.591	ppb	81.591	2.74	166149	2000	
Ni	60	2	72	214.897	ppb	214.897	2.28	133586	5000	
Cu	63	2	72	1716.071	ppb	1716.071	2.15	3181489	5000	
Zn	66	2	72	1041.925	ppb	1041.925	2.81	160232	5000	
As	75	2	72	83.495	ppb	83.495	3.73	7275	2000	
Se	78	1	72	3.223	ppb	3.223	6.15	1131	2000	
Sr	88	2	72	4799.310	ppb	4799.310	3.93	815312	4000	
Zr	90	2	72	24890.402	ppb	24890.402	5.55	150199	1000	>LDR
Nb	93	2	72	6.410	ppb	6.410	1.29	16428	200	
Mo	95	2	115	15.628	ppb	15.628	3.09	10697	2000	
Pd	105	2	115	0.097	ppb	0.097	21.95	130	100	
Ag	107	2	115	0.925	ppb	0.925	9.25	2624	100	
Cd	111	2	115	8.329	ppb	8.329	3.72	1910	2000	
Sn	120	2	115	11.275	ppb	11.275	4.83	5731	2000	
Sb	121	2	115	3.242	ppb	3.242	4.83	1403	1000	
Ba	137	2	115	2416.816	ppb	2416.816	3.41	279482	5000	
W	182	2	165	0.966	ppb	0.966	7.46	5108	100	
Pt	195	2	165	0.027	ppb	0.027	22.05	230	100	
Tl	205	2	165	2.864	ppb	2.864	3.34	18168	2000	
Pb	208	2	165	8501.072	ppb	8501.072	3.74	68238355	5000	
Th	232	2	165	101.208	ppb	101.208	4.71	945136	2000	
U	238	2	165	16.201	ppb	16.201	3.80	178648	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	818070	0.82	1374296	59.53	60	120	IS Failed
Sc (IS)	45	1	HMI H2	35936789	0.45	40981949	87.69	60	120	
Sc (IS)	45	2	HMI He	432095	0.91	426944	101.21	60	120	
Sc (IS)	45	3	No Gas	114243588	0.09	135848058	84.10	60	120	
Ge Internal Standard	72	1	HMI H2	16019471	0.27	19779503	80.99	60	120	
Ge Internal Standard	72	2	HMI He	586628	0.94	609146	96.30	60	120	
In Internal Standard	115	2	HMI He	1330093	1.30	1366570	97.33	60	120	
Ho-165	165	2	HMI He	11385115	1.76	12108279	94.03	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-60-b
Data File Name	116SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:16:58-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	124.541	ppb	124.541	2.63	175062	500000	
Li	7	2	45	59.193	ppb	59.193	23.81	9623	500000	
Li	7	3	45	64.145	ppb	64.145	6.20	10042174	50000	
Be	9	1	6	12.846	ppb	12.846	8.34	2654	2000	
B	11	1	6	132.843	ppb	132.843	1.09	38761	2000	
Na	23	1	45	2640.166	ppb	2640.166	0.46	8720070	2000	
Na	23	2	45	2223.780	ppb	2223.780	0.49	318464	400000	
Mg	24	2	45	310831.060	ppb	310831.060	0.51	17701539	400000	
Al	27	2	45	214680.917	ppb	214680.917	0.76	2278022	400000	
K	39	1	45	53023.875	ppb	53023.875	0.12	164484714	400000	
K	39	2	45	49509.729	ppb	49509.729	0.76	872932	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	1849949.019	ppb	1849949.019	2.83	1991118	400000	
V	51	2	72	329.642	ppb	329.642	1.33	214201	2000	
Cr	52	2	72	366.771	ppb	366.771	0.82	323206	5000	
Mn	55	2	72	5622.427	ppb	5622.427	3.96	1301457	10000	
Fe	57	2	72	192763.603	ppb	192763.603	1.22	3113003	400000	
Co	59	2	72	76.666	ppb	76.666	0.95	150214	2000	
Ni	60	2	72	202.385	ppb	202.385	0.23	121059	5000	
Cu	63	2	72	1064.463	ppb	1064.463	0.50	1899251	5000	
Zn	66	2	72	882.569	ppb	882.569	0.96	130604	5000	
As	75	2	72	77.449	ppb	77.449	2.86	6494	2000	
Se	78	1	72	3.074	ppb	3.074	1.12	1048	2000	
Sr	88	2	72	4487.217	ppb	4487.217	1.54	733461	4000	
Zr	90	2	72	23483.347	ppb	23483.347	1.24	136361	1000	>LDR
Nb	93	2	72	5.532	ppb	5.532	5.39	13666	200	
Mo	95	2	115	12.601	ppb	12.601	2.59	8332	2000	
Pd	105	2	115	0.064	ppb	0.064	5.97	83	100	
Ag	107	2	115	0.864	ppb	0.864	10.26	2364	100	
Cd	111	2	115	7.998	ppb	7.998	4.15	1770	2000	
Sn	120	2	115	11.576	ppb	11.576	12.86	5681	2000	
Sb	121	2	115	3.179	ppb	3.179	21.79	1327	1000	
Ba	137	2	115	2288.902	ppb	2288.902	1.63	255594	5000	
W	182	2	165	0.867	ppb	0.867	9.19	4504	100	
Pt	195	2	165	0.012	ppb	0.012	107.46	143	100	
Tl	205	2	165	2.690	ppb	2.690	2.02	16633	2000	
Pb	208	2	165	7675.599	ppb	7675.599	0.97	60065991	5000	
Th	232	2	165	93.538	ppb	93.538	1.58	851703	2000	
U	238	2	165	15.022	ppb	15.022	0.41	161504	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	762678	0.56	1374296	55.50	60	120	IS Failed
Sc (IS)	45	1	HMI H2	34558139	0.46	40981949	84.33	60	120	
Sc (IS)	45	2	HMI He	423149	0.77	426944	99.11	60	120	
Sc (IS)	45	3	No Gas	107702708	0.56	135848058	79.28	60	120	
Ge Internal Standard	72	1	HMI H2	15560526	0.58	19779503	78.67	60	120	
Ge Internal Standard	72	2	HMI He	564399	1.00	609146	92.65	60	120	
In Internal Standard	115	2	HMI He	1284374	1.17	1366570	93.99	60	120	
Ho-165	165	2	HMI He	11095105	1.07	12108279	91.63	60	120	

Sample Table

Sample Name	280-104412-a-61-b
Data File Name	117SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:20:46-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	15.667	ppb	15.667	15.09	134134	500000	
Li	7	2	45	-16.601	ppb	-16.601	-68.33	7632	500000	
Li	7	3	45	-46.955	ppb	-46.955	-5.21	6438145	50000	
Be	9	1	6	8.226	ppb	8.226	6.35	1567	2000	
B	11	1	6	91.899	ppb	91.899	2.04	24781	2000	
Na	23	1	45	1964.776	ppb	1964.776	1.05	6314765	2000	
Na	23	2	45	1668.853	ppb	1668.853	5.27	230966	400000	
Mg	24	2	45	193105.559	ppb	193105.559	5.81	10517385	400000	
Al	27	2	45	123773.977	ppb	123773.977	5.26	1256361	400000	
K	39	1	45	32032.715	ppb	32032.715	0.89	98797089	400000	
K	39	2	45	31357.288	ppb	31357.288	4.47	530569	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2683471.259	ppb	2683471.259	4.46	2763133	400000	>LDR
V	51	2	72	243.908	ppb	243.908	6.85	151039	2000	
Cr	52	2	72	396.005	ppb	396.005	6.01	332327	5000	
Mn	55	2	72	3152.765	ppb	3152.765	4.86	695032	10000	
Fe	57	2	72	120270.417	ppb	120270.417	4.91	1850156	400000	
Co	59	2	72	49.088	ppb	49.088	6.29	91598	2000	
Ni	60	2	72	153.817	ppb	153.817	3.68	87726	5000	
Cu	63	2	72	13895.777	ppb	13895.777	5.00	23599211	5000	
Zn	66	2	72	2018.074	ppb	2018.074	5.36	284332	5000	
As	75	2	72	71.324	ppb	71.324	5.62	5696	2000	
Se	78	1	72	4.137	ppb	4.137	2.71	1332	2000	
Sr	88	2	72	7651.828	ppb	7651.828	3.83	1191621	4000	
Zr	90	2	72	14208.771	ppb	14208.771	5.99	78608	1000	>LDR
Nb	93	2	72	5.232	ppb	5.232	8.29	12312	200	
Mo	95	2	115	20.383	ppb	20.383	12.44	12772	2000	
Pd	105	2	115	0.069	ppb	0.069	33.13	87	100	
Ag	107	2	115	2.679	ppb	2.679	4.49	6932	100	
Cd	111	2	115	9.504	ppb	9.504	11.92	2007	2000	
Sn	120	2	115	21.446	ppb	21.446	4.93	9937	2000	
Sb	121	2	115	57.567	ppb	57.567	7.66	22235	1000	
Ba	137	2	115	1474.585	ppb	1474.585	5.43	156412	5000	
W	182	2	165	0.791	ppb	0.791	5.83	3867	100	
Pt	195	2	165	0.007	ppb	0.007	42.07	110	100	
Tl	205	2	165	1.893	ppb	1.893	6.81	10944	2000	
Pb	208	2	165	93011.180	ppb	93011.180	4.48	679500637	5000	>LDR
Th	232	2	165	56.868	ppb	56.868	4.93	483504	2000	
U	238	2	165	16.635	ppb	16.635	5.70	166935	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	702948	0.37	1374296	51.15	60	120	IS Failed
Sc (IS)	45	1	HMI H2	33432792	0.91	40981949	81.58	60	120	
Sc (IS)	45	2	HMI He	405352	4.22	426944	94.94	60	120	
Sc (IS)	45	3	No Gas	92618125	0.86	135848058	68.18	60	120	
Ge Internal Standard	72	1	HMI H2	14736164	0.82	19779503	74.50	60	120	
Ge Internal Standard	72	2	HMI He	538199	3.24	609146	88.35	60	120	
In Internal Standard	115	2	HMI He	1222029	4.46	1366570	89.42	60	120	
Ho-165	165	2	HMI He	10369200	3.45	12108279	85.64	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-62-b
Data File Name	118SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:24:32-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	6.635	ppb	6.635	11.03	114942	500000	
Li	7	2	45	-47.136	ppb	-47.136	-7.76	6221	500000	
Li	7	3	45	-77.470	ppb	-77.470	-1.22	5111957	50000	
Be	9	1	6	7.547	ppb	7.547	7.92	1237	2000	
B	11	1	6	97.461	ppb	97.461	2.45	22605	2000	
Na	23	1	45	2204.586	ppb	2204.586	1.41	6191318	2000	
Na	23	2	45	1866.638	ppb	1866.638	2.23	228881	400000	
Mg	24	2	45	198495.670	ppb	198495.670	1.81	9621813	400000	
Al	27	2	45	124063.590	ppb	124063.590	0.82	1120733	400000	
K	39	1	45	32423.420	ppb	32423.420	0.59	87531039	400000	
K	39	2	45	31853.217	ppb	31853.217	1.03	479448	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2906227.035	ppb	2906227.035	0.13	2662705	400000	>LDR
V	51	2	72	249.436	ppb	249.436	2.07	139034	2000	
Cr	52	2	72	676.798	ppb	676.798	0.43	511252	5000	
Mn	55	2	72	3384.049	ppb	3384.049	0.09	671487	10000	
Fe	57	2	72	120879.368	ppb	120879.368	1.43	1673629	400000	
Co	59	2	72	49.519	ppb	49.519	2.32	83171	2000	
Ni	60	2	72	161.590	ppb	161.590	2.86	82886	5000	
Cu	63	2	72	4659.969	ppb	4659.969	1.20	7123736	5000	
Zn	66	2	72	1116.612	ppb	1116.612	1.26	141665	5000	
As	75	2	72	73.589	ppb	73.589	1.57	5290	2000	
Se	78	1	72	4.096	ppb	4.096	6.92	1172	2000	
Sr	88	2	72	8206.480	ppb	8206.480	0.58	1150136	4000	
Zr	90	2	72	15317.981	ppb	15317.981	7.19	76278	1000	>LDR
Nb	93	2	72	5.609	ppb	5.609	1.15	11878	200	
Mo	95	2	115	25.308	ppb	25.308	6.19	14463	2000	
Pd	105	2	115	0.068	ppb	0.068	54.95	77	100	
Ag	107	2	115	2.729	ppb	2.729	4.14	6428	100	
Cd	111	2	115	9.547	ppb	9.547	8.45	1827	2000	
Sn	120	2	115	28.267	ppb	28.267	2.71	11908	2000	
Sb	121	2	115	87.408	ppb	87.408	3.74	30762	1000	
Ba	137	2	115	1617.626	ppb	1617.626	1.70	156380	5000	
W	182	2	165	0.831	ppb	0.831	2.40	3714	100	
Pt	195	2	165	0.009	ppb	0.009	116.93	113	100	
Tl	205	2	165	1.977	ppb	1.977	2.56	10501	2000	
Pb	208	2	165	98848.469	ppb	98848.469	1.77	662940607	5000	>LDR
Th	232	2	165	55.352	ppb	55.352	1.10	432113	2000	
U	238	2	165	17.799	ppb	17.799	2.01	163994	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	604917	0.07	1374296	44.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	29286088	0.45	40981949	71.46	60	120	
Sc (IS)	45	2	HMI He	360249	1.76	426944	84.38	60	120	
Sc (IS)	45	3	No Gas	81142977	0.25	135848058	59.73	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	13093763	0.32	19779503	66.20	60	120	
Ge Internal Standard	72	2	HMI He	483943	1.90	609146	79.45	60	120	
In Internal Standard	115	2	HMI He	1112195	3.47	1366570	81.39	60	120	
Ho-165	165	2	HMI He	9511265	1.98	12108279	78.55	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-63-b
Data File Name	119SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:28:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-3.605	ppb	-3.605	-219.61	105017	500000	
Li	7	2	45	-63.724	ppb	-63.724	-32.35	5701	500000	
Li	7	3	45	-100.379	ppb	-100.379	-3.09	4134105	50000	
Be	9	1	6	8.551	ppb	8.551	17.83	1267	2000	
B	11	1	6	98.115	ppb	98.115	3.36	20569	2000	
Na	23	1	45	2127.083	ppb	2127.083	1.09	5603845	2000	
Na	23	2	45	1775.306	ppb	1775.306	1.78	210235	400000	
Mg	24	2	45	186632.892	ppb	186632.892	1.97	8720573	400000	
Al	27	2	45	122227.740	ppb	122227.740	1.66	1064383	400000	
K	39	1	45	32614.986	ppb	32614.986	0.45	82501935	400000	
K	39	2	45	31427.724	ppb	31427.724	1.28	456057	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2711271.866	ppb	2711271.866	1.26	2394640	400000	>LDR
V	51	2	72	236.151	ppb	236.151	2.37	128026	2000	
Cr	52	2	72	535.380	ppb	535.380	3.77	393196	5000	
Mn	55	2	72	3147.989	ppb	3147.989	3.20	607289	10000	
Fe	57	2	72	116773.083	ppb	116773.083	3.18	1572082	400000	
Co	59	2	72	46.184	ppb	46.184	4.43	75426	2000	
Ni	60	2	72	147.781	ppb	147.781	3.78	73723	5000	
Cu	63	2	72	4385.015	ppb	4385.015	2.72	6518066	5000	
Zn	66	2	72	991.458	ppb	991.458	2.51	122288	5000	
As	75	2	72	68.531	ppb	68.531	1.95	4791	2000	
Se	78	1	72	3.844	ppb	3.844	7.64	1029	2000	
Sr	88	2	72	7812.350	ppb	7812.350	3.25	1064508	4000	
Zr	90	2	72	13949.935	ppb	13949.935	4.91	67522	1000	>LDR
Nb	93	2	72	5.435	ppb	5.435	2.27	11197	200	
Mo	95	2	115	18.826	ppb	18.826	4.37	10590	2000	
Pd	105	2	115	0.053	ppb	0.053	28.06	60	100	
Ag	107	2	115	2.121	ppb	2.121	5.25	4921	100	
Cd	111	2	115	8.513	ppb	8.513	10.59	1603	2000	
Sn	120	2	115	20.037	ppb	20.037	6.08	8322	2000	
Sb	121	2	115	57.046	ppb	57.046	5.68	19762	1000	
Ba	137	2	115	1526.290	ppb	1526.290	2.88	145107	5000	
W	182	2	165	0.742	ppb	0.742	11.57	3287	100	
Pt	195	2	165	0.022	ppb	0.022	14.86	163	100	
Tl	205	2	165	1.801	ppb	1.801	11.64	9390	2000	
Pb	208	2	165	68754.532	ppb	68754.532	1.99	452846687	5000	>LDR
Th	232	2	165	53.919	ppb	53.919	2.90	413348	2000	
U	238	2	165	16.242	ppb	16.242	1.24	146982	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	546778	0.12	1374296	39.79	60	120	IS Failed
Sc (IS)	45	1	HMI H2	27452980	1.00	40981949	66.99	60	120	
Sc (IS)	45	2	HMI He	347255	1.98	426944	81.34	60	120	
Sc (IS)	45	3	No Gas	71147942	0.46	135848058	52.37	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	12252994	1.09	19779503	61.95	60	120	
Ge Internal Standard	72	2	HMI He	470638	2.27	609146	77.26	60	120	
In Internal Standard	115	2	HMI He	1093813	1.98	1366570	80.04	60	120	
Ho-165	165	2	HMI He	9339788	0.96	12108279	77.14	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-64-b
Data File Name	120SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:32:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-10.892	ppb	-10.892	-93.92	95916	500000	
Li	7	2	45	-72.778	ppb	-72.778	-23.66	5311	500000	
Li	7	3	45	-109.017	ppb	-109.017	-0.56	3599159	50000	
Be	9	1	6	8.558	ppb	8.558	17.44	1177	2000	
B	11	1	6	95.723	ppb	95.723	4.16	18637	2000	
Na	23	1	45	2149.765	ppb	2149.765	3.47	5267929	2000	
Na	23	2	45	1763.230	ppb	1763.230	0.75	200341	400000	
Mg	24	2	45	181948.692	ppb	181948.692	1.05	8155558	400000	
Al	27	2	45	127174.016	ppb	127174.016	2.07	1062267	400000	
K	39	1	45	34529.332	ppb	34529.332	3.47	80957225	400000	
K	39	2	45	32892.585	ppb	32892.585	1.53	457667	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2441454.129	ppb	2441454.129	0.24	2068074	400000	>LDR
V	51	2	72	248.150	ppb	248.150	1.68	131177	2000	
Cr	52	2	72	672.170	ppb	672.170	2.28	481422	5000	
Mn	55	2	72	3073.226	ppb	3073.226	1.80	578159	10000	
Fe	57	2	72	117840.484	ppb	117840.484	2.42	1547110	400000	
Co	59	2	72	46.904	ppb	46.904	1.07	74714	2000	
Ni	60	2	72	152.144	ppb	152.144	1.14	74028	5000	
Cu	63	2	72	4331.529	ppb	4331.529	2.07	6278224	5000	
Zn	66	2	72	988.102	ppb	988.102	2.74	118857	5000	
As	75	2	72	72.248	ppb	72.248	2.55	4924	2000	
Se	78	1	72	3.647	ppb	3.647	13.49	932	2000	
Sr	88	2	72	7079.703	ppb	7079.703	2.51	940745	4000	
Zr	90	2	72	14223.015	ppb	14223.015	2.38	67167	1000	>LDR
Nb	93	2	72	6.160	ppb	6.160	4.00	12358	200	
Mo	95	2	115	16.310	ppb	16.310	1.31	9079	2000	
Pd	105	2	115	0.051	ppb	0.051	95.28	57	100	
Ag	107	2	115	1.335	ppb	1.335	0.45	3069	100	
Cd	111	2	115	7.992	ppb	7.992	6.08	1490	2000	
Sn	120	2	115	14.334	ppb	14.334	4.50	5908	2000	
Sb	121	2	115	26.932	ppb	26.932	6.13	9246	1000	
Ba	137	2	115	1505.942	ppb	1505.942	2.61	141618	5000	
W	182	2	165	0.709	ppb	0.709	3.26	3130	100	
Pt	195	2	165	0.003	ppb	0.003	249.28	83	100	
Tl	205	2	165	1.709	ppb	1.709	4.71	8850	2000	
Pb	208	2	165	35336.294	ppb	35336.294	2.48	230925957	5000	>LDR
Th	232	2	165	56.178	ppb	56.178	3.29	427294	2000	
U	238	2	165	15.121	ppb	15.121	2.30	135770	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	507625	1.65	1374296	36.94	60	120	IS Failed
Sc (IS)	45	1	HMI H2	25550463	1.95	40981949	62.35	60	120	
Sc (IS)	45	2	HMI He	333055	1.37	426944	78.01	60	120	
Sc (IS)	45	3	No Gas	63970167	0.22	135848058	47.09	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	11695745	1.24	19779503	59.13	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	458799	1.44	609146	75.32	60	120	
In Internal Standard	115	2	HMI He	1081561	0.69	1366570	79.14	60	120	
Ho-165	165	2	HMI He	9267048	0.51	12108279	76.53	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-65-b
Data File Name	121SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:35:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-30.382	ppb	-30.382	-21.02	88573	500000	
Li	7	2	45	-97.240	ppb	-97.240	-20.43	4717	500000	
Li	7	3	45	-121.200	ppb	-121.200	-0.92	3319905	50000	
Be	9	1	6	8.699	ppb	8.699	16.52	1130	2000	
B	11	1	6	84.149	ppb	84.149	1.97	15487	2000	
Na	23	1	45	1767.122	ppb	1767.122	1.36	4229856	2000	
Na	23	2	45	1485.155	ppb	1485.155	0.18	163953	400000	
Mg	24	2	45	158742.067	ppb	158742.067	0.39	6862869	400000	
Al	27	2	45	110866.463	ppb	110866.463	0.85	893168	400000	
K	39	1	45	28614.367	ppb	28614.367	0.53	66095241	400000	
K	39	2	45	28110.959	ppb	28110.959	0.34	377726	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2248171.438	ppb	2248171.438	1.73	1837119	400000	>LDR
V	51	2	72	203.671	ppb	203.671	1.68	106303	2000	
Cr	52	2	72	386.351	ppb	386.351	0.54	273160	5000	
Mn	55	2	72	2663.662	ppb	2663.662	0.64	494593	10000	
Fe	57	2	72	94800.859	ppb	94800.859	0.59	1228427	400000	
Co	59	2	72	38.394	ppb	38.394	1.74	60353	2000	
Ni	60	2	72	125.798	ppb	125.798	2.09	60430	5000	
Cu	63	2	72	42685.454	ppb	42685.454	1.13	61057716	5000	>LDR
Zn	66	2	72	5386.860	ppb	5386.860	0.84	639148	5000	
As	75	2	72	58.052	ppb	58.052	2.53	3907	2000	
Se	78	1	72	4.188	ppb	4.188	10.27	1044	2000	
Sr	88	2	72	6354.310	ppb	6354.310	0.48	833369	4000	
Zr	90	2	72	12570.215	ppb	12570.215	1.35	58590	1000	>LDR
Nb	93	2	72	4.970	ppb	4.970	4.65	9860	200	
Mo	95	2	115	16.695	ppb	16.695	2.86	9323	2000	
Pd	105	2	115	0.041	ppb	0.041	66.95	47	100	
Ag	107	2	115	2.425	ppb	2.425	6.70	5581	100	
Cd	111	2	115	7.860	ppb	7.860	13.92	1467	2000	
Sn	120	2	115	12.092	ppb	12.092	0.73	5011	2000	
Sb	121	2	115	47.406	ppb	47.406	2.77	16302	1000	
Ba	137	2	115	1311.654	ppb	1311.654	0.37	123747	5000	
W	182	2	165	0.731	ppb	0.731	11.94	3214	100	
Pt	195	2	165	-0.008	ppb	-0.008	-64.57	37	100	
Tl	205	2	165	1.458	ppb	1.458	10.24	7555	2000	
Pb	208	2	165	50323.919	ppb	50323.919	1.39	328657623	5000	>LDR
Th	232	2	165	46.418	ppb	46.418	1.40	352879	2000	
U	238	2	165	13.254	ppb	13.254	1.56	118940	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	479387	0.40	1374296	34.88	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24835277	0.66	40981949	60.60	60	120	
Sc (IS)	45	2	HMI He	321247	1.50	426944	75.24	60	120	
Sc (IS)	45	3	No Gas	61867591	0.32	135848058	45.54	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	11407309	0.42	19779503	57.67	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	452884	1.78	609146	74.35	60	120	
In Internal Standard	115	2	HMI He	1085263	2.75	1366570	79.42	60	120	
Ho-165	165	2	HMI He	9260660	1.08	12108279	76.48	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	122_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:39:41-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	262.164	ppb	3.571	159575	500	52.4	90	110	>+\-10%
Li	7	2	45	93.555	ppb	25.798	7949	500	18.7	90	110	>+\-10%
Li	7	3	45	121.967	ppb	5.636	6101339	500	24.4	90	110	>+\-10%
Be	9	1	6	64.158	ppb	1.016	9026	50	128.3	90	110	>+\-10%
B	11	1	6	46.517	ppb	5.277	9346	50	93.0	90	110	
Na	23	1	45	4743.149	ppb	1.259	11221588	5000	94.9	90	110	
Na	23	2	45	3875.946	ppb	1.735	419764	5000	77.5	90	110	>+\-10%
Mg	24	2	45	4441.289	ppb	1.803	193946	5000	88.8	90	110	>+\-10%
Al	27	2	45	5167.893	ppb	1.691	42053	5000	103.4	90	110	
K	39	1	45	5687.080	ppb	2.436	17224823	5000	113.7	90	110	>+\-10%
K	39	2	45	5132.465	ppb	2.495	72422	5000	102.6	90	110	
Ca	40	1	45	5924.095	ppb	1.248	21047594	5000	118.5	90	110	>+\-10%
Ca	44	2	45	5316.430	ppb	4.292	4397	5000	106.3	90	110	
V	51	2	72	41.576	ppb	2.045	24334	50	83.2	90	110	>+\-10%
Cr	52	2	72	42.250	ppb	2.777	33185	50	84.5	90	110	>+\-10%
Mn	55	2	72	47.481	ppb	3.874	9786	50	95.0	90	110	
Fe	57	2	72	4415.027	ppb	2.862	63423	5000	88.3	90	110	>+\-10%
Co	59	2	72	42.379	ppb	2.719	73803	50	84.8	90	110	>+\-10%
Ni	60	2	72	41.831	ppb	3.550	22388	50	83.7	90	110	>+\-10%
Cu	63	2	72	51.844	ppb	4.585	83556	50	103.7	90	110	
Zn	66	2	72	46.736	ppb	4.810	6231	50	93.5	90	110	
As	75	2	72	46.485	ppb	2.056	3467	50	93.0	90	110	
Se	78	1	72	47.008	ppb	1.845	13005	50	94.0	90	110	
Sr	88	2	72	61.806	ppb	7.233	8989	50	123.6	90	110	>+\-10%
Zr	90	2	72	148.568	ppb	6.398	830	50	297.1	90	110	>+\-10%
Nb	93	2	72	95.704	ppb	2.263	207587	100	95.7	90	110	
Mo	95	2	115	42.271	ppb	3.107	27039	50	84.5	90	110	>+\-10%
Pd	105	2	115	43.714	ppb	2.281	53324	50	87.4	90	110	>+\-10%
Ag	107	2	115	40.543	ppb	2.563	106653	50	81.1	90	110	>+\-10%
Cd	111	2	115	45.277	ppb	4.871	9707	50	90.6	90	110	
Sn	120	2	115	48.157	ppb	4.053	22639	50	96.3	90	110	
Sb	121	2	115	48.568	ppb	1.626	19148	50	97.1	90	110	
Ba	137	2	115	50.926	ppb	7.249	5505	50	101.9	90	110	
W	182	2	165	42.481	ppb	1.715	185814	50	85.0	90	110	>+\-10%
Pt	195	2	165	39.796	ppb	1.526	187200	50	79.6	90	110	>+\-10%
Tl	205	2	165	45.978	ppb	1.777	258273	50	92.0	90	110	
Pb	208	2	165	59.437	ppb	3.544	425980	50	118.9	90	110	>+\-10%
Th	232	2	165	46.676	ppb	2.310	387753	50	93.4	90	110	
U	238	2	165	45.348	ppb	2.543	444540	50	90.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	519243	1.43	1374296	37.78	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24946258	0.98	40981949	60.87	60	120	
Sc (IS)	45	2	HMI He	324340	1.68	426944	75.97	60	120	
Sc (IS)	45	3	No Gas	57787312	0.30	135848058	42.54	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	12746914	0.76	19779503	64.45	60	120	
Ge Internal Standard	72	2	HMI He	501791	1.80	609146	82.38	60	120	
In Internal Standard	115	2	HMI He	1244436	1.96	1366570	91.06	60	120	
Ho-165	165	2	HMI He	10120561	1.63	12108279	83.58	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	123_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:43:28-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-151.781	ppb	-2.0	2773147	10	
Be	9	1	6	0.113	ppb	124.2	17	0.5	
B	11	1	6	1.721	ppb	21.6	520	0.5	>RL
Na	23	1	45	-9.238	ppb	-8.8	86714	25	
Na	23	2	45	-31.710	ppb	-1.5	4287	25	
Mg	24	2	45	8.340	ppb	25.0	500	25	
Al	27	2	45	2.257	ppb	139.6	50	15	
K	39	1	45	376.561	ppb	4.4	5850405	50	>RL
K	39	2	45	-3.507	ppb	-458.5	3480	50	
Ca	40	1	45	77.711	ppb	2.1	357816	50	>RL
Ca	44	2	45	66.599	ppb	22.3	67	25	>RL
V	51	2	72	-0.250	ppb	-6.3	213	1	
Cr	52	2	72	0.013	ppb	310.3	120	1	
Mn	55	2	72	0.178	ppb	69.7	60	0.5	
Fe	57	2	72	7.597	ppb	35.0	167	25	
Co	59	2	72	0.016	ppb	110.4	30	0.5	
Ni	60	2	72	-0.127	ppb	-22.2	123	1	
Cu	63	2	72	2.438	ppb	13.4	5391	1	>RL
Zn	66	2	72	0.302	ppb	23.9	130	5	
As	75	2	72	0.036	ppb	75.6	10	1	
Se	78	1	72	-0.002	ppb	-642.3	8	1	
Sr	88	2	72	0.322	ppb	131.5	57	0.5	
Zr	90	2	72	0.523	ppb	1417.6	67	1	
Nb	93	2	72	0.777	ppb	1.6	1877	2	
Mo	95	2	115	0.027	ppb	143.2	33	0.5	
Pd	105	2	115	0.029	ppb	28.9	40	1	
Ag	107	2	115	0.000	ppb	896.1	20	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.043	ppb	92.7	103	1	
Sb	121	2	115	0.193	ppb	46.8	117	0.6	
Ba	137	2	115	0.090	ppb	100.1	10	0.5	
W	182	2	165	0.016	ppb	136.9	403	1	
Pt	195	2	165	0.000	ppb	1226.5	80	1	
Tl	205	2	165	0.013	ppb	28.7	147	0.1	
Pb	208	2	165	4.919	ppb	6.4	37980	0.5	>RL
Th	232	2	165	0.056	ppb	29.3	873	1	
U	238	2	165	0.014	ppb	37.6	177	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	538708	1.20	1374296	39.20	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24997095	0.69	40981949	61.00	60	120	
Sc (IS)	45	2	HMI He	332994	1.51	426944	77.99	60	120	
Sc (IS)	45	3	No Gas	58837839	0.39	135848058	43.31	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	12805433	0.55	19779503	64.74	60	120	
Ge Internal Standard	72	2	HMI He	511657	1.79	609146	84.00	60	120	
In Internal Standard	115	2	HMI He	1296073	2.05	1366570	94.84	60	120	
Ho-165	165	2	HMI He	10394281	2.34	12108279	85.84	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	124LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:47:16-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-143.111	ppb	-3.814	2857787	50	-286.2	70	130	>+/-30%
Be	9	1	6	1.563	ppb	25.332	237	1	156.3	70	130	>+/-30%
Na	23	2	45	7.646	ppb	61.279	8736	50	15.3	70	130	>+/-30%
Mg	24	2	45	49.191	ppb	6.461	2374	50	98.4	70	130	
Al	27	2	45	38.448	ppb	24.216	357	30	128.2	70	130	
K	39	2	45	122.696	ppb	21.907	5314	100	122.7	70	130	
Ca	44	2	45	149.414	ppb	59.735	140	50	298.8	70	130	>+/-30%
V	51	2	72	3.899	ppb	11.440	2694	5	78.0	70	130	
Cr	52	2	72	1.890	ppb	10.942	1643	2	94.5	70	130	
Mn	55	2	72	0.962	ppb	50.717	227	1	96.2	70	130	
Fe	57	2	72	41.148	ppb	7.810	670	50	82.3	70	130	
Co	59	2	72	0.895	ppb	22.806	1617	1	89.5	70	130	
Ni	60	2	72	1.432	ppb	7.744	983	2	71.6	70	130	
Cu	63	2	72	2.646	ppb	10.290	5828	2	132.3	70	130	>+/-30%
Zn	66	2	72	8.678	ppb	3.459	1273	10	86.8	70	130	
As	75	2	72	4.671	ppb	8.326	367	5	93.4	70	130	
Se	78	1	72	4.498	ppb	7.051	1277	5	90.0	70	130	
Sr	88	2	72	1.186	ppb	16.735	187	1	118.6	70	130	
Zr	90	2	72	46.397	ppb	41.465	313	0.5	9279.4	70	130	>+/-30%
Nb	93	2	72	0.776	ppb	8.142	1907	2	38.8	70	130	>+/-30%
Mo	95	2	115	1.551	ppb	18.253	1070	2	77.5	70	130	
Pd	105	2	115	0.005	ppb	153.062	10	1	0.5	70	130	>+/-30%
Ag	107	2	115	3.992	ppb	3.581	11224	5	79.8	70	130	
Cd	111	2	115	0.870	ppb	25.221	200	1	87.0	70	130	
Sn	120	2	115	9.578	ppb	12.109	4861	10	95.8	70	130	
Sb	121	2	115	2.220	ppb	12.223	973	2	111.0	70	130	
Ba	137	2	115	1.422	ppb	21.730	163	1	142.2	70	130	>+/-30%
W	182	2	165	4.085	ppb	4.990	18932	1	408.5	70	130	>+/-30%
Pt	195	2	165	0.024	ppb	63.897	197	1	2.4	70	130	>+/-30%
Tl	205	2	165	0.986	ppb	10.117	5831	1	98.6	70	130	
Pb	208	2	165	4.428	ppb	6.983	34907	1	442.8	70	130	>+/-30%
Th	232	2	165	1.935	ppb	5.677	17140	2	96.7	70	130	
U	238	2	165	0.951	ppb	3.243	9753	1	95.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	557209	1.71	1374296	40.55	60	120	IS Failed
Sc (IS)	45	1	HMI H2	25611152	1.40	40981949	62.49	60	120	
Sc (IS)	45	2	HMI He	339328	4.23	426944	79.48	60	120	
Sc (IS)	45	3	No Gas	58344111	0.22	135848058	42.95	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	13006665	0.87	19779503	65.76	60	120	
Ge Internal Standard	72	2	HMI He	520398	3.10	609146	85.43	60	120	
In Internal Standard	115	2	HMI He	1327968	3.71	1366570	97.18	60	120	
Ho-165	165	2	HMI He	10558901	3.70	12108279	87.20	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-d
Data File Name	125SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:51:06-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-28.512	ppb	-28.512	-9.34	89414	500000	
Li	7	2	45	-121.707	ppb	-121.707	-14.16	4651	500000	
Li	7	3	45	-119.592	ppb	-119.592	-1.80	3071199	50000	
Be	9	1	6	8.490	ppb	8.490	7.08	1087	2000	
B	11	1	6	92.152	ppb	92.152	1.32	16695	2000	
Na	23	1	45	1897.448	ppb	1897.448	0.79	4553840	2000	
Na	23	2	45	1484.899	ppb	1484.899	1.03	176706	400000	
Mg	24	2	45	167134.596	ppb	167134.596	1.41	7789133	400000	
Al	27	2	45	117498.496	ppb	117498.496	0.96	1020349	400000	
K	39	1	45	32389.028	ppb	32389.028	0.43	74477994	400000	
K	39	2	45	30627.740	ppb	30627.740	0.90	443331	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2481912.523	ppb	2481912.523	2.35	2186359	400000	>LDR
V	51	2	72	213.306	ppb	213.306	1.59	119857	2000	
Cr	52	2	72	513.925	ppb	513.925	0.84	391145	5000	
Mn	55	2	72	2877.848	ppb	2877.848	0.48	575277	10000	
Fe	57	2	72	105747.273	ppb	105747.273	0.30	1475085	400000	
Co	59	2	72	41.353	ppb	41.353	0.81	69991	2000	
Ni	60	2	72	129.024	ppb	129.024	0.51	66732	5000	
Cu	63	2	72	6093.038	ppb	6093.038	0.32	9384174	5000	
Zn	66	2	72	1162.633	ppb	1162.633	2.21	148597	5000	
As	75	2	72	61.175	ppb	61.175	1.40	4432	2000	
Se	78	1	72	3.255	ppb	3.255	5.80	812	2000	
Sr	88	2	72	7252.325	ppb	7252.325	0.62	1023886	4000	
Zr	90	2	72	12927.754	ppb	12927.754	0.64	64862	1000	>LDR
Nb	93	2	72	5.122	ppb	5.122	0.29	10941	200	
Mo	95	2	115	15.689	ppb	15.689	3.05	9666	2000	
Pd	105	2	115	0.065	ppb	0.065	45.69	80	100	
Ag	107	2	115	1.760	ppb	1.760	5.29	4471	100	
Cd	111	2	115	7.756	ppb	7.756	5.04	1600	2000	
Sn	120	2	115	12.918	ppb	12.918	3.76	5901	2000	
Sb	121	2	115	40.925	ppb	40.925	3.66	15531	1000	
Ba	137	2	115	1448.040	ppb	1448.040	2.85	150678	5000	
W	182	2	165	0.830	ppb	0.830	0.49	3874	100	
Pt	195	2	165	-0.008	ppb	-0.008	-30.39	37	100	
Tl	205	2	165	1.646	ppb	1.646	0.58	9136	2000	
Pb	208	2	165	43063.407	ppb	43063.407	1.00	301529362	5000	>LDR
Th	232	2	165	50.170	ppb	50.170	1.94	408895	2000	
U	238	2	165	14.415	ppb	14.415	0.86	138674	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	472307	0.82	1374296	34.37	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24943940	0.70	40981949	60.87	60	120	
Sc (IS)	45	2	HMI He	346314	1.73	426944	81.11	60	120	
Sc (IS)	45	3	No Gas	56870096	0.50	135848058	41.86	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	11392535	0.15	19779503	57.60	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	487508	1.08	609146	80.03	60	120	
In Internal Standard	115	2	HMI He	1197006	1.24	1366570	87.59	60	120	
Ho-165	165	2	HMI He	9928403	0.36	12108279	82.00	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-dSD@5
Data File Name	126SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:54:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-101.969	ppb	-101.969	-4.01	69925	500000	
Li	7	2	45	-153.708	ppb	-153.708	-13.27	3767	500000	
Li	7	3	45	-151.437	ppb	-151.437	-2.17	2531306	50000	
Be	9	1	6	1.552	ppb	1.552	24.37	207	2000	
B	11	1	6	19.596	ppb	19.596	5.63	3817	2000	
Na	23	1	45	357.366	ppb	357.366	0.92	922209	2000	
Na	23	2	45	284.569	ppb	284.569	5.35	37219	400000	
Mg	24	2	45	35972.047	ppb	35972.047	5.46	1545040	400000	
Al	27	2	45	23863.776	ppb	23863.776	3.80	191050	400000	
K	39	1	45	6574.529	ppb	6574.529	1.18	18656655	400000	
K	39	2	45	6231.288	ppb	6231.288	3.05	85851	400000	
Ca	40	1	45	478400.618	ppb	478400.618	1.36	1651398375	400000	
Ca	44	2	45	485612.913	ppb	485612.913	4.22	394234	400000	
V	51	2	72	40.547	ppb	40.547	2.06	22628	2000	
Cr	52	2	72	99.884	ppb	99.884	4.60	74669	5000	
Mn	55	2	72	549.388	ppb	549.388	3.82	107753	10000	
Fe	57	2	72	19607.412	ppb	19607.412	4.72	268329	400000	
Co	59	2	72	8.289	ppb	8.289	3.21	13766	2000	
Ni	60	2	72	26.548	ppb	26.548	2.21	13619	5000	
Cu	63	2	72	1274.396	ppb	1274.396	3.97	1926559	5000	
Zn	66	2	72	242.848	ppb	242.848	2.50	30517	5000	
As	75	2	72	11.744	ppb	11.744	4.89	840	2000	
Se	78	1	72	0.826	ppb	0.826	16.77	223	2000	
Sr	88	2	72	1415.240	ppb	1415.240	3.58	196022	4000	
Zr	90	2	72	2420.189	ppb	2420.189	0.64	11968	1000	
Nb	93	2	72	1.029	ppb	1.029	2.03	2277	200	
Mo	95	2	115	3.178	ppb	3.178	3.79	1974	2000	
Pd	105	2	115	0.026	ppb	0.026	51.44	33	100	
Ag	107	2	115	0.346	ppb	0.346	8.42	897	100	
Cd	111	2	115	1.336	ppb	1.336	10.66	277	2000	
Sn	120	2	115	2.358	ppb	2.358	30.83	1137	2000	
Sb	121	2	115	7.733	ppb	7.733	9.64	2967	1000	
Ba	137	2	115	281.218	ppb	281.218	4.14	29327	5000	
W	182	2	165	0.148	ppb	0.148	18.14	963	100	
Pt	195	2	165	0.007	ppb	0.007	78.29	107	100	
Tl	205	2	165	0.320	ppb	0.320	18.20	1844	2000	
Pb	208	2	165	8807.543	ppb	8807.543	5.39	62328166	5000	
Th	232	2	165	9.710	ppb	9.710	7.26	80247	2000	
U	238	2	165	2.825	ppb	2.825	5.98	27492	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	491839	1.23	1374296	35.79	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24330092	0.46	40981949	59.37	60	120	IS Failed
Sc (IS)	45	2	HMI He	319433	2.66	426944	74.82	60	120	
Sc (IS)	45	3	No Gas	53624933	0.27	135848058	39.47	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	11988944	0.50	19779503	60.61	60	120	
Ge Internal Standard	72	2	HMI He	478526	2.16	609146	78.56	60	120	
In Internal Standard	115	2	HMI He	1200349	2.80	1366570	87.84	60	120	
Ho-165	165	2	HMI He	10048976	4.17	12108279	82.99	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-e ms
Data File Name	127SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T18:58:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	88.983	ppb	88.983	3.22	104307	500000	
Li	7	2	45	-41.200	ppb	-41.200	-44.58	5444	500000	
Li	7	3	45	-41.836	ppb	-41.836	-7.67	3549403	50000	
Be	9	1	6	255.781	ppb	255.781	3.46	27838	2000	
B	11	1	6	252.604	ppb	252.604	0.99	38711	2000	
Na	23	1	45	2139.444	ppb	2139.444	1.19	4535244	2000	
Na	23	2	45	1659.469	ppb	1659.469	0.57	175745	400000	
Mg	24	2	45	174655.819	ppb	174655.819	1.32	7279105	400000	
Al	27	2	45	132627.207	ppb	132627.207	0.75	1029890	400000	
K	39	1	45	36275.527	ppb	36275.527	0.96	73341252	400000	
K	39	2	45	33833.627	ppb	33833.627	1.02	437624	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2543559.842	ppb	2543559.842	1.28	2003145	400000	>LDR
V	51	2	72	400.979	ppb	400.979	1.94	201701	2000	
Cr	52	2	72	705.346	ppb	705.346	0.83	481256	5000	
Mn	55	2	72	3236.106	ppb	3236.106	0.85	579962	10000	
Fe	57	2	72	110750.825	ppb	110750.825	0.75	1385071	400000	
Co	59	2	72	194.815	ppb	194.815	1.56	295574	2000	
Ni	60	2	72	285.231	ppb	285.231	0.92	132058	5000	
Cu	63	2	72	2260.217	ppb	2260.217	1.23	3121632	5000	
Zn	66	2	72	895.582	ppb	895.582	1.62	102649	5000	
As	75	2	72	229.330	ppb	229.330	1.04	14878	2000	
Se	78	1	72	151.884	ppb	151.884	1.66	33777	2000	
Sr	88	2	72	7856.423	ppb	7856.423	1.36	994414	4000	
Zr	90	2	72	35173.800	ppb	35173.800	1.86	158140	1000	>LDR
Nb	93	2	72	5.714	ppb	5.714	4.30	10927	200	
Mo	95	2	115	151.125	ppb	151.125	2.47	85183	2000	
Pd	105	2	115	0.044	ppb	0.044	65.41	50	100	
Ag	107	2	115	50.424	ppb	50.424	2.15	116939	100	
Cd	111	2	115	160.953	ppb	160.953	2.86	30421	2000	
Sn	120	2	115	93.224	ppb	93.224	1.20	38582	2000	
Sb	121	2	115	56.193	ppb	56.193	1.35	19532	1000	
Ba	137	2	115	1739.112	ppb	1739.112	1.18	165831	5000	
W	182	2	165	50.772	ppb	50.772	1.97	201645	100	
Pt	195	2	165	0.000	ppb	0.000	-3375.94	67	100	
Tl	205	2	165	157.708	ppb	157.708	0.86	804535	2000	
Pb	208	2	165	41669.725	ppb	41669.725	0.63	270109634	5000	>LDR
Th	232	2	165	236.412	ppb	236.412	1.05	1782539	2000	
U	238	2	165	189.754	ppb	189.754	1.71	1689403	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	401733	0.28	1374296	29.23	60	120	IS Failed
Sc (IS)	45	1	HMI H2	22091794	0.59	40981949	53.91	60	120	IS Failed
Sc (IS)	45	2	HMI He	309684	1.32	426944	72.54	60	120	
Sc (IS)	45	3	No Gas	50269081	0.46	135848058	37.00	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	10251186	0.41	19779503	51.83	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	437108	1.50	609146	71.76	60	120	
In Internal Standard	115	2	HMI He	1096984	2.30	1366570	80.27	60	120	
Ho-165	165	2	HMI He	9191784	1.46	12108279	75.91	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-f msd
Data File Name	128SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:02:28-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	86.851	ppb	86.851	5.24	96834	500000	
Li	7	2	45	-57.258	ppb	-57.258	-11.90	4884	500000	
Li	7	3	45	-47.236	ppb	-47.236	-4.71	3176173	50000	
Be	9	1	6	275.008	ppb	275.008	1.34	27107	2000	
B	11	1	6	260.787	ppb	260.787	2.35	36189	2000	
Na	23	1	45	2202.160	ppb	2202.160	0.55	4350171	2000	
Na	23	2	45	1680.730	ppb	1680.730	2.99	167406	400000	
Mg	24	2	45	181453.328	ppb	181453.328	3.40	7115866	400000	
Al	27	2	45	136205.144	ppb	136205.144	3.81	995151	400000	
K	39	1	45	38139.909	ppb	38139.909	0.36	71687564	400000	
K	39	2	45	34557.165	ppb	34557.165	3.80	420487	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2653451.885	ppb	2653451.885	2.74	1966497	400000	>LDR
V	51	2	72	403.606	ppb	403.606	2.54	192033	2000	
Cr	52	2	72	718.441	ppb	718.441	3.13	463540	5000	
Mn	55	2	72	3313.998	ppb	3313.998	2.91	561674	10000	
Fe	57	2	72	111152.814	ppb	111152.814	4.04	1314621	400000	
Co	59	2	72	195.247	ppb	195.247	2.95	280169	2000	
Ni	60	2	72	286.637	ppb	286.637	4.22	125492	5000	
Cu	63	2	72	2480.341	ppb	2480.341	3.35	3239628	5000	
Zn	66	2	72	866.621	ppb	866.621	3.07	93918	5000	
As	75	2	72	227.453	ppb	227.453	3.46	13955	2000	
Se	78	1	72	156.802	ppb	156.802	1.00	32620	2000	
Sr	88	2	72	8259.984	ppb	8259.984	2.65	988788	4000	
Zr	90	2	72	35426.468	ppb	35426.468	3.16	150617	1000	>LDR
Nb	93	2	72	5.736	ppb	5.736	4.87	10373	200	
Mo	95	2	115	150.788	ppb	150.788	2.03	80169	2000	
Pd	105	2	115	0.089	ppb	0.089	60.17	93	100	
Ag	107	2	115	65.688	ppb	65.688	3.10	143659	100	
Cd	111	2	115	164.734	ppb	164.734	4.62	29370	2000	
Sn	120	2	115	78.050	ppb	78.050	2.87	30475	2000	
Sb	121	2	115	50.714	ppb	50.714	1.17	16622	1000	
Ba	137	2	115	1807.678	ppb	1807.678	3.84	162552	5000	
W	182	2	165	47.721	ppb	47.721	4.16	180225	100	
Pt	195	2	165	0.008	ppb	0.008	56.72	97	100	
Tl	205	2	165	156.611	ppb	156.611	3.86	759612	2000	
Pb	208	2	165	43915.283	ppb	43915.283	3.51	270667291	5000	>LDR
Th	232	2	165	235.608	ppb	235.608	5.22	1688586	2000	
U	238	2	165	187.080	ppb	187.080	5.67	1583172	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	363857	0.77	1374296	26.48	60	120	IS Failed
Sc (IS)	45	1	HMI H2	20598580	0.16	40981949	50.26	60	120	IS Failed
Sc (IS)	45	2	HMI He	291508	2.39	426944	68.28	60	120	
Sc (IS)	45	3	No Gas	45728969	0.40	135848058	33.66	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9589685	0.29	19779503	48.48	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	413486	1.91	609146	67.88	60	120	
In Internal Standard	115	2	HMI He	1034496	1.16	1366570	75.70	60	120	
Ho-165	165	2	HMI He	8745016	2.93	12108279	72.22	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-d PDS
Data File Name	129SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:06:17-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-57.604	ppb	-57.604	-4.09	64369	500000	
Li	7	2	45	-136.939	ppb	-136.939	-19.11	3431	500000	
Li	7	3	45	-138.450	ppb	-138.450	-2.32	2161303	50000	
Be	9	1	6	283.801	ppb	283.801	1.11	26573	2000	
B	11	1	6	96.091	ppb	96.091	1.00	12735	2000	
Na	23	1	45	1847.247	ppb	1847.247	0.21	3465823	2000	
Na	23	2	45	1455.077	ppb	1455.077	2.60	135666	400000	
Mg	24	2	45	164219.659	ppb	164219.659	1.16	5991394	400000	
Al	27	2	45	120166.348	ppb	120166.348	0.84	816886	400000	
K	39	1	45	31980.488	ppb	31980.488	0.29	57500896	400000	
K	39	2	45	30588.545	ppb	30588.545	0.70	346606	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2494622.279	ppb	2494622.279	1.31	1719862	400000	>LDR
V	51	2	72	391.154	ppb	391.154	1.61	177162	2000	
Cr	52	2	72	670.870	ppb	670.870	0.71	412082	5000	
Mn	55	2	72	2994.914	ppb	2994.914	1.12	483199	10000	
Fe	57	2	72	98893.668	ppb	98893.668	0.69	1113493	400000	
Co	59	2	72	208.691	ppb	208.691	1.61	285088	2000	
Ni	60	2	72	285.526	ppb	285.526	0.31	119014	5000	
Cu	63	2	72	6068.774	ppb	6068.774	0.85	7544489	5000	
Zn	66	2	72	1318.276	ppb	1318.276	1.00	135977	5000	
As	75	2	72	250.867	ppb	250.867	1.86	14651	2000	
Se	78	1	72	188.185	ppb	188.185	0.28	37412	2000	
Sr	88	2	72	7320.561	ppb	7320.561	2.10	834191	4000	
Zr	90	2	72	42537.375	ppb	42537.375	1.26	172161	1000	>LDR
Nb	93	2	72	5.352	ppb	5.352	9.48	9219	200	
Mo	95	2	115	192.992	ppb	192.992	2.52	97637	2000	
Pd	105	2	115	0.053	ppb	0.053	89.32	53	100	
Ag	107	2	115	40.086	ppb	40.086	1.50	83456	100	
Cd	111	2	115	182.355	ppb	182.355	1.49	30946	2000	
Sn	120	2	115	210.430	ppb	210.430	0.97	78089	2000	
Sb	121	2	115	250.977	ppb	250.977	2.93	78163	1000	
Ba	137	2	115	1667.389	ppb	1667.389	1.03	142699	5000	
W	182	2	165	170.840	ppb	170.840	1.33	622552	100	
Pt	195	2	165	0.043	ppb	0.043	49.35	233	100	
Tl	205	2	165	176.979	ppb	176.979	1.37	829143	2000	
Pb	208	2	165	42063.962	ppb	42063.962	1.07	250413240	5000	>LDR
Th	232	2	165	49.138	ppb	49.138	2.09	340506	2000	
U	238	2	165	208.938	ppb	208.938	1.15	1708612	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	345613	0.30	1374296	25.15	60	120	IS Failed
Sc (IS)	45	1	HMI H2	19487050	0.53	40981949	47.55	60	120	IS Failed
Sc (IS)	45	2	HMI He	271097	1.03	426944	63.50	60	120	
Sc (IS)	45	3	No Gas	43247201	0.62	135848058	31.83	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9164680	0.56	19779503	46.33	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	393502	0.87	609146	64.60	60	120	
In Internal Standard	115	2	HMI He	984516	1.64	1366570	72.04	60	120	
Ho-165	165	2	HMI He	8441293	0.49	12108279	69.72	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-67-b
Data File Name	130SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:10:03-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-6.426	ppb	-6.426	-132.51	70975	500000	
Li	7	2	45	-115.047	ppb	-115.047	-17.06	3734	500000	
Li	7	3	45	-103.142	ppb	-103.142	-2.21	2376685	50000	
Be	9	1	6	11.882	ppb	11.882	14.04	1043	2000	
B	11	1	6	123.461	ppb	123.461	2.06	15317	2000	
Na	23	1	45	2298.746	ppb	2298.746	0.46	4115620	2000	
Na	23	2	45	1763.758	ppb	1763.758	1.36	163203	400000	
Mg	24	2	45	381128.761	ppb	381128.761	0.37	13911734	400000	
Al	27	2	45	197412.379	ppb	197412.379	0.79	1342656	400000	
K	39	1	45	45340.382	ppb	45340.382	0.51	76593452	400000	
K	39	2	45	41854.502	ppb	41854.502	1.20	473439	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	1979377.788	ppb	1979377.788	2.06	1365395	400000	
V	51	2	72	259.714	ppb	259.714	2.16	116955	2000	
Cr	52	2	72	261.186	ppb	261.186	1.10	159479	5000	
Mn	55	2	72	4806.400	ppb	4806.400	0.45	770508	10000	
Fe	57	2	72	155481.597	ppb	155481.597	0.93	1739257	400000	
Co	59	2	72	58.159	ppb	58.159	0.64	78949	2000	
Ni	60	2	72	154.128	ppb	154.128	2.62	63889	5000	
Cu	63	2	72	154.760	ppb	154.760	2.03	192216	5000	
Zn	66	2	72	607.863	ppb	607.863	0.79	62327	5000	
As	75	2	72	61.643	ppb	61.643	1.41	3582	2000	
Se	78	1	72	3.338	ppb	3.338	5.90	647	2000	
Sr	88	2	72	4154.312	ppb	4154.312	1.31	470435	4000	
Zr	90	2	72	21288.743	ppb	21288.743	0.15	85637	1000	>LDR
Nb	93	2	72	2.303	ppb	2.303	3.01	4014	200	
Mo	95	2	115	7.018	ppb	7.018	5.74	3631	2000	
Pd	105	2	115	0.035	ppb	0.035	33.27	37	100	
Ag	107	2	115	0.417	ppb	0.417	30.69	897	100	
Cd	111	2	115	5.997	ppb	5.997	7.33	1037	2000	
Sn	120	2	115	8.060	ppb	8.060	6.64	3110	2000	
Sb	121	2	115	0.474	ppb	0.474	22.43	180	1000	
Ba	137	2	115	1937.040	ppb	1937.040	1.67	168969	5000	
W	182	2	165	0.625	ppb	0.625	8.76	2554	100	
Pt	195	2	165	0.000	ppb	0.000	14683.18	63	100	
Tl	205	2	165	2.070	ppb	2.070	2.89	9787	2000	
Pb	208	2	165	267.204	ppb	267.204	1.39	1597870	5000	
Th	232	2	165	78.714	ppb	78.714	0.82	547172	2000	
U	238	2	165	13.257	ppb	13.257	0.99	108812	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	324143	0.18	1374296	23.59	60	120	IS Failed
Sc (IS)	45	1	HMI H2	18685540	0.80	40981949	45.59	60	120	IS Failed
Sc (IS)	45	2	HMI He	271215	1.10	426944	63.52	60	120	
Sc (IS)	45	3	No Gas	41320112	0.36	135848058	30.42	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8848650	0.43	19779503	44.74	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	390995	2.03	609146	64.19	60	120	
In Internal Standard	115	2	HMI He	1003313	1.18	1366570	73.42	60	120	
Ho-165	165	2	HMI He	8470580	0.40	12108279	69.96	60	120	

Sample Table

Sample Name	280-104412-a-68-b
Data File Name	131SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:13:50-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-10.573	ppb	-10.573	-51.55	69420	500000	
Li	7	2	45	-119.513	ppb	-119.513	-15.92	3704	500000	
Li	7	3	45	-102.023	ppb	-102.023	-2.18	2340227	50000	
Be	9	1	6	14.137	ppb	14.137	12.85	1170	2000	
B	11	1	6	138.419	ppb	138.419	4.33	16158	2000	
Na	23	1	45	2351.071	ppb	2351.071	0.83	4159113	2000	
Na	23	2	45	1734.556	ppb	1734.556	2.37	162015	400000	
Mg	24	2	45	376509.909	ppb	376509.909	2.99	13862718	400000	
Al	27	2	45	199828.470	ppb	199828.470	2.74	1371007	400000	
K	39	1	45	47216.309	ppb	47216.309	0.73	78692420	400000	
K	39	2	45	42739.556	ppb	42739.556	1.63	487666	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2175087.728	ppb	2175087.728	2.65	1513459	400000	>LDR
V	51	2	72	252.933	ppb	252.933	2.37	115577	2000	
Cr	52	2	72	260.522	ppb	260.522	3.94	161314	5000	
Mn	55	2	72	4845.335	ppb	4845.335	3.06	787934	10000	
Fe	57	2	72	152000.820	ppb	152000.820	3.34	1724825	400000	
Co	59	2	72	59.670	ppb	59.670	5.68	82119	2000	
Ni	60	2	72	153.896	ppb	153.896	3.97	64721	5000	
Cu	63	2	72	239.651	ppb	239.651	4.57	301267	5000	
Zn	66	2	72	626.469	ppb	626.469	4.44	65144	5000	
As	75	2	72	62.875	ppb	62.875	4.22	3706	2000	
Se	78	1	72	2.858	ppb	2.858	9.99	545	2000	
Sr	88	2	72	4679.301	ppb	4679.301	3.39	537407	4000	
Zr	90	2	72	19982.384	ppb	19982.384	4.83	81518	1000	>LDR
Nb	93	2	72	2.254	ppb	2.254	3.38	3987	200	
Mo	95	2	115	7.730	ppb	7.730	7.85	4047	2000	
Pd	105	2	115	0.038	ppb	0.038	29.91	40	100	
Ag	107	2	115	0.449	ppb	0.449	7.38	980	100	
Cd	111	2	115	7.172	ppb	7.172	12.22	1257	2000	
Sn	120	2	115	8.044	ppb	8.044	12.53	3137	2000	
Sb	121	2	115	0.273	ppb	0.273	44.17	117	1000	
Ba	137	2	115	1966.662	ppb	1966.662	4.06	173717	5000	
W	182	2	165	0.557	ppb	0.557	24.80	2307	100	
Pt	195	2	165	-0.001	ppb	-0.001	-526.75	60	100	
Tl	205	2	165	2.129	ppb	2.129	2.39	10054	2000	
Pb	208	2	165	320.667	ppb	320.667	3.44	1914573	5000	
Th	232	2	165	82.541	ppb	82.541	4.33	572864	2000	
U	238	2	165	14.596	ppb	14.596	2.82	119644	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	305271	0.90	1374296	22.21	60	120	IS Failed
Sc (IS)	45	1	HMI H2	18470861	0.42	40981949	45.07	60	120	IS Failed
Sc (IS)	45	2	HMI He	273684	1.95	426944	64.10	60	120	
Sc (IS)	45	3	No Gas	40517982	0.30	135848058	29.83	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8703409	0.33	19779503	44.00	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	396834	2.87	609146	65.15	60	120	
In Internal Standard	115	2	HMI He	1016903	3.36	1366570	74.41	60	120	
Ho-165	165	2	HMI He	8464477	2.96	12108279	69.91	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	132_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:17:37-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	162.337	ppb	4.331	103013	500	32.5	90	110	>+\-10%
Li	7	2	45	6.015	ppb	280.168	5324	500	1.2	90	110	>+\-10%
Li	7	3	45	45.519	ppb	15.336	3458348	500	9.1	90	110	>+\-10%
Be	9	1	6	66.581	ppb	3.429	6035	50	133.2	90	110	>+\-10%
B	11	1	6	49.691	ppb	3.387	6425	50	99.4	90	110	
Na	23	1	45	4615.885	ppb	1.174	8305624	5000	92.3	90	110	
Na	23	2	45	3563.464	ppb	0.237	317217	5000	71.3	90	110	>+\-10%
Mg	24	2	45	4172.379	ppb	0.618	149539	5000	83.4	90	110	>+\-10%
Al	27	2	45	5023.885	ppb	2.112	33552	5000	100.5	90	110	
K	39	1	45	6109.709	ppb	0.648	13785971	5000	122.2	90	110	>+\-10%
K	39	2	45	5106.598	ppb	1.529	59154	5000	102.1	90	110	
Ca	40	1	45	5767.454	ppb	0.767	15581857	5000	115.3	90	110	>+\-10%
Ca	44	2	45	6114.950	ppb	4.677	4147	5000	122.3	90	110	>+\-10%
V	51	2	72	39.869	ppb	2.071	19875	50	79.7	90	110	>+\-10%
Cr	52	2	72	39.148	ppb	1.790	26190	50	78.3	90	110	>+\-10%
Mn	55	2	72	47.616	ppb	1.619	8359	50	95.2	90	110	
Fe	57	2	72	4209.489	ppb	1.695	51492	5000	84.2	90	110	>+\-10%
Co	59	2	72	39.397	ppb	1.697	58420	50	78.8	90	110	>+\-10%
Ni	60	2	72	40.087	ppb	3.553	18273	50	80.2	90	110	>+\-10%
Cu	63	2	72	41.055	ppb	0.453	56611	50	82.1	90	110	>+\-10%
Zn	66	2	72	43.786	ppb	3.343	4974	50	87.6	90	110	>+\-10%
As	75	2	72	47.684	ppb	1.637	3028	50	95.4	90	110	
Se	78	1	72	47.800	ppb	3.614	10247	50	95.6	90	110	
Sr	88	2	72	63.440	ppb	5.807	7852	50	126.9	90	110	>+\-10%
Zr	90	2	72	215.409	ppb	8.722	1000	50	430.8	90	110	>+\-10%
Nb	93	2	72	95.579	ppb	0.966	176514	100	95.6	90	110	
Mo	95	2	115	39.781	ppb	2.132	22883	50	79.6	90	110	>+\-10%
Pd	105	2	115	40.959	ppb	2.046	44923	50	81.9	90	110	>+\-10%
Ag	107	2	115	38.274	ppb	2.352	90535	50	76.5	90	110	>+\-10%
Cd	111	2	115	43.000	ppb	6.489	8289	50	86.0	90	110	>+\-10%
Sn	120	2	115	50.315	ppb	1.417	21274	50	100.6	90	110	
Sb	121	2	115	51.148	ppb	3.902	18127	50	102.3	90	110	
Ba	137	2	115	53.000	ppb	9.090	5154	50	106.0	90	110	
W	182	2	165	40.872	ppb	1.815	158011	50	81.7	90	110	>+\-10%
Pt	195	2	165	37.419	ppb	1.438	155561	50	74.8	90	110	>+\-10%
Tl	205	2	165	45.922	ppb	1.062	227980	50	91.8	90	110	
Pb	208	2	165	49.699	ppb	0.847	315136	50	99.4	90	110	
Th	232	2	165	47.150	ppb	0.242	346169	50	94.3	90	110	
U	238	2	165	45.256	ppb	0.789	392097	50	90.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	334537	0.25	1374296	24.34	60	120	IS Failed
Sc (IS)	45	1	HMI H2	18966138	0.16	40981949	46.28	60	120	IS Failed
Sc (IS)	45	2	HMI He	266128	0.26	426944	62.33	60	120	
Sc (IS)	45	3	No Gas	38746286	0.64	135848058	28.52	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9877928	0.09	19779503	49.94	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	427170	0.90	609146	70.13	60	120	
In Internal Standard	115	2	HMI He	1118762	0.98	1366570	81.87	60	120	
Ho-165	165	2	HMI He	8942828	0.06	12108279	73.86	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	133_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:21:25-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-178.561	ppb	-3.3	1611785	10	
Be	9	1	6	0.072	ppb	86.6	7	0.5	
B	11	1	6	2.061	ppb	42.0	377	0.5	>RL
Na	23	1	45	-11.136	ppb	-5.0	62603	25	
Na	23	2	45	-37.348	ppb	-2.7	3010	25	
Mg	24	2	45	17.734	ppb	24.9	757	25	
Al	27	2	45	4.055	ppb	40.9	53	15	
K	39	1	45	516.473	ppb	5.4	4681361	50	>RL
K	39	2	45	44.396	ppb	55.2	3397	50	
Ca	40	1	45	135.612	ppb	3.4	428664	50	>RL
Ca	44	2	45	155.506	ppb	36.7	117	25	>RL
V	51	2	72	-0.194	ppb	-21.2	207	1	
Cr	52	2	72	0.002	ppb	4066.7	93	1	
Mn	55	2	72	0.328	ppb	36.1	77	0.5	
Fe	57	2	72	10.855	ppb	22.7	180	25	
Co	59	2	72	0.014	ppb	119.9	23	0.5	
Ni	60	2	72	0.004	ppb	4122.5	163	1	
Cu	63	2	72	1.095	ppb	9.4	2707	1	>RL
Zn	66	2	72	0.073	ppb	307.7	83	5	
As	75	2	72	-0.032	ppb	-168.5	4	1	
Se	78	1	72	-0.006	ppb	-447.3	5	1	
Sr	88	2	72	0.426	ppb	37.5	60	0.5	
Zr	90	2	72	8.194	ppb	100.1	90	1	>RL
Nb	93	2	72	0.918	ppb	14.5	1837	2	
Mo	95	2	115	0.049	ppb	137.9	43	0.5	
Pd	105	2	115	0.018	ppb	28.0	23	1	
Ag	107	2	115	0.001	ppb	333.7	20	1	
Cd	111	2	115	0.050	ppb	0.4	10	0.5	
Sn	120	2	115	0.220	ppb	78.1	170	1	
Sb	121	2	115	0.216	ppb	62.7	113	0.6	
Ba	137	2	115	0.198	ppb	86.4	20	0.5	
W	182	2	165	0.020	ppb	113.7	370	1	
Pt	195	2	165	0.016	ppb	98.8	137	1	
Tl	205	2	165	0.026	ppb	73.1	190	0.1	
Pb	208	2	165	2.853	ppb	3.8	20039	0.5	>RL
Th	232	2	165	0.034	ppb	65.2	603	1	
U	238	2	165	0.010	ppb	64.1	123	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	344715	0.87	1374296	25.08	60	120	IS Failed
Sc (IS)	45	1	HMI H2	19024016	0.70	40981949	46.42	60	120	IS Failed
Sc (IS)	45	2	HMI He	273065	0.64	426944	63.96	60	120	
Sc (IS)	45	3	No Gas	38923969	0.61	135848058	28.65	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9876758	1.34	19779503	49.93	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	429336	0.25	609146	70.48	60	120	
In Internal Standard	115	2	HMI He	1161091	0.35	1366570	84.96	60	120	
Ho-165	165	2	HMI He	9107007	0.51	12108279	75.21	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	134LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:25:14-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-166.487	ppb	-2.176	1731579	50	-333.0	70	130	>+/-30%
Be	9	1	6	1.234	ppb	25.355	117	1	123.4	70	130	
Na	23	2	45	5.059	ppb	58.478	6751	50	10.1	70	130	>+/-30%
Mg	24	2	45	49.477	ppb	2.048	1907	50	99.0	70	130	
Al	27	2	45	38.475	ppb	24.120	287	30	128.3	70	130	
K	39	2	45	145.530	ppb	8.111	4504	100	145.5	70	130	>+/-30%
Ca	44	2	45	75.101	ppb	78.142	60	50	150.2	70	130	>+/-30%
V	51	2	72	3.743	ppb	7.403	2147	5	74.9	70	130	
Cr	52	2	72	1.394	ppb	34.324	1027	2	69.7	70	130	>+/-30%
Mn	55	2	72	1.579	ppb	30.563	297	1	157.9	70	130	>+/-30%
Fe	57	2	72	48.350	ppb	9.692	640	50	96.7	70	130	
Co	59	2	72	0.834	ppb	17.941	1243	1	83.4	70	130	
Ni	60	2	72	1.594	ppb	15.600	883	2	79.7	70	130	
Cu	63	2	72	2.046	ppb	4.662	3991	2	102.3	70	130	
Zn	66	2	72	9.490	ppb	17.402	1140	10	94.9	70	130	
As	75	2	72	4.345	ppb	1.009	282	5	86.9	70	130	
Se	78	1	72	4.366	ppb	5.517	940	5	87.3	70	130	
Sr	88	2	72	1.340	ppb	2.456	173	1	134.0	70	130	>+/-30%
Zr	90	2	72	65.628	ppb	29.551	343	0.5	13125.5	70	130	>+/-30%
Nb	93	2	72	0.821	ppb	17.142	1653	2	41.1	70	130	>+/-30%
Mo	95	2	115	1.623	ppb	7.239	977	2	81.1	70	130	
Pd	105	2	115	0.021	ppb	88.884	27	1	2.1	70	130	>+/-30%
Ag	107	2	115	3.642	ppb	2.940	8913	5	72.8	70	130	
Cd	111	2	115	0.870	ppb	29.441	173	1	87.0	70	130	
Sn	120	2	115	9.522	ppb	2.573	4217	10	95.2	70	130	
Sb	121	2	115	2.164	ppb	16.672	823	2	108.2	70	130	
Ba	137	2	115	1.163	ppb	14.135	117	1	116.3	70	130	
W	182	2	165	4.016	ppb	2.038	16255	1	401.6	70	130	>+/-30%
Pt	195	2	165	0.014	ppb	59.274	130	1	1.4	70	130	>+/-30%
Tl	205	2	165	0.900	ppb	3.386	4664	1	90.0	70	130	
Pb	208	2	165	3.444	ppb	4.330	24105	1	344.4	70	130	>+/-30%
Th	232	2	165	1.837	ppb	1.883	14224	2	91.8	70	130	
U	238	2	165	0.883	ppb	3.256	7909	1	88.3	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	348472	0.81	1374296	25.36	60	120	IS Failed
Sc (IS)	45	1	HMI H2	19107676	0.15	40981949	46.62	60	120	IS Failed
Sc (IS)	45	2	HMI He	270831	0.66	426944	63.43	60	120	
Sc (IS)	45	3	No Gas	39363318	0.50	135848058	28.98	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9860520	0.93	19779503	49.85	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	428796	0.99	609146	70.39	60	120	
In Internal Standard	115	2	HMI He	1155305	1.62	1366570	84.54	60	120	
Ho-165	165	2	HMI He	9210451	0.31	12108279	76.07	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-22-b
Data File Name	135SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:29:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-66.617	ppb	-66.617	-18.99	57389	500000	
Li	7	2	45	-159.144	ppb	-159.144	-7.95	2980	500000	
Li	7	3	45	-157.020	ppb	-157.020	-3.37	1693627	50000	
Be	9	1	6	11.843	ppb	11.843	14.37	940	2000	
B	11	1	6	93.656	ppb	93.656	1.60	10533	2000	
Na	23	1	45	1857.754	ppb	1857.754	1.13	3191763	2000	
Na	23	2	45	1395.895	ppb	1395.895	1.21	124676	400000	
Mg	24	2	45	168179.002	ppb	168179.002	1.35	5865567	400000	
Al	27	2	45	119041.447	ppb	119041.447	0.93	773620	400000	
K	39	1	45	30685.790	ppb	30685.790	0.60	50678258	400000	
K	39	2	45	28578.617	ppb	28578.617	0.17	309776	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3206339.784	ppb	3206339.784	1.46	2113639	400000	>LDR
V	51	2	72	201.463	ppb	201.463	1.09	86281	2000	
Cr	52	2	72	313.690	ppb	313.690	1.35	181954	5000	
Mn	55	2	72	3221.181	ppb	3221.181	0.18	490708	10000	
Fe	57	2	72	102156.109	ppb	102156.109	0.43	1085962	400000	
Co	59	2	72	41.290	ppb	41.290	0.99	53254	2000	
Ni	60	2	72	128.480	ppb	128.480	2.84	50636	5000	
Cu	63	2	72	15013.743	ppb	15013.743	0.96	17619383	5000	
Zn	66	2	72	2238.364	ppb	2238.364	1.50	217909	5000	
As	75	2	72	69.939	ppb	69.939	2.12	3860	2000	
Se	78	1	72	5.210	ppb	5.210	9.76	956	2000	
Sr	88	2	72	9685.665	ppb	9685.665	0.10	1042065	4000	
Zr	90	2	72	14814.419	ppb	14814.419	1.00	56644	1000	>LDR
Nb	93	2	72	3.233	ppb	3.233	4.39	5308	200	
Mo	95	2	115	19.860	ppb	19.860	5.88	9703	2000	
Pd	105	2	115	0.030	ppb	0.030	96.33	30	100	
Ag	107	2	115	5.505	ppb	5.505	2.64	11071	100	
Cd	111	2	115	9.199	ppb	9.199	5.77	1507	2000	
Sn	120	2	115	23.406	ppb	23.406	6.48	8429	2000	
Sb	121	2	115	200.117	ppb	200.117	2.10	60138	1000	
Ba	137	2	115	1592.664	ppb	1592.664	0.77	131526	5000	
W	182	2	165	0.934	ppb	0.934	7.63	3467	100	
Pt	195	2	165	-0.004	ppb	-0.004	-307.01	47	100	
Tl	205	2	165	3.519	ppb	3.519	3.70	15635	2000	
Pb	208	2	165	194106.966	ppb	194106.966	1.07	1092181157	5000	>LDR
Th	232	2	165	55.837	ppb	55.837	1.15	365684	2000	
U	238	2	165	19.680	ppb	19.680	0.61	152142	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	293215	1.08	1374296	21.34	60	120	IS Failed
Sc (IS)	45	1	HMI H2	17848248	0.83	40981949	43.55	60	120	IS Failed
Sc (IS)	45	2	HMI He	259176	1.22	426944	60.70	60	120	
Sc (IS)	45	3	No Gas	36808957	0.62	135848058	27.10	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8408063	0.53	19779503	42.51	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	371530	1.06	609146	60.99	60	120	
In Internal Standard	115	2	HMI He	949838	1.34	1366570	69.51	60	120	
Ho-165	165	2	HMI He	7978799	0.90	12108279	65.90	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-23-b
Data File Name	136SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:32:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-65.361	ppb	-65.361	-33.80	51306	500000	
Li	7	2	45	-158.530	ppb	-158.530	-6.30	2600	500000	
Li	7	3	45	-171.542	ppb	-171.542	-5.06	1399204	50000	
Be	9	1	6	9.492	ppb	9.492	19.83	683	2000	
B	11	1	6	91.931	ppb	91.931	7.12	9413	2000	
Na	23	1	45	2119.727	ppb	2119.727	2.77	3234251	2000	
Na	23	2	45	1612.145	ppb	1612.145	1.26	124472	400000	
Mg	24	2	45	179099.748	ppb	179099.748	1.79	5435050	400000	
Al	27	2	45	111682.793	ppb	111682.793	0.41	631536	400000	
K	39	1	45	29744.348	ppb	29744.348	2.87	43852383	400000	
K	39	2	45	27548.361	ppb	27548.361	0.18	259901	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3749200.105	ppb	3749200.105	1.83	2150046	400000	>LDR
V	51	2	72	205.630	ppb	205.630	1.51	75593	2000	
Cr	52	2	72	505.707	ppb	505.707	1.24	251782	5000	
Mn	55	2	72	3194.532	ppb	3194.532	0.37	417744	10000	
Fe	57	2	72	102073.784	ppb	102073.784	0.33	931494	400000	
Co	59	2	72	39.547	ppb	39.547	1.55	43785	2000	
Ni	60	2	72	130.978	ppb	130.978	1.35	44313	5000	
Cu	63	2	72	13256.534	ppb	13256.534	0.38	13355501	5000	
Zn	66	2	72	1987.181	ppb	1987.181	1.26	166102	5000	
As	75	2	72	74.258	ppb	74.258	4.89	3519	2000	
Se	78	1	72	5.736	ppb	5.736	14.96	925	2000	
Sr	88	2	72	11667.274	ppb	11667.274	0.77	1077598	4000	
Zr	90	2	72	14707.648	ppb	14707.648	1.07	48268	1000	>LDR
Nb	93	2	72	3.123	ppb	3.123	5.62	4404	200	
Mo	95	2	115	21.445	ppb	21.445	1.95	8969	2000	
Pd	105	2	115	0.060	ppb	0.060	37.98	50	100	
Ag	107	2	115	5.444	ppb	5.444	4.93	9370	100	
Cd	111	2	115	12.286	ppb	12.286	9.75	1724	2000	
Sn	120	2	115	27.079	ppb	27.079	2.96	8342	2000	
Sb	121	2	115	193.441	ppb	193.441	0.44	49767	1000	
Ba	137	2	115	1650.069	ppb	1650.069	1.24	116619	5000	
W	182	2	165	0.905	ppb	0.905	6.11	2977	100	
Pt	195	2	165	-0.005	ppb	-0.005	-215.72	37	100	
Tl	205	2	165	2.736	ppb	2.736	2.63	10754	2000	
Pb	208	2	165	201594.360	ppb	201594.360	0.99	1002328765	5000	>LDR
Th	232	2	165	50.420	ppb	50.420	0.89	291815	2000	
U	238	2	165	21.261	ppb	21.261	0.60	145239	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	267385	6.34	1374296	19.46	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15899433	0.90	40981949	38.80	60	120	IS Failed
Sc (IS)	45	2	HMI He	225508	1.49	426944	52.82	60	120	IS Failed
Sc (IS)	45	3	No Gas	32611351	0.56	135848058	24.01	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7399342	0.22	19779503	37.41	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	318932	0.89	609146	52.36	60	120	IS Failed
In Internal Standard	115	2	HMI He	813051	1.64	1366570	59.50	60	120	IS Failed
Ho-165	165	2	HMI He	7050592	1.31	12108279	58.23	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-a-24-b
Data File Name	137SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:36:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-83.173	ppb	-83.173	-2.95	45216	500000	
Li	7	2	45	-154.514	ppb	-154.514	-18.71	2517	500000	
Li	7	3	45	-173.080	ppb	-173.080	-3.02	1411277	50000	
Be	9	1	6	8.305	ppb	8.305	42.93	530	2000	
B	11	1	6	102.548	ppb	102.548	1.98	9269	2000	
Na	23	1	45	1988.074	ppb	1988.074	0.43	2827167	2000	
Na	23	2	45	1525.100	ppb	1525.100	0.94	112187	400000	
Mg	24	2	45	171969.904	ppb	171969.904	0.79	4959864	400000	
Al	27	2	45	123162.130	ppb	123162.130	0.90	661845	400000	
K	39	1	45	31415.397	ppb	31415.397	0.87	42939106	400000	
K	39	2	45	29884.760	ppb	29884.760	0.97	267729	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3086166.628	ppb	3086166.628	1.15	1682064	400000	>LDR
V	51	2	72	208.248	ppb	208.248	2.55	75074	2000	
Cr	52	2	72	390.812	ppb	390.812	1.88	190838	5000	
Mn	55	2	72	3214.765	ppb	3214.765	1.64	412277	10000	
Fe	57	2	72	102454.703	ppb	102454.703	1.56	916910	400000	
Co	59	2	72	40.908	ppb	40.908	2.16	44420	2000	
Ni	60	2	72	130.584	ppb	130.584	0.08	43327	5000	
Cu	63	2	72	18384.174	ppb	18384.174	0.69	18163311	5000	
Zn	66	2	72	2590.294	ppb	2590.294	1.60	212301	5000	
As	75	2	72	69.369	ppb	69.369	3.51	3223	2000	
Se	78	1	72	4.364	ppb	4.364	6.81	668	2000	
Sr	88	2	72	9131.414	ppb	9131.414	1.77	827069	4000	
Zr	90	2	72	15033.667	ppb	15033.667	0.56	48385	1000	>LDR
Nb	93	2	72	3.557	ppb	3.557	1.43	4904	200	
Mo	95	2	115	16.956	ppb	16.956	4.20	6975	2000	
Pd	105	2	115	0.036	ppb	0.036	71.61	30	100	
Ag	107	2	115	5.260	ppb	5.260	1.53	8899	100	
Cd	111	2	115	9.274	ppb	9.274	14.71	1277	2000	
Sn	120	2	115	30.047	ppb	30.047	2.86	9096	2000	
Sb	121	2	115	204.700	ppb	204.700	0.47	51763	1000	
Ba	137	2	115	1618.101	ppb	1618.101	0.38	112418	5000	
W	182	2	165	0.759	ppb	0.759	2.87	2470	100	
Pt	195	2	165	0.011	ppb	0.011	13.79	87	100	
Tl	205	2	165	2.357	ppb	2.357	1.53	9040	2000	
Pb	208	2	165	197887.816	ppb	197887.816	0.33	959365219	5000	>LDR
Th	232	2	165	55.147	ppb	55.147	0.51	311177	2000	
U	238	2	165	17.894	ppb	17.894	2.34	119171	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	235837	0.56	1374296	17.16	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14796116	0.88	40981949	36.10	60	120	IS Failed
Sc (IS)	45	2	HMI He	214305	1.42	426944	50.20	60	120	IS Failed
Sc (IS)	45	3	No Gas	33142480	0.35	135848058	24.40	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7008345	0.21	19779503	35.43	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	312762	0.31	609146	51.34	60	120	IS Failed
In Internal Standard	115	2	HMI He	799133	1.12	1366570	58.48	60	120	IS Failed
Ho-165	165	2	HMI He	6874408	1.53	12108279	56.77	60	120	IS Failed

Sample Table

Sample Name	280-104412-a-25-b
Data File Name	138SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:40:26-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-103.261	ppb	-103.261	-2.92	46459	500000	
Li	7	2	45	-171.016	ppb	-171.016	-8.23	2500	500000	
Li	7	3	45	-171.678	ppb	-171.678	-1.55	1440855	50000	
Be	9	1	6	9.270	ppb	9.270	17.09	607	2000	
B	11	1	6	101.226	ppb	101.226	4.05	9386	2000	
Na	23	1	45	1872.837	ppb	1872.837	1.16	2926531	2000	
Na	23	2	45	1453.160	ppb	1453.160	1.88	114678	400000	
Mg	24	2	45	186027.718	ppb	186027.718	0.90	5744329	400000	
Al	27	2	45	118075.247	ppb	118075.247	1.59	679299	400000	
K	39	1	45	31220.180	ppb	31220.180	0.23	46847179	400000	
K	39	2	45	29626.706	ppb	29626.706	1.26	284194	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3175780.650	ppb	3175780.650	0.07	1853314	400000	>LDR
V	51	2	72	205.656	ppb	205.656	1.58	79346	2000	
Cr	52	2	72	285.900	ppb	285.900	1.17	149413	5000	
Mn	55	2	72	3073.394	ppb	3073.394	0.72	421783	10000	
Fe	57	2	72	98736.240	ppb	98736.240	0.34	945611	400000	
Co	59	2	72	41.620	ppb	41.620	0.69	48363	2000	
Ni	60	2	72	124.176	ppb	124.176	1.56	44099	5000	
Cu	63	2	72	13145.138	ppb	13145.138	0.24	13898601	5000	
Zn	66	2	72	1925.489	ppb	1925.489	1.23	168895	5000	
As	75	2	72	76.178	ppb	76.178	3.43	3788	2000	
Se	78	1	72	4.501	ppb	4.501	6.00	751	2000	
Sr	88	2	72	9600.014	ppb	9600.014	1.13	930455	4000	
Zr	90	2	72	13784.086	ppb	13784.086	1.45	47479	1000	>LDR
Nb	93	2	72	4.321	ppb	4.321	7.14	6351	200	
Mo	95	2	115	13.074	ppb	13.074	3.88	5708	2000	
Pd	105	2	115	0.090	ppb	0.090	94.02	77	100	
Ag	107	2	115	4.108	ppb	4.108	8.56	7379	100	
Cd	111	2	115	8.435	ppb	8.435	19.12	1233	2000	
Sn	120	2	115	16.016	ppb	16.016	5.79	5171	2000	
Sb	121	2	115	127.956	ppb	127.956	2.87	34349	1000	
Ba	137	2	115	1645.852	ppb	1645.852	1.78	121367	5000	
W	182	2	165	0.809	ppb	0.809	11.67	2727	100	
Pt	195	2	165	0.003	ppb	0.003	560.28	63	100	
Tl	205	2	165	2.034	ppb	2.034	3.90	8126	2000	
Pb	208	2	165	124984.346	ppb	124984.346	0.54	630715444	5000	>LDR
Th	232	2	165	51.561	ppb	51.561	0.56	302867	2000	
U	238	2	165	17.195	ppb	17.195	1.07	119215	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	241929	1.22	1374296	17.60	60	120	IS Failed
Sc (IS)	45	1	HMI H2	16235929	0.37	40981949	39.62	60	120	IS Failed
Sc (IS)	45	2	HMI He	229459	1.41	426944	53.74	60	120	IS Failed
Sc (IS)	45	3	No Gas	33597210	0.92	135848058	24.73	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7636454	0.41	19779503	38.61	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	334708	0.51	609146	54.95	60	120	IS Failed
In Internal Standard	115	2	HMI He	848225	1.18	1366570	62.07	60	120	
Ho-165	165	2	HMI He	7155448	0.66	12108279	59.10	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-a-26-b
Data File Name	139SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:44:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-105.201	ppb	-105.201	-4.08	43836	500000	
Li	7	2	45	-184.936	ppb	-184.936	-8.70	2284	500000	
Li	7	3	45	-164.712	ppb	-164.712	-2.85	1407142	50000	
Be	9	1	6	9.769	ppb	9.769	17.93	603	2000	
B	11	1	6	101.602	ppb	101.602	4.26	8876	2000	
Na	23	1	45	2135.723	ppb	2135.723	1.35	3160159	2000	
Na	23	2	45	1621.360	ppb	1621.360	1.12	124559	400000	
Mg	24	2	45	183587.564	ppb	183587.564	1.27	5544748	400000	
Al	27	2	45	116701.575	ppb	116701.575	1.04	656771	400000	
K	39	1	45	32408.777	ppb	32408.777	0.89	46067433	400000	
K	39	2	45	29877.371	ppb	29877.371	0.21	280314	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3186236.038	ppb	3186236.038	0.54	1818513	400000	>LDR
V	51	2	72	212.567	ppb	212.567	1.09	79124	2000	
Cr	52	2	72	541.378	ppb	541.378	1.76	272937	5000	
Mn	55	2	72	3150.159	ppb	3150.159	0.13	417171	10000	
Fe	57	2	72	101460.491	ppb	101460.491	1.22	937590	400000	
Co	59	2	72	41.145	ppb	41.145	1.04	46137	2000	
Ni	60	2	72	130.119	ppb	130.119	2.27	44583	5000	
Cu	63	2	72	7515.077	ppb	7515.077	0.59	7667488	5000	
Zn	66	2	72	1331.074	ppb	1331.074	2.45	112685	5000	
As	75	2	72	68.846	ppb	68.846	0.54	3304	2000	
Se	78	1	72	4.455	ppb	4.455	6.97	707	2000	
Sr	88	2	72	9986.337	ppb	9986.337	0.66	933997	4000	
Zr	90	2	72	13933.273	ppb	13933.273	1.43	46309	1000	>LDR
Nb	93	2	72	5.398	ppb	5.398	5.86	7635	200	
Mo	95	2	115	17.894	ppb	17.894	6.61	7615	2000	
Pd	105	2	115	0.063	ppb	0.063	28.73	53	100	
Ag	107	2	115	3.950	ppb	3.950	12.51	6922	100	
Cd	111	2	115	9.196	ppb	9.196	21.56	1313	2000	
Sn	120	2	115	16.980	ppb	16.980	1.62	5344	2000	
Sb	121	2	115	127.803	ppb	127.803	3.07	33471	1000	
Ba	137	2	115	1736.149	ppb	1736.149	1.04	124889	5000	
W	182	2	165	0.855	ppb	0.855	4.44	2814	100	
Pt	195	2	165	0.000	ppb	0.000	1723.66	53	100	
Tl	205	2	165	1.976	ppb	1.976	1.75	7746	2000	
Pb	208	2	165	119044.630	ppb	119044.630	0.31	589531755	5000	>LDR
Th	232	2	165	51.589	ppb	51.589	1.58	297377	2000	
U	238	2	165	17.791	ppb	17.791	0.35	121043	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	227902	0.51	1374296	16.58	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15420281	0.73	40981949	37.63	60	120	IS Failed
Sc (IS)	45	2	HMI He	224418	0.74	426944	52.56	60	120	IS Failed
Sc (IS)	45	3	No Gas	31714565	0.53	135848058	23.35	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7260809	0.91	19779503	36.71	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	322976	1.15	609146	53.02	60	120	IS Failed
In Internal Standard	115	2	HMI He	827377	1.31	1366570	60.54	60	120	
Ho-165	165	2	HMI He	7021879	0.29	12108279	57.99	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-a-27-b
Data File Name	140SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:48:01-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-103.801	ppb	-103.801	-4.30	42626	500000	
Li	7	2	45	-176.841	ppb	-176.841	-14.68	2300	500000	
Li	7	3	45	-165.315	ppb	-165.315	-4.70	1305107	50000	
Be	9	1	6	11.589	ppb	11.589	11.69	680	2000	
B	11	1	6	101.882	ppb	101.882	1.94	8462	2000	
Na	23	1	45	2019.563	ppb	2019.563	1.28	2895866	2000	
Na	23	2	45	1531.639	ppb	1531.639	1.81	114142	400000	
Mg	24	2	45	186895.931	ppb	186895.931	1.10	5462701	400000	
Al	27	2	45	124481.115	ppb	124481.115	0.82	677911	400000	
K	39	1	45	34502.172	ppb	34502.172	0.97	47273523	400000	
K	39	2	45	31938.159	ppb	31938.159	0.15	289818	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3004012.665	ppb	3004012.665	1.01	1659226	400000	>LDR
V	51	2	72	217.550	ppb	217.550	1.63	79389	2000	
Cr	52	2	72	340.358	ppb	340.358	1.29	168307	5000	
Mn	55	2	72	3135.917	ppb	3135.917	1.06	407172	10000	
Fe	57	2	72	106023.194	ppb	106023.194	0.30	960730	400000	
Co	59	2	72	43.172	ppb	43.172	3.03	47454	2000	
Ni	60	2	72	129.789	ppb	129.789	0.90	43608	5000	
Cu	63	2	72	4398.134	ppb	4398.134	0.77	4400590	5000	
Zn	66	2	72	971.060	ppb	971.060	0.13	80623	5000	
As	75	2	72	69.402	ppb	69.402	0.81	3266	2000	
Se	78	1	72	4.190	ppb	4.190	7.37	648	2000	
Sr	88	2	72	9291.110	ppb	9291.110	0.22	852093	4000	
Zr	90	2	72	14911.609	ppb	14911.609	1.43	48596	1000	>LDR
Nb	93	2	72	4.926	ppb	4.926	0.38	6838	200	
Mo	95	2	115	12.327	ppb	12.327	3.35	5228	2000	
Pd	105	2	115	0.064	ppb	0.064	82.08	53	100	
Ag	107	2	115	2.287	ppb	2.287	2.61	3994	100	
Cd	111	2	115	8.199	ppb	8.199	8.12	1163	2000	
Sn	120	2	115	12.536	ppb	12.536	9.92	3944	2000	
Sb	121	2	115	63.707	ppb	63.707	2.55	16619	1000	
Ba	137	2	115	1689.117	ppb	1689.117	2.53	120972	5000	
W	182	2	165	0.702	ppb	0.702	6.40	2364	100	
Pt	195	2	165	0.005	ppb	0.005	115.04	70	100	
Tl	205	2	165	1.751	ppb	1.751	5.30	6905	2000	
Pb	208	2	165	81600.910	ppb	81600.910	0.49	406075527	5000	>LDR
Th	232	2	165	53.686	ppb	53.686	0.61	310961	2000	
U	238	2	165	16.608	ppb	16.608	1.77	113542	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	216692	0.58	1374296	15.77	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14924874	0.60	40981949	36.42	60	120	IS Failed
Sc (IS)	45	2	HMI He	217177	0.87	426944	50.87	60	120	IS Failed
Sc (IS)	45	3	No Gas	29498192	0.40	135848058	21.71	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7076398	0.71	19779503	35.78	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	316699	1.50	609146	51.99	60	120	IS Failed
In Internal Standard	115	2	HMI He	823693	1.03	1366570	60.27	60	120	
Ho-165	165	2	HMI He	7056167	0.79	12108279	58.28	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-a-58-b
Data File Name	141SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:51:48-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-58.749	ppb	-58.749	-19.67	47374	500000	
Li	7	2	45	-142.128	ppb	-142.128	-12.37	2640	500000	
Li	7	3	45	-126.271	ppb	-126.271	-5.28	1589906	50000	
Be	9	1	6	13.785	ppb	13.785	21.60	763	2000	
B	11	1	6	134.030	ppb	134.030	6.26	10507	2000	
Na	23	1	45	2319.659	ppb	2319.659	0.87	3197920	2000	
Na	23	2	45	1709.569	ppb	1709.569	1.60	124647	400000	
Mg	24	2	45	245729.641	ppb	245729.641	1.50	7059134	400000	
Al	27	2	45	195703.335	ppb	195703.335	1.32	1047531	400000	
K	39	1	45	51002.819	ppb	51002.819	0.05	65994211	400000	
K	39	2	45	46716.041	ppb	46716.041	1.51	415626	400000	
Ca	40	1	45	1902195.107	ppb	1902195.107	0.46	3883724849	400000	
Ca	44	2	45	1877333.436	ppb	1877333.436	1.77	1019110	400000	
V	51	2	72	265.171	ppb	265.171	1.80	96287	2000	
Cr	52	2	72	330.512	ppb	330.512	2.20	162687	5000	
Mn	55	2	72	4906.459	ppb	4906.459	0.25	634141	10000	
Fe	57	2	72	163039.434	ppb	163039.434	1.18	1470313	400000	
Co	59	2	72	61.821	ppb	61.821	1.82	67652	2000	
Ni	60	2	72	164.095	ppb	164.095	1.54	54842	5000	
Cu	63	2	72	1501.389	ppb	1501.389	1.64	1495908	5000	
Zn	66	2	72	807.721	ppb	807.721	0.90	66753	5000	
As	75	2	72	69.762	ppb	69.762	1.27	3267	2000	
Se	78	1	72	3.465	ppb	3.465	11.12	529	2000	
Sr	88	2	72	5170.951	ppb	5170.951	0.67	472023	4000	
Zr	90	2	72	22810.234	ppb	22810.234	3.16	73992	1000	>LDR
Nb	93	2	72	4.765	ppb	4.765	5.49	6588	200	
Mo	95	2	115	8.321	ppb	8.321	4.39	3577	2000	
Pd	105	2	115	0.075	ppb	0.075	46.94	63	100	
Ag	107	2	115	0.713	ppb	0.713	3.42	1270	100	
Cd	111	2	115	6.982	ppb	6.982	8.24	1003	2000	
Sn	120	2	115	9.796	ppb	9.796	3.01	3130	2000	
Sb	121	2	115	2.308	ppb	2.308	7.74	633	1000	
Ba	137	2	115	2265.894	ppb	2265.894	1.37	164317	5000	
W	182	2	165	0.654	ppb	0.654	11.24	2230	100	
Pt	195	2	165	0.003	ppb	0.003	344.34	63	100	
Tl	205	2	165	2.344	ppb	2.344	3.31	9290	2000	
Pb	208	2	165	6360.522	ppb	6360.522	0.48	31872863	5000	
Th	232	2	165	86.489	ppb	86.489	0.23	504283	2000	
U	238	2	165	13.623	ppb	13.623	0.16	93796	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	204758	2.10	1374296	14.90	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14390583	0.29	40981949	35.11	60	120	IS Failed
Sc (IS)	45	2	HMI He	213502	2.41	426944	50.01	60	120	IS Failed
Sc (IS)	45	3	No Gas	30237265	0.32	135848058	22.26	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6978633	0.70	19779503	35.28	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	315213	1.45	609146	51.75	60	120	IS Failed
In Internal Standard	115	2	HMI He	834087	1.07	1366570	61.04	60	120	
Ho-165	165	2	HMI He	7105270	1.13	12108279	58.68	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	142_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:55:39-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	84.958	ppb	4.453	71497	500	17.0	90	110	>+\-10%
Li	7	2	45	-27.909	ppb	-100.134	4062	500	-5.6	90	110	>+\-10%
Li	7	3	45	-3.917	ppb	-182.095	2427101	500	-0.8	90	110	>+\-10%
Be	9	1	6	61.521	ppb	10.657	3801	50	123.0	90	110	>+\-10%
B	11	1	6	49.704	ppb	3.961	4381	50	99.4	90	110	
Na	23	1	45	4383.547	ppb	1.302	6352456	5000	87.7	90	110	>+\-10%
Na	23	2	45	3375.494	ppb	2.761	251615	5000	67.5	90	110	>+\-10%
Mg	24	2	45	3987.515	ppb	2.761	119543	5000	79.8	90	110	>+\-10%
Al	27	2	45	5025.120	ppb	0.817	28079	5000	100.5	90	110	
K	39	1	45	6227.418	ppb	1.676	11251752	5000	124.5	90	110	>+\-10%
K	39	2	45	5245.621	ppb	2.273	50765	5000	104.9	90	110	
Ca	40	1	45	5595.606	ppb	0.850	12170881	5000	111.9	90	110	>+\-10%
Ca	44	2	45	5935.127	ppb	10.371	3364	5000	118.7	90	110	>+\-10%
V	51	2	72	39.019	ppb	4.071	16361	50	78.0	90	110	>+\-10%
Cr	52	2	72	39.345	ppb	5.069	22138	50	78.7	90	110	>+\-10%
Mn	55	2	72	50.513	ppb	0.681	7459	50	101.0	90	110	
Fe	57	2	72	4085.976	ppb	3.025	42040	5000	81.7	90	110	>+\-10%
Co	59	2	72	38.619	ppb	1.951	48173	50	77.2	90	110	>+\-10%
Ni	60	2	72	38.842	ppb	2.104	14903	50	77.7	90	110	>+\-10%
Cu	63	2	72	43.664	ppb	4.088	50570	50	87.3	90	110	>+\-10%
Zn	66	2	72	44.622	ppb	0.588	4264	50	89.2	90	110	>+\-10%
As	75	2	72	47.657	ppb	2.767	2546	50	95.3	90	110	
Se	78	1	72	46.746	ppb	2.070	8169	50	93.5	90	110	
Sr	88	2	72	62.384	ppb	5.730	6495	50	124.8	90	110	>+\-10%
Zr	90	2	72	161.769	ppb	11.080	643	50	323.5	90	110	>+\-10%
Nb	93	2	72	96.176	ppb	1.614	149407	100	96.2	90	110	
Mo	95	2	115	38.879	ppb	6.095	19338	50	77.8	90	110	>+\-10%
Pd	105	2	115	39.208	ppb	3.348	37195	50	78.4	90	110	>+\-10%
Ag	107	2	115	37.509	ppb	2.886	76725	50	75.0	90	110	>+\-10%
Cd	111	2	115	41.528	ppb	7.176	6922	50	83.1	90	110	>+\-10%
Sn	120	2	115	48.188	ppb	4.027	17617	50	96.4	90	110	
Sb	121	2	115	50.373	ppb	5.364	15438	50	100.7	90	110	
Ba	137	2	115	54.585	ppb	9.763	4597	50	109.2	90	110	
W	182	2	165	40.029	ppb	2.612	134313	50	80.1	90	110	>+\-10%
Pt	195	2	165	35.967	ppb	1.486	129789	50	71.9	90	110	>+\-10%
Tl	205	2	165	44.455	ppb	2.299	191545	50	88.9	90	110	>+\-10%
Pb	208	2	165	63.394	ppb	3.065	348455	50	126.8	90	110	>+\-10%
Th	232	2	165	46.330	ppb	2.399	295228	50	92.7	90	110	
U	238	2	165	44.230	ppb	2.754	332576	50	88.5	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	228070	0.93	1374296	16.60	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15268371	1.06	40981949	37.26	60	120	IS Failed
Sc (IS)	45	2	HMI He	222680	1.90	426944	52.16	60	120	IS Failed
Sc (IS)	45	3	No Gas	30837890	0.03	135848058	22.70	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8051896	0.40	19779503	40.71	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	359364	1.36	609146	58.99	60	120	IS Failed
In Internal Standard	115	2	HMI He	967722	2.17	1366570	70.81	60	120	
Ho-165	165	2	HMI He	7763126	1.27	12108279	64.11	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	143_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T19:59:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-198.241	ppb	-0.9	1120779	10	
Be	9	1	6	0.054	ppb	173.2	3	0.5	
B	11	1	6	2.457	ppb	51.7	287	0.5	>RL
Na	23	1	45	-11.826	ppb	-6.1	49151	25	
Na	23	2	45	-34.918	ppb	-5.1	2667	25	
Mg	24	2	45	17.720	ppb	26.5	623	25	
Al	27	2	45	-0.182	ppb	-993.5	20	15	
K	39	1	45	674.157	ppb	2.0	3955603	50	>RL
K	39	2	45	112.275	ppb	28.2	3440	50	>RL
Ca	40	1	45	154.403	ppb	0.8	383886	50	>RL
Ca	44	2	45	156.204	ppb	6.9	97	25	>RL
V	51	2	72	-0.374	ppb	-16.4	100	1	
Cr	52	2	72	0.081	ppb	72.1	123	1	
Mn	55	2	72	0.742	ppb	13.0	127	0.5	>RL
Fe	57	2	72	12.861	ppb	33.8	173	25	
Co	59	2	72	0.017	ppb	27.9	23	0.5	
Ni	60	2	72	0.070	ppb	124.8	163	1	
Cu	63	2	72	2.703	ppb	6.6	4137	1	>RL
Zn	66	2	72	0.834	ppb	91.8	143	5	
As	75	2	72	0.076	ppb	52.5	9	1	
Se	78	1	72	0.000	ppb	-10537.4	5	1	
Sr	88	2	72	0.356	ppb	31.8	43	0.5	
Zr	90	2	72	3.858	ppb	121.9	60	1	>RL
Nb	93	2	72	0.881	ppb	1.9	1497	2	
Mo	95	2	115	0.061	ppb	50.7	43	0.5	
Pd	105	2	115	0.008	ppb	132.4	10	1	
Ag	107	2	115	0.001	ppb	1054.4	17	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.204	ppb	56.1	140	1	
Sb	121	2	115	0.119	ppb	108.2	67	0.6	
Ba	137	2	115	0.308	ppb	86.6	27	0.5	
W	182	2	165	0.000	ppb	198.4	253	1	
Pt	195	2	165	0.002	ppb	142.1	67	1	
Tl	205	2	165	0.012	ppb	47.5	103	0.1	
Pb	208	2	165	12.390	ppb	5.4	70451	0.5	>RL
Th	232	2	165	0.033	ppb	45.9	513	1	
U	238	2	165	0.010	ppb	29.2	107	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	230189	0.30	1374296	16.75	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15235418	1.02	40981949	37.18	60	120	IS Failed
Sc (IS)	45	2	HMI He	225671	1.12	426944	52.86	60	120	IS Failed
Sc (IS)	45	3	No Gas	30120396	0.47	135848058	22.17	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8023672	1.39	19779503	40.57	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	363526	1.11	609146	59.68	60	120	IS Failed
In Internal Standard	115	2	HMI He	997519	1.25	1366570	72.99	60	120	
Ho-165	165	2	HMI He	7895240	1.04	12108279	65.21	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	144LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:03:18-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-196.777	ppb	-1.240	1137562	50	-393.6	70	130	>+/-30%
Be	9	1	6	1.461	ppb	24.305	93	1	146.1	70	130	>+/-30%
Na	23	2	45	-0.873	ppb	-322.711	5241	50	-1.7	70	130	>+/-30%
Mg	24	2	45	56.614	ppb	9.439	1823	50	113.2	70	130	
Al	27	2	45	46.493	ppb	19.160	287	30	155.0	70	130	>+/-30%
K	39	2	45	205.048	ppb	10.013	4354	100	205.0	70	130	>+/-30%
Ca	44	2	45	183.321	ppb	11.341	113	50	366.6	70	130	>+/-30%
V	51	2	72	3.232	ppb	6.590	1630	5	64.6	70	130	>+/-30%
Cr	52	2	72	1.774	ppb	9.465	1100	2	88.7	70	130	
Mn	55	2	72	1.918	ppb	41.352	307	1	191.8	70	130	>+/-30%
Fe	57	2	72	51.792	ppb	19.803	587	50	103.6	70	130	
Co	59	2	72	0.826	ppb	14.275	1060	1	82.6	70	130	
Ni	60	2	72	1.336	ppb	17.618	660	2	66.8	70	130	>+/-30%
Cu	63	2	72	3.184	ppb	0.991	4761	2	159.2	70	130	>+/-30%
Zn	66	2	72	8.643	ppb	3.830	900	10	86.4	70	130	
As	75	2	72	4.586	ppb	15.891	256	5	91.7	70	130	
Se	78	1	72	4.394	ppb	3.722	776	5	87.9	70	130	
Sr	88	2	72	2.317	ppb	20.726	253	1	231.7	70	130	>+/-30%
Zr	90	2	72	51.048	ppb	13.229	240	0.5	10209.5	70	130	>+/-30%
Nb	93	2	72	0.896	ppb	7.307	1543	2	44.8	70	130	>+/-30%
Mo	95	2	115	1.498	ppb	24.379	797	2	74.9	70	130	
Pd	105	2	115	0.017	ppb	99.370	20	1	1.7	70	130	>+/-30%
Ag	107	2	115	3.696	ppb	5.335	7989	5	73.9	70	130	
Cd	111	2	115	1.078	ppb	19.937	190	1	107.8	70	130	
Sn	120	2	115	8.875	ppb	0.363	3477	10	88.7	70	130	
Sb	121	2	115	2.076	ppb	5.340	700	2	103.8	70	130	
Ba	137	2	115	0.824	ppb	74.865	73	1	82.4	70	130	
W	182	2	165	3.821	ppb	1.543	13533	1	382.1	70	130	>+/-30%
Pt	195	2	165	0.025	ppb	101.712	153	1	2.5	70	130	>+/-30%
Tl	205	2	165	0.934	ppb	9.673	4227	1	93.4	70	130	
Pb	208	2	165	10.562	ppb	3.719	61485	1	1056.2	70	130	>+/-30%
Th	232	2	165	1.776	ppb	3.707	12032	2	88.8	70	130	
U	238	2	165	0.930	ppb	2.090	7282	1	93.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	235725	0.40	1374296	17.15	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15343540	1.35	40981949	37.44	60	120	IS Failed
Sc (IS)	45	2	HMI He	227952	1.25	426944	53.39	60	120	IS Failed
Sc (IS)	45	3	No Gas	30316547	0.27	135848058	22.32	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8085749	0.80	19779503	40.88	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	368942	0.40	609146	60.57	60	120	
In Internal Standard	115	2	HMI He	1020843	1.23	1366570	74.70	60	120	
Ho-165	165	2	HMI He	8051054	0.27	12108279	66.49	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-d
Data File Name	145SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:07:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-179.282	ppb	-179.282	-5.55	32680	500000	
Li	7	2	45	-215.686	ppb	-215.686	-2.29	1947	500000	
Li	7	3	45	-193.549	ppb	-193.549	-1.09	1170422	50000	
Be	9	1	6	0.688	ppb	0.688	74.03	43	2000	
B	11	1	6	11.739	ppb	11.739	15.58	1110	2000	
Na	23	1	45	166.693	ppb	166.693	6.25	307386	2000	
Na	23	2	45	102.407	ppb	102.407	7.80	12878	400000	
Mg	24	2	45	15788.230	ppb	15788.230	0.67	481419	400000	
Al	27	2	45	11258.315	ppb	11258.315	0.32	63973	400000	
K	39	1	45	3894.397	ppb	3894.397	1.27	8246743	400000	
K	39	2	45	3152.334	ppb	3152.334	2.86	32002	400000	
Ca	40	1	45	250428.191	ppb	250428.191	1.42	546223139	400000	
Ca	44	2	45	250653.174	ppb	250653.174	2.10	144404	400000	
V	51	2	72	18.376	ppb	18.376	6.75	7809	2000	
Cr	52	2	72	45.265	ppb	45.265	1.27	25362	5000	
Mn	55	2	72	272.401	ppb	272.401	2.74	39989	10000	
Fe	57	2	72	9192.643	ppb	9192.643	1.61	94177	400000	
Co	59	2	72	4.094	ppb	4.094	7.20	5088	2000	
Ni	60	2	72	12.306	ppb	12.306	4.69	4794	5000	
Cu	63	2	72	587.004	ppb	587.004	1.58	664628	5000	
Zn	66	2	72	117.150	ppb	117.150	0.82	11047	5000	
As	75	2	72	6.260	ppb	6.260	9.12	337	2000	
Se	78	1	72	0.380	ppb	0.380	22.39	71	2000	
Sr	88	2	72	753.321	ppb	753.321	1.05	78082	4000	
Zr	90	2	72	1191.680	ppb	1191.680	1.18	4431	1000	
Nb	93	2	72	0.503	ppb	0.503	5.98	890	200	
Mo	95	2	115	1.336	ppb	1.336	14.73	687	2000	
Pd	105	2	115	0.015	ppb	0.015	146.63	17	100	
Ag	107	2	115	0.173	ppb	0.173	8.52	373	100	
Cd	111	2	115	0.610	ppb	0.610	29.12	103	2000	
Sn	120	2	115	0.976	ppb	0.976	18.26	423	2000	
Sb	121	2	115	3.727	ppb	3.727	11.22	1187	1000	
Ba	137	2	115	148.237	ppb	148.237	4.71	12665	5000	
W	182	2	165	0.081	ppb	0.081	38.77	540	100	
Pt	195	2	165	0.005	ppb	0.005	132.86	80	100	
Tl	205	2	165	0.178	ppb	0.178	22.87	853	2000	
Pb	208	2	165	4463.539	ppb	4463.539	1.91	25493193	5000	
Th	232	2	165	4.862	ppb	4.862	3.78	32599	2000	
U	238	2	165	1.414	ppb	1.414	3.20	11121	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	232528	0.30	1374296	16.92	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15373626	1.02	40981949	37.51	60	120	IS Failed
Sc (IS)	45	2	HMI He	226530	0.55	426944	53.06	60	120	IS Failed
Sc (IS)	45	3	No Gas	30628422	0.28	135848058	22.55	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7938668	0.91	19779503	40.14	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	357920	0.67	609146	58.76	60	120	IS Failed
In Internal Standard	115	2	HMI He	982661	0.52	1366570	71.91	60	120	
Ho-165	165	2	HMI He	8099461	1.52	12108279	66.89	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-dSD@5
Data File Name	146SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:10:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-178.812	ppb	-178.812	-2.42	32442	500000	
Li	7	2	45	-220.206	ppb	-220.206	-5.24	1870	500000	
Li	7	3	45	-191.520	ppb	-191.520	-1.89	1182782	50000	
Be	9	1	6	0.154	ppb	0.154	99.38	10	2000	
B	11	1	6	2.764	ppb	2.764	22.18	323	2000	
Na	23	1	45	20.355	ppb	20.355	11.12	95146	2000	
Na	23	2	45	-9.759	ppb	-9.759	-35.59	4491	400000	
Mg	24	2	45	3298.392	ppb	3298.392	2.09	99381	400000	
Al	27	2	45	2335.723	ppb	2335.723	4.15	13122	400000	
K	39	1	45	1356.527	ppb	1356.527	3.67	4847017	400000	
K	39	2	45	732.538	ppb	732.538	4.78	9163	400000	
Ca	40	1	45	52212.949	ppb	52212.949	2.66	112845515	400000	
Ca	44	2	45	50424.650	ppb	50424.650	2.52	28694	400000	
V	51	2	72	3.395	ppb	3.395	11.94	1663	2000	
Cr	52	2	72	8.883	ppb	8.883	7.13	5084	5000	
Mn	55	2	72	53.328	ppb	53.328	1.88	7915	10000	
Fe	57	2	72	1859.587	ppb	1859.587	3.27	19258	400000	
Co	59	2	72	0.881	ppb	0.881	5.52	1107	2000	
Ni	60	2	72	2.277	ppb	2.277	16.59	1007	5000	
Cu	63	2	72	121.947	ppb	121.947	1.08	140171	5000	
Zn	66	2	72	24.789	ppb	24.789	6.94	2410	5000	
As	75	2	72	1.175	ppb	1.175	42.26	68	2000	
Se	78	1	72	0.038	ppb	0.038	104.83	12	2000	
Sr	88	2	72	147.681	ppb	147.681	2.34	15457	4000	
Zr	90	2	72	237.277	ppb	237.277	17.77	927	1000	
Nb	93	2	72	0.119	ppb	0.119	50.91	300	200	
Mo	95	2	115	0.393	ppb	0.393	12.38	213	2000	
Pd	105	2	115	-0.003	ppb	-0.003	0.00	0	100	
Ag	107	2	115	0.025	ppb	0.025	39.51	67	100	
Cd	111	2	115	0.116	ppb	0.116	100.01	20	2000	
Sn	120	2	115	0.408	ppb	0.408	58.70	217	2000	
Sb	121	2	115	0.773	ppb	0.773	16.58	273	1000	
Ba	137	2	115	29.641	ppb	29.641	5.71	2570	5000	
W	182	2	165	0.028	ppb	0.028	33.58	353	100	
Pt	195	2	165	0.006	ppb	0.006	87.75	83	100	
Tl	205	2	165	0.043	ppb	0.043	16.34	243	2000	
Pb	208	2	165	961.470	ppb	961.470	0.48	5439095	5000	
Th	232	2	165	0.973	ppb	0.973	4.57	6702	2000	
U	238	2	165	0.278	ppb	0.278	11.77	2190	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	237308	1.33	1374296	17.27	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15229591	1.14	40981949	37.16	60	120	IS Failed
Sc (IS)	45	2	HMI He	223698	0.26	426944	52.40	60	120	IS Failed
Sc (IS)	45	3	No Gas	30607020	0.41	135848058	22.53	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7974616	0.83	19779503	40.32	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	361252	1.10	609146	59.30	60	120	IS Failed
In Internal Standard	115	2	HMI He	997557	0.60	1366570	73.00	60	120	
Ho-165	165	2	HMI He	8019354	0.91	12108279	66.23	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-e ms
Data File Name	147SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:14:47-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-159.003	ppb	-159.003	-4.83	35411	500000	
Li	7	2	45	-228.780	ppb	-228.780	-6.63	1773	500000	
Li	7	3	45	-187.361	ppb	-187.361	-1.44	1227898	50000	
Be	9	1	6	25.685	ppb	25.685	11.79	1650	2000	
B	11	1	6	23.126	ppb	23.126	17.71	2160	2000	
Na	23	1	45	187.296	ppb	187.296	7.72	334026	2000	
Na	23	2	45	118.142	ppb	118.142	4.35	13892	400000	
Mg	24	2	45	16634.796	ppb	16634.796	0.68	501523	400000	
Al	27	2	45	12583.507	ppb	12583.507	2.41	70694	400000	
K	39	1	45	4273.809	ppb	4273.809	6.47	8672089	400000	
K	39	2	45	3493.132	ppb	3493.132	2.19	34805	400000	
Ca	40	1	45	259949.032	ppb	259949.032	7.12	561644192	400000	
Ca	44	2	45	260999.989	ppb	260999.989	0.56	148686	400000	
V	51	2	72	34.458	ppb	34.458	2.04	14390	2000	
Cr	52	2	72	63.510	ppb	63.510	0.40	35466	5000	
Mn	55	2	72	303.095	ppb	303.095	0.60	44386	10000	
Fe	57	2	72	9694.137	ppb	9694.137	2.89	99067	400000	
Co	59	2	72	17.364	ppb	17.364	2.37	21524	2000	
Ni	60	2	72	27.212	ppb	27.212	1.93	10413	5000	
Cu	63	2	72	217.366	ppb	217.366	1.29	246155	5000	
Zn	66	2	72	96.619	ppb	96.619	4.22	9099	5000	
As	75	2	72	22.301	ppb	22.301	3.36	1186	2000	
Se	78	1	72	15.380	ppb	15.380	7.58	2618	2000	
Sr	88	2	72	794.468	ppb	794.468	0.86	82147	4000	
Zr	90	2	72	3190.120	ppb	3190.120	8.77	11754	1000	
Nb	93	2	72	0.561	ppb	0.561	10.18	977	200	
Mo	95	2	115	12.756	ppb	12.756	1.54	6441	2000	
Pd	105	2	115	0.022	ppb	0.022	55.04	23	100	
Ag	107	2	115	4.784	ppb	4.784	1.93	9930	100	
Cd	111	2	115	16.830	ppb	16.830	6.61	2844	2000	
Sn	120	2	115	9.373	ppb	9.373	8.60	3527	2000	
Sb	121	2	115	5.366	ppb	5.366	16.95	1690	1000	
Ba	137	2	115	174.457	ppb	174.457	2.44	14874	5000	
W	182	2	165	4.824	ppb	4.824	0.54	17083	100	
Pt	195	2	165	0.014	ppb	0.014	39.09	113	100	
Tl	205	2	165	15.835	ppb	15.835	0.67	71083	2000	
Pb	208	2	165	4372.319	ppb	4372.319	0.44	24923228	5000	
Th	232	2	165	21.582	ppb	21.582	0.25	143369	2000	
U	238	2	165	17.732	ppb	17.732	1.40	138857	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	237698	3.37	1374296	17.30	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15256400	4.03	40981949	37.23	60	120	IS Failed
Sc (IS)	45	2	HMI He	223987	0.32	426944	52.46	60	120	IS Failed
Sc (IS)	45	3	No Gas	31059171	0.27	135848058	22.86	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7845107	3.57	19779503	39.66	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	357041	0.28	609146	58.61	60	120	IS Failed
In Internal Standard	115	2	HMI He	980587	1.58	1366570	71.76	60	120	
Ho-165	165	2	HMI He	8082169	0.45	12108279	66.75	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-f msd
Data File Name	148SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:18:37-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-158.744	ppb	-158.744	-1.92	35191	500000	
Li	7	2	45	-221.807	ppb	-221.807	-2.80	1850	500000	
Li	7	3	45	-182.391	ppb	-182.391	-1.64	1258773	50000	
Be	9	1	6	27.491	ppb	27.491	2.65	1777	2000	
B	11	1	6	28.951	ppb	28.951	17.19	2700	2000	
Na	23	1	45	192.840	ppb	192.840	2.15	339860	2000	
Na	23	2	45	117.702	ppb	117.702	4.92	13826	400000	
Mg	24	2	45	17573.859	ppb	17573.859	0.45	528621	400000	
Al	27	2	45	12913.870	ppb	12913.870	0.99	72383	400000	
K	39	1	45	4533.129	ppb	4533.129	0.11	8952237	400000	
K	39	2	45	3648.206	ppb	3648.206	2.08	36160	400000	
Ca	40	1	45	281376.505	ppb	281376.505	0.65	604385871	400000	
Ca	44	2	45	275555.366	ppb	275555.366	1.30	156619	400000	
V	51	2	72	36.778	ppb	36.778	3.75	15290	2000	
Cr	52	2	72	66.661	ppb	66.661	1.82	37096	5000	
Mn	55	2	72	313.190	ppb	313.190	1.67	45710	10000	
Fe	57	2	72	10313.469	ppb	10313.469	0.73	105044	400000	
Co	59	2	72	18.638	ppb	18.638	1.54	23026	2000	
Ni	60	2	72	28.564	ppb	28.564	3.39	10887	5000	
Cu	63	2	72	238.435	ppb	238.435	1.12	269014	5000	
Zn	66	2	72	82.382	ppb	82.382	3.18	7742	5000	
As	75	2	72	22.154	ppb	22.154	5.04	1175	2000	
Se	78	1	72	15.551	ppb	15.551	2.25	2652	2000	
Sr	88	2	72	860.045	ppb	860.045	1.54	88629	4000	
Zr	90	2	72	3512.277	ppb	3512.277	4.64	12895	1000	
Nb	93	2	72	0.548	ppb	0.548	15.12	953	200	
Mo	95	2	115	13.651	ppb	13.651	1.86	6798	2000	
Pd	105	2	115	0.022	ppb	0.022	99.76	23	100	
Ag	107	2	115	6.164	ppb	6.164	3.88	12619	100	
Cd	111	2	115	17.018	ppb	17.018	5.67	2837	2000	
Sn	120	2	115	7.587	ppb	7.587	3.78	2827	2000	
Sb	121	2	115	4.731	ppb	4.731	6.26	1477	1000	
Ba	137	2	115	187.020	ppb	187.020	2.85	15735	5000	
W	182	2	165	4.706	ppb	4.706	1.82	16756	100	
Pt	195	2	165	0.001	ppb	0.001	787.15	63	100	
Tl	205	2	165	16.129	ppb	16.129	0.67	72764	2000	
Pb	208	2	165	4681.027	ppb	4681.027	0.40	26816755	5000	
Th	232	2	165	22.464	ppb	22.464	1.13	149961	2000	
U	238	2	165	18.109	ppb	18.109	1.05	142529	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	238576	0.30	1374296	17.36	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15138587	0.38	40981949	36.94	60	120	IS Failed
Sc (IS)	45	2	HMI He	223475	0.78	426944	52.34	60	120	IS Failed
Sc (IS)	45	3	No Gas	31007363	0.81	135848058	22.83	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7848781	0.61	19779503	39.68	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	355839	0.06	609146	58.42	60	120	IS Failed
In Internal Standard	115	2	HMI He	967502	1.38	1366570	70.80	60	120	
Ho-165	165	2	HMI He	8122713	0.45	12108279	67.08	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-d PDS
Data File Name	149SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:22:27-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-175.510	ppb	-175.510	-1.79	33294	500000	
Li	7	2	45	-218.235	ppb	-218.235	-7.42	1877	500000	
Li	7	3	45	-187.906	ppb	-187.906	-1.56	1214930	50000	
Be	9	1	6	270.508	ppb	270.508	2.45	17592	2000	
B	11	1	6	10.876	ppb	10.876	15.23	1067	2000	
Na	23	1	45	173.496	ppb	173.496	4.10	317690	2000	
Na	23	2	45	101.719	ppb	101.719	6.53	12561	400000	
Mg	24	2	45	15583.871	ppb	15583.871	0.85	465297	400000	
Al	27	2	45	12794.297	ppb	12794.297	2.20	71182	400000	
K	39	1	45	3792.671	ppb	3792.671	0.61	8125067	400000	
K	39	2	45	3139.861	ppb	3139.861	1.65	31221	400000	
Ca	40	1	45	242807.832	ppb	242807.832	0.26	530462885	400000	
Ca	44	2	45	247831.212	ppb	247831.212	1.42	139823	400000	
V	51	2	72	178.644	ppb	178.644	1.05	73799	2000	
Cr	52	2	72	201.967	ppb	201.967	0.41	112987	5000	
Mn	55	2	72	453.641	ppb	453.641	1.45	66638	10000	
Fe	57	2	72	10528.247	ppb	10528.247	0.84	107942	400000	
Co	59	2	72	158.111	ppb	158.111	1.09	196608	2000	
Ni	60	2	72	161.927	ppb	161.927	3.01	61500	5000	
Cu	63	2	72	724.086	ppb	724.086	1.04	820292	5000	
Zn	66	2	72	285.107	ppb	285.107	0.73	26818	5000	
As	75	2	72	185.639	ppb	185.639	0.66	9871	2000	
Se	78	1	72	186.214	ppb	186.214	2.51	32346	2000	
Sr	88	2	72	734.297	ppb	734.297	2.65	76177	4000	
Zr	90	2	72	29351.241	ppb	29351.241	1.64	108155	1000	>LDR
Nb	93	2	72	1.208	ppb	1.208	16.28	1980	200	
Mo	95	2	115	158.398	ppb	158.398	0.87	79894	2000	
Pd	105	2	115	0.018	ppb	0.018	113.56	20	100	
Ag	107	2	115	36.963	ppb	36.963	1.80	76695	100	
Cd	111	2	115	171.543	ppb	171.543	0.93	29013	2000	
Sn	120	2	115	194.062	ppb	194.062	1.64	71786	2000	
Sb	121	2	115	206.369	ppb	206.369	1.30	64072	1000	
Ba	137	2	115	358.206	ppb	358.206	1.13	30559	5000	
W	182	2	165	163.995	ppb	163.995	0.59	578228	100	
Pt	195	2	165	0.035	ppb	0.035	54.26	193	100	
Tl	205	2	165	179.636	ppb	179.636	0.40	814276	2000	
Pb	208	2	165	4591.619	ppb	4591.619	0.69	26448291	5000	
Th	232	2	165	5.115	ppb	5.115	2.98	34569	2000	
U	238	2	165	181.843	ppb	181.843	0.72	1438702	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	240046	0.74	1374296	17.47	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15397155	0.27	40981949	37.57	60	120	IS Failed
Sc (IS)	45	2	HMI He	221821	0.40	426944	51.96	60	120	IS Failed
Sc (IS)	45	3	No Gas	30820747	1.11	135848058	22.69	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8007776	0.57	19779503	40.49	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	358216	0.88	609146	58.81	60	120	IS Failed
In Internal Standard	115	2	HMI He	981251	1.05	1366570	71.80	60	120	
Ho-165	165	2	HMI He	8167189	0.53	12108279	67.45	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	150_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:26:14-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	115.707	ppb	8.595	77535	500	23.1	90	110	>+\-10%
Li	7	2	45	-21.762	ppb	-16.339	4131	500	-4.4	90	110	>+\-10%
Li	7	3	45	62.251	ppb	18.720	2683219	500	12.5	90	110	>+\-10%
Be	9	1	6	65.883	ppb	7.822	4384	50	131.8	90	110	>+\-10%
B	11	1	6	64.252	ppb	10.049	6078	50	128.5	90	110	>+\-10%
Na	23	1	45	4541.895	ppb	1.334	6709701	5000	90.8	90	110	
Na	23	2	45	3530.472	ppb	0.598	262626	5000	70.6	90	110	>+\-10%
Mg	24	2	45	4086.299	ppb	2.058	122368	5000	81.7	90	110	>+\-10%
Al	27	2	45	5191.016	ppb	1.767	28964	5000	103.8	90	110	
K	39	1	45	6364.547	ppb	0.718	11658367	5000	127.3	90	110	>+\-10%
K	39	2	45	5333.400	ppb	1.778	51511	5000	106.7	90	110	
Ca	40	1	45	5583.133	ppb	1.212	12383895	5000	111.7	90	110	>+\-10%
Ca	44	2	45	5937.534	ppb	13.694	3364	5000	118.8	90	110	>+\-10%
V	51	2	72	40.256	ppb	3.974	17019	50	80.5	90	110	>+\-10%
Cr	52	2	72	41.184	ppb	4.067	23369	50	82.4	90	110	>+\-10%
Mn	55	2	72	50.320	ppb	4.057	7492	50	100.6	90	110	
Fe	57	2	72	4278.621	ppb	1.461	44403	5000	85.6	90	110	>+\-10%
Co	59	2	72	40.682	ppb	1.078	51181	50	81.4	90	110	>+\-10%
Ni	60	2	72	40.468	ppb	4.149	15651	50	80.9	90	110	>+\-10%
Cu	63	2	72	40.493	ppb	1.244	47387	50	81.0	90	110	>+\-10%
Zn	66	2	72	46.006	ppb	2.474	4431	50	92.0	90	110	
As	75	2	72	50.389	ppb	1.520	2715	50	100.8	90	110	
Se	78	1	72	49.541	ppb	3.440	8808	50	99.1	90	110	
Sr	88	2	72	69.751	ppb	2.673	7325	50	139.5	90	110	>+\-10%
Zr	90	2	72	106.807	ppb	6.549	443	50	213.6	90	110	>+\-10%
Nb	93	2	72	101.825	ppb	0.715	159536	100	101.8	90	110	
Mo	95	2	115	40.242	ppb	2.575	20503	50	80.5	90	110	>+\-10%
Pd	105	2	115	40.641	ppb	0.850	39483	50	81.3	90	110	>+\-10%
Ag	107	2	115	39.722	ppb	1.298	83222	50	79.4	90	110	>+\-10%
Cd	111	2	115	45.445	ppb	2.574	7762	50	90.9	90	110	
Sn	120	2	115	52.110	ppb	1.850	19509	50	104.2	90	110	
Sb	121	2	115	52.143	ppb	5.102	16372	50	104.3	90	110	
Ba	137	2	115	56.944	ppb	5.776	4904	50	113.9	90	110	>+\-10%
W	182	2	165	42.720	ppb	0.896	150931	50	85.4	90	110	>+\-10%
Pt	195	2	165	38.199	ppb	1.992	145140	50	76.4	90	110	>+\-10%
Tl	205	2	165	46.994	ppb	0.533	213218	50	94.0	90	110	
Pb	208	2	165	55.110	ppb	0.483	319203	50	110.2	90	110	>+\-10%
Th	232	2	165	49.242	ppb	0.484	330399	50	98.5	90	110	
U	238	2	165	46.976	ppb	1.171	371973	50	94.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	245588	0.84	1374296	17.87	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15570215	0.85	40981949	37.99	60	120	IS Failed
Sc (IS)	45	2	HMI He	222351	0.45	426944	52.08	60	120	IS Failed
Sc (IS)	45	3	No Gas	28919993	3.44	135848058	21.29	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8191985	0.36	19779503	41.42	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	362400	0.74	609146	59.49	60	120	IS Failed
In Internal Standard	115	2	HMI He	990836	0.58	1366570	72.51	60	120	
Ho-165	165	2	HMI He	8173144	0.20	12108279	67.50	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	151_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:30:05-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-192.178	ppb	-1.1	1216985	10	
Be	9	1	6	0.299	ppb	100.2	20	0.5	
B	11	1	6	1.378	ppb	29.0	207	0.5	>RL
Na	23	1	45	17.565	ppb	5.7	93300	25	
Na	23	2	45	-9.052	ppb	-10.4	4511	25	
Mg	24	2	45	24.256	ppb	24.0	810	25	
Al	27	2	45	16.610	ppb	31.0	113	15	>RL
K	39	1	45	590.997	ppb	2.0	3934717	50	>RL
K	39	2	45	100.298	ppb	21.8	3277	50	>RL
Ca	40	1	45	155.267	ppb	1.4	394564	50	>RL
Ca	44	2	45	141.108	ppb	31.5	87	25	>RL
V	51	2	72	-0.317	ppb	-21.6	123	1	
Cr	52	2	72	0.016	ppb	487.8	87	1	
Mn	55	2	72	0.676	ppb	50.9	117	0.5	>RL
Fe	57	2	72	28.634	ppb	17.2	337	25	>RL
Co	59	2	72	0.075	ppb	6.4	97	0.5	
Ni	60	2	72	0.045	ppb	360.0	153	1	
Cu	63	2	72	1.405	ppb	1.9	2644	1	>RL
Zn	66	2	72	1.541	ppb	65.1	210	5	
As	75	2	72	0.065	ppb	288.9	8	1	
Se	78	1	72	0.074	ppb	93.3	19	1	
Sr	88	2	72	0.642	ppb	73.2	73	0.5	>RL
Zr	90	2	72	1.202	ppb	804.6	50	1	>RL
Nb	93	2	72	0.910	ppb	23.5	1540	2	
Mo	95	2	115	0.098	ppb	56.3	63	0.5	
Pd	105	2	115	0.008	ppb	231.6	10	1	
Ag	107	2	115	-0.001	ppb	-387.8	13	1	
Cd	111	2	115	0.057	ppb	99.7	10	0.5	
Sn	120	2	115	0.392	ppb	49.2	213	1	
Sb	121	2	115	0.106	ppb	73.9	63	0.6	
Ba	137	2	115	0.152	ppb	114.8	13	0.5	
W	182	2	165	0.025	ppb	56.1	350	1	
Pt	195	2	165	0.018	ppb	29.0	130	1	
Tl	205	2	165	0.028	ppb	34.8	183	0.1	
Pb	208	2	165	6.791	ppb	5.3	40789	0.5	>RL
Th	232	2	165	0.059	ppb	23.3	710	1	
U	238	2	165	0.022	ppb	25.4	207	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	247586	0.34	1374296	18.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15583949	0.38	40981949	38.03	60	120	IS Failed
Sc (IS)	45	2	HMI He	222144	0.25	426944	52.03	60	120	IS Failed
Sc (IS)	45	3	No Gas	31604248	0.90	135848058	23.26	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8221200	0.53	19779503	41.56	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	362852	0.32	609146	59.57	60	120	IS Failed
In Internal Standard	115	2	HMI He	1010052	0.47	1366570	73.91	60	120	
Ho-165	165	2	HMI He	8193672	0.48	12108279	67.67	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	152LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:33:54-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-185.123	ppb	-3.098	1273225	50	-370.2	70	130	>+/-30%
Be	9	1	6	1.277	ppb	46.646	87	1	127.7	70	130	
Na	23	2	45	2.271	ppb	125.886	5408	50	4.5	70	130	>+/-30%
Mg	24	2	45	55.905	ppb	5.370	1780	50	111.8	70	130	
Al	27	2	45	30.491	ppb	23.509	193	30	101.6	70	130	
K	39	2	45	220.607	ppb	12.252	4444	100	220.6	70	130	>+/-30%
Ca	44	2	45	197.050	ppb	34.824	120	50	394.1	70	130	>+/-30%
V	51	2	72	3.569	ppb	25.145	1764	5	71.4	70	130	
Cr	52	2	72	1.550	ppb	15.238	967	2	77.5	70	130	
Mn	55	2	72	1.417	ppb	44.075	230	1	141.7	70	130	>+/-30%
Fe	57	2	72	57.027	ppb	14.234	640	50	114.1	70	130	
Co	59	2	72	0.855	ppb	4.571	1093	1	85.5	70	130	
Ni	60	2	72	1.633	ppb	13.543	773	2	81.7	70	130	
Cu	63	2	72	3.049	ppb	19.187	4581	2	152.5	70	130	>+/-30%
Zn	66	2	72	8.927	ppb	2.894	923	10	89.3	70	130	
As	75	2	72	4.530	ppb	15.435	252	5	90.6	70	130	
Se	78	1	72	4.834	ppb	4.153	869	5	96.7	70	130	
Sr	88	2	72	1.287	ppb	39.254	143	1	128.7	70	130	
Zr	90	2	72	19.572	ppb	27.262	120	0.5	3914.4	70	130	>+/-30%
Nb	93	2	72	0.936	ppb	7.252	1600	2	46.8	70	130	>+/-30%
Mo	95	2	115	1.662	ppb	10.791	883	2	83.1	70	130	
Pd	105	2	115	0.031	ppb	75.234	33	1	3.1	70	130	>+/-30%
Ag	107	2	115	3.871	ppb	7.702	8362	5	77.4	70	130	
Cd	111	2	115	1.005	ppb	18.208	177	1	100.5	70	130	
Sn	120	2	115	10.117	ppb	4.468	3951	10	101.2	70	130	
Sb	121	2	115	2.119	ppb	17.528	713	2	106.0	70	130	
Ba	137	2	115	1.541	ppb	37.520	137	1	154.1	70	130	>+/-30%
W	182	2	165	4.097	ppb	3.256	14988	1	409.7	70	130	>+/-30%
Pt	195	2	165	0.014	ppb	74.624	117	1	1.4	70	130	>+/-30%
Tl	205	2	165	0.980	ppb	5.825	4588	1	98.0	70	130	
Pb	208	2	165	6.252	ppb	2.725	38287	1	625.2	70	130	>+/-30%
Th	232	2	165	1.870	ppb	3.005	13086	2	93.5	70	130	
U	238	2	165	0.958	ppb	4.583	7756	1	95.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	250839	1.52	1374296	18.25	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15814590	0.47	40981949	38.59	60	120	IS Failed
Sc (IS)	45	2	HMI He	225142	0.60	426944	52.73	60	120	IS Failed
Sc (IS)	45	3	No Gas	31821360	0.49	135848058	23.42	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8240231	0.68	19779503	41.66	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	367401	1.24	609146	60.31	60	120	
In Internal Standard	115	2	HMI He	1019865	0.18	1366570	74.63	60	120	
Ho-165	165	2	HMI He	8327346	0.74	12108279	68.77	60	120	

Blank Report

Sample Table

Sample Name	GRIND BLANK
Data File Name	153_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:37:43-07:00
Sample Type	Blank
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-159.104	ppb	-3.789501276	33648	0.5
Li	7	2	45	-208.439	ppb	-12.20803542	1763	0.5
Li	7	3	45	-175.806	ppb	-3.239435343	1333923	10
Be	9	1	6	0.343	ppb	49.43710887	23	0.5
B	11	1	6	4.285	ppb	12.2716865	487	0.5
Na	23	1	45	7973.414	ppb	1.967050721	10920243	25
Na	23	2	45	6332.285	ppb	0.78103626	412647	25
Mg	24	2	45	1427.792	ppb	3.724623962	37823	25
Al	27	2	45	1459.962	ppb	3.47103018	7212	15
K	39	1	45	15737.821	ppb	0.413685792	22537046	50
K	39	2	45	965.842	ppb	5.533986367	9946	50
Ca	40	1	45	7028.199	ppb	0.65216448	14503782	50
Ca	44	2	45	6889.860	ppb	4.485748017	3450	25
V	51	2	72	7.260	ppb	13.84141177	2950	1
Cr	52	2	72	1528.505	ppb	1.609085365	777315	1
Mn	55	2	72	284.378	ppb	4.075428152	37998	0.5
Fe	57	2	72	19671.053	ppb	1.682875551	183417	25
Co	59	2	72	4.863	ppb	4.874833114	5501	0.5
Ni	60	2	72	45.017	ppb	5.059951407	15637	1
Cu	63	2	72	28.697	ppb	3.088343713	30464	1
Zn	66	2	72	15.108	ppb	0.691202591	1347	5
As	75	2	72	4.239	ppb	17.63581604	209	1
Se	78	1	72	0.197	ppb	34.98275632	39	1
Sr	88	2	72	51.505	ppb	3.904922748	4864	0.5
Zr	90	2	72	1321.616	ppb	9.243504515	4471	1
Nb	93	2	72	0.980	ppb	9.388302323	1483	2
Mo	95	2	115	66.021	ppb	1.160603587	30658	0.5
Pd	105	2	115	0.076	ppb	25.62984361	70	1
Ag	107	2	115	0.066	ppb	13.76128752	140	1
Cd	111	2	115	0.064	ppb	100.4608213	10	0.5
Sn	120	2	115	1.605	ppb	17.225844	603	1
Sb	121	2	115	0.736	ppb	17.9380498	237	0.6
Ba	137	2	115	88.253	ppb	1.835754563	6932	0.5
W	182	2	165	1.326	ppb	4.48095834	4731	1
Pt	195	2	165	0.011	ppb	49.93013609	100	1
Tl	205	2	165	0.053	ppb	28.08362594	283	0.1
Pb	208	2	165	31.291	ppb	7.440440592	174268	0.5
Th	232	2	165	8.440	ppb	1.415735025	54516	1
U	238	2	165	3.472	ppb	0.756352607	26373	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	250868	0.40	1374296	18.25	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14498029	0.75	40981949	35.38	60	120	IS Failed
Sc (IS)	45	2	HMI He	196501	1.09	426944	46.03	60	120	IS Failed
Sc (IS)	45	3	No Gas	31759910	0.73	135848058	23.38	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7838062	0.32	19779503	39.63	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	325863	1.33	609146	53.50	60	120	IS Failed
In Internal Standard	115	2	HMI He	903325	1.32	1366570	66.10	60	120	
Ho-165	165	2	HMI He	7833336	0.91	12108279	64.69	60	120	

Blank Report

Sample Table

Sample Name	mb 280-398689/1-a
Data File Name	154_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:41:31-07:00
Sample Type	Blank
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-156.251	ppb	-4.401759673	35231	0.5
Li	7	2	45	-186.039	ppb	-6.668184396	2034	0.5
Li	7	3	45	-182.173	ppb	-2.501027252	1348487	10
Be	9	1	6	0.095	ppb	173.2050808	7	0.5
B	11	1	6	10.155	ppb	10.75398607	1083	0.5
Na	23	1	45	128.670	ppb	0.858091312	246329	25
Na	23	2	45	83.584	ppb	10.35962339	10187	25
Mg	24	2	45	46.950	ppb	10.00395925	1347	25
Al	27	2	45	10.810	ppb	90.20441319	73	15
K	39	1	45	14173.498	ppb	0.981399037	21299026	50
K	39	2	45	141.522	ppb	21.25877685	3309	50
Ca	40	1	45	308.478	ppb	0.700369262	705783	50
Ca	44	2	45	542.288	ppb	27.73224824	283	25
V	51	2	72	0.052	ppb	115.6735568	257	1
Cr	52	2	72	0.715	ppb	14.72370571	447	1
Mn	55	2	72	1.490	ppb	19.42864678	220	0.5
Fe	57	2	72	31.223	ppb	24.98025232	337	25
Co	59	2	72	0.024	ppb	61.25293331	30	0.5
Ni	60	2	72	0.451	ppb	47.22555319	287	1
Cu	63	2	72	8.104	ppb	0.414297443	9553	1
Zn	66	2	72	6.457	ppb	19.1515826	627	5
As	75	2	72	0.143	ppb	143.0447561	12	1
Se	78	1	72	0.007	ppb	187.4788295	7	1
Sr	88	2	72	1.350	ppb	16.16390254	137	0.5
Zr	90	2	72	23.484	ppb	67.62322426	123	1
Nb	93	2	72	0.072	ppb	33.89770053	210	2
Mo	95	2	115	0.151	ppb	68.15467734	83	0.5
Pd	105	2	115	0.060	ppb	52.85641358	57	1
Ag	107	2	115	0.017	ppb	69.92378696	47	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.510	ppb	12.34662342	237	1
Sb	121	2	115	0.260	ppb	15.44546333	103	0.6
Ba	137	2	115	0.870	ppb	29.0070055	70	0.5
W	182	2	165	0.089	ppb	14.08016312	560	1
Pt	195	2	165	0.012	ppb	103.0874514	103	1
Tl	205	2	165	0.010	ppb	107.8445174	97	0.1
Pb	208	2	165	9.288	ppb	3.263205455	53728	0.5
Th	232	2	165	0.062	ppb	21.19888181	707	1
U	238	2	165	0.012	ppb	18.44780749	120	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	259670	0.65	1374296	18.89	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14998999	0.47	40981949	36.60	60	120	IS Failed
Sc (IS)	45	2	HMI He	200963	0.27	426944	47.07	60	120	IS Failed
Sc (IS)	45	3	No Gas	33184974	1.01	135848058	24.43	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8068119	0.42	19779503	40.79	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	335835	0.28	609146	55.13	60	120	IS Failed
In Internal Standard	115	2	HMI He	926473	0.48	1366570	67.80	60	120	
Ho-165	165	2	HMI He	7973739	0.54	12108279	65.85	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-398689/2-a
Data File Name	155LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:45:21-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	249.543	249.543	ppb	1.755	18320	200	124.8	80	120	NewName Main CR1 Failed
Na	23	2	45	31.665	31.665	ppb	2.925	6902	200	15.8	80	120	NewName Main CR1 Failed
Mg	24	2	45	33.941	33.941	ppb	12.445	1013	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1837.650	1837.650	ppb	5.921	9466	200000	0.9	80	120	NewName Main CR1 Failed
K	39	2	45	87.221	87.221	ppb	20.547	2914	200000	0.0	80	120	NewName Main CR1 Failed
Ca	44	2	45	1485.024	1485.024	ppb	31.891	783	200000	0.7	80	120	NewName Main CR1 Failed
V	51	2	72	154.440	154.440	ppb	0.604	60623	200	77.2	80	120	NewName Main CR1 Failed
Cr	52	2	72	159.672	159.672	ppb	0.804	84854	200	79.8	80	120	NewName Main CR1 Failed
(Cr)	53	2	72	165.039	165.039	ppb	2.060	10940	200	82.5	80	120	
Mn	55	2	72	185.592	185.592	ppb	3.427	25903	200	92.8	80	120	
Fe	57	2	72	1647.385	1647.385	ppb	2.191	16074	200000	0.8	80	120	NewName Main CR1 Failed
Co	59	2	72	159.820	159.820	ppb	1.386	188762	200	79.9	80	120	NewName Main CR1 Failed
Ni	60	2	72	156.538	156.538	ppb	1.690	56474	200	78.3	80	120	NewName Main CR1 Failed
Cu	63	2	72	163.764	163.764	ppb	0.366	176963	200	81.9	80	120	
Zn	66	2	72	165.061	165.061	ppb	4.629	14770	200	82.5	80	120	
As	75	2	72	179.346	179.346	ppb	0.893	9058	200	89.7	80	120	
Se	78	1	72	182.746	182.746	ppb	0.514	33061	200	91.4	80	120	
(Se)	82	1	72	391.360	391.360	ppb	4.194	32778	200	195.7	80	120	NewName Main CR1 Failed
Nb	93	2	72	0.105	0.105	ppb	34.962	260	400	0.0	80	120	NewName Main CR1 Failed
Mo	95	2	115	161.328	161.328	ppb	1.656	77387	200	80.7	80	120	
Pd	105	2	115	0.045	0.045	ppb	38.058	43	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	157.525	157.525	ppb	1.180	310834	200	78.8	80	120	NewName Main CR1 Failed
Cd	111	2	115	168.748	168.748	ppb	2.430	27146	200	84.4	80	120	
(Cd)	114	2	115	170.057	170.057	ppb	0.605	73445	200	85.0	80	120	
Sn	120	2	115	190.336	190.336	ppb	2.035	66963	200	95.2	80	120	
Sb	121	2	115	199.054	199.054	ppb	1.971	58779	200	99.5	80	110	
Ba	137	2	115	209.455	209.455	ppb	1.692	16996	200	104.7	80	120	
W	182	2	165	161.766	161.766	ppb	1.765	566673	200	80.9	80	120	
Pt	195	2	165	0.009	0.009	ppb	34.921	93	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	182.647	182.647	ppb	0.879	822592	200	91.3	80	120	
(Pb)	206	2	165	195.113	195.113	ppb	0.640	269393	200	97.6	80	120	
(Pb)	207	2	165	195.465	195.465	ppb	1.327	244891	200	97.7	80	120	
Pb	208	2	165	193.840	193.840	ppb	0.771	1110824	200	96.9	80	120	
Th	232	2	165	189.715	189.715	ppb	0.805	1262918	200	94.9	80	120	
U	238	2	165	184.248	184.248	ppb	1.032	1448369	200	92.1	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	271021	1.19	1374296	19.72	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15538531	1.67	40981949	37.92	60	120	IS Failed
Sc (IS)	45	2	HMI He	205018	2.04	426944	48.02	60	120	IS Failed
Sc (IS)	45	3	No Gas	34855971	0.43	135848058	25.66	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8339725	0.58	19779503	42.16	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	340225	0.38	609146	55.85	60	120	IS Failed
In Internal Standard	115	2	HMI He	933314	0.90	1366570	68.30	60	120	
Ho-165	165	2	HMI He	8114703	0.56	12108279	67.02	60	120	

Sample Report

Sample Table

Sample Name	320-33819-a-1-c
Data File Name	156SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:49:09-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-49.280	ppb	-49.280	-20.26	50824	500000	
Li	7	2	45	-141.899	ppb	-141.899	-13.27	2484	500000	
Li	7	3	45	-89.633	ppb	-89.633	-4.38	2079465	50000	
Be	9	1	6	12.148	ppb	12.148	13.39	823	2000	
B	11	1	6	101.068	ppb	101.068	4.20	9690	2000	
Na	23	1	45	1636.083	ppb	1636.083	1.45	2373482	2000	
Na	23	2	45	1290.664	ppb	1290.664	0.53	89468	400000	
Mg	24	2	45	219461.993	ppb	219461.993	0.54	5917386	400000	
Al	27	2	45	137347.029	ppb	137347.029	1.28	690001	400000	
K	39	1	45	52501.943	ppb	52501.943	0.73	70818706	400000	
K	39	2	45	35208.938	ppb	35208.938	0.57	294521	400000	
Ca	40	1	45	2113675.550	ppb	2113675.550	0.52	4504452093	400000	>LDR
Ca	44	2	45	2080653.411	ppb	2080653.411	0.55	1060158	400000	>LDR
V	51	2	72	305.441	ppb	305.441	1.16	106247	2000	
Cr	52	2	72	246.342	ppb	246.342	2.12	116204	5000	
Mn	55	2	72	4417.973	ppb	4417.973	0.39	547198	10000	
Fe	57	2	72	186313.429	ppb	186313.429	0.13	1610334	400000	
Co	59	2	72	63.629	ppb	63.629	0.92	66726	2000	
Ni	60	2	72	172.127	ppb	172.127	0.39	55123	5000	
Cu	63	2	72	446.582	ppb	446.582	0.40	426969	5000	
Zn	66	2	72	628.389	ppb	628.389	1.62	49781	5000	
As	75	2	72	95.353	ppb	95.353	3.18	4278	2000	
Se	78	1	72	5.979	ppb	5.979	7.92	960	2000	
Sr	88	2	72	5683.993	ppb	5683.993	0.94	497214	4000	
Zr	90	2	72	14740.075	ppb	14740.075	2.11	45821	1000	>LDR
Nb	93	2	72	4.623	ppb	4.623	2.96	6128	200	
Mo	95	2	115	16.268	ppb	16.268	10.15	6785	2000	
Pd	105	2	115	0.094	ppb	0.094	49.67	77	100	
Ag	107	2	115	0.653	ppb	0.653	11.98	1130	100	
Cd	111	2	115	6.040	ppb	6.040	7.65	843	2000	
Sn	120	2	115	8.793	ppb	8.793	13.56	2734	2000	
Sb	121	2	115	86.402	ppb	86.402	1.31	22175	1000	
Ba	137	2	115	1902.052	ppb	1902.052	0.72	134032	5000	
W	182	2	165	3.106	ppb	3.106	5.49	10317	100	
Pt	195	2	165	0.009	ppb	0.009	68.52	87	100	
Tl	205	2	165	2.127	ppb	2.127	6.02	8926	2000	
Pb	208	2	165	8040.489	ppb	8040.489	0.41	42641012	5000	
Th	232	2	165	80.091	ppb	80.091	0.58	494227	2000	
U	238	2	165	14.937	ppb	14.937	1.79	108834	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	250138	0.42	1374296	18.20	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15020484	0.26	40981949	36.65	60	120	IS Failed
Sc (IS)	45	2	HMI He	200350	0.74	426944	46.93	60	120	IS Failed
Sc (IS)	45	3	No Gas	34430004	1.02	135848058	25.34	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7366654	0.63	19779503	37.24	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	302072	0.20	609146	49.59	60	120	IS Failed
In Internal Standard	115	2	HMI He	810582	1.11	1366570	59.32	60	120	IS Failed
Ho-165	165	2	HMI He	7519494	0.45	12108279	62.10	60	120	

Sample Report

Sample Table

Sample Name	320-33819-a-2-c
Data File Name	157SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:52:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-50.891	ppb	-50.891	-19.59	49807	500000	
Li	7	2	45	-90.676	ppb	-90.676	-28.36	2820	500000	
Li	7	3	45	-92.059	ppb	-92.059	-1.25	2030134	50000	
Be	9	1	6	10.748	ppb	10.748	3.76	700	2000	
B	11	1	6	105.315	ppb	105.315	4.17	9696	2000	
Na	23	1	45	1752.540	ppb	1752.540	1.31	2498340	2000	
Na	23	2	45	1432.972	ppb	1432.972	2.14	92586	400000	
Mg	24	2	45	231744.478	ppb	231744.478	0.43	5854261	400000	
Al	27	2	45	145229.739	ppb	145229.739	0.58	683574	400000	
K	39	1	45	54307.296	ppb	54307.296	0.41	72014401	400000	
K	39	2	45	37193.517	ppb	37193.517	0.31	291381	400000	
Ca	40	1	45	2036899.461	ppb	2036899.461	0.24	4273480150	400000	>LDR
Ca	44	2	45	2056293.415	ppb	2056293.415	1.24	981628	400000	>LDR
V	51	2	72	326.398	ppb	326.398	0.62	106068	2000	
Cr	52	2	72	289.393	ppb	289.393	0.36	127540	5000	
Mn	55	2	72	4529.733	ppb	4529.733	1.27	524189	10000	
Fe	57	2	72	197780.334	ppb	197780.334	0.06	1597281	400000	
Co	59	2	72	67.840	ppb	67.840	2.36	66464	2000	
Ni	60	2	72	178.282	ppb	178.282	0.78	53344	5000	
Cu	63	2	72	405.541	ppb	405.541	1.07	362342	5000	
Zn	66	2	72	642.569	ppb	642.569	2.02	47558	5000	
As	75	2	72	95.665	ppb	95.665	1.62	4010	2000	
Se	78	1	72	5.799	ppb	5.799	13.21	917	2000	
Sr	88	2	72	5565.598	ppb	5565.598	1.10	454894	4000	
Zr	90	2	72	16189.516	ppb	16189.516	2.56	47014	1000	>LDR
Nb	93	2	72	5.527	ppb	5.527	1.59	6828	200	
Mo	95	2	115	16.001	ppb	16.001	3.41	6198	2000	
Pd	105	2	115	0.097	ppb	0.097	6.94	73	100	
Ag	107	2	115	0.586	ppb	0.586	12.11	943	100	
Cd	111	2	115	6.253	ppb	6.253	20.59	810	2000	
Sn	120	2	115	8.559	ppb	8.559	4.90	2474	2000	
Sb	121	2	115	53.261	ppb	53.261	6.26	12705	1000	
Ba	137	2	115	2023.245	ppb	2023.245	0.69	132415	5000	
W	182	2	165	3.130	ppb	3.130	9.94	9807	100	
Pt	195	2	165	0.011	ppb	0.011	136.05	90	100	
Tl	205	2	165	2.161	ppb	2.161	3.82	8559	2000	
Pb	208	2	165	4807.806	ppb	4807.806	0.58	24063405	5000	
Th	232	2	165	84.684	ppb	84.684	0.66	493171	2000	
U	238	2	165	15.413	ppb	15.413	1.46	105984	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	240350	1.22	1374296	17.49	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14787590	0.49	40981949	36.08	60	120	IS Failed
Sc (IS)	45	2	HMI He	187706	0.56	426944	43.97	60	120	IS Failed
Sc (IS)	45	3	No Gas	33901207	0.68	135848058	24.96	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7257476	0.54	19779503	36.69	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	282252	0.89	609146	46.34	60	120	IS Failed
In Internal Standard	115	2	HMI He	752777	1.23	1366570	55.09	60	120	IS Failed
Ho-165	165	2	HMI He	7096643	0.62	12108279	58.61	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-3-g
Data File Name	158SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T20:56:49-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-49.001	ppb	-49.001	-9.91	47762	500000	
Li	7	2	45	-99.181	ppb	-99.181	-16.48	2597	500000	
Li	7	3	45	-102.332	ppb	-102.332	-3.20	1868802	50000	
Be	9	1	6	12.538	ppb	12.538	14.13	767	2000	
B	11	1	6	106.616	ppb	106.616	1.06	9223	2000	
Na	23	1	45	1793.744	ppb	1793.744	0.27	2437604	2000	
Na	23	2	45	1450.622	ppb	1450.622	2.72	88848	400000	
Mg	24	2	45	230807.168	ppb	230807.168	1.22	5530726	400000	
Al	27	2	45	146159.921	ppb	146159.921	1.15	652550	400000	
K	39	1	45	53656.800	ppb	53656.800	1.43	67894792	400000	
K	39	2	45	37457.782	ppb	37457.782	1.78	278322	400000	
Ca	40	1	45	2061516.461	ppb	2061516.461	0.69	4125198019	400000	>LDR
Ca	44	2	45	2075885.784	ppb	2075885.784	0.54	940037	400000	>LDR
V	51	2	72	318.782	ppb	318.782	0.56	98586	2000	
Cr	52	2	72	328.798	ppb	328.798	2.73	137885	5000	
Mn	55	2	72	4559.275	ppb	4559.275	0.52	502080	10000	
Fe	57	2	72	197501.518	ppb	197501.518	2.03	1517671	400000	
Co	59	2	72	68.272	ppb	68.272	0.55	63658	2000	
Ni	60	2	72	183.814	ppb	183.814	1.10	52331	5000	
Cu	63	2	72	680.050	ppb	680.050	1.22	577676	5000	
Zn	66	2	72	709.590	ppb	709.590	3.20	49971	5000	
As	75	2	72	93.430	ppb	93.430	2.62	3727	2000	
Se	78	1	72	5.436	ppb	5.436	9.23	827	2000	
Sr	88	2	72	5649.850	ppb	5649.850	1.36	439422	4000	
Zr	90	2	72	15310.620	ppb	15310.620	0.52	42316	1000	>LDR
Nb	93	2	72	4.815	ppb	4.815	1.93	5671	200	
Mo	95	2	115	18.493	ppb	18.493	3.78	6755	2000	
Pd	105	2	115	0.151	ppb	0.151	43.78	107	100	
Ag	107	2	115	0.678	ppb	0.678	19.45	1030	100	
Cd	111	2	115	6.212	ppb	6.212	24.11	760	2000	
Sn	120	2	115	9.414	ppb	9.414	13.57	2560	2000	
Sb	121	2	115	64.407	ppb	64.407	1.61	14483	1000	
Ba	137	2	115	2087.745	ppb	2087.745	0.96	128872	5000	
W	182	2	165	3.052	ppb	3.052	0.76	9130	100	
Pt	195	2	165	0.013	ppb	0.013	110.46	90	100	
Tl	205	2	165	2.068	ppb	2.068	5.62	7816	2000	
Pb	208	2	165	6738.192	ppb	6738.192	0.30	32164210	5000	
Th	232	2	165	85.483	ppb	85.483	0.72	474771	2000	
U	238	2	165	15.889	ppb	15.889	1.21	104197	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	225766	0.57	1374296	16.43	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14104521	0.86	40981949	34.42	60	120	IS Failed
Sc (IS)	45	2	HMI He	178058	1.15	426944	41.71	60	120	IS Failed
Sc (IS)	45	3	No Gas	32393010	0.49	135848058	23.85	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6972845	0.69	19779503	35.25	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	268582	0.53	609146	44.09	60	120	IS Failed
In Internal Standard	115	2	HMI He	710054	1.18	1366570	51.96	60	120	IS Failed
Ho-165	165	2	HMI He	6768133	0.34	12108279	55.90	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-3-gSD@5
Data File Name	159SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:00:41-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-160.706	ppb	-160.706	-2.09	33932	500000	
Li	7	2	45	-199.649	ppb	-199.649	-15.92	1807	500000	
Li	7	3	45	-183.699	ppb	-183.699	-2.32	1349056	50000	
Be	9	1	6	1.950	ppb	1.950	46.75	123	2000	
B	11	1	6	20.344	ppb	20.344	13.48	1874	2000	
Na	23	1	45	341.694	ppb	341.694	2.42	536109	2000	
Na	23	2	45	269.145	ppb	269.145	5.85	21363	400000	
Mg	24	2	45	47357.471	ppb	47357.471	2.23	1220927	400000	
Al	27	2	45	28721.760	ppb	28721.760	3.74	137966	400000	
K	39	1	45	10890.728	ppb	10890.728	2.66	16743500	400000	
K	39	2	45	7495.142	ppb	7495.142	2.61	61542	400000	
Ca	40	1	45	408745.539	ppb	408745.539	2.10	853397587	400000	
Ca	44	2	45	407107.918	ppb	407107.918	2.01	198342	400000	
V	51	2	72	59.768	ppb	59.768	1.47	21110	2000	
Cr	52	2	72	61.397	ppb	61.397	2.15	29215	5000	
Mn	55	2	72	869.463	ppb	869.463	2.30	108474	10000	
Fe	57	2	72	35174.488	ppb	35174.488	0.10	306221	400000	
Co	59	2	72	12.804	ppb	12.804	3.65	13526	2000	
Ni	60	2	72	34.088	ppb	34.088	5.87	11084	5000	
Cu	63	2	72	128.773	ppb	128.773	0.88	124614	5000	
Zn	66	2	72	136.572	ppb	136.572	7.52	10937	5000	
As	75	2	72	16.212	ppb	16.212	7.42	736	2000	
Se	78	1	72	1.267	ppb	1.267	7.76	217	2000	
Sr	88	2	72	1054.811	ppb	1054.811	0.92	92938	4000	
Zr	90	2	72	2887.810	ppb	2887.810	2.23	9073	1000	
Nb	93	2	72	0.836	ppb	0.836	11.52	1193	200	
Mo	95	2	115	3.731	ppb	3.731	7.20	1550	2000	
Pd	105	2	115	0.031	ppb	0.031	102.14	27	100	
Ag	107	2	115	0.131	ppb	0.131	42.14	233	100	
Cd	111	2	115	1.324	ppb	1.324	6.31	183	2000	
Sn	120	2	115	1.925	ppb	1.925	8.18	633	2000	
Sb	121	2	115	12.620	ppb	12.620	10.41	3230	1000	
Ba	137	2	115	391.633	ppb	391.633	1.39	27353	5000	
W	182	2	165	0.594	ppb	0.594	7.62	2114	100	
Pt	195	2	165	0.000	ppb	0.000	-1512.17	53	100	
Tl	205	2	165	0.409	ppb	0.409	11.93	1714	2000	
Pb	208	2	165	1358.646	ppb	1358.646	1.06	7027957	5000	
Th	232	2	165	15.878	ppb	15.878	0.49	95783	2000	
U	238	2	165	3.037	ppb	3.037	2.13	21599	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	232805	1.76	1374296	16.94	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14717226	1.07	40981949	35.91	60	120	IS Failed
Sc (IS)	45	2	HMI He	191585	1.10	426944	44.87	60	120	IS Failed
Sc (IS)	45	3	No Gas	33461655	0.71	135848058	24.63	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7722128	0.65	19779503	39.04	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	304236	0.69	609146	49.94	60	120	IS Failed
In Internal Standard	115	2	HMI He	803382	0.19	1366570	58.79	60	120	IS Failed
Ho-165	165	2	HMI He	7333597	0.89	12108279	60.57	60	120	

Sample Report

Sample Table

Sample Name	320-33819-a-3-h ms
Data File Name	160SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:04:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.623	ppb	3.623	263.63	52134	500000	
Li	7	2	45	-89.190	ppb	-89.190	-24.91	2584	500000	
Li	7	3	45	-55.307	ppb	-55.307	-8.63	2051774	50000	
Be	9	1	6	214.043	ppb	214.043	3.61	11971	2000	
B	11	1	6	212.849	ppb	212.849	4.33	16771	2000	
Na	23	1	45	1503.783	ppb	1503.783	0.67	1948376	2000	
Na	23	2	45	1204.730	ppb	1204.730	1.60	71603	400000	
Mg	24	2	45	194152.645	ppb	194152.645	1.43	4471546	400000	
Al	27	2	45	124668.280	ppb	124668.280	2.03	534952	400000	
K	39	1	45	48141.544	ppb	48141.544	0.35	58081392	400000	
K	39	2	45	31533.960	ppb	31533.960	1.49	225521	400000	
Ca	40	1	45	1653037.827	ppb	1653037.827	0.70	3138741287	400000	
Ca	44	2	45	1649173.241	ppb	1649173.241	1.77	717732	400000	
V	51	2	72	399.644	ppb	399.644	0.21	118435	2000	
Cr	52	2	72	411.626	ppb	411.626	0.78	165461	5000	
Mn	55	2	72	3960.874	ppb	3960.874	0.17	418155	10000	
Fe	57	2	72	161672.732	ppb	161672.732	0.67	1191048	400000	
Co	59	2	72	182.228	ppb	182.228	0.49	162881	2000	
Ni	60	2	72	281.908	ppb	281.908	0.25	76890	5000	
Cu	63	2	72	631.819	ppb	631.819	0.46	514583	5000	
Zn	66	2	72	710.313	ppb	710.313	3.35	47959	5000	
As	75	2	72	223.060	ppb	223.060	3.14	8525	2000	
Se	78	1	72	149.700	ppb	149.700	3.03	21703	2000	
Sr	88	2	72	4686.804	ppb	4686.804	1.46	349443	4000	
Zr	90	2	72	31256.276	ppb	31256.276	2.10	82777	1000	>LDR
Nb	93	2	72	4.456	ppb	4.456	0.65	5038	200	
Mo	95	2	115	149.827	ppb	149.827	1.39	53280	2000	
Pd	105	2	115	0.027	ppb	0.027	145.18	20	100	
Ag	107	2	115	127.008	ppb	127.008	1.57	185776	100	
Cd	111	2	115	137.254	ppb	137.254	2.18	16368	2000	
Sn	120	2	115	160.472	ppb	160.472	0.65	41863	2000	
Sb	121	2	115	196.136	ppb	196.136	0.95	42939	1000	
Ba	137	2	115	1885.230	ppb	1885.230	1.98	113389	5000	
W	182	2	165	100.562	ppb	100.562	1.83	288320	100	
Pt	195	2	165	0.001	ppb	0.001	554.61	53	100	
Tl	205	2	165	138.379	ppb	138.379	0.90	509925	2000	
Pb	208	2	165	6898.381	ppb	6898.381	0.86	32301492	5000	
Th	232	2	165	219.980	ppb	219.980	0.22	1198141	2000	
U	238	2	165	155.744	ppb	155.744	0.90	1001711	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	206459	0.40	1374296	15.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13382828	0.46	40981949	32.66	60	120	IS Failed
Sc (IS)	45	2	HMI He	171158	1.87	426944	40.09	60	120	IS Failed
Sc (IS)	45	3	No Gas	30292537	0.94	135848058	22.30	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6682338	0.46	19779503	33.78	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	257477	0.44	609146	42.27	60	120	IS Failed
In Internal Standard	115	2	HMI He	691872	0.84	1366570	50.63	60	120	IS Failed
Ho-165	165	2	HMI He	6639387	0.51	12108279	54.83	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-3-i msd
Data File Name	161SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:08:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	35.070	ppb	35.070	20.56	53588	500000	
Li	7	2	45	-18.539	ppb	-18.539	-104.18	2944	500000	
Li	7	3	45	-24.146	ppb	-24.146	-6.23	2111763	50000	
Be	9	1	6	278.478	ppb	278.478	1.90	14596	2000	
B	11	1	6	272.022	ppb	272.022	2.25	20071	2000	
Na	23	1	45	1881.324	ppb	1881.324	2.01	2310020	2000	
Na	23	2	45	1624.035	ppb	1624.035	4.82	87253	400000	
Mg	24	2	45	245332.208	ppb	245332.208	4.03	5182982	400000	
Al	27	2	45	154797.621	ppb	154797.621	3.82	609367	400000	
K	39	1	45	54715.039	ppb	54715.039	0.67	62590077	400000	
K	39	2	45	39011.855	ppb	39011.855	3.76	255530	400000	
Ca	40	1	45	2144159.063	ppb	2144159.063	0.83	3881741702	400000	>LDR
Ca	44	2	45	2237484.057	ppb	2237484.057	4.81	893133	400000	>LDR
V	51	2	72	498.523	ppb	498.523	0.88	137626	2000	
Cr	52	2	72	532.220	ppb	532.220	1.47	199336	5000	
Mn	55	2	72	5004.561	ppb	5004.561	2.36	492288	10000	
Fe	57	2	72	193332.714	ppb	193332.714	4.62	1326956	400000	
Co	59	2	72	239.176	ppb	239.176	1.89	199205	2000	
Ni	60	2	72	350.876	ppb	350.876	2.19	89159	5000	
Cu	63	2	72	847.657	ppb	847.657	1.64	643063	5000	
Zn	66	2	72	869.986	ppb	869.986	4.43	54715	5000	
As	75	2	72	293.949	ppb	293.949	4.36	10465	2000	
Se	78	1	72	191.606	ppb	191.606	1.60	26153	2000	
Sr	88	2	72	6319.730	ppb	6319.730	2.33	439055	4000	
Zr	90	2	72	35086.511	ppb	35086.511	1.48	86585	1000	>LDR
Nb	93	2	72	3.131	ppb	3.131	1.90	3320	200	
Mo	95	2	115	207.296	ppb	207.296	1.83	68024	2000	
Pd	105	2	115	0.062	ppb	0.062	78.69	40	100	
Ag	107	2	115	166.600	ppb	166.600	2.21	224881	100	
Cd	111	2	115	183.607	ppb	183.607	5.99	20199	2000	
Sn	120	2	115	215.883	ppb	215.883	1.15	51957	2000	
Sb	121	2	115	212.243	ppb	212.243	4.00	42872	1000	
Ba	137	2	115	2450.115	ppb	2450.115	2.78	135984	5000	
W	182	2	165	120.595	ppb	120.595	1.70	322182	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1019.00	43	100	
Tl	205	2	165	184.404	ppb	184.404	1.64	633270	2000	
Pb	208	2	165	7691.945	ppb	7691.945	1.71	33565855	5000	
Th	232	2	165	287.772	ppb	287.772	2.21	1460550	2000	
U	238	2	165	214.220	ppb	214.220	1.58	1284044	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	193475	0.11	1374296	14.08	60	120	IS Failed
Sc (IS)	45	1	HMI H2	12760574	1.11	40981949	31.14	60	120	IS Failed
Sc (IS)	45	2	HMI He	157111	3.18	426944	36.80	60	120	IS Failed
Sc (IS)	45	3	No Gas	28389331	1.40	135848058	20.90	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6292178	1.03	19779503	31.81	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	239940	0.89	609146	39.39	60	120	IS Failed
In Internal Standard	115	2	HMI He	638528	1.13	1366570	46.72	60	120	IS Failed
Ho-165	165	2	HMI He	6187840	0.73	12108279	51.10	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-3-g PDS
Data File Name	162SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:12:12-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-71.843	ppb	-71.843	-4.88	37669	500000	
Li	7	2	45	-114.152	ppb	-114.152	-5.99	2107	500000	
Li	7	3	45	-119.309	ppb	-119.309	-3.52	1447456	50000	
Be	9	1	6	279.196	ppb	279.196	4.71	13355	2000	
B	11	1	6	104.903	ppb	104.903	6.16	7098	2000	
Na	23	1	45	1749.622	ppb	1749.622	0.91	2007362	2000	
Na	23	2	45	1418.112	ppb	1418.112	0.40	74441	400000	
Mg	24	2	45	221921.295	ppb	221921.295	1.44	4552201	400000	
Al	27	2	45	141745.594	ppb	141745.594	1.28	541762	400000	
K	39	1	45	52982.878	ppb	52982.878	0.62	56599796	400000	
K	39	2	45	36216.603	ppb	36216.603	1.07	230437	400000	
Ca	40	1	45	2018317.222	ppb	2018317.222	0.18	3407825656	400000	>LDR
Ca	44	2	45	2004783.601	ppb	2004783.601	0.21	777178	400000	>LDR
V	51	2	72	489.314	ppb	489.314	1.33	128178	2000	
Cr	52	2	72	500.190	ppb	500.190	0.33	177773	5000	
Mn	55	2	72	4673.971	ppb	4673.971	1.28	436303	10000	
Fe	57	2	72	183458.250	ppb	183458.250	0.87	1195011	400000	
Co	59	2	72	234.427	ppb	234.427	0.56	185278	2000	
Ni	60	2	72	341.843	ppb	341.843	0.99	82420	5000	
Cu	63	2	72	815.604	ppb	815.604	0.45	587158	5000	
Zn	66	2	72	831.264	ppb	831.264	1.00	49620	5000	
As	75	2	72	286.829	ppb	286.829	2.26	9692	2000	
Se	78	1	72	200.823	ppb	200.823	0.79	25859	2000	
Sr	88	2	72	5602.110	ppb	5602.110	0.72	369338	4000	
Zr	90	2	72	46153.746	ppb	46153.746	1.07	108064	1000	>LDR
Nb	93	2	72	4.975	ppb	4.975	1.53	4964	200	
Mo	95	2	115	197.019	ppb	197.019	1.36	62644	2000	
Pd	105	2	115	0.069	ppb	0.069	49.75	43	100	
Ag	107	2	115	40.788	ppb	40.788	1.18	53351	100	
Cd	111	2	115	179.150	ppb	179.150	3.12	19098	2000	
Sn	120	2	115	210.427	ppb	210.427	0.96	49065	2000	
Sb	121	2	115	268.685	ppb	268.685	0.32	52586	1000	
Ba	137	2	115	2253.170	ppb	2253.170	0.68	121166	5000	
W	182	2	165	176.919	ppb	176.919	1.25	463607	100	
Pt	195	2	165	0.034	ppb	0.034	17.50	140	100	
Tl	205	2	165	183.415	ppb	183.415	0.20	617988	2000	
Pb	208	2	165	6752.231	ppb	6752.231	0.94	28907341	5000	
Th	232	2	165	83.270	ppb	83.270	1.09	414798	2000	
U	238	2	165	208.677	ppb	208.677	0.98	1227115	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	176543	0.61	1374296	12.85	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11900697	0.75	40981949	29.04	60	120	IS Failed
Sc (IS)	45	2	HMI He	152426	0.70	426944	35.70	60	120	IS Failed
Sc (IS)	45	3	No Gas	26773728	0.52	135848058	19.71	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5936358	1.11	19779503	30.01	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	227661	0.65	609146	37.37	60	120	IS Failed
In Internal Standard	115	2	HMI He	618580	1.08	1366570	45.27	60	120	IS Failed
Ho-165	165	2	HMI He	6070598	1.16	12108279	50.14	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	163_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:16:02-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	72.527	ppb	5.733	59058	500	14.5	90	110	>+\-10%
Li	7	2	45	-14.428	ppb	-243.836	3257	500	-2.9	90	110	>+\-10%
Li	7	3	45	-5.923	ppb	-73.699	2231449	500	-1.2	90	110	>+\-10%
Be	9	1	6	75.033	ppb	4.254	3824	50	150.1	90	110	>+\-10%
B	11	1	6	70.355	ppb	3.899	5091	50	140.7	90	110	>+\-10%
Na	23	1	45	4422.519	ppb	1.176	5433076	5000	88.5	90	110	>+\-10%
Na	23	2	45	3727.910	ppb	0.590	214175	5000	74.6	90	110	>+\-10%
Mg	24	2	45	4201.227	ppb	3.013	97247	5000	84.0	90	110	>+\-10%
Al	27	2	45	5029.715	ppb	4.031	21697	5000	100.6	90	110	
K	39	1	45	6504.029	ppb	1.870	9847075	5000	130.1	90	110	>+\-10%
K	39	2	45	5490.894	ppb	0.821	40950	5000	109.8	90	110	
Ca	40	1	45	5928.714	ppb	1.742	10930110	5000	118.6	90	110	>+\-10%
Ca	44	2	45	6469.745	ppb	1.637	2834	5000	129.4	90	110	>+\-10%
V	51	2	72	41.433	ppb	3.249	13669	50	82.9	90	110	>+\-10%
Cr	52	2	72	43.811	ppb	1.277	19404	50	87.6	90	110	>+\-10%
Mn	55	2	72	50.910	ppb	4.469	5918	50	101.8	90	110	
Fe	57	2	72	4537.174	ppb	3.039	36752	5000	90.7	90	110	
Co	59	2	72	42.912	ppb	2.841	42144	50	85.8	90	110	>+\-10%
Ni	60	2	72	42.596	ppb	3.847	12855	50	85.2	90	110	>+\-10%
Cu	63	2	72	44.220	ppb	2.027	40317	50	88.4	90	110	>+\-10%
Zn	66	2	72	42.733	ppb	6.008	3217	50	85.5	90	110	>+\-10%
As	75	2	72	50.293	ppb	4.584	2115	50	100.6	90	110	
Se	78	1	72	49.151	ppb	4.813	7503	50	98.3	90	110	
Sr	88	2	72	64.751	ppb	7.959	5308	50	129.5	90	110	>+\-10%
Zr	90	2	72	197.594	ppb	16.987	610	50	395.2	90	110	>+\-10%
Nb	93	2	72	105.704	ppb	2.511	129268	100	105.7	90	110	
Mo	95	2	115	42.581	ppb	5.153	16876	50	85.2	90	110	>+\-10%
Pd	105	2	115	43.650	ppb	2.094	32989	50	87.3	90	110	>+\-10%
Ag	107	2	115	42.290	ppb	2.304	68929	50	84.6	90	110	>+\-10%
Cd	111	2	115	47.836	ppb	5.496	6355	50	95.7	90	110	
Sn	120	2	115	51.575	ppb	1.083	15024	50	103.1	90	110	
Sb	121	2	115	49.896	ppb	3.980	12188	50	99.8	90	110	
Ba	137	2	115	58.891	ppb	8.327	3947	50	117.8	90	110	>+\-10%
W	182	2	165	44.656	ppb	2.211	132212	50	89.3	90	110	>+\-10%
Pt	195	2	165	42.221	ppb	1.396	134450	50	84.4	90	110	>+\-10%
Tl	205	2	165	49.415	ppb	2.051	187902	50	98.8	90	110	
Pb	208	2	165	54.701	ppb	1.997	265546	50	109.4	90	110	
Th	232	2	165	51.474	ppb	1.774	289447	50	102.9	90	110	
U	238	2	165	49.561	ppb	1.495	328905	50	99.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	188130	0.58	1374296	13.69	60	120	IS Failed
Sc (IS)	45	1	HMI H2	12944229	0.63	40981949	31.59	60	120	IS Failed
Sc (IS)	45	2	HMI He	171905	0.93	426944	40.26	60	120	IS Failed
Sc (IS)	45	3	No Gas	28506265	0.39	135848058	20.98	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7034189	0.88	19779503	35.56	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	282894	0.51	609146	46.44	60	120	IS Failed
In Internal Standard	115	2	HMI He	770868	0.58	1366570	56.41	60	120	IS Failed
Ho-165	165	2	HMI He	6850902	1.22	12108279	56.58	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	164_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:19:51-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-219.016	ppb	-4.5	947389	10	
Be	9	1	6	0.827	ppb	71.4	43	0.5	>RL
B	11	1	6	2.192	ppb	33.8	223	0.5	>RL
Na	23	1	45	19.079	ppb	2.7	81862	25	
Na	23	2	45	-2.539	ppb	-150.7	3987	25	
Mg	24	2	45	30.209	ppb	7.4	790	25	>RL
Al	27	2	45	24.020	ppb	39.3	123	15	>RL
K	39	1	45	699.414	ppb	3.2	3496886	50	>RL
K	39	2	45	189.868	ppb	11.6	3280	50	>RL
Ca	40	1	45	279.719	ppb	1.8	574030	50	>RL
Ca	44	2	45	223.941	ppb	60.5	107	25	>RL
V	51	2	72	-0.377	ppb	-40.5	80	1	
Cr	52	2	72	0.060	ppb	182.1	90	1	
Mn	55	2	72	1.418	ppb	16.2	183	0.5	>RL
Fe	57	2	72	50.907	ppb	21.7	460	25	>RL
Co	59	2	72	0.077	ppb	47.2	80	0.5	
Ni	60	2	72	0.128	ppb	39.6	150	1	
Cu	63	2	72	0.965	ppb	11.4	1730	1	
Zn	66	2	72	3.018	ppb	43.5	283	5	
As	75	2	72	0.012	ppb	569.8	5	1	
Se	78	1	72	0.037	ppb	105.2	11	1	
Sr	88	2	72	0.494	ppb	36.9	47	0.5	
Zr	90	2	72	8.836	ppb	97.1	63	1	>RL
Nb	93	2	72	0.999	ppb	12.4	1357	2	
Mo	95	2	115	0.130	ppb	55.7	63	0.5	
Pd	105	2	115	0.014	ppb	133.1	13	1	
Ag	107	2	115	0.005	ppb	240.9	20	1	
Cd	111	2	115	0.145	ppb	2.4	20	0.5	
Sn	120	2	115	0.472	ppb	38.8	193	1	
Sb	121	2	115	0.237	ppb	10.4	83	0.6	
Ba	137	2	115	0.479	ppb	69.5	33	0.5	
W	182	2	165	0.084	ppb	59.6	477	1	
Pt	195	2	165	0.017	ppb	44.3	107	1	
Tl	205	2	165	0.021	ppb	72.1	127	0.1	
Pb	208	2	165	4.421	ppb	2.4	23058	0.5	>RL
Th	232	2	165	0.061	ppb	29.9	617	1	
U	238	2	165	0.038	ppb	22.7	283	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	194841	1.53	1374296	14.18	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13356864	0.64	40981949	32.59	60	120	IS Failed
Sc (IS)	45	2	HMI He	177756	2.23	426944	41.63	60	120	IS Failed
Sc (IS)	45	3	No Gas	28897956	0.79	135848058	21.27	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7188225	0.68	19779503	36.34	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	293421	1.27	609146	48.17	60	120	IS Failed
In Internal Standard	115	2	HMI He	800989	2.41	1366570	58.61	60	120	IS Failed
Ho-165	165	2	HMI He	6974821	2.23	12108279	57.60	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	165LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:23:40-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-216.999	ppb	-3.895	964790	50	-434.0	70	130	>+/-30%
Be	9	1	6	1.788	ppb	53.045	97	1	178.8	70	130	>+/-30%
Na	23	2	45	7.158	ppb	13.826	4667	50	14.3	70	130	>+/-30%
Mg	24	2	45	56.526	ppb	11.334	1453	50	113.1	70	130	
Al	27	2	45	40.164	ppb	38.914	200	30	133.9	70	130	>+/-30%
K	39	2	45	255.852	ppb	10.669	3864	100	255.9	70	130	>+/-30%
Ca	44	2	45	325.754	ppb	26.120	157	50	651.5	70	130	>+/-30%
V	51	2	72	4.195	ppb	14.659	1653	5	83.9	70	130	
Cr	52	2	72	1.790	ppb	8.259	900	2	89.5	70	130	
Mn	55	2	72	1.794	ppb	29.546	233	1	179.4	70	130	>+/-30%
Fe	57	2	72	63.143	ppb	9.081	573	50	126.3	70	130	
Co	59	2	72	1.032	ppb	8.740	1073	1	103.2	70	130	
Ni	60	2	72	1.613	ppb	22.943	623	2	80.6	70	130	
Cu	63	2	72	2.825	ppb	8.221	3524	2	141.3	70	130	>+/-30%
Zn	66	2	72	10.258	ppb	5.177	857	10	102.6	70	130	
As	75	2	72	4.998	ppb	9.018	226	5	100.0	70	130	
Se	78	1	72	4.778	ppb	11.614	764	5	95.6	70	130	
Sr	88	2	72	1.523	ppb	76.171	137	1	152.3	70	130	>+/-30%
Zr	90	2	72	64.730	ppb	27.908	237	0.5	12946.1	70	130	>+/-30%
Nb	93	2	72	1.059	ppb	8.194	1463	2	53.0	70	130	>+/-30%
Mo	95	2	115	1.621	ppb	4.987	703	2	81.0	70	130	
Pd	105	2	115	0.006	ppb	253.646	7	1	0.6	70	130	>+/-30%
Ag	107	2	115	4.127	ppb	1.781	7275	5	82.5	70	130	
Cd	111	2	115	0.816	ppb	52.446	117	1	81.6	70	130	
Sn	120	2	115	9.944	ppb	12.128	3167	10	99.4	70	130	
Sb	121	2	115	2.607	ppb	11.867	710	2	130.3	70	130	>+/-30%
Ba	137	2	115	1.059	ppb	19.158	77	1	105.9	70	130	
W	182	2	165	4.263	ppb	1.167	13139	1	426.3	70	130	>+/-30%
Pt	195	2	165	0.013	ppb	126.864	93	1	1.3	70	130	>+/-30%
Tl	205	2	165	0.985	ppb	3.588	3884	1	98.5	70	130	
Pb	208	2	165	4.615	ppb	3.531	24172	1	461.5	70	130	>+/-30%
Th	232	2	165	2.047	ppb	3.568	12055	2	102.4	70	130	
U	238	2	165	1.069	ppb	6.886	7295	1	106.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	199422	0.45	1374296	14.51	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13597339	0.99	40981949	33.18	60	120	IS Failed
Sc (IS)	45	2	HMI He	182207	2.46	426944	42.68	60	120	IS Failed
Sc (IS)	45	3	No Gas	29056850	0.58	135848058	21.39	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7326579	0.20	19779503	37.04	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	299305	0.33	609146	49.14	60	120	IS Failed
In Internal Standard	115	2	HMI He	832281	1.18	1366570	60.90	60	120	
Ho-165	165	2	HMI He	7021489	1.11	12108279	57.99	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-b-4-c
Data File Name	166SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:27:30-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-79.709	ppb	-79.709	-8.43	36644	500000	
Li	7	2	45	-109.234	ppb	-109.234	-10.11	2180	500000	
Li	7	3	45	-112.407	ppb	-112.407	-0.71	1457620	50000	
Be	9	1	6	13.556	ppb	13.556	8.77	627	2000	
B	11	1	6	112.387	ppb	112.387	2.39	7345	2000	
Na	23	1	45	1872.682	ppb	1872.682	1.26	2137800	2000	
Na	23	2	45	1503.186	ppb	1503.186	2.31	79971	400000	
Mg	24	2	45	258351.853	ppb	258351.853	2.11	5385386	400000	
Al	27	2	45	156036.254	ppb	156036.254	1.90	606042	400000	
K	39	1	45	57665.884	ppb	57665.884	0.57	61185112	400000	
K	39	2	45	41042.066	ppb	41042.066	0.25	265173	400000	
Ca	40	1	45	1801856.079	ppb	1801856.079	0.91	3032038035	400000	
Ca	44	2	45	1804056.490	ppb	1804056.490	0.73	710704	400000	
V	51	2	72	344.901	ppb	344.901	0.68	94334	2000	
Cr	52	2	72	306.466	ppb	306.466	0.94	113678	5000	
Mn	55	2	72	5124.617	ppb	5124.617	0.34	499186	10000	
Fe	57	2	72	211988.451	ppb	211988.451	0.52	1441017	400000	
Co	59	2	72	71.561	ppb	71.561	1.59	59018	2000	
Ni	60	2	72	181.178	ppb	181.178	1.62	45629	5000	
Cu	63	2	72	343.497	ppb	343.497	0.31	258443	5000	
Zn	66	2	72	704.298	ppb	704.298	1.00	43875	5000	
As	75	2	72	96.492	ppb	96.492	6.83	3405	2000	
Se	78	1	72	5.459	ppb	5.459	8.58	705	2000	
Sr	88	2	72	4935.748	ppb	4935.748	0.80	339569	4000	
Zr	90	2	72	16082.177	ppb	16082.177	1.44	39316	1000	>LDR
Nb	93	2	72	5.671	ppb	5.671	2.68	5895	200	
Mo	95	2	115	16.892	ppb	16.892	3.44	5725	2000	
Pd	105	2	115	0.117	ppb	0.117	73.78	77	100	
Ag	107	2	115	0.544	ppb	0.544	11.63	767	100	
Cd	111	2	115	7.611	ppb	7.611	8.97	863	2000	
Sn	120	2	115	10.493	ppb	10.493	5.27	2644	2000	
Sb	121	2	115	77.232	ppb	77.232	2.46	16102	1000	
Ba	137	2	115	2362.013	ppb	2362.013	1.48	135207	5000	
W	182	2	165	3.175	ppb	3.175	2.19	8876	100	
Pt	195	2	165	0.004	ppb	0.004	79.63	60	100	
Tl	205	2	165	2.269	ppb	2.269	3.40	8016	2000	
Pb	208	2	165	5590.635	ppb	5590.635	0.84	24964424	5000	
Th	232	2	165	93.626	ppb	93.626	1.36	486422	2000	
U	238	2	165	15.394	ppb	15.394	1.57	94439	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	170647	0.47	1374296	12.42	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11860712	0.52	40981949	28.94	60	120	IS Failed
Sc (IS)	45	2	HMI He	154903	0.77	426944	36.28	60	120	IS Failed
Sc (IS)	45	3	No Gas	26244489	0.58	135848058	19.32	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5922378	0.39	19779503	29.94	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	237572	0.43	609146	39.00	60	120	IS Failed
In Internal Standard	115	2	HMI He	658386	0.65	1366570	48.18	60	120	IS Failed
Ho-165	165	2	HMI He	6331417	0.22	12108279	52.29	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-5-c
Data File Name	167SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:31:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-93.622	ppb	-93.622	-3.77	33361	500000	
Li	7	2	45	-112.509	ppb	-112.509	-19.11	2017	500000	
Li	7	3	45	-118.174	ppb	-118.174	-1.86	1391059	50000	
Be	9	1	6	13.824	ppb	13.824	9.74	603	2000	
B	11	1	6	116.689	ppb	116.689	4.42	7195	2000	
Na	23	1	45	1788.419	ppb	1788.419	1.09	1945397	2000	
Na	23	2	45	1423.348	ppb	1423.348	1.17	71044	400000	
Mg	24	2	45	250375.876	ppb	250375.876	1.82	4884205	400000	
Al	27	2	45	150649.046	ppb	150649.046	2.60	547543	400000	
K	39	1	45	56478.791	ppb	56478.791	1.58	57080764	400000	
K	39	2	45	39556.345	ppb	39556.345	1.52	239216	400000	
Ca	40	1	45	1739950.651	ppb	1739950.651	1.33	2786710572	400000	
Ca	44	2	45	1741799.076	ppb	1741799.076	1.67	642121	400000	
V	51	2	72	344.676	ppb	344.676	1.04	88223	2000	
Cr	52	2	72	299.708	ppb	299.708	1.20	104040	5000	
Mn	55	2	72	4984.409	ppb	4984.409	0.88	454375	10000	
Fe	57	2	72	197322.026	ppb	197322.026	1.28	1255230	400000	
Co	59	2	72	69.276	ppb	69.276	2.62	53468	2000	
Ni	60	2	72	179.193	ppb	179.193	1.10	42234	5000	
Cu	63	2	72	580.063	ppb	580.063	1.87	407973	5000	
Zn	66	2	72	732.471	ppb	732.471	0.80	42702	5000	
As	75	2	72	92.922	ppb	92.922	5.71	3068	2000	
Se	78	1	72	5.083	ppb	5.083	4.11	631	2000	
Sr	88	2	72	4702.334	ppb	4702.334	0.57	302755	4000	
Zr	90	2	72	15549.524	ppb	15549.524	1.11	35574	1000	>LDR
Nb	93	2	72	5.358	ppb	5.358	8.73	5214	200	
Mo	95	2	115	17.217	ppb	17.217	2.84	5438	2000	
Pd	105	2	115	0.103	ppb	0.103	18.40	63	100	
Ag	107	2	115	0.707	ppb	0.707	9.61	927	100	
Cd	111	2	115	6.277	ppb	6.277	12.20	663	2000	
Sn	120	2	115	10.729	ppb	10.729	8.85	2520	2000	
Sb	121	2	115	21.641	ppb	21.641	4.31	4217	1000	
Ba	137	2	115	2266.671	ppb	2266.671	2.12	120914	5000	
W	182	2	165	3.122	ppb	3.122	1.61	8252	100	
Pt	195	2	165	0.010	ppb	0.010	78.29	73	100	
Tl	205	2	165	2.438	ppb	2.438	4.99	8132	2000	
Pb	208	2	165	3145.779	ppb	3145.779	1.09	13273201	5000	
Th	232	2	165	94.236	ppb	94.236	1.73	462578	2000	
U	238	2	165	15.437	ppb	15.437	2.16	89474	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161065	0.69	1374296	11.72	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11289985	1.52	40981949	27.55	60	120	IS Failed
Sc (IS)	45	2	HMI He	144974	1.44	426944	33.96	60	120	IS Failed
Sc (IS)	45	3	No Gas	25614916	0.55	135848058	18.86	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5687168	0.95	19779503	28.75	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	222338	0.77	609146	36.50	60	120	IS Failed
In Internal Standard	115	2	HMI He	613676	1.17	1366570	44.91	60	120	IS Failed
Ho-165	165	2	HMI He	5982717	0.99	12108279	49.41	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-6-c
Data File Name	168SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:35:14-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-110.566	ppb	-110.566	-3.74	30429	500000	
Li	7	2	45	-130.173	ppb	-130.173	-8.40	1804	500000	
Li	7	3	45	-132.783	ppb	-132.783	-5.32	1253093	50000	
Be	9	1	6	9.791	ppb	9.791	18.02	397	2000	
B	11	1	6	104.137	ppb	104.137	3.52	5975	2000	
Na	23	1	45	1566.511	ppb	1566.511	0.92	1651679	2000	
Na	23	2	45	1254.092	ppb	1254.092	3.39	60310	400000	
Mg	24	2	45	221693.781	ppb	221693.781	0.31	4140340	400000	
Al	27	2	45	131211.714	ppb	131211.714	0.53	456593	400000	
K	39	1	45	50389.127	ppb	50389.127	0.80	49427749	400000	
K	39	2	45	33967.230	ppb	33967.230	0.84	196854	400000	
Ca	40	1	45	1445948.180	ppb	1445948.180	0.57	2236862900	400000	
Ca	44	2	45	1453098.763	ppb	1453098.763	0.34	512848	400000	
V	51	2	72	317.295	ppb	317.295	1.09	77437	2000	
Cr	52	2	72	234.428	ppb	234.428	1.77	77595	5000	
Mn	55	2	72	4380.762	ppb	4380.762	0.94	380723	10000	
Fe	57	2	72	178246.993	ppb	178246.993	0.66	1081018	400000	
Co	59	2	72	61.383	ppb	61.383	2.11	45168	2000	
Ni	60	2	72	159.056	ppb	159.056	1.63	35747	5000	
Cu	63	2	72	529.692	ppb	529.692	0.59	355236	5000	
Zn	66	2	72	653.694	ppb	653.694	1.41	36335	5000	
As	75	2	72	83.339	ppb	83.339	2.64	2624	2000	
Se	78	1	72	4.369	ppb	4.369	10.30	527	2000	
Sr	88	2	72	3977.714	ppb	3977.714	0.73	244150	4000	
Zr	90	2	72	14091.774	ppb	14091.774	2.07	30738	1000	>LDR
Nb	93	2	72	6.001	ppb	6.001	9.58	5561	200	
Mo	95	2	115	14.644	ppb	14.644	4.12	4464	2000	
Pd	105	2	115	0.072	ppb	0.072	36.27	43	100	
Ag	107	2	115	0.635	ppb	0.635	6.12	803	100	
Cd	111	2	115	7.254	ppb	7.254	15.47	740	2000	
Sn	120	2	115	9.396	ppb	9.396	9.10	2134	2000	
Sb	121	2	115	25.474	ppb	25.474	6.92	4788	1000	
Ba	137	2	115	1973.514	ppb	1973.514	1.62	101600	5000	
W	182	2	165	2.930	ppb	2.930	2.17	7559	100	
Pt	195	2	165	0.001	ppb	0.001	366.06	47	100	
Tl	205	2	165	2.052	ppb	2.052	2.52	6678	2000	
Pb	208	2	165	2922.235	ppb	2922.235	1.26	12019004	5000	
Th	232	2	165	83.377	ppb	83.377	0.52	399006	2000	
U	238	2	165	13.468	ppb	13.468	1.74	76104	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	149727	0.97	1374296	10.89	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10903575	0.13	40981949	26.61	60	120	IS Failed
Sc (IS)	45	2	HMI He	138771	0.66	426944	32.50	60	120	IS Failed
Sc (IS)	45	3	No Gas	24480480	0.10	135848058	18.02	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5519034	0.68	19779503	27.90	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	211957	0.24	609146	34.80	60	120	IS Failed
In Internal Standard	115	2	HMI He	592156	0.41	1366570	43.33	60	120	IS Failed
Ho-165	165	2	HMI He	5831778	0.86	12108279	48.16	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-7-c
Data File Name	169SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:39:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-103.527	ppb	-103.527	-3.28	29307	500000	
Li	7	2	45	-88.160	ppb	-88.160	-24.76	1944	500000	
Li	7	3	45	-120.570	ppb	-120.570	-2.10	1228336	50000	
Be	9	1	6	15.715	ppb	15.715	7.95	587	2000	
B	11	1	6	132.091	ppb	132.091	6.54	6962	2000	
Na	23	1	45	2002.417	ppb	2002.417	1.47	1972595	2000	
Na	23	2	45	1690.177	ppb	1690.177	1.33	74029	400000	
Mg	24	2	45	271993.270	ppb	271993.270	0.48	4691931	400000	
Al	27	2	45	158739.000	ppb	158739.000	1.41	510178	400000	
K	39	1	45	61329.005	ppb	61329.005	1.70	56109503	400000	
K	39	2	45	43902.903	ppb	43902.903	0.34	234614	400000	
Ca	40	1	45	1888807.576	ppb	1888807.576	1.31	2747125826	400000	
Ca	44	2	45	1924959.069	ppb	1924959.069	1.46	627464	400000	
V	51	2	72	355.699	ppb	355.699	0.52	81190	2000	
Cr	52	2	72	320.636	ppb	320.636	0.75	99261	5000	
Mn	55	2	72	5286.206	ppb	5286.206	0.80	429760	10000	
Fe	57	2	72	209597.094	ppb	209597.094	0.38	1189090	400000	
Co	59	2	72	75.392	ppb	75.392	2.89	51890	2000	
Ni	60	2	72	195.313	ppb	195.313	2.59	41042	5000	
Cu	63	2	72	402.800	ppb	402.800	0.68	252839	5000	
Zn	66	2	72	763.769	ppb	763.769	1.91	39705	5000	
As	75	2	72	98.436	ppb	98.436	7.44	2898	2000	
Se	78	1	72	5.965	ppb	5.965	6.58	673	2000	
Sr	88	2	72	5346.028	ppb	5346.028	0.66	306957	4000	
Zr	90	2	72	15228.306	ppb	15228.306	2.96	31069	1000	>LDR
Nb	93	2	72	5.333	ppb	5.333	2.16	4631	200	
Mo	95	2	115	18.053	ppb	18.053	4.16	5111	2000	
Pd	105	2	115	0.090	ppb	0.090	35.73	50	100	
Ag	107	2	115	0.813	ppb	0.813	11.78	953	100	
Cd	111	2	115	6.570	ppb	6.570	16.05	623	2000	
Sn	120	2	115	14.392	ppb	14.392	3.06	3017	2000	
Sb	121	2	115	68.200	ppb	68.200	2.84	11881	1000	
Ba	137	2	115	2486.061	ppb	2486.061	1.38	118899	5000	
W	182	2	165	3.088	ppb	3.088	5.44	7482	100	
Pt	195	2	165	0.002	ppb	0.002	728.13	47	100	
Tl	205	2	165	2.483	ppb	2.483	3.55	7595	2000	
Pb	208	2	165	5553.842	ppb	5553.842	1.32	21478384	5000	
Th	232	2	165	95.559	ppb	95.559	1.01	429981	2000	
U	238	2	165	16.035	ppb	16.035	2.12	85210	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	137687	1.80	1374296	10.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10252107	1.04	40981949	25.02	60	120	IS Failed
Sc (IS)	45	2	HMI He	128175	0.67	426944	30.02	60	120	IS Failed
Sc (IS)	45	3	No Gas	22833281	0.61	135848058	16.81	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5176967	0.38	19779503	26.17	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	198274	0.44	609146	32.55	60	120	IS Failed
In Internal Standard	115	2	HMI He	550156	0.86	1366570	40.26	60	120	IS Failed
Ho-165	165	2	HMI He	5483701	0.80	12108279	45.29	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-8-c
Data File Name	170SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:42:56-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-100.906	ppb	-100.906	-11.30	27611	500000	
Li	7	2	45	-134.956	ppb	-134.956	-10.79	1547	500000	
Li	7	3	45	-130.130	ppb	-130.130	-3.04	1161674	50000	
Be	9	1	6	15.439	ppb	15.439	8.40	533	2000	
B	11	1	6	121.888	ppb	121.888	4.84	5945	2000	
Na	23	1	45	1936.966	ppb	1936.966	1.29	1783518	2000	
Na	23	2	45	1553.491	ppb	1553.491	2.42	64608	400000	
Mg	24	2	45	264413.513	ppb	264413.513	1.77	4315310	400000	
Al	27	2	45	151748.485	ppb	151748.485	1.86	461461	400000	
K	39	1	45	59629.841	ppb	59629.841	1.95	51005929	400000	
K	39	2	45	41178.728	ppb	41178.728	1.75	208280	400000	
Ca	40	1	45	1854414.071	ppb	1854414.071	1.84	2518979002	400000	
Ca	44	2	45	1857856.413	ppb	1857856.413	1.13	573026	400000	
V	51	2	72	350.097	ppb	350.097	1.62	75553	2000	
Cr	52	2	72	277.411	ppb	277.411	1.63	81197	5000	
Mn	55	2	72	5102.093	ppb	5102.093	0.77	392145	10000	
Fe	57	2	72	202849.809	ppb	202849.809	0.71	1087999	400000	
Co	59	2	72	71.586	ppb	71.586	1.16	46585	2000	
Ni	60	2	72	188.671	ppb	188.671	1.25	37487	5000	
Cu	63	2	72	636.445	ppb	636.445	0.38	377381	5000	
Zn	66	2	72	768.959	ppb	768.959	1.89	37795	5000	
As	75	2	72	94.522	ppb	94.522	2.38	2632	2000	
Se	78	1	72	5.670	ppb	5.670	12.11	605	2000	
Sr	88	2	72	5077.475	ppb	5077.475	0.14	275625	4000	
Zr	90	2	72	13936.139	ppb	13936.139	1.78	26885	1000	>LDR
Nb	93	2	72	5.143	ppb	5.143	8.01	4224	200	
Mo	95	2	115	16.773	ppb	16.773	4.56	4537	2000	
Pd	105	2	115	0.126	ppb	0.126	68.44	67	100	
Ag	107	2	115	0.783	ppb	0.783	14.44	877	100	
Cd	111	2	115	6.179	ppb	6.179	7.48	560	2000	
Sn	120	2	115	11.800	ppb	11.800	5.62	2370	2000	
Sb	121	2	115	25.559	ppb	25.559	7.03	4264	1000	
Ba	137	2	115	2394.204	ppb	2394.204	1.47	109412	5000	
W	182	2	165	2.958	ppb	2.958	4.09	6958	100	
Pt	195	2	165	0.003	ppb	0.003	220.14	47	100	
Tl	205	2	165	2.429	ppb	2.429	5.98	7202	2000	
Pb	208	2	165	4002.831	ppb	4002.831	0.71	15009930	5000	
Th	232	2	165	91.761	ppb	91.761	0.28	400341	2000	
U	238	2	165	15.483	ppb	15.483	1.43	79761	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	127470	1.47	1374296	9.28	60	120	IS Failed
Sc (IS)	45	1	HMI H2	9574844	0.70	40981949	23.36	60	120	IS Failed
Sc (IS)	45	2	HMI He	121284	1.23	426944	28.41	60	120	IS Failed
Sc (IS)	45	3	No Gas	22447202	0.66	135848058	16.52	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4896641	0.85	19779503	24.76	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	187454	0.20	609146	30.77	60	120	IS Failed
In Internal Standard	115	2	HMI He	525677	0.77	1366570	38.47	60	120	IS Failed
Ho-165	165	2	HMI He	5316851	0.76	12108279	43.91	60	120	IS Failed

Sample Report

Sample Table

Sample Name	320-33819-a-9-c
Data File Name	171SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:46:47-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398689 HOT Sb 6020A DOD5
ISTD Ref FileName	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-105.710	ppb	-105.710	-3.75	26233	500000	
Li	7	2	45	-143.699	ppb	-143.699	-17.10	1430	500000	
Li	7	3	45	-131.971	ppb	-131.971	-1.38	1112015	50000	
Be	9	1	6	13.405	ppb	13.405	23.37	427	2000	
B	11	1	6	136.940	ppb	136.940	6.08	6158	2000	
Na	23	1	45	1935.856	ppb	1935.856	0.23	1721115	2000	
Na	23	2	45	1604.684	ppb	1604.684	1.04	63952	400000	
Mg	24	2	45	269536.144	ppb	269536.144	0.87	4221236	400000	
Al	27	2	45	154314.500	ppb	154314.500	2.17	450240	400000	
K	39	1	45	60465.077	ppb	60465.077	0.35	49914833	400000	
K	39	2	45	42534.260	ppb	42534.260	1.40	206403	400000	
Ca	40	1	45	1818782.396	ppb	1818782.396	0.38	2385528764	400000	
Ca	44	2	45	1853181.100	ppb	1853181.100	1.14	548449	400000	
V	51	2	72	354.829	ppb	354.829	3.19	74000	2000	
Cr	52	2	72	299.732	ppb	299.732	0.97	84791	5000	
Mn	55	2	72	5275.436	ppb	5275.436	1.03	391881	10000	
Fe	57	2	72	203663.855	ppb	203663.855	1.02	1055756	400000	
Co	59	2	72	72.203	ppb	72.203	1.94	45416	2000	
Ni	60	2	72	189.662	ppb	189.662	1.22	36428	5000	
Cu	63	2	72	552.398	ppb	552.398	1.79	316614	5000	
Zn	66	2	72	789.917	ppb	789.917	2.35	37527	5000	
As	75	2	72	101.236	ppb	101.236	3.88	2723	2000	
Se	78	1	72	5.748	ppb	5.748	6.70	589	2000	
Sr	88	2	72	5209.492	ppb	5209.492	0.35	273329	4000	
Zr	90	2	72	14886.052	ppb	14886.052	0.38	27756	1000	>LDR
Nb	93	2	72	6.291	ppb	6.291	2.57	4981	200	
Mo	95	2	115	18.321	ppb	18.321	2.87	4824	2000	
Pd	105	2	115	0.111	ppb	0.111	28.14	57	100	
Ag	107	2	115	0.939	ppb	0.939	6.39	1023	100	
Cd	111	2	115	6.834	ppb	6.834	18.78	603	2000	
Sn	120	2	115	12.186	ppb	12.186	7.07	2380	2000	
Sb	121	2	115	77.822	ppb	77.822	0.79	12609	1000	
Ba	137	2	115	2502.310	ppb	2502.310	2.49	111295	5000	
W	182	2	165	3.277	ppb	3.277	5.35	7442	100	
Pt	195	2	165	-0.004	ppb	-0.004	-202.48	30	100	
Tl	205	2	165	2.417	ppb	2.417	2.17	6938	2000	
Pb	208	2	165	8853.574	ppb	8853.574	1.56	32129286	5000	
Th	232	2	165	93.527	ppb	93.527	1.45	394904	2000	
U	238	2	165	15.767	ppb	15.767	1.46	78616	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	117595	1.16	1374296	8.56	60	120	IS Failed
Sc (IS)	45	1	HMI H2	9244574	0.45	40981949	22.56	60	120	IS Failed
Sc (IS)	45	2	HMI He	116379	1.54	426944	27.26	60	120	IS Failed
Sc (IS)	45	3	No Gas	21650958	0.37	135848058	15.94	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4701000	0.45	19779503	23.77	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	181187	1.28	609146	29.74	60	120	IS Failed
In Internal Standard	115	2	HMI He	511638	1.11	1366570	37.44	60	120	IS Failed
Ho-165	165	2	HMI He	5146122	1.21	12108279	42.50	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	172_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:50:36-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	22.117	ppb	30.138	42366	500	4.4	90	110	>+\-10%
Li	7	2	45	-33.116	ppb	-41.919	2470	500	-6.6	90	110	>+\-10%
Li	7	3	45	-29.735	ppb	-2.212	1628143	500	-5.9	90	110	>+\-10%
Be	9	1	6	72.268	ppb	7.594	2604	50	144.5	90	110	>+\-10%
B	11	1	6	69.096	ppb	3.332	3537	50	138.2	90	110	>+\-10%
Na	23	1	45	4222.890	ppb	1.132	4169084	5000	84.5	90	110	>+\-10%
Na	23	2	45	3534.568	ppb	2.163	162385	5000	70.7	90	110	>+\-10%
Mg	24	2	45	4106.284	ppb	2.272	75941	5000	82.1	90	110	>+\-10%
Al	27	2	45	4814.963	ppb	4.675	16588	5000	96.3	90	110	
K	39	1	45	6514.208	ppb	0.883	7918801	5000	130.3	90	110	>+\-10%
K	39	2	45	5663.082	ppb	1.268	33699	5000	113.3	90	110	>+\-10%
Ca	40	1	45	5935.112	ppb	1.071	8788950	5000	118.7	90	110	>+\-10%
Ca	44	2	45	5939.946	ppb	13.361	2080	5000	118.8	90	110	>+\-10%
V	51	2	72	42.927	ppb	2.584	11601	50	85.9	90	110	>+\-10%
Cr	52	2	72	41.177	ppb	5.368	14943	50	82.4	90	110	>+\-10%
Mn	55	2	72	49.739	ppb	4.477	4737	50	99.5	90	110	
Fe	57	2	72	4492.576	ppb	1.470	29823	5000	89.9	90	110	>+\-10%
Co	59	2	72	42.517	ppb	3.745	34214	50	85.0	90	110	>+\-10%
Ni	60	2	72	42.631	ppb	3.167	10544	50	85.3	90	110	>+\-10%
Cu	63	2	72	41.882	ppb	3.431	31325	50	83.8	90	110	>+\-10%
Zn	66	2	72	44.356	ppb	8.371	2734	50	88.7	90	110	>+\-10%
As	75	2	72	50.620	ppb	7.074	1744	50	101.2	90	110	
Se	78	1	72	50.765	ppb	3.567	6355	50	101.5	90	110	
Sr	88	2	72	68.245	ppb	5.590	4586	50	136.5	90	110	>+\-10%
Zr	90	2	72	254.557	ppb	23.036	637	50	509.1	90	110	>+\-10%
Nb	93	2	72	110.021	ppb	1.424	110258	100	110.0	90	110	>+\-10%
Mo	95	2	115	42.402	ppb	5.475	14206	50	84.8	90	110	>+\-10%
Pd	105	2	115	43.983	ppb	0.955	28104	50	88.0	90	110	>+\-10%
Ag	107	2	115	41.673	ppb	1.725	57427	50	83.3	90	110	>+\-10%
Cd	111	2	115	46.864	ppb	3.750	5264	50	93.7	90	110	
Sn	120	2	115	52.351	ppb	0.569	12892	50	104.7	90	110	
Sb	121	2	115	53.898	ppb	2.821	11127	50	107.8	90	110	
Ba	137	2	115	58.414	ppb	7.509	3310	50	116.8	90	110	>+\-10%
W	182	2	165	44.547	ppb	1.852	113688	50	89.1	90	110	>+\-10%
Pt	195	2	165	41.908	ppb	2.743	115017	50	83.8	90	110	>+\-10%
Tl	205	2	165	49.788	ppb	0.496	163194	50	99.6	90	110	
Pb	208	2	165	55.479	ppb	2.144	232121	50	111.0	90	110	>+\-10%
Th	232	2	165	52.264	ppb	1.895	253308	50	104.5	90	110	
U	238	2	165	50.501	ppb	1.061	288874	50	101.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	133004	2.01	1374296	9.68	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10397228	0.64	40981949	25.37	60	120	IS Failed
Sc (IS)	45	2	HMI He	137358	1.78	426944	32.17	60	120	IS Failed
Sc (IS)	45	3	No Gas	22245186	2.57	135848058	16.38	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5767915	0.66	19779503	29.16	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	231829	0.90	609146	38.06	60	120	IS Failed
In Internal Standard	115	2	HMI He	651759	1.08	1366570	47.69	60	120	IS Failed
Ho-165	165	2	HMI He	5904560	0.54	12108279	48.76	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	173_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:54:26-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-238.235	ppb	-0.2	654718	10	
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5	
B	11	1	6	3.020	ppb	59.3	203	0.5	>RL
Na	23	1	45	15.947	ppb	14.3	62624	25	
Na	23	2	45	-8.027	ppb	-78.0	3040	25	
Mg	24	2	45	37.596	ppb	24.9	803	25	>RL
Al	27	2	45	13.470	ppb	76.7	63	15	
K	39	1	45	768.522	ppb	4.4	2874009	50	>RL
K	39	2	45	254.207	ppb	19.5	3117	50	>RL
Ca	40	1	45	272.686	ppb	3.1	450545	50	>RL
Ca	44	2	45	334.512	ppb	28.5	130	25	>RL
V	51	2	72	-0.202	ppb	-68.5	117	1	
Cr	52	2	72	0.029	ppb	470.1	63	1	
Mn	55	2	72	2.142	ppb	35.7	227	0.5	>RL
Fe	57	2	72	51.317	ppb	41.4	390	25	>RL
Co	59	2	72	0.108	ppb	88.0	93	0.5	
Ni	60	2	72	0.232	ppb	94.9	153	1	
Cu	63	2	72	0.492	ppb	54.8	1083	1	
Zn	66	2	72	2.484	ppb	11.3	203	5	
As	75	2	72	0.013	ppb	705.1	4	1	
Se	78	1	72	0.031	ppb	2.5	8	1	
Sr	88	2	72	0.553	ppb	53.8	43	0.5	>RL
Zr	90	2	72	4.884	ppb	44.0	43	1	>RL
Nb	93	2	72	0.989	ppb	1.5	1130	2	
Mo	95	2	115	0.149	ppb	37.0	63	0.5	
Pd	105	2	115	0.021	ppb	103.2	17	1	
Ag	107	2	115	0.018	ppb	80.7	37	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.280	ppb	46.5	120	1	
Sb	121	2	115	0.026	ppb	392.7	27	0.6	
Ba	137	2	115	0.648	ppb	25.8	40	0.5	>RL
W	182	2	165	0.050	ppb	32.8	333	1	
Pt	195	2	165	0.007	ppb	31.5	67	1	
Tl	205	2	165	0.016	ppb	19.5	97	0.1	
Pb	208	2	165	3.556	ppb	7.5	16861	0.5	>RL
Th	232	2	165	0.073	ppb	22.9	613	1	
U	238	2	165	0.033	ppb	2.2	223	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	139869	1.12	1374296	10.18	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10734213	0.62	40981949	26.19	60	120	IS Failed
Sc (IS)	45	2	HMI He	147377	1.23	426944	34.52	60	120	IS Failed
Sc (IS)	45	3	No Gas	22835613	0.66	135848058	16.81	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5983878	1.21	19779503	30.25	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	246469	1.37	609146	40.46	60	120	IS Failed
In Internal Standard	115	2	HMI He	711047	1.14	1366570	52.03	60	120	IS Failed
Ho-165	165	2	HMI He	6257133	1.15	12108279	51.68	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	174LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T21:58:17-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-232.073	ppb	-0.574	688537	50	-464.1	70	130	>+/-30%
Be	9	1	6	1.279	ppb	20.793	50	1	127.9	70	130	
Na	23	2	45	12.974	ppb	25.717	4157	50	25.9	70	130	>+/-30%
Mg	24	2	45	68.385	ppb	3.160	1447	50	136.8	70	130	>+/-30%
Al	27	2	45	38.650	ppb	26.268	160	30	128.8	70	130	
K	39	2	45	363.145	ppb	9.655	3871	100	363.1	70	130	>+/-30%
Ca	44	2	45	256.358	ppb	92.436	103	50	512.7	70	130	>+/-30%
V	51	2	72	4.093	ppb	10.996	1377	5	81.9	70	130	
Cr	52	2	72	1.797	ppb	19.921	767	2	89.8	70	130	
Mn	55	2	72	2.483	ppb	18.040	270	1	248.3	70	130	>+/-30%
Fe	57	2	72	74.727	ppb	31.974	573	50	149.5	70	130	>+/-30%
Co	59	2	72	0.883	ppb	11.791	780	1	88.3	70	130	
Ni	60	2	72	1.811	ppb	12.482	583	2	90.6	70	130	
Cu	63	2	72	2.546	ppb	13.880	2767	2	127.3	70	130	
Zn	66	2	72	9.074	ppb	15.968	650	10	90.7	70	130	
As	75	2	72	4.868	ppb	17.047	187	5	97.4	70	130	
Se	78	1	72	4.476	ppb	13.398	592	5	89.5	70	130	
Sr	88	2	72	2.065	ppb	41.027	157	1	206.5	70	130	>+/-30%
Zr	90	2	72	67.145	ppb	43.564	207	0.5	13428.9	70	130	>+/-30%
Nb	93	2	72	1.071	ppb	29.211	1260	2	53.6	70	130	>+/-30%
Mo	95	2	115	1.613	ppb	16.400	610	2	80.7	70	130	
Pd	105	2	115	0.007	ppb	239.234	7	1	0.7	70	130	>+/-30%
Ag	107	2	115	4.008	ppb	4.090	6168	5	80.2	70	130	
Cd	111	2	115	1.011	ppb	15.260	127	1	101.1	70	130	
Sn	120	2	115	11.052	ppb	8.777	3070	10	110.5	70	130	
Sb	121	2	115	1.607	ppb	12.416	390	2	80.4	70	130	
Ba	137	2	115	1.104	ppb	61.261	70	1	110.4	70	130	
W	182	2	165	4.326	ppb	4.082	12018	1	432.6	70	130	>+/-30%
Pt	195	2	165	0.014	ppb	129.862	87	1	1.4	70	130	>+/-30%
Tl	205	2	165	1.011	ppb	8.463	3591	1	101.1	70	130	
Pb	208	2	165	3.676	ppb	6.725	17601	1	367.6	70	130	>+/-30%
Th	232	2	165	2.050	ppb	5.554	10884	2	102.5	70	130	
U	238	2	165	1.047	ppb	0.742	6442	1	104.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	144430	0.98	1374296	10.51	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10942446	0.37	40981949	26.70	60	120	IS Failed
Sc (IS)	45	2	HMI He	150968	1.68	426944	35.36	60	120	IS Failed
Sc (IS)	45	3	No Gas	22962615	0.97	135848058	16.90	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6057738	0.49	19779503	30.63	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	254345	1.66	609146	41.75	60	120	IS Failed
In Internal Standard	115	2	HMI He	726370	1.56	1366570	53.15	60	120	IS Failed
Ho-165	165	2	HMI He	6331301	1.32	12108279	52.29	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	175WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:02:05-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.079	ppb	173.2050808	3	0.5
Na	23	2	45	-39.414	ppb	-4.585181526	1717	25
Mg	24	2	45	39.263	ppb	14.36184624	940	25
Al	27	2	45	1.864	ppb	69.31529478	23	15
K	39	2	45	258.140	ppb	10.31090885	3534	50
Ca	44	2	45	129.492	ppb	29.77656267	60	25
V	51	2	72	-0.277	ppb	-59.22233648	107	1
Cr	52	2	72	0.223	ppb	92.19730908	157	1
Mn	55	2	72	1.670	ppb	46.48187685	203	0.5
Fe	57	2	72	30.989	ppb	3.335003811	277	25
Co	59	2	72	0.078	ppb	41.8200715	77	0.5
Ni	60	2	72	0.110	ppb	43.07161409	137	1
Cu	63	2	72	1.076	ppb	93.24340351	1744	1
Zn	66	2	72	0.835	ppb	79.33002868	110	5
As	75	2	72	0.049	ppb	94.35949118	6	1
Se	78	1	72	0.055	ppb	103.503597	12	1
Nb	93	2	72	0.036	ppb	85.58149105	130	2
Mo	95	2	115	0.118	ppb	47.35596226	57	0.5
Pd	105	2	115	0.002	ppb	406.4833343	3	1
Ag	107	2	115	-0.003	ppb	-121.3009094	7	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.046	ppb	90.01061929	63	1
Sb	121	2	115	-0.039	ppb	-155.7230428	13	0.6
Ba	137	2	115	0.293	ppb	2.521639285	20	0.5
W	182	2	165	0.021	ppb	55.66312386	277	1
Pt	195	2	165	-0.006	ppb	-48.17783416	30	1
Tl	205	2	165	0.006	ppb	56.77947875	67	0.1
Pb	208	2	165	3.848	ppb	35.30178339	19572	0.5
Th	232	2	165	0.020	ppb	47.61073	367	1
U	238	2	165	0.004	ppb	35.90846128	50	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	155530	0.79	1374296	11.32	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11751798	0.97	40981949	28.68	60	120	IS Failed
Sc (IS)	45	2	HMI He	165995	2.14	426944	38.88	60	120	IS Failed
Sc (IS)	45	3	No Gas	25479895	0.28	135848058	18.76	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6446810	1.17	19779503	32.59	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	278017	1.73	609146	45.64	60	120	IS Failed
In Internal Standard	115	2	HMI He	785612	2.49	1366570	57.49	60	120	IS Failed
Ho-165	165	2	HMI He	6732997	1.52	12108279	55.61	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	176WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:05:55-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.252	ppb	113.6197529	13	0.5
Na	23	2	45	-42.176	ppb	-2.853711068	1920	25
Mg	24	2	45	75.865	ppb	11.65409781	2150	25
Al	27	2	45	7.386	ppb	40.11268308	57	15
K	39	2	45	222.762	ppb	4.409263586	4031	50
Ca	44	2	45	186.911	ppb	28.11138327	103	25
V	51	2	72	-0.245	ppb	-52.84656035	143	1
Cr	52	2	72	0.140	ppb	16.84492311	147	1
Mn	55	2	72	2.860	ppb	23.01415918	413	0.5
Fe	57	2	72	42.159	ppb	51.42512482	447	25
Co	59	2	72	0.129	ppb	4.466357227	153	0.5
Ni	60	2	72	0.331	ppb	64.10331602	247	1
Cu	63	2	72	-0.034	ppb	-248.1036722	930	1
Zn	66	2	72	0.906	ppb	44.47279372	140	5
As	75	2	72	-0.028	ppb	-285.6545554	3	1
Se	78	1	72	-0.001	ppb	-2249.784667	5	1
Nb	93	2	72	0.025	ppb	100.2323543	143	2
Mo	95	2	115	0.128	ppb	39.84073186	73	0.5
Pd	105	2	115	0.001	ppb	598.4258095	3	1
Ag	107	2	115	-0.004	ppb	-164.8296154	7	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.172	ppb	92.67836983	120	1
Sb	121	2	115	-0.025	ppb	-1.829820883	20	0.6
Ba	137	2	115	0.123	ppb	100.0010765	10	0.5
W	182	2	165	0.024	ppb	72.27071622	330	1
Pt	195	2	165	0.001	ppb	675.2444959	63	1
Tl	205	2	165	0.003	ppb	46.98175602	63	0.1
Pb	208	2	165	2.181	ppb	3.43745225	13426	0.5
Th	232	2	165	-0.005	ppb	-163.4230862	263	1
U	238	2	165	0.009	ppb	9.258097022	93	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	192377	1.76	1374296	14.00	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14877021	1.46	40981949	36.30	60	120	IS Failed
Sc (IS)	45	2	HMI He	203315	2.04	426944	47.62	60	120	IS Failed
Sc (IS)	45	3	No Gas	31000735	0.19	135848058	22.82	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8182431	1.22	19779503	41.37	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	339360	0.70	609146	55.71	60	120	IS Failed
In Internal Standard	115	2	HMI He	937554	0.68	1366570	68.61	60	120	
Ho-165	165	2	HMI He	7777556	0.35	12108279	64.23	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	177WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:09:45-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	-39.332	ppb	-3.196068127	2037	25
Mg	24	2	45	168.220	ppb	8.497008982	4521	25
Al	27	2	45	7.125	ppb	87.63325049	53	15
K	39	2	45	191.829	ppb	13.37316533	3641	50
Ca	44	2	45	167.959	ppb	54.70637858	90	25
V	51	2	72	-0.168	ppb	-134.1710792	163	1
Cr	52	2	72	0.338	ppb	39.81192572	237	1
Mn	55	2	72	3.225	ppb	25.83752721	437	0.5
Fe	57	2	72	50.489	ppb	30.42967013	497	25
Co	59	2	72	0.197	ppb	11.91897208	220	0.5
Ni	60	2	72	0.493	ppb	35.06056066	287	1
Cu	63	2	72	-0.020	ppb	-539.0026889	890	1
Zn	66	2	72	0.766	ppb	68.30613217	120	5
As	75	2	72	0.031	ppb	135.1918999	6	1
Se	78	1	72	0.107	ppb	86.43663726	23	1
Nb	93	2	72	-0.007	ppb	-266.5683589	90	2
Mo	95	2	115	0.049	ppb	67.97903581	33	0.5
Pd	105	2	115	0.009	ppb	223.1673409	10	1
Ag	107	2	115	0.000	ppb	7290.157093	13	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.079	ppb	21.83521947	83	1
Sb	121	2	115	0.025	ppb	291.0668853	33	0.6
Ba	137	2	115	0.043	ppb	173.2050808	3	0.5
W	182	2	165	0.024	ppb	87.97403949	317	1
Pt	195	2	165	-0.006	ppb	-157.748571	37	1
Tl	205	2	165	0.005	ppb	214.4690298	70	0.1
Pb	208	2	165	1.972	ppb	4.737470478	11856	0.5
Th	232	2	165	-0.017	ppb	-39.11370324	183	1
U	238	2	165	0.007	ppb	55.82743807	80	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	189710	0.45	1374296	13.80	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13912661	0.18	40981949	33.95	60	120	IS Failed
Sc (IS)	45	2	HMI He	196317	0.51	426944	45.98	60	120	IS Failed
Sc (IS)	45	3	No Gas	30791969	0.19	135848058	22.67	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7557629	0.31	19779503	38.21	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	319566	0.31	609146	52.46	60	120	IS Failed
In Internal Standard	115	2	HMI He	895210	0.24	1366570	65.51	60	120	
Ho-165	165	2	HMI He	7505823	0.52	12108279	61.99	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	178WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:13:36-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.190	ppb	98.00548513	10	0.5
Na	23	2	45	-40.084	ppb	-10.57801274	1984	25
Mg	24	2	45	75.085	ppb	8.656712748	2054	25
Al	27	2	45	6.455	ppb	63.02407702	50	15
K	39	2	45	221.678	ppb	18.073115	3874	50
Ca	44	2	45	61.386	ppb	19.18370161	37	25
V	51	2	72	-0.208	ppb	-41.43835942	153	1
Cr	52	2	72	0.116	ppb	86.98057851	130	1
Mn	55	2	72	2.532	ppb	13.77384476	357	0.5
Fe	57	2	72	43.182	ppb	25.64725557	443	25
Co	59	2	72	0.121	ppb	33.2088712	140	0.5
Ni	60	2	72	0.228	ppb	55.88915619	203	1
Cu	63	2	72	-0.095	ppb	-150.7875216	840	1
Zn	66	2	72	0.990	ppb	70.7402262	143	5
As	75	2	72	-0.053	ppb	-129.4076414	2	1
Se	78	1	72	0.057	ppb	106.5195411	15	1
Nb	93	2	72	-0.023	ppb	-29.31271102	70	2
Mo	95	2	115	0.069	ppb	65.28133586	43	0.5
Pd	105	2	115	0.009	ppb	130.0170743	10	1
Ag	107	2	115	-0.002	ppb	-300.3111126	10	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.045	ppb	309.9809685	73	1
Sb	121	2	115	-0.034	ppb	-292.3526429	17	0.6
Ba	137	2	115	0.042	ppb	173.2050808	3	0.5
W	182	2	165	0.011	ppb	222.4890378	280	1
Pt	195	2	165	-0.006	ppb	-103.3454714	37	1
Tl	205	2	165	0.000	ppb	-7896.68449	50	0.1
Pb	208	2	165	2.065	ppb	0.784877876	12539	0.5
Th	232	2	165	-0.008	ppb	-75.217243	240	1
U	238	2	165	0.006	ppb	163.0844029	73	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	192735	3.06	1374296	14.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14039162	3.87	40981949	34.26	60	120	IS Failed
Sc (IS)	45	2	HMI He	195827	0.45	426944	45.87	60	120	IS Failed
Sc (IS)	45	3	No Gas	31308503	0.17	135848058	23.05	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7631100	2.56	19779503	38.58	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	329626	0.39	609146	54.11	60	120	IS Failed
In Internal Standard	115	2	HMI He	916426	0.89	1366570	67.06	60	120	
Ho-165	165	2	HMI He	7623671	0.57	12108279	62.96	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	179WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:17:24-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.061	ppb	173.2050808	3	0.5
Na	23	2	45	-40.884	ppb	-9.234973829	2057	25
Mg	24	2	45	71.304	ppb	9.665397334	2077	25
Al	27	2	45	10.934	ppb	89.10338367	77	15
K	39	2	45	190.922	ppb	11.80161737	3857	50
Ca	44	2	45	119.414	ppb	78.70003644	70	25
V	51	2	72	-0.253	ppb	-65.93470071	143	1
Cr	52	2	72	0.067	ppb	147.0461698	110	1
Mn	55	2	72	2.335	ppb	20.37002719	347	0.5
Fe	57	2	72	50.996	ppb	19.56521856	543	25
Co	59	2	72	0.195	ppb	17.72283965	237	0.5
Ni	60	2	72	0.363	ppb	18.7468395	263	1
Cu	63	2	72	-0.231	ppb	-18.95148487	733	1
Zn	66	2	72	0.801	ppb	70.67173509	133	5
As	75	2	72	0.072	ppb	79.64839156	8	1
Se	78	1	72	0.039	ppb	159.2796876	12	1
Nb	93	2	72	-0.030	ppb	-90.25875124	63	2
Mo	95	2	115	0.051	ppb	81.92348423	37	0.5
Pd	105	2	115	-0.003	ppb	0	0	1
Ag	107	2	115	0.000	ppb	-828.6321216	13	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.108	ppb	110.8722284	100	1
Sb	121	2	115	-0.005	ppb	-1482.170725	27	0.6
Ba	137	2	115	0.119	ppb	173.2050808	10	0.5
W	182	2	165	0.023	ppb	17.46365188	337	1
Pt	195	2	165	-0.002	ppb	-459.9597935	53	1
Tl	205	2	165	-0.001	ppb	-1130.843841	50	0.1
Pb	208	2	165	1.780	ppb	3.299377898	11582	0.5
Th	232	2	165	-0.010	ppb	-135.484677	237	1
U	238	2	165	0.003	ppb	46.66570914	50	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	199600	1.59	1374296	14.52	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14665574	0.64	40981949	35.79	60	120	IS Failed
Sc (IS)	45	2	HMI He	208293	1.34	426944	48.79	60	120	IS Failed
Sc (IS)	45	3	No Gas	33657785	0.99	135848058	24.78	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7926937	0.44	19779503	40.08	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	346335	0.61	609146	56.86	60	120	IS Failed
In Internal Standard	115	2	HMI He	958740	0.97	1366570	70.16	60	120	
Ho-165	165	2	HMI He	8020466	0.36	12108279	66.24	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	180WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:21:13-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.115	ppb	173.2050808	7	0.5
Na	23	2	45	-41.577	ppb	-8.196928491	2144	25
Mg	24	2	45	88.286	ppb	5.383683236	2727	25
Al	27	2	45	4.074	ppb	167.1300234	43	15
K	39	2	45	178.998	ppb	6.876284428	4007	50
Ca	44	2	45	158.766	ppb	36.16655638	97	25
V	51	2	72	-0.251	ppb	-38.30875545	153	1
Cr	52	2	72	0.129	ppb	96.24140752	153	1
Mn	55	2	72	3.439	ppb	2.938038101	537	0.5
Fe	57	2	72	70.682	ppb	10.55254772	787	25
Co	59	2	72	0.212	ppb	14.78429819	273	0.5
Ni	60	2	72	0.345	ppb	15.77405902	273	1
Cu	63	2	72	-0.170	ppb	-85.88829028	853	1
Zn	66	2	72	0.712	ppb	23.3850379	133	5
As	75	2	72	0.074	ppb	140.443119	9	1
Se	78	1	72	0.070	ppb	46.67141981	19	1
Nb	93	2	72	-0.024	ppb	-38.53609975	77	2
Mo	95	2	115	0.067	ppb	89.16802678	47	0.5
Pd	105	2	115	0.014	ppb	107.7433647	17	1
Ag	107	2	115	-0.004	ppb	-139.8797959	7	1
Cd	111	2	115	0.019	ppb	173.2050808	3	0.5
Sn	120	2	115	0.043	ppb	223.6528836	80	1
Sb	121	2	115	-0.008	ppb	-1532.193103	27	0.6
Ba	137	2	115	0.268	ppb	108.717353	23	0.5
W	182	2	165	0.008	ppb	140.972222	293	1
Pt	195	2	165	-0.004	ppb	-35.1356105	47	1
Tl	205	2	165	0.004	ppb	269.0587981	73	0.1
Pb	208	2	165	1.845	ppb	2.022710341	12313	0.5
Th	232	2	165	-0.022	ppb	-32.78874365	167	1
U	238	2	165	0.005	ppb	71.71902704	73	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	212468	0.37	1374296	15.46	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15730873	0.34	40981949	38.38	60	120	IS Failed
Sc (IS)	45	2	HMI He	222412	1.01	426944	52.09	60	120	IS Failed
Sc (IS)	45	3	No Gas	34511364	0.16	135848058	25.40	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8511259	0.54	19779503	43.03	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	368990	1.03	609146	60.57	60	120	
In Internal Standard	115	2	HMI He	1004259	1.29	1366570	73.49	60	120	
Ho-165	165	2	HMI He	8265589	1.18	12108279	68.26	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	181WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:25:02-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.059	ppb	173.2050808	3	0.5
Na	23	2	45	-40.530	ppb	-6.216410788	2177	25
Mg	24	2	45	82.109	ppb	1.727593592	2494	25
Al	27	2	45	2.988	ppb	177.8579285	37	15
K	39	2	45	172.448	ppb	7.215906752	3871	50
Ca	44	2	45	204.196	ppb	49.4145963	120	25
V	51	2	72	-0.246	ppb	-46.62172721	153	1
Cr	52	2	72	0.304	ppb	52.99996386	250	1
Mn	55	2	72	3.966	ppb	22.37812907	607	0.5
Fe	57	2	72	68.624	ppb	9.696378168	753	25
Co	59	2	72	0.210	ppb	21.35249935	267	0.5
Ni	60	2	72	0.390	ppb	39.83224533	287	1
Cu	63	2	72	-0.295	ppb	-14.25006154	697	1
Zn	66	2	72	0.736	ppb	119.775871	133	5
As	75	2	72	0.064	ppb	30.82993746	8	1
Se	78	1	72	0.057	ppb	79.73822698	16	1
Nb	93	2	72	-0.051	ppb	-18.60323608	33	2
Mo	95	2	115	0.060	ppb	36.82669777	43	0.5
Pd	105	2	115	0.001	ppb	747.8405537	3	1
Ag	107	2	115	0.004	ppb	68.32623621	23	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.076	ppb	159.9707586	93	1
Sb	121	2	115	-0.061	ppb	-90.05604125	10	0.6
Ba	137	2	115	0.154	ppb	173.2050808	13	0.5
W	182	2	165	0.002	ppb	811.9170727	270	1
Pt	195	2	165	0.003	ppb	49.37658301	73	1
Tl	205	2	165	0.003	ppb	314.6819773	67	0.1
Pb	208	2	165	1.785	ppb	5.297543906	11956	0.5
Th	232	2	165	-0.004	ppb	-493.3852643	287	1
U	238	2	165	0.008	ppb	9.037380388	93	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	212218	2.32	1374296	15.44	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15610777	0.76	40981949	38.09	60	120	IS Failed
Sc (IS)	45	2	HMI He	218113	0.41	426944	51.09	60	120	IS Failed
Sc (IS)	45	3	No Gas	29830268	0.81	135848058	21.96	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8422081	1.82	19779503	42.58	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	363639	0.74	609146	59.70	60	120	IS Failed
In Internal Standard	115	2	HMI He	1008505	1.18	1366570	73.80	60	120	
Ho-165	165	2	HMI He	8257099	1.12	12108279	68.19	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	182WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:28:52-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	090CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.114	ppb	173.2050808	7	0.5
Na	23	2	45	-44.073	ppb	-2.296249281	1954	25
Mg	24	2	45	74.694	ppb	10.54972727	2310	25
Al	27	2	45	5.932	ppb	109.1010216	53	15
K	39	2	45	173.226	ppb	12.29872764	3937	50
Ca	44	2	45	81.942	ppb	87.15470878	53	25
V	51	2	72	-0.150	ppb	-216.3542072	193	1
Cr	52	2	72	0.305	ppb	29.60971083	253	1
Mn	55	2	72	3.625	ppb	29.07326796	560	0.5
Fe	57	2	72	72.840	ppb	11.74257431	803	25
Co	59	2	72	0.198	ppb	13.154449	253	0.5
Ni	60	2	72	0.367	ppb	21.251914	280	1
Cu	63	2	72	-0.146	ppb	-130.3318353	873	1
Zn	66	2	72	0.517	ppb	121.9932793	113	5
As	75	2	72	-0.021	ppb	-350.2118241	4	1
Se	78	1	72	0.034	ppb	191.3119505	12	1
Nb	93	2	72	-0.035	ppb	-63.07430895	60	2
Mo	95	2	115	0.027	ppb	142.9124583	27	0.5
Pd	105	2	115	-0.003	ppb	0	0	1
Ag	107	2	115	-0.007	ppb	0	0	1
Cd	111	2	115	0.037	ppb	173.2050808	7	0.5
Sn	120	2	115	0.041	ppb	282.7158052	80	1
Sb	121	2	115	-0.093	ppb	-1.42355E-06	0	0.6
Ba	137	2	115	0.075	ppb	86.64080662	7	0.5
W	182	2	165	0.018	ppb	102.1400829	333	1
Pt	195	2	165	-0.004	ppb	-35.24523492	47	1
Tl	205	2	165	0.007	ppb	164.0526314	87	0.1
Pb	208	2	165	1.573	ppb	10.48240734	10912	0.5
Th	232	2	165	-0.018	ppb	-36.96483459	193	1
U	238	2	165	0.007	ppb	58.12828599	83	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	215603	1.97	1374296	15.69	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15685794	1.78	40981949	38.27	60	120	IS Failed
Sc (IS)	45	2	HMI He	221586	1.45	426944	51.90	60	120	IS Failed
Sc (IS)	45	3	No Gas	33036244	0.89	135848058	24.32	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8552683	1.14	19779503	43.24	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	366663	1.89	609146	60.19	60	120	
In Internal Standard	115	2	HMI He	1017404	2.02	1366570	74.45	60	120	
Ho-165	165	2	HMI He	8416923	1.48	12108279	69.51	60	120	

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	183CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:32:41-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	27865	0.01
Li	7	2	HMI He	1410	0.76
Li	7	3	No Gas	1034902	0.00
Be	9	1	HMI H2	3	5196.15
B	11	1	HMI H2	100	69.28
Na	23	1	HMI H2	40492	0.01
Na	23	2	HMI He	2634	0.12
Mg	24	2	HMI He	3014	0.42
Al	27	2	HMI He	33	274.95
K	39	2	HMI He	4177	0.11
Ca	44	2	HMI He	97	34.40
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	117	15.30
Cr	52	2	HMI He	220	12.90
Mn	55	2	HMI He	697	2.06
Fe	57	2	HMI He	847	1.59
Co	59	2	HMI He	260	16.67
Ni	60	2	HMI He	377	7.73
Cu	63	2	HMI He	973	0.88
Zn	66	2	HMI He	107	13.43
As	75	2	HMI He	7	1911.10
Se	78	1	HMI H2	9	265.11
Sr	88	2	HMI He	30	222.22
Zr	90	2	HMI He	37	42.94
Nb	93	2	HMI He	57	89.90
Mo	95	2	HMI He	37	187.19
Pd	105	2	HMI He	7	1299.04
Ag	107	2	HMI He	0	#VALUE!
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	90	12.35
Sb	121	2	HMI He	10	1732.05
Ba	137	2	HMI He	13	859.23
W	182	2	HMI He	287	8.10
Pt	195	2	HMI He	57	17.99
Tl	205	2	HMI He	47	217.00
Pb	208	2	HMI He	12086	0.03
Th	232	2	HMI He	200	4.33
U	238	2	HMI He	120	31.82

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	207204	0.19
Sc (IS)	45	1	HMI H2	15259863	0.67
Sc (IS)	45	2	HMI He	210811	1.19
Sc (IS)	45	3	No Gas	32682642	1.82
Ge Internal Standard	72	1	HMI H2	8342951	0.64
Ge Internal Standard	72	2	HMI He	360038	0.31
In Internal Standard	115	2	HMI He	998948	0.66
Ho-165	165	2	HMI He	8244993	0.43

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	184CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:36:33-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	97789	0.00
Li	7	2	HMI He	5551	0.16
Li	7	3	No Gas	3568097	0.00
Be	9	1	HMI H2	8062	0.10
B	11	1	HMI H2	10553	0.07
Na	23	1	HMI H2	11795439	0.00
Na	23	2	HMI He	474476	0.00
Mg	24	2	HMI He	219366	0.00
Al	27	2	HMI He	49498	0.01
K	39	1	HMI H2	18264993	0.00
K	39	2	HMI He	94596	0.00
Ca	40	1	HMI H2	22674135	0.00
Ca	44	2	HMI He	6085	0.14
Ti	47	2	HMI He	7	2598.08
V	51	2	HMI He	33399	0.01
Cr	52	2	HMI He	44039	0.01
Mn	55	2	HMI He	14029	0.01
Fe	57	2	HMI He	84671	0.00
Co	59	2	HMI He	99681	0.00
Ni	60	2	HMI He	29742	0.00
Cu	63	2	HMI He	89559	0.00
Zn	66	2	HMI He	8066	0.08
As	75	2	HMI He	5228	0.03
Se	78	1	HMI H2	17015	0.02
Sr	88	2	HMI He	13279	0.03
Zr	90	2	HMI He	643	0.28
Nb	93	2	HMI He	319780	0.00
Mo	95	2	HMI He	40846	0.00
Pd	105	2	HMI He	73970	0.00
Ag	107	2	HMI He	162822	0.00
Cd	111	2	HMI He	15267	0.02
Sn	120	2	HMI He	36961	0.00
Sb	121	2	HMI He	31360	0.01
Ba	137	2	HMI He	9833	0.01
Nd	146	2	HMI He	44952	0.01
Sm	147	2	HMI He	38893	0.01
Sm	150	2	HMI He	38409	0.01
Gd	156	1	HMI H2	420120	0.00
Gd	157	1	HMI H2	321835	0.00
W	182	2	HMI He	296337	0.00
Pt	195	2	HMI He	290153	0.00
Tl	205	2	HMI He	427466	0.00
Pb	208	2	HMI He	563790	0.00
Th	232	2	HMI He	666788	0.00
U	238	2	HMI He	744841	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	196179	0.73	207204	94.68	60	120	
Sc (IS)	45	1	HMI H2	14896020	1.76	15259863	97.62	60	120	
Sc (IS)	45	2	HMI He	209047	1.76	210811	99.16	60	120	
Sc (IS)	45	3	No Gas	31866716	0.09	32682642	97.50	60	120	
Ge Internal Standard	72	1	HMI H2	8056630	1.24	8342951	96.57	60	120	
Ge Internal Standard	72	2	HMI He	352122	1.56	360038	97.80	60	120	
In Internal Standard	115	2	HMI He	973510	2.21	998948	97.45	60	120	
Ho-165	165	2	HMI He	8180722	2.00	8244993	99.22	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	185_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:40:21-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	495.682	ppb	3.281	62998	500	99.1	90	110	
Li	7	2	45	556.352	ppb	22.872	3771	500	111.3	90	110	>+\-10%
Li	7	3	45	494.591	ppb	0.597	2261053	500	98.9	90	110	
Be	9	1	6	47.307	ppb	4.672	3917	50	94.6	90	110	
B	11	1	6	33.722	ppb	10.337	3717	50	67.4	90	110	>+\-10%
Na	23	1	45	4929.938	ppb	4.591	5908511	5000	98.6	90	110	
Na	23	2	45	4863.358	ppb	0.352	235925	5000	97.3	90	110	
Mg	24	2	45	4858.375	ppb	1.846	109881	5000	97.2	90	110	
Al	27	2	45	4867.478	ppb	1.616	24501	5000	97.3	90	110	
K	39	1	45	4870.899	ppb	5.080	10949670	5000	97.4	90	110	
K	39	2	45	4868.250	ppb	4.496	48964	5000	97.4	90	110	
Ca	40	1	45	4900.979	ppb	4.880	11427779	5000	98.0	90	110	
Ca	44	2	45	4419.875	ppb	5.935	2790	5000	88.4	90	110	>+\-10%
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	45.948	ppb	5.335	15707	50	91.9	90	110	
Cr	52	2	72	49.322	ppb	2.277	22251	50	98.6	90	110	
Mn	55	2	72	47.028	ppb	3.908	7092	50	94.1	90	110	
Fe	57	2	72	4944.461	ppb	0.927	43103	5000	98.9	90	110	
Co	59	2	72	48.130	ppb	2.078	49039	50	96.3	90	110	
Ni	60	2	72	47.159	ppb	4.058	14493	50	94.3	90	110	
Cu	63	2	72	48.364	ppb	1.482	44644	50	96.7	90	110	
Zn	66	2	72	46.650	ppb	2.687	3894	50	93.3	90	110	
As	75	2	72	49.943	ppb	6.662	2664	50	99.9	90	110	
Se	78	1	72	49.087	ppb	4.844	8540	50	98.2	90	110	
Sr	88	2	72	50.156	ppb	1.031	6805	50	100.3	90	110	
Zr	90	2	72	24.238	ppb	34.067	187	50	48.5	90	110	>+\-10%
Nb	93	2	72	96.598	ppb	0.844	157474	100	96.6	90	110	
Mo	95	2	115	47.840	ppb	3.929	19976	50	95.7	90	110	
Pd	105	2	115	51.272	ppb	1.511	38738	50	102.5	90	110	
Ag	107	2	115	48.059	ppb	1.801	79920	50	96.1	90	110	
Cd	111	2	115	46.511	ppb	2.762	7255	50	93.0	90	110	
Sn	120	2	115	47.743	ppb	4.080	18067	50	95.5	90	110	
Sb	121	2	115	48.930	ppb	2.027	15675	50	97.9	90	110	
Ba	137	2	115	49.084	ppb	3.951	4934	50	98.2	90	110	
W	182	2	165	48.833	ppb	1.145	147549	50	97.7	90	110	
Pt	195	2	165	47.905	ppb	1.184	141637	50	95.8	90	110	
Tl	205	2	165	48.244	ppb	1.197	210089	50	96.5	90	110	
Pb	208	2	165	48.153	ppb	0.528	282923	50	96.3	90	110	
Th	232	2	165	47.786	ppb	0.156	324718	50	95.6	90	110	
U	238	2	165	47.710	ppb	0.182	362087	50	95.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	201576	2.21	207204	97.28	60	120	
Sc (IS)	45	1	HMI H2	15090237	2.54	15259863	98.89	60	120	
Sc (IS)	45	2	HMI He	212404	0.63	210811	100.76	60	120	
Sc (IS)	45	3	No Gas	31674922	0.76	32682642	96.92	60	120	
Ge Internal Standard	72	1	HMI H2	8234978	1.89	8342951	98.71	60	120	
Ge Internal Standard	72	2	HMI He	358809	0.15	360038	99.66	60	120	
In Internal Standard	115	2	HMI He	993740	0.36	998948	99.48	60	120	
Ho-165	165	2	HMI He	8330007	0.36	8244993	101.03	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	186_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:44:08-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-12.042	ppb	-149.5	951246	10	
Be	9	1	6	0.001	ppb	5424.5	3	0.5	
B	11	1	6	1.120	ppb	31.7	217	0.5	>RL
Na	23	1	45	10.593	ppb	10.6	51690	25	
Na	23	2	45	8.567	ppb	22.7	3064	25	
Mg	24	2	45	-30.247	ppb	-44.4	2370	25	
Al	27	2	45	2.633	ppb	43.0	47	15	
K	39	1	45	49.769	ppb	60.7	3785481	50	
K	39	2	45	-60.087	ppb	-25.3	3654	50	
Ca	40	1	45	-16.378	ppb	-28.7	300253	50	
Ca	44	2	45	-6.745	ppb	-1184.2	93	25	
Ti	47	2	45	49.716	ppb	173.2	3	0.5	>RL
V	51	2	72	0.141	ppb	150.5	163	1	
Cr	52	2	72	-0.132	ppb	-88.4	160	1	
Mn	55	2	72	-1.638	ppb	-27.5	470	0.5	
Fe	57	2	72	-15.333	ppb	-92.7	710	25	
Co	59	2	72	-0.054	ppb	-36.2	203	0.5	
Ni	60	2	72	-0.718	ppb	-4.4	160	1	
Cu	63	2	72	0.326	ppb	25.7	1260	1	
Zn	66	2	72	-0.321	ppb	-167.0	80	5	
As	75	2	72	0.112	ppb	107.2	12	1	
Se	78	1	72	-0.006	ppb	-361.7	8	1	
Sr	88	2	72	-0.073	ppb	-205.1	20	0.5	
Zr	90	2	72	7.608	ppb	105.4	83	1	>RL
Nb	93	2	72	1.135	ppb	7.5	1900	2	
Mo	95	2	115	-0.032	ppb	-113.7	23	0.5	
Pd	105	2	115	0.031	ppb	85.7	30	1	
Ag	107	2	115	0.016	ppb	78.0	27	1	
Cd	111	2	115	0.021	ppb	173.2	3	0.5	
Sn	120	2	115	0.087	ppb	18.2	123	1	
Sb	121	2	115	0.186	ppb	16.5	70	0.6	
Ba	137	2	115	-0.133	ppb	0.0	0	0.5	
W	182	2	165	0.029	ppb	109.3	377	1	
Pt	195	2	165	0.007	ppb	359.9	77	1	
Tl	205	2	165	0.034	ppb	10.2	197	0.1	
Pb	208	2	165	-0.328	ppb	-26.2	10335	0.5	
Th	232	2	165	0.086	ppb	17.8	783	1	
U	238	2	165	0.004	ppb	261.4	153	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	200788	1.41	207204	96.90	60	120	
Sc (IS)	45	1	HMI H2	14813321	1.53	15259863	97.07	60	120	
Sc (IS)	45	2	HMI He	212315	0.60	210811	100.71	60	120	
Sc (IS)	45	3	No Gas	30958597	2.72	32682642	94.72	60	120	
Ge Internal Standard	72	1	HMI H2	8112923	1.04	8342951	97.24	60	120	
Ge Internal Standard	72	2	HMI He	357545	0.59	360038	99.31	60	120	
In Internal Standard	115	2	HMI He	1002708	0.17	998948	100.38	60	120	
Ho-165	165	2	HMI He	8304272	0.34	8244993	100.72	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	187LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:47:59-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	23.071	ppb	33.972	1031481	50	46.1	70	130	>+/-30%
Be	9	1	6	1.217	ppb	31.776	103	1	121.7	70	130	
Na	23	2	45	51.089	ppb	13.860	5001	50	102.2	70	130	
Mg	24	2	45	-2.497	ppb	-305.344	2920	50	-5.0	70	130	>+/-30%
Al	27	2	45	27.949	ppb	34.548	170	30	93.2	70	130	
K	39	2	45	7.351	ppb	638.358	4187	100	7.4	70	130	>+/-30%
Ca	44	2	45	63.873	ppb	131.577	133	50	127.7	70	130	
V	51	2	72	4.141	ppb	14.679	1477	5	82.8	70	130	
Cr	52	2	72	1.692	ppb	11.096	947	2	84.6	70	130	
Mn	55	2	72	-1.344	ppb	-38.014	497	1	-134.4	70	130	>+/-30%
Fe	57	2	72	38.268	ppb	30.268	1137	50	76.5	70	130	
Co	59	2	72	0.829	ppb	7.959	1067	1	82.9	70	130	
Ni	60	2	72	1.166	ppb	19.473	703	2	58.3	70	130	>+/-30%
Cu	63	2	72	1.900	ppb	19.334	2607	2	95.0	70	130	
Zn	66	2	72	11.596	ppb	16.025	1017	10	116.0	70	130	
As	75	2	72	4.545	ppb	22.960	241	5	90.9	70	130	
Se	78	1	72	4.593	ppb	7.095	784	5	91.9	70	130	
Sr	88	2	72	1.429	ppb	49.201	217	1	142.9	70	130	>+/-30%
Zr	90	2	72	11.309	ppb	62.053	103	0.5	2261.7	70	130	>+/-30%
Nb	93	2	72	1.242	ppb	1.347	2020	2	62.1	70	130	>+/-30%
Mo	95	2	115	2.090	ppb	17.131	897	2	104.5	70	130	
Pd	105	2	115	0.005	ppb	506.254	10	1	0.5	70	130	>+/-30%
Ag	107	2	115	4.628	ppb	4.745	7605	5	92.6	70	130	
Cd	111	2	115	1.168	ppb	16.386	180	1	116.8	70	130	
Sn	120	2	115	9.359	ppb	3.588	3571	10	93.6	70	130	
Sb	121	2	115	1.982	ppb	16.786	637	2	99.1	70	130	
Ba	137	2	115	0.406	ppb	72.050	53	1	40.6	70	130	>+/-30%
W	182	2	165	4.618	ppb	4.532	13930	1	461.8	70	130	>+/-30%
Pt	195	2	165	0.053	ppb	19.099	210	1	5.3	70	130	>+/-30%
Tl	205	2	165	0.977	ppb	4.554	4214	1	97.7	70	130	
Pb	208	2	165	0.688	ppb	7.630	15757	1	68.8	70	130	>+/-30%
Th	232	2	165	1.922	ppb	3.720	12986	2	96.1	70	130	
U	238	2	165	0.964	ppb	2.332	7285	1	96.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	200162	4.08	207204	96.60	60	120	
Sc (IS)	45	1	HMI H2	14688454	4.03	15259863	96.26	60	120	
Sc (IS)	45	2	HMI He	207994	1.22	210811	98.66	60	120	
Sc (IS)	45	3	No Gas	30770909	0.66	32682642	94.15	60	120	
Ge Internal Standard	72	1	HMI H2	8004732	4.00	8342951	95.95	60	120	
Ge Internal Standard	72	2	HMI He	348321	0.45	360038	96.75	60	120	
In Internal Standard	115	2	HMI He	981946	0.43	998948	98.30	60	120	
Ho-165	165	2	HMI He	8162877	0.32	8244993	99.00	60	120	

Blank Report

Sample Table

Sample Name	FGD MDLV CK
Data File Name	188_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:51:49-07:00
Sample Type	Blank
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-7.973	ppb	-121.8437287	24697	0.5
Li	7	2	45	18.354	ppb	295.961741	1383	0.5
Li	7	3	45	-26.339	ppb	-14.04377519	836204	10
Be	9	1	6	67.849	ppb	5.591542312	5154	0.5
B	11	1	6	0.786	ppb	105.2070596	167	0.5
Na	23	1	45	56.795	ppb	0.530802551	98590	25
Na	23	2	45	42.712	ppb	22.77037225	4341	25
Mg	24	2	45	-50.361	ppb	-14.4892033	1780	25
Al	27	2	45	13373.801	ppb	1.777007386	62026	15
K	39	1	45	-1085.262	ppb	-1.018214112	2000390	50
K	39	2	45	-95.689	ppb	-44.99247199	3067	50
Ca	40	1	45	2.978	ppb	204.2767298	320137	50
Ca	44	2	45	23.937	ppb	145.9387175	103	25
Ti	47	2	45	54.558	ppb	173.2050808	3	0.5
V	51	2	72	151.713	ppb	1.457825327	47387	1
Cr	52	2	72	761.628	ppb	1.332835892	312672	1
Mn	55	2	72	295.254	ppb	1.952071389	37534	0.5
Fe	57	2	72	-38.843	ppb	-15.87342792	470	25
Co	59	2	72	114.699	ppb	1.400161734	107009	0.5
Ni	60	2	72	155.237	ppb	0.862012426	43029	1
Cu	63	2	72	231.166	ppb	1.632981063	192633	1
Zn	66	2	72	452.896	ppb	2.035570485	33870	5
As	75	2	72	223.072	ppb	1.185185244	10910	1
Se	78	1	72	94.427	ppb	3.213636141	15028	1
Sr	88	2	72	-0.035	ppb	-484.260062	23	0.5
Zr	90	2	72	1.143	ppb	160.4226928	40	1
Nb	93	2	72	0.297	ppb	15.97467502	497	2
Mo	95	2	115	151.629	ppb	2.121230891	59476	0.5
Pd	105	2	115	-0.009	ppb	0	0	1
Ag	107	2	115	153.756	ppb	1.448176214	240475	1
Cd	111	2	115	234.314	ppb	3.381961238	34372	0.5
Sn	120	2	115	547.938	ppb	1.25755094	194136	1
Sb	121	2	115	150.680	ppb	2.163535882	45382	0.6
Ba	137	2	115	312.105	ppb	1.906762638	29447	0.5
W	182	2	165	0.285	ppb	13.36433718	1113	1
Pt	195	2	165	0.017	ppb	83.1228217	103	1
Tl	205	2	165	154.934	ppb	1.747563402	653577	0.1
Pb	208	2	165	155.717	ppb	2.160735045	859957	0.5
Th	232	2	165	0.140	ppb	8.087791214	1117	1
U	238	2	165	19.344	ppb	1.396028921	142307	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	184917	1.02	207204	89.24	60	120	
Sc (IS)	45	1	HMI H2	13813184	0.57	15259863	90.52	60	120	
Sc (IS)	45	2	HMI He	195876	1.48	210811	92.92	60	120	
Sc (IS)	45	3	No Gas	28296242	0.22	32682642	86.58	60	120	
Ge Internal Standard	72	1	HMI H2	7534370	0.98	8342951	90.31	60	120	
Ge Internal Standard	72	2	HMI He	329587	1.05	360038	91.54	60	120	
In Internal Standard	115	2	HMI He	934679	0.56	998948	93.57	60	120	
Ho-165	165	2	HMI He	8071613	1.33	8244993	97.90	60	120	

Blank Report

Sample Table

Sample Name	mb 280-397837/1-a
Data File Name	189_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:55:39-07:00
Sample Type	Blank
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-0.064	ppb	-10696.2473	25765	0.5
Li	7	2	45	17.411	ppb	95.66892176	1413	0.5
Li	7	3	45	-24.358	ppb	-2.488381906	864095	10
Be	9	1	6	0.089	ppb	144.8759646	10	0.5
B	11	1	6	0.180	ppb	255.9707947	110	0.5
Na	23	1	45	3.170	ppb	48.91128036	40983	25
Na	23	2	45	-6.874	ppb	-38.96255188	2197	25
Mg	24	2	45	-44.956	ppb	-13.98367061	1937	25
Al	27	2	45	0.330	ppb	1309.873975	33	15
K	39	1	45	-1152.531	ppb	-0.808201365	1951247	50
K	39	2	45	-80.388	ppb	-20.87279088	3280	50
Ca	40	1	45	-41.795	ppb	-5.529585733	232347	50
Ca	44	2	45	-107.582	ppb	-42.62039717	30	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	-0.124	ppb	-114.4958635	70	1
Cr	52	2	72	0.141	ppb	82.71556733	267	1
Mn	55	2	72	-2.460	ppb	-5.662687832	340	0.5
Fe	57	2	72	-41.382	ppb	-17.27093252	463	25
Co	59	2	72	-0.151	ppb	-18.28851186	100	0.5
Ni	60	2	72	-0.382	ppb	-32.93980083	247	1
Cu	63	2	72	-0.129	ppb	-107.2165549	807	1
Zn	66	2	72	0.689	ppb	103.9823557	153	5
As	75	2	72	-0.031	ppb	-400.8483808	5	1
Se	78	1	72	-0.012	ppb	-240.8350312	7	1
Sr	88	2	72	0.118	ppb	38.48472039	43	0.5
Zr	90	2	72	1.507	ppb	131.7251039	43	1
Nb	93	2	72	0.104	ppb	37.87754876	213	2
Mo	95	2	115	0.004	ppb	1390.348839	37	0.5
Pd	105	2	115	0.000	ppb	5249.093342	7	1
Ag	107	2	115	0.031	ppb	40.36656848	50	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.622	ppb	6.625674081	313	1
Sb	121	2	115	0.109	ppb	90.83405929	43	0.6
Ba	137	2	115	0.176	ppb	255.075231	30	0.5
W	182	2	165	0.043	ppb	78.64378162	403	1
Pt	195	2	165	-0.007	ppb	-112.7549036	37	1
Tl	205	2	165	0.049	ppb	49.59083032	253	0.1
Pb	208	2	165	-0.524	ppb	-30.24724276	8951	0.5
Th	232	2	165	0.028	ppb	26.19933212	380	1
U	238	2	165	-0.001	ppb	-1780.583396	113	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	190804	1.02	207204	92.09	60	120	
Sc (IS)	45	1	HMI H2	14113356	0.20	15259863	92.49	60	120	
Sc (IS)	45	2	HMI He	200841	1.03	210811	95.27	60	120	
Sc (IS)	45	3	No Gas	29083185	0.42	32682642	88.99	60	120	
Ge Internal Standard	72	1	HMI H2	7697780	0.45	8342951	92.27	60	120	
Ge Internal Standard	72	2	HMI He	339012	0.18	360038	94.16	60	120	
In Internal Standard	115	2	HMI He	961305	0.42	998948	96.23	60	120	
Ho-165	165	2	HMI He	8043934	0.89	8244993	97.56	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	lcs 280-397837/2-a
Data File Name	190_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T22:59:30-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	397837 6020A DOD5
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	39.227	39.227	ppb	23.067	27905	400	9.8	80	120	>+/-20%
Li	7	2	45	115.968	115.968	ppb	13.533	1794	400	29.0	80	120	>+/-20%
Li	7	3	45	55.579	55.579	ppb	7.930	1042548	400	13.9	80	120	>+/-20%
Be	9	1	6	36.347	36.347	ppb	7.100	2787	40	90.9	80	120	
Na	23	2	45	37.746	37.746	ppb	6.109	4191	40	94.4	80	120	
Mg	24	2	45	-13.635	-13.635	ppb	-140.156	2570	40	-34.1	80	120	>+/-20%
Al	27	2	45	402.961	402.961	ppb	6.850	1934	40	1007.4	80	120	>+/-20%
K	39	2	45	-62.322	-62.322	ppb	-63.857	3414	40	-155.8	80	120	>+/-20%
Ca	44	2	45	120.142	120.142	ppb	38.990	160	40	300.4	80	120	>+/-20%
V	51	2	72	36.835	36.835	ppb	2.773	11858	40	92.1	80	120	
Cr	52	2	72	40.259	40.259	ppb	2.552	17112	40	100.6	80	120	
Mn	55	2	72	38.734	38.734	ppb	4.807	5604	40	96.8	80	120	
Fe	57	2	72	338.072	338.072	ppb	7.652	3510	40	845.2	80	120	>+/-20%
Co	59	2	72	38.899	38.899	ppb	1.955	37300	40	97.2	80	120	
Ni	60	2	72	39.725	39.725	ppb	6.691	11528	40	99.3	80	120	
Cu	63	2	72	38.434	38.434	ppb	3.011	33532	40	96.1	80	120	
Zn	66	2	72	42.743	42.743	ppb	9.612	3360	40	106.9	80	120	
As	75	2	72	36.683	36.683	ppb	2.279	1841	40	91.7	80	120	
Se	78	1	72	36.855	36.855	ppb	2.678	5945	40	92.1	80	120	
Nb	93	2	72	0.126	0.126	ppb	25.684	247	40	0.3	80	120	>+/-20%
Mo	95	2	115	38.801	38.801	ppb	4.875	15694	40	97.0	80	120	
Pd	105	2	115	0.000	0.000	ppb	5568.068	7	40	0.0	80	120	>+/-20%
Ag	107	2	115	37.968	37.968	ppb	0.262	61126	40	94.9	80	120	
Cd	111	2	115	38.396	38.396	ppb	5.651	5798	40	96.0	80	120	
Sn	120	2	115	38.948	38.948	ppb	3.251	14287	40	97.4	80	120	
Sb	121	2	115	37.145	37.145	ppb	5.006	11524	40	92.9	80	120	
Ba	137	2	115	38.054	38.054	ppb	3.605	3707	40	95.1	80	120	
W	182	2	165	38.609	38.609	ppb	1.368	112868	40	96.5	80	120	
Pt	195	2	165	-0.002	-0.002	ppb	-485.083	50	40	0.0	80	120	>+/-20%
Tl	205	2	165	39.751	39.751	ppb	1.139	167408	40	99.4	80	120	
Pb	208	2	165	39.706	39.706	ppb	0.419	227687	40	99.3	80	120	
Th	232	2	165	38.683	38.683	ppb	0.702	254234	40	96.7	80	120	
U	238	2	165	39.407	39.407	ppb	1.328	289232	40	98.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	186541	0.61	207204	90.03	60	120	
Sc (IS)	45	1	HMI H2	13872092	1.23	15259863	90.91	60	120	
Sc (IS)	45	2	HMI He	199400	0.67	210811	94.59	60	120	
Sc (IS)	45	3	No Gas	28854996	0.54	32682642	88.29	60	120	
Ge Internal Standard	72	1	HMI H2	7628793	0.84	8342951	91.44	60	120	
Ge Internal Standard	72	2	HMI He	337283	0.77	360038	93.68	60	120	
In Internal Standard	115	2	HMI He	962104	0.60	998948	96.31	60	120	
Ho-165	165	2	HMI He	8055771	0.75	8244993	97.71	60	120	

Sample Report

Sample Table

Sample Name	280-104320-c-2-b
Data File Name	191SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:03:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-0.391	ppb	-0.391	-620.34	25091	500000	
Li	7	2	45	27.071	ppb	27.071	141.90	1420	500000	
Li	7	3	45	-27.435	ppb	-27.435	-3.01	843417	50000	
Be	9	1	6	0.094	ppb	0.094	141.33	10	2000	
B	11	1	6	9.759	ppb	9.759	12.95	1030	2000	
Na	23	1	45	3282.385	ppb	3282.385	0.93	3600937	2000	
Na	23	2	45	3179.989	ppb	3179.989	2.04	143467	400000	
Mg	24	2	45	13355.790	ppb	13355.790	1.42	274389	400000	
Al	27	2	45	11.981	ppb	11.981	40.97	87	400000	
K	39	1	45	-469.975	ppb	-469.975	-2.20	2817976	400000	
K	39	2	45	639.082	ppb	639.082	3.69	9323	400000	
Ca	40	1	45	59807.453	ppb	59807.453	0.73	123718628	400000	
Ca	44	2	45	56522.209	ppb	56522.209	3.72	31919	400000	
Ti	47	2	45	52.642	ppb	52.642	173.21	3	4000	
V	51	2	72	-0.091	ppb	-0.091	-93.51	80	2000	
Cr	52	2	72	0.305	ppb	0.305	58.40	333	5000	
Mn	55	2	72	1640.277	ppb	1640.277	0.89	209658	10000	
Fe	57	2	72	-25.892	ppb	-25.892	-13.80	583	400000	
Co	59	2	72	-0.024	ppb	-0.024	-214.48	220	2000	
Ni	60	2	72	1.526	ppb	1.526	28.65	780	5000	
Cu	63	2	72	0.080	ppb	0.080	85.53	977	5000	
Zn	66	2	72	1.153	ppb	1.153	137.16	187	5000	
As	75	2	72	0.075	ppb	0.075	184.30	10	2000	
Se	78	1	72	0.230	ppb	0.230	22.65	45	2000	
Sr	88	2	72	78.450	ppb	78.450	2.40	9953	4000	
Zr	90	2	72	55.652	ppb	55.652	22.76	357	1000	
Nb	93	2	72	0.112	ppb	0.112	48.04	223	200	
Mo	95	2	115	0.194	ppb	0.194	44.74	113	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-187.95	3	100	
Ag	107	2	115	0.015	ppb	0.015	89.34	23	100	
Cd	111	2	115	0.111	ppb	0.111	69.37	17	2000	
Sn	120	2	115	0.265	ppb	0.265	71.82	183	2000	
Sb	121	2	115	0.152	ppb	0.152	96.03	57	1000	
Ba	137	2	115	5.742	ppb	5.742	28.63	570	5000	
W	182	2	165	0.391	ppb	0.391	3.74	1433	100	
Pt	195	2	165	0.010	ppb	0.010	164.63	83	100	
Tl	205	2	165	0.052	ppb	0.052	39.75	267	2000	
Pb	208	2	165	-0.077	ppb	-0.077	-95.88	11502	5000	
Th	232	2	165	0.163	ppb	0.163	5.46	1277	2000	
U	238	2	165	1.420	ppb	1.420	1.59	10637	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	181258	1.17	207204	87.48	60	120	
Sc (IS)	45	1	HMI H2	13755666	0.44	15259863	90.14	60	120	
Sc (IS)	45	2	HMI He	196409	1.45	210811	93.17	60	120	
Sc (IS)	45	3	No Gas	28625313	0.68	32682642	87.59	60	120	
Ge Internal Standard	72	1	HMI H2	7580701	0.27	8342951	90.86	60	120	
Ge Internal Standard	72	2	HMI He	336102	0.75	360038	93.35	60	120	
In Internal Standard	115	2	HMI He	960210	0.87	998948	96.12	60	120	
Ho-165	165	2	HMI He	8132758	0.20	8244993	98.64	60	120	

Sample Table

Sample Name	280-104320-j-3-b
Data File Name	192SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:07:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	16.262	ppb	16.262	61.76	25311	500000	
Li	7	2	45	75.883	ppb	75.883	60.73	1550	500000	
Li	7	3	45	-19.255	ppb	-19.255	-8.31	857411	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	86.311	ppb	86.311	4.62	8195	2000	
Na	23	1	45	9143.324	ppb	9143.324	0.48	9636353	2000	
Na	23	2	45	8948.132	ppb	8948.132	1.29	384349	400000	
Mg	24	2	45	21270.193	ppb	21270.193	1.49	419044	400000	
Al	27	2	45	3.784	ppb	3.784	35.97	47	400000	
K	39	1	45	830.856	ppb	830.856	2.64	4413266	400000	
K	39	2	45	1809.505	ppb	1809.505	5.03	18553	400000	
Ca	40	1	45	80905.287	ppb	80905.287	0.25	161730941	400000	
Ca	44	2	45	77618.108	ppb	77618.108	2.47	42164	400000	
Ti	47	2	45	55.159	ppb	55.159	173.21	3	4000	
V	51	2	72	-0.030	ppb	-0.030	-532.78	97	2000	
Cr	52	2	72	0.221	ppb	0.221	51.42	290	5000	
Mn	55	2	72	320.401	ppb	320.401	0.81	40383	10000	
Fe	57	2	72	748.663	ppb	748.663	8.45	6605	400000	
Co	59	2	72	5.537	ppb	5.537	5.10	5354	2000	
Ni	60	2	72	4.229	ppb	4.229	11.87	1497	5000	
Cu	63	2	72	-0.119	ppb	-0.119	-168.84	787	5000	
Zn	66	2	72	-0.140	ppb	-0.140	-388.35	87	5000	
As	75	2	72	46.603	ppb	46.603	6.14	2268	2000	
Se	78	1	72	0.033	ppb	0.033	164.31	13	2000	
Sr	88	2	72	190.964	ppb	190.964	2.06	23553	4000	
Zr	90	2	72	9.444	ppb	9.444	88.71	87	1000	
Nb	93	2	72	0.082	ppb	0.082	12.80	173	200	
Mo	95	2	115	0.535	ppb	0.535	32.12	243	2000	
Pd	105	2	115	0.001	ppb	0.001	2724.90	7	100	
Ag	107	2	115	0.019	ppb	0.019	0.27	30	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.205	ppb	0.205	75.29	157	2000	
Sb	121	2	115	0.324	ppb	0.324	15.55	107	1000	
Ba	137	2	115	69.761	ppb	69.761	3.49	6575	5000	
W	182	2	165	0.090	ppb	0.090	48.57	537	100	
Pt	195	2	165	0.007	ppb	0.007	114.25	73	100	
Tl	205	2	165	0.025	ppb	0.025	66.91	150	2000	
Pb	208	2	165	1.097	ppb	1.097	19.45	17578	5000	
Th	232	2	165	0.047	ppb	0.047	26.84	500	2000	
U	238	2	165	0.427	ppb	0.427	3.03	3214	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	176260	1.72	207204	85.07	60	120	
Sc (IS)	45	1	HMI H2	13301429	0.52	15259863	87.17	60	120	
Sc (IS)	45	2	HMI He	189063	1.27	210811	89.68	60	120	
Sc (IS)	45	3	No Gas	28465254	0.42	32682642	87.10	60	120	
Ge Internal Standard	72	1	HMI H2	7383668	0.59	8342951	88.50	60	120	
Ge Internal Standard	72	2	HMI He	327250	0.21	360038	90.89	60	120	
In Internal Standard	115	2	HMI He	932371	0.27	998948	93.34	60	120	
Ho-165	165	2	HMI He	7966878	0.86	8244993	96.63	60	120	

Sample Table

Sample Name	280-104320-a-4-b
Data File Name	193SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:10:55-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	33.117	ppb	33.117	27.20	25745	500000	
Li	7	2	45	69.057	ppb	69.057	86.43	1503	500000	
Li	7	3	45	-3.785	ppb	-3.785	-60.82	893139	50000	
Be	9	1	6	0.150	ppb	0.150	218.26	13	2000	
B	11	1	6	29.548	ppb	29.548	7.39	2787	2000	
Na	23	1	45	19968.891	ppb	19968.891	1.28	20500980	2000	>LDR
Na	23	2	45	19490.522	ppb	19490.522	1.01	823016	400000	
Mg	24	2	45	38594.973	ppb	38594.973	1.20	747822	400000	
Al	27	2	45	558.461	ppb	558.461	9.44	2494	400000	
K	39	1	45	1024.837	ppb	1024.837	4.68	4553331	400000	
K	39	2	45	2138.660	ppb	2138.660	7.10	20956	400000	
Ca	40	1	45	98510.825	ppb	98510.825	0.98	192146457	400000	
Ca	44	2	45	95218.397	ppb	95218.397	2.00	51009	400000	
Ti	47	2	45	338.707	ppb	338.707	50.56	20	4000	
V	51	2	72	0.766	ppb	0.766	39.87	337	2000	
Cr	52	2	72	1.010	ppb	1.010	20.34	600	5000	
Mn	55	2	72	213.239	ppb	213.239	2.72	26601	10000	
Fe	57	2	72	2716.106	ppb	2716.106	3.34	21544	400000	
Co	59	2	72	1.294	ppb	1.294	4.36	1407	2000	
Ni	60	2	72	1.233	ppb	1.233	5.02	667	5000	
Cu	63	2	72	1.238	ppb	1.238	13.37	1870	5000	
Zn	66	2	72	9.919	ppb	9.919	14.26	817	5000	
As	75	2	72	18.873	ppb	18.873	3.19	905	2000	
Se	78	1	72	-0.027	ppb	-0.027	-96.69	4	2000	
Sr	88	2	72	285.244	ppb	285.244	1.39	34535	4000	
Zr	90	2	72	28.363	ppb	28.363	33.65	190	1000	
Nb	93	2	72	0.107	ppb	0.107	22.10	207	200	
Mo	95	2	115	1.032	ppb	1.032	16.46	433	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-202.04	3	100	
Ag	107	2	115	0.019	ppb	0.019	66.35	30	100	
Cd	111	2	115	0.069	ppb	0.069	100.17	10	2000	
Sn	120	2	115	0.057	ppb	0.057	124.40	103	2000	
Sb	121	2	115	0.003	ppb	0.003	1319.78	10	1000	
Ba	137	2	115	33.266	ppb	33.266	2.66	3110	5000	
W	182	2	165	0.106	ppb	0.106	21.27	577	100	
Pt	195	2	165	0.001	ppb	0.001	947.29	57	100	
Tl	205	2	165	0.149	ppb	0.149	17.50	660	2000	
Pb	208	2	165	3.979	ppb	3.979	12.54	32791	5000	
Th	232	2	165	0.254	ppb	0.254	3.96	1827	2000	
U	238	2	165	3.500	ppb	3.500	1.89	25291	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	171554	0.84	207204	82.79	60	120	
Sc (IS)	45	1	HMI H2	12983602	0.78	15259863	85.08	60	120	
Sc (IS)	45	2	HMI He	186473	0.69	210811	88.46	60	120	
Sc (IS)	45	3	No Gas	28477195	0.46	32682642	87.13	60	120	
Ge Internal Standard	72	1	HMI H2	7237054	0.59	8342951	86.74	60	120	
Ge Internal Standard	72	2	HMI He	321340	0.43	360038	89.25	60	120	
In Internal Standard	115	2	HMI He	923022	0.47	998948	92.40	60	120	
Ho-165	165	2	HMI He	7897443	0.38	8244993	95.78	60	120	

Sample Report

Sample Table

Sample Name	280-104320-j-6-b
Data File Name	194SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:14:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	1.705	ppb	1.705	441.89	24036	500000	
Li	7	2	45	56.912	ppb	56.912	59.25	1433	500000	
Li	7	3	45	-18.879	ppb	-18.879	-7.93	849869	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	25.066	ppb	25.066	6.13	2390	2000	
Na	23	1	45	13261.333	ppb	13261.333	1.02	13755880	2000	>LDR
Na	23	2	45	13311.601	ppb	13311.601	2.76	553571	400000	
Mg	24	2	45	27997.198	ppb	27997.198	3.37	534214	400000	
Al	27	2	45	2.605	ppb	2.605	184.25	40	400000	
K	39	1	45	831.523	ppb	831.523	2.81	4349480	400000	
K	39	2	45	2057.336	ppb	2057.336	6.52	19958	400000	
Ca	40	1	45	92107.798	ppb	92107.798	1.11	181380631	400000	
Ca	44	2	45	90268.564	ppb	90268.564	2.93	47560	400000	
Ti	47	2	45	170.441	ppb	170.441	98.27	10	4000	
V	51	2	72	-0.078	ppb	-0.078	-186.80	80	2000	
Cr	52	2	72	-0.041	ppb	-0.041	-261.90	180	5000	
Mn	55	2	72	85.144	ppb	85.144	4.31	10970	10000	
Fe	57	2	72	449.640	ppb	449.640	8.62	4191	400000	
Co	59	2	72	1.802	ppb	1.802	1.45	1864	2000	
Ni	60	2	72	5.073	ppb	5.073	8.32	1693	5000	
Cu	63	2	72	-0.120	ppb	-0.120	-134.20	770	5000	
Zn	66	2	72	1.356	ppb	1.356	31.84	193	5000	
As	75	2	72	12.010	ppb	12.010	5.92	577	2000	
Se	78	1	72	-0.036	ppb	-0.036	-83.92	3	2000	
Sr	88	2	72	283.258	ppb	283.258	3.47	34231	4000	
Zr	90	2	72	7.335	ppb	7.335	60.98	73	1000	
Nb	93	2	72	0.038	ppb	0.038	120.73	107	200	
Mo	95	2	115	0.620	ppb	0.620	48.05	273	2000	
Pd	105	2	115	0.001	ppb	0.001	2441.11	7	100	
Ag	107	2	115	0.019	ppb	0.019	88.01	30	100	
Cd	111	2	115	0.023	ppb	0.023	173.21	3	2000	
Sn	120	2	115	0.220	ppb	0.220	1.40	160	2000	
Sb	121	2	115	0.968	ppb	0.968	15.08	297	1000	
Ba	137	2	115	36.664	ppb	36.664	2.51	3424	5000	
W	182	2	165	0.092	ppb	0.092	36.19	533	100	
Pt	195	2	165	0.006	ppb	0.006	285.37	70	100	
Tl	205	2	165	0.036	ppb	0.036	51.57	193	2000	
Pb	208	2	165	0.854	ppb	0.854	54.60	16044	5000	
Th	232	2	165	0.035	ppb	0.035	25.04	413	2000	
U	238	2	165	0.095	ppb	0.095	7.62	793	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	172646	1.21	207204	83.32	60	120	
Sc (IS)	45	1	HMI H2	13106849	0.74	15259863	85.89	60	120	
Sc (IS)	45	2	HMI He	183482	2.64	210811	87.04	60	120	
Sc (IS)	45	3	No Gas	28186816	0.12	32682642	86.24	60	120	
Ge Internal Standard	72	1	HMI H2	7319525	0.61	8342951	87.73	60	120	
Ge Internal Standard	72	2	HMI He	320706	0.77	360038	89.08	60	120	
In Internal Standard	115	2	HMI He	922262	0.67	998948	92.32	60	120	
Ho-165	165	2	HMI He	7867935	1.66	8244993	95.43	60	120	

Sample Report

Sample Table

Sample Name	280-104320-j-7-b
Data File Name	195SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:18:32-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.336	ppb	3.336	145.21	24036	500000	
Li	7	2	45	25.888	ppb	25.888	296.54	1323	500000	
Li	7	3	45	-19.622	ppb	-19.622	-15.37	853660	50000	
Be	9	1	6	0.009	ppb	0.009	935.62	3	2000	
B	11	1	6	25.685	ppb	25.685	7.38	2420	2000	
Na	23	1	45	13323.187	ppb	13323.187	1.13	13761375	2000	>LDR
Na	23	2	45	13309.338	ppb	13309.338	0.69	553823	400000	
Mg	24	2	45	28249.375	ppb	28249.375	0.70	539398	400000	
Al	27	2	45	17.097	ppb	17.097	53.47	103	400000	
K	39	1	45	890.020	ppb	890.020	2.32	4405542	400000	
K	39	2	45	2033.833	ppb	2033.833	3.31	19792	400000	
Ca	40	1	45	94094.500	ppb	94094.500	0.82	184505777	400000	
Ca	44	2	45	91298.815	ppb	91298.815	0.89	48135	400000	
Ti	47	2	45	57.675	ppb	57.675	173.21	3	4000	
V	51	2	72	-0.221	ppb	-0.221	-37.57	37	2000	
Cr	52	2	72	0.196	ppb	0.196	77.76	273	5000	
Mn	55	2	72	86.165	ppb	86.165	2.00	11057	10000	
Fe	57	2	72	474.217	ppb	474.217	9.52	4361	400000	
Co	59	2	72	1.817	ppb	1.817	8.80	1870	2000	
Ni	60	2	72	5.535	ppb	5.535	11.61	1810	5000	
Cu	63	2	72	-0.282	ppb	-0.282	-57.93	637	5000	
Zn	66	2	72	1.134	ppb	1.134	25.24	177	5000	
As	75	2	72	13.144	ppb	13.144	7.02	629	2000	
Se	78	1	72	0.025	ppb	0.025	375.98	12	2000	
Sr	88	2	72	293.518	ppb	293.518	2.37	35340	4000	
Zr	90	2	72	4.986	ppb	4.986	73.53	60	1000	
Nb	93	2	72	0.053	ppb	0.053	76.38	127	200	
Mo	95	2	115	0.751	ppb	0.751	17.06	323	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-205.74	3	100	
Ag	107	2	115	0.017	ppb	0.017	93.84	27	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.088	ppb	0.088	148.80	113	2000	
Sb	121	2	115	0.666	ppb	0.666	23.85	207	1000	
Ba	137	2	115	39.232	ppb	39.232	1.66	3654	5000	
W	182	2	165	0.091	ppb	0.091	28.71	537	100	
Pt	195	2	165	-0.004	ppb	-0.004	-286.57	43	100	
Tl	205	2	165	0.023	ppb	0.023	85.92	140	2000	
Pb	208	2	165	1.150	ppb	1.150	20.03	17779	5000	
Th	232	2	165	0.015	ppb	0.015	26.16	290	2000	
U	238	2	165	0.100	ppb	0.100	8.24	837	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	170748	0.94	207204	82.41	60	120	
Sc (IS)	45	1	HMI H2	13050999	0.49	15259863	85.53	60	120	
Sc (IS)	45	2	HMI He	183513	0.75	210811	87.05	60	120	
Sc (IS)	45	3	No Gas	28369371	0.44	32682642	86.80	60	120	
Ge Internal Standard	72	1	HMI H2	7301683	0.57	8342951	87.52	60	120	
Ge Internal Standard	72	2	HMI He	319564	0.36	360038	88.76	60	120	
In Internal Standard	115	2	HMI He	920110	0.97	998948	92.11	60	120	
Ho-165	165	2	HMI He	7930276	0.43	8244993	96.18	60	120	

Sample Table

Sample Name	280-104320-j-8-b
Data File Name	196SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:22:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	1.918	ppb	1.918	88.60	23332	500000	
Li	7	2	45	31.894	ppb	31.894	147.63	1350	500000	
Li	7	3	45	-22.442	ppb	-22.442	-13.38	836812	50000	
Be	9	1	6	0.057	ppb	0.057	291.04	7	2000	
B	11	1	6	25.885	ppb	25.885	3.84	2400	2000	
Na	23	1	45	10707.143	ppb	10707.143	1.65	10780241	2000	>LDR
Na	23	2	45	10141.464	ppb	10141.464	0.30	424461	400000	
Mg	24	2	45	20228.983	ppb	20228.983	0.32	388750	400000	
Al	27	2	45	7.099	ppb	7.099	85.41	60	400000	
K	39	1	45	696.557	ppb	696.557	2.93	4051890	400000	
K	39	2	45	1724.188	ppb	1724.188	1.72	17409	400000	
Ca	40	1	45	74571.303	ppb	74571.303	1.50	142505228	400000	
Ca	44	2	45	67090.170	ppb	67090.170	1.51	35552	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.111	ppb	-0.111	-138.07	70	2000	
Cr	52	2	72	-0.048	ppb	-0.048	-212.79	177	5000	
Mn	55	2	72	444.476	ppb	444.476	1.68	54584	10000	
Fe	57	2	72	1151.540	ppb	1151.540	4.26	9536	400000	
Co	59	2	72	0.021	ppb	0.021	289.67	250	2000	
Ni	60	2	72	-0.393	ppb	-0.393	-46.53	230	5000	
Cu	63	2	72	-0.065	ppb	-0.065	-101.60	813	5000	
Zn	66	2	72	0.764	ppb	0.764	95.36	150	5000	
As	75	2	72	7.158	ppb	7.158	4.80	346	2000	
Se	78	1	72	-0.035	ppb	-0.035	-85.30	3	2000	
Sr	88	2	72	191.092	ppb	191.092	2.33	23066	4000	
Zr	90	2	72	118.331	ppb	118.331	4.34	687	1000	
Nb	93	2	72	0.027	ppb	0.027	108.61	90	200	
Mo	95	2	115	0.754	ppb	0.754	39.40	327	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.004	ppb	0.004	86.60	7	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.009	ppb	0.009	1235.66	87	2000	
Sb	121	2	115	0.058	ppb	0.058	175.46	27	1000	
Ba	137	2	115	91.212	ppb	91.212	1.99	8526	5000	
W	182	2	165	0.097	ppb	0.097	55.12	560	100	
Pt	195	2	165	-0.002	ppb	-0.002	-874.96	50	100	
Tl	205	2	165	0.006	ppb	0.006	42.71	70	2000	
Pb	208	2	165	0.702	ppb	0.702	46.00	15517	5000	
Th	232	2	165	0.000	ppb	0.000	-2958.84	193	2000	
U	238	2	165	0.309	ppb	0.309	8.21	2370	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	167986	0.55	207204	81.07	60	120	
Sc (IS)	45	1	HMI H2	12714680	0.83	15259863	83.32	60	120	
Sc (IS)	45	2	HMI He	184339	0.14	210811	87.44	60	120	
Sc (IS)	45	3	No Gas	28020234	0.38	32682642	85.73	60	120	
Ge Internal Standard	72	1	HMI H2	7141326	1.11	8342951	85.60	60	120	
Ge Internal Standard	72	2	HMI He	320232	0.78	360038	88.94	60	120	
In Internal Standard	115	2	HMI He	925145	0.22	998948	92.61	60	120	
Ho-165	165	2	HMI He	8005493	1.05	8244993	97.10	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	197_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:26:08-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	473.948	ppb	4.070	53842	500	94.8	90	110	
Li	7	2	45	522.708	ppb	7.334	3127	500	104.5	90	110	
Li	7	3	45	493.605	ppb	2.110	2068933	500	98.7	90	110	
Be	9	1	6	43.304	ppb	1.569	3174	50	86.6	90	110	>+\-10%
B	11	1	6	33.071	ppb	1.515	3230	50	66.1	90	110	>+\-10%
Na	23	1	45	4842.293	ppb	0.884	5088121	5000	96.8	90	110	
Na	23	2	45	4774.011	ppb	3.392	199518	5000	95.5	90	110	
Mg	24	2	45	4816.974	ppb	2.262	93879	5000	96.3	90	110	
Al	27	2	45	4716.341	ppb	2.581	20452	5000	94.3	90	110	
K	39	1	45	4699.537	ppb	0.733	9375810	5000	94.0	90	110	
K	39	2	45	4702.003	ppb	2.842	40864	5000	94.0	90	110	
Ca	40	1	45	4927.939	ppb	0.785	10071673	5000	98.6	90	110	
Ca	44	2	45	4652.785	ppb	18.651	2520	5000	93.1	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	46.184	ppb	2.248	14009	50	92.4	90	110	
Cr	52	2	72	47.239	ppb	4.364	18921	50	94.5	90	110	
Mn	55	2	72	46.933	ppb	9.294	6278	50	93.9	90	110	
Fe	57	2	72	4810.604	ppb	2.559	37237	5000	96.2	90	110	
Co	59	2	72	46.414	ppb	1.720	41974	50	92.8	90	110	
Ni	60	2	72	48.367	ppb	1.522	13182	50	96.7	90	110	
Cu	63	2	72	46.701	ppb	6.717	38266	50	93.4	90	110	
Zn	66	2	72	48.453	ppb	6.479	3584	50	96.9	90	110	
As	75	2	72	47.168	ppb	5.787	2233	50	94.3	90	110	
Se	78	1	72	49.394	ppb	2.961	7803	50	98.8	90	110	
Sr	88	2	72	50.332	ppb	9.486	6061	50	100.7	90	110	
Zr	90	2	72	45.166	ppb	26.662	280	50	90.3	90	110	
Nb	93	2	72	96.042	ppb	3.717	138912	100	96.0	90	110	
Mo	95	2	115	48.721	ppb	3.838	18861	50	97.4	90	110	
Pd	105	2	115	50.569	ppb	1.151	35431	50	101.1	90	110	
Ag	107	2	115	47.288	ppb	1.084	72919	50	94.6	90	110	
Cd	111	2	115	45.605	ppb	5.813	6595	50	91.2	90	110	
Sn	120	2	115	48.780	ppb	2.913	17113	50	97.6	90	110	
Sb	121	2	115	50.372	ppb	2.262	14967	50	100.7	90	110	
Ba	137	2	115	48.853	ppb	2.727	4554	50	97.7	90	110	
W	182	2	165	48.770	ppb	3.691	139375	50	97.5	90	110	
Pt	195	2	165	48.727	ppb	4.497	136244	50	97.5	90	110	
Tl	205	2	165	49.028	ppb	1.852	202014	50	98.1	90	110	
Pb	208	2	165	49.069	ppb	4.355	272449	50	98.1	90	110	
Th	232	2	165	48.202	ppb	3.060	309825	50	96.4	90	110	
U	238	2	165	48.126	ppb	3.571	345457	50	96.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178289	0.75	207204	86.05	60	120	
Sc (IS)	45	1	HMI H2	13218662	0.60	15259863	86.62	60	120	
Sc (IS)	45	2	HMI He	183026	1.91	210811	86.82	60	120	
Sc (IS)	45	3	No Gas	29015670	0.22	32682642	88.78	60	120	
Ge Internal Standard	72	1	HMI H2	7473685	0.07	8342951	89.58	60	120	
Ge Internal Standard	72	2	HMI He	318461	1.52	360038	88.45	60	120	
In Internal Standard	115	2	HMI He	921551	1.22	998948	92.25	60	120	
Ho-165	165	2	HMI He	7882486	2.02	8244993	95.60	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	198_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:29:58-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-28.852	ppb	-3.0	855446	10	
Be	9	1	6	0.006	ppb	1216.1	3	0.5	
B	11	1	6	0.290	ppb	306.2	113	0.5	
Na	23	1	45	18.618	ppb	8.7	53392	25	
Na	23	2	45	16.706	ppb	33.5	2957	25	
Mg	24	2	45	45.204	ppb	16.1	3447	25	>RL
Al	27	2	45	-3.520	ppb	-102.8	13	15	
K	39	1	45	-57.925	ppb	-55.6	3173333	50	
K	39	2	45	-73.948	ppb	-6.6	3017	50	
Ca	40	1	45	-30.567	ppb	-3.3	235001	50	
Ca	44	2	45	25.270	ppb	543.9	97	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.113	ppb	168.6	137	1	
Cr	52	2	72	-0.213	ppb	-29.6	110	1	
Mn	55	2	72	-2.490	ppb	-24.8	313	0.5	
Fe	57	2	72	-56.302	ppb	-7.1	320	25	
Co	59	2	72	-0.125	ppb	-35.1	117	0.5	
Ni	60	2	72	-0.825	ppb	-15.0	113	1	
Cu	63	2	72	0.406	ppb	9.2	1180	1	
Zn	66	2	72	-0.011	ppb	-4816.6	93	5	
As	75	2	72	0.015	ppb	1359.0	7	1	
Se	78	1	72	-0.036	ppb	-83.3	3	1	
Sr	88	2	72	0.030	ppb	11.7	30	0.5	
Zr	90	2	72	-1.647	ppb	-231.6	23	1	
Nb	93	2	72	1.010	ppb	23.6	1500	2	
Mo	95	2	115	-0.028	ppb	-48.7	23	0.5	
Pd	105	2	115	0.020	ppb	73.4	20	1	
Ag	107	2	115	0.028	ppb	97.3	43	1	
Cd	111	2	115	0.023	ppb	173.2	3	0.5	
Sn	120	2	115	0.142	ppb	41.0	133	1	
Sb	121	2	115	0.180	ppb	37.0	63	0.6	
Ba	137	2	115	0.006	ppb	3916.0	13	0.5	
W	182	2	165	0.063	ppb	29.1	453	1	
Pt	195	2	165	0.011	ppb	161.4	83	1	
Tl	205	2	165	0.022	ppb	15.2	133	0.1	
Pb	208	2	165	0.067	ppb	114.4	11866	0.5	
Th	232	2	165	0.092	ppb	12.1	777	1	
U	238	2	165	-0.001	ppb	-1790.1	110	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178233	0.48	207204	86.02	60	120	
Sc (IS)	45	1	HMI H2	12949146	0.46	15259863	84.86	60	120	
Sc (IS)	45	2	HMI He	181660	1.46	210811	86.17	60	120	
Sc (IS)	45	3	No Gas	29146269	0.70	32682642	89.18	60	120	
Ge Internal Standard	72	1	HMI H2	7348129	0.59	8342951	88.08	60	120	
Ge Internal Standard	72	2	HMI He	316699	1.41	360038	87.96	60	120	
In Internal Standard	115	2	HMI He	927115	2.13	998948	92.81	60	120	
Ho-165	165	2	HMI He	7854037	1.56	8244993	95.26	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	199LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:33:49-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-15.785	ppb	-22.755	827383	50	-31.6	70	130	>+/-30%
Be	9	1	6	1.190	ppb	61.874	90	1	119.0	70	130	
Na	23	2	45	59.716	ppb	14.541	4661	50	119.4	70	130	
Mg	24	2	45	124.866	ppb	8.702	4884	50	249.7	70	130	>+/-30%
Al	27	2	45	35.086	ppb	39.001	177	30	117.0	70	130	
K	39	2	45	22.012	ppb	130.538	3727	100	22.0	70	130	>+/-30%
Ca	44	2	45	27.245	ppb	345.007	97	50	54.5	70	130	>+/-30%
V	51	2	72	4.176	ppb	12.099	1340	5	83.5	70	130	
Cr	52	2	72	1.986	ppb	12.927	967	2	99.3	70	130	
Mn	55	2	72	-1.853	ppb	-58.559	387	1	-185.3	70	130	>+/-30%
Fe	57	2	72	-18.407	ppb	-60.010	600	50	-36.8	70	130	>+/-30%
Co	59	2	72	0.862	ppb	10.371	990	1	86.2	70	130	
Ni	60	2	72	1.269	ppb	13.379	660	2	63.4	70	130	>+/-30%
Cu	63	2	72	1.777	ppb	7.340	2250	2	88.9	70	130	
Zn	66	2	72	9.363	ppb	23.805	757	10	93.6	70	130	
As	75	2	72	4.266	ppb	27.790	204	5	85.3	70	130	
Se	78	1	72	4.710	ppb	15.488	740	5	94.2	70	130	
Sr	88	2	72	1.161	ppb	27.193	163	1	116.1	70	130	
Zr	90	2	72	24.286	ppb	4.861	163	0.5	4857.1	70	130	>+/-30%
Nb	93	2	72	1.250	ppb	39.611	1827	2	62.5	70	130	>+/-30%
Mo	95	2	115	1.706	ppb	21.649	683	2	85.3	70	130	
Pd	105	2	115	0.011	ppb	315.329	13	1	1.1	70	130	>+/-30%
Ag	107	2	115	4.658	ppb	7.584	7072	5	93.2	70	130	
Cd	111	2	115	0.935	ppb	10.440	133	1	93.5	70	130	
Sn	120	2	115	9.133	ppb	6.543	3224	10	91.3	70	130	
Sb	121	2	115	1.985	ppb	11.976	590	2	99.2	70	130	
Ba	137	2	115	1.103	ppb	23.756	113	1	110.3	70	130	
W	182	2	165	4.621	ppb	3.658	13239	1	462.1	70	130	>+/-30%
Pt	195	2	165	0.034	ppb	86.077	147	1	3.4	70	130	>+/-30%
Tl	205	2	165	1.034	ppb	8.544	4231	1	103.4	70	130	
Pb	208	2	165	0.717	ppb	26.560	15107	1	71.7	70	130	
Th	232	2	165	1.855	ppb	4.913	11908	2	92.8	70	130	
U	238	2	165	0.951	ppb	4.591	6828	1	95.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178922	1.63	207204	86.35	60	120	
Sc (IS)	45	1	HMI H2	13082288	0.62	15259863	85.73	60	120	
Sc (IS)	45	2	HMI He	179425	1.47	210811	85.11	60	120	
Sc (IS)	45	3	No Gas	27218281	0.90	32682642	83.28	60	120	
Ge Internal Standard	72	1	HMI H2	7363240	0.69	8342951	88.26	60	120	
Ge Internal Standard	72	2	HMI He	313551	0.46	360038	87.09	60	120	
In Internal Standard	115	2	HMI He	907807	0.99	998948	90.88	60	120	
Ho-165	165	2	HMI He	7750182	1.35	8244993	94.00	60	120	

Sample Table

Sample Name	280-104320-v-9-d
Data File Name	200SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:37:40-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-7.080	ppb	-7.080	-204.76	22324	500000	
Li	7	2	45	49.102	ppb	49.102	32.20	1327	500000	
Li	7	3	45	-16.545	ppb	-16.545	-13.31	817133	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	37.242	ppb	37.242	10.01	3330	2000	
Na	23	1	45	10429.957	ppb	10429.957	1.17	10287986	2000	>LDR
Na	23	2	45	10517.379	ppb	10517.379	1.32	413116	400000	
Mg	24	2	45	26981.258	ppb	26981.258	0.30	485910	400000	
Al	27	2	45	30.827	ppb	30.827	23.66	153	400000	
K	39	1	45	891.576	ppb	891.576	1.60	4206268	400000	
K	39	2	45	1951.531	ppb	1951.531	4.00	18046	400000	
Ca	40	1	45	88881.657	ppb	88881.657	0.55	166339688	400000	
Ca	44	2	45	85096.232	ppb	85096.232	2.68	42304	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.144	ppb	-0.144	-76.22	57	2000	
Cr	52	2	72	0.050	ppb	0.050	172.11	203	5000	
Mn	55	2	72	260.466	ppb	260.466	2.11	30450	10000	
Fe	57	2	72	530.782	ppb	530.782	8.21	4534	400000	
Co	59	2	72	1.688	ppb	1.688	11.01	1660	2000	
Ni	60	2	72	11.635	ppb	11.635	12.22	3250	5000	
Cu	63	2	72	-0.260	ppb	-0.260	-25.81	620	5000	
Zn	66	2	72	0.837	ppb	0.837	53.47	147	5000	
As	75	2	72	45.704	ppb	45.704	2.27	2056	2000	
Se	78	1	72	0.001	ppb	0.001	7885.07	8	2000	
Sr	88	2	72	276.580	ppb	276.580	0.41	31523	4000	
Zr	90	2	72	6.844	ppb	6.844	96.76	67	1000	
Nb	93	2	72	0.113	ppb	0.113	52.88	203	200	
Mo	95	2	115	1.924	ppb	1.924	12.19	740	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.005	ppb	0.005	173.21	7	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.073	ppb	0.073	86.16	103	2000	
Sb	121	2	115	1.830	ppb	1.830	23.61	527	1000	
Ba	137	2	115	52.997	ppb	52.997	6.65	4704	5000	
W	182	2	165	0.120	ppb	0.120	18.03	600	100	
Pt	195	2	165	0.011	ppb	0.011	50.48	83	100	
Tl	205	2	165	0.015	ppb	0.015	47.97	103	2000	
Pb	208	2	165	0.404	ppb	0.404	87.24	13343	5000	
Th	232	2	165	0.104	ppb	0.104	11.38	837	2000	
U	238	2	165	3.485	ppb	3.485	4.79	24477	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	163783	0.90	207204	79.04	60	120	
Sc (IS)	45	1	HMI H2	12455052	0.67	15259863	81.62	60	120	
Sc (IS)	45	2	HMI He	173046	0.95	210811	82.09	60	120	
Sc (IS)	45	3	No Gas	26934248	0.64	32682642	82.41	60	120	
Ge Internal Standard	72	1	HMI H2	6979249	1.13	8342951	83.65	60	120	
Ge Internal Standard	72	2	HMI He	302494	1.24	360038	84.02	60	120	
In Internal Standard	115	2	HMI He	877671	0.72	998948	87.86	60	120	
Ho-165	165	2	HMI He	7676019	0.55	8244993	93.10	60	120	

Sample Report

Sample Table

Sample Name	280-104320-v-9-dSD@5
Data File Name	201SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:41:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-3.019	ppb	-3.019	-224.97	23265	500000	
Li	7	2	45	46.369	ppb	46.369	74.74	1337	500000	
Li	7	3	45	-22.600	ppb	-22.600	-10.50	834495	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	8.913	ppb	8.913	13.76	907	2000	
Na	23	1	45	2221.849	ppb	2221.849	0.23	2286822	2000	
Na	23	2	45	2180.719	ppb	2180.719	2.48	88710	400000	
Mg	24	2	45	5634.736	ppb	5634.736	3.76	105005	400000	
Al	27	2	45	-0.219	ppb	-0.219	-1695.81	27	400000	
K	39	1	45	-127.633	ppb	-127.633	-11.44	3060070	400000	
K	39	2	45	316.354	ppb	316.354	15.22	5885	400000	
Ca	40	1	45	18237.819	ppb	18237.819	0.36	35427704	400000	
Ca	44	2	45	17999.845	ppb	17999.845	2.27	9153	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.014	ppb	-0.014	-1443.54	97	2000	
Cr	52	2	72	-0.145	ppb	-0.145	-41.48	133	5000	
Mn	55	2	72	51.240	ppb	51.240	1.75	6605	10000	
Fe	57	2	72	77.425	ppb	77.425	54.80	1300	400000	
Co	59	2	72	0.256	ppb	0.256	20.90	447	2000	
Ni	60	2	72	1.456	ppb	1.456	33.05	700	5000	
Cu	63	2	72	0.792	ppb	0.792	15.03	1453	5000	
Zn	66	2	72	0.317	ppb	0.317	293.13	113	5000	
As	75	2	72	8.630	ppb	8.630	9.29	401	2000	
Se	78	1	72	-0.001	ppb	-0.001	-1790.03	8	2000	
Sr	88	2	72	53.840	ppb	53.840	5.21	6295	4000	
Zr	90	2	72	-2.787	ppb	-2.787	-101.73	17	1000	
Nb	93	2	72	0.018	ppb	0.018	65.85	73	200	
Mo	95	2	115	0.402	ppb	0.402	31.58	183	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-218.82	3	100	
Ag	107	2	115	0.002	ppb	0.002	173.21	3	100	
Cd	111	2	115	0.071	ppb	0.071	173.21	10	2000	
Sn	120	2	115	0.136	ppb	0.136	148.02	127	2000	
Sb	121	2	115	0.270	ppb	0.270	37.50	87	1000	
Ba	137	2	115	11.029	ppb	11.029	11.06	1007	5000	
W	182	2	165	-0.011	ppb	-0.011	-219.29	237	100	
Pt	195	2	165	-0.007	ppb	-0.007	-79.52	33	100	
Tl	205	2	165	0.002	ppb	0.002	791.65	50	2000	
Pb	208	2	165	-0.566	ppb	-0.566	-26.84	8361	5000	
Th	232	2	165	0.011	ppb	0.011	43.30	253	2000	
U	238	2	165	0.710	ppb	0.710	2.90	5098	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	173278	0.68	207204	83.63	60	120	
Sc (IS)	45	1	HMI H2	12843264	0.57	15259863	84.16	60	120	
Sc (IS)	45	2	HMI He	175717	1.12	210811	83.35	60	120	
Sc (IS)	45	3	No Gas	27954128	0.36	32682642	85.53	60	120	
Ge Internal Standard	72	1	HMI H2	7332835	0.67	8342951	87.89	60	120	
Ge Internal Standard	72	2	HMI He	309245	1.41	360038	85.89	60	120	
In Internal Standard	115	2	HMI He	894167	0.32	998948	89.51	60	120	
Ho-165	165	2	HMI He	7707736	1.58	8244993	93.48	60	120	

Sample Table

Sample Name	280-104320-v-9-e ms
Data File Name	202SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:45:16-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	43.109	ppb	43.109	11.25	25011	500000	
Li	7	2	45	123.229	ppb	123.229	4.46	1560	500000	
Li	7	3	45	44.024	ppb	44.024	37.81	979353	50000	
Be	9	1	6	35.138	ppb	35.138	6.95	2344	2000	
B	11	1	6	67.298	ppb	67.298	1.71	5901	2000	
Na	23	1	45	10463.371	ppb	10463.371	0.42	10208692	2000	>LDR
Na	23	2	45	10501.177	ppb	10501.177	1.32	406888	400000	
Mg	24	2	45	26771.057	ppb	26771.057	0.46	475594	400000	
Al	27	2	45	404.422	ppb	404.422	8.14	1660	400000	
K	39	1	45	912.100	ppb	912.100	6.49	4184860	400000	
K	39	2	45	1992.956	ppb	1992.956	0.23	18106	400000	
Ca	40	1	45	89115.301	ppb	89115.301	0.97	164955198	400000	
Ca	44	2	45	88124.473	ppb	88124.473	1.31	43216	400000	
Ti	47	2	45	123.368	ppb	123.368	173.21	7	4000	
V	51	2	72	37.991	ppb	37.991	7.96	10764	2000	
Cr	52	2	72	39.683	ppb	39.683	0.58	14850	5000	
Mn	55	2	72	296.858	ppb	296.858	1.72	33990	10000	
Fe	57	2	72	937.899	ppb	937.899	2.52	7332	400000	
Co	59	2	72	40.005	ppb	40.005	4.40	33769	2000	
Ni	60	2	72	49.132	ppb	49.132	1.85	12482	5000	
Cu	63	2	72	38.324	ppb	38.324	1.66	29442	5000	
Zn	66	2	72	36.994	ppb	36.994	4.24	2574	5000	
As	75	2	72	81.955	ppb	81.955	4.98	3615	2000	
Se	78	1	72	38.555	ppb	38.555	5.74	5686	2000	
Sr	88	2	72	314.554	ppb	314.554	0.89	35187	4000	
Zr	90	2	72	3439.401	ppb	3439.401	5.42	17656	1000	
Nb	93	2	72	0.133	ppb	0.133	21.15	227	200	
Mo	95	2	115	41.712	ppb	41.712	0.92	15207	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	38.721	ppb	38.721	3.20	56193	100	
Cd	111	2	115	37.849	ppb	37.849	7.47	5154	2000	
Sn	120	2	115	38.557	ppb	38.557	2.62	12752	2000	
Sb	121	2	115	40.448	ppb	40.448	6.90	11314	1000	
Ba	137	2	115	95.021	ppb	95.021	3.92	8326	5000	
W	182	2	165	40.490	ppb	40.490	0.53	111046	100	
Pt	195	2	165	-0.002	ppb	-0.002	-118.46	47	100	
Tl	205	2	165	40.431	ppb	40.431	2.15	159743	2000	
Pb	208	2	165	40.820	ppb	40.820	3.19	219255	5000	
Th	232	2	165	39.866	ppb	39.866	1.68	245797	2000	
U	238	2	165	44.136	ppb	44.136	0.77	303923	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162239	1.28	207204	78.30	60	120	
Sc (IS)	45	1	HMI H2	12319315	0.60	15259863	80.73	60	120	
Sc (IS)	45	2	HMI He	170694	0.57	210811	80.97	60	120	
Sc (IS)	45	3	No Gas	27796094	4.43	32682642	85.05	60	120	
Ge Internal Standard	72	1	HMI H2	6975339	0.48	8342951	83.61	60	120	
Ge Internal Standard	72	2	HMI He	296925	0.24	360038	82.47	60	120	
In Internal Standard	115	2	HMI He	867373	0.77	998948	86.83	60	120	
Ho-165	165	2	HMI He	7558024	1.05	8244993	91.67	60	120	

Sample Table

Sample Name	280-104320-v-9-f msd
Data File Name	203SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:49:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	44.145	ppb	44.145	28.98	24847	500000	
Li	7	2	45	79.018	ppb	79.018	97.19	1383	500000	
Li	7	3	45	18.158	ppb	18.158	7.70	882776	50000	
Be	9	1	6	33.284	ppb	33.284	4.51	2207	2000	
B	11	1	6	63.679	ppb	63.679	9.38	5551	2000	
Na	23	1	45	10140.353	ppb	10140.353	0.24	9806362	2000	>LDR
Na	23	2	45	10227.653	ppb	10227.653	0.12	388864	400000	
Mg	24	2	45	25979.461	ppb	25979.461	0.37	452871	400000	
Al	27	2	45	387.884	ppb	387.884	7.45	1563	400000	
K	39	1	45	807.217	ppb	807.217	2.25	4022818	400000	
K	39	2	45	1957.625	ppb	1957.625	3.34	17509	400000	
Ca	40	1	45	86349.610	ppb	86349.610	0.05	158425104	400000	
Ca	44	2	45	85488.349	ppb	85488.349	0.44	41135	400000	
Ti	47	2	45	251.756	ppb	251.756	114.57	13	4000	
V	51	2	72	37.700	ppb	37.700	4.38	10654	2000	
Cr	52	2	72	38.540	ppb	38.540	5.15	14390	5000	
Mn	55	2	72	290.618	ppb	290.618	1.77	33202	10000	
Fe	57	2	72	915.545	ppb	915.545	0.58	7155	400000	
Co	59	2	72	38.290	ppb	38.290	2.44	32243	2000	
Ni	60	2	72	48.330	ppb	48.330	6.74	12251	5000	
Cu	63	2	72	36.187	ppb	36.187	0.79	27772	5000	
Zn	66	2	72	40.977	ppb	40.977	2.83	2834	5000	
As	75	2	72	78.286	ppb	78.286	1.27	3444	2000	
Se	78	1	72	39.011	ppb	39.011	0.96	5737	2000	
Sr	88	2	72	297.046	ppb	297.046	2.15	33143	4000	
Zr	90	2	72	3254.647	ppb	3254.647	1.08	16665	1000	
Nb	93	2	72	0.077	ppb	0.077	58.80	150	200	
Mo	95	2	115	39.778	ppb	39.778	2.36	14537	2000	
Pd	105	2	115	0.006	ppb	0.006	239.84	10	100	
Ag	107	2	115	38.480	ppb	38.480	1.89	55969	100	
Cd	111	2	115	36.684	ppb	36.684	4.47	5004	2000	
Sn	120	2	115	38.577	ppb	38.577	2.12	12785	2000	
Sb	121	2	115	39.242	ppb	39.242	4.24	10997	1000	
Ba	137	2	115	92.538	ppb	92.538	4.54	8126	5000	
W	182	2	165	39.178	ppb	39.178	0.69	108885	100	
Pt	195	2	165	-0.006	ppb	-0.006	-218.14	37	100	
Tl	205	2	165	38.847	ppb	38.847	1.97	155533	2000	
Pb	208	2	165	40.194	ppb	40.194	0.92	218971	5000	
Th	232	2	165	39.073	ppb	39.073	1.04	244122	2000	
U	238	2	165	42.843	ppb	42.843	0.24	298936	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161233	0.76	207204	77.81	60	120	
Sc (IS)	45	1	HMI H2	12209439	0.26	15259863	80.01	60	120	
Sc (IS)	45	2	HMI He	167464	0.51	210811	79.44	60	120	
Sc (IS)	45	3	No Gas	26649308	0.46	32682642	81.54	60	120	
Ge Internal Standard	72	1	HMI H2	6955104	0.51	8342951	83.37	60	120	
Ge Internal Standard	72	2	HMI He	296151	0.09	360038	82.26	60	120	
In Internal Standard	115	2	HMI He	869287	0.85	998948	87.02	60	120	
Ho-165	165	2	HMI He	7658179	0.37	8244993	92.88	60	120	

Sample Table

Sample Name	280-104320-v-9-d PDS
Data File Name	204SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:52:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	199.401	ppb	199.401	4.46	33865	500000	
Li	7	2	45	213.587	ppb	213.587	25.36	1870	500000	
Li	7	3	45	237.874	ppb	237.874	3.72	1343454	50000	
Be	9	1	6	177.532	ppb	177.532	4.29	11761	2000	
B	11	1	6	39.209	ppb	39.209	5.28	3447	2000	
Na	23	1	45	10426.075	ppb	10426.075	1.11	10090397	2000	>LDR
Na	23	2	45	10184.808	ppb	10184.808	4.22	395858	400000	
Mg	24	2	45	26176.294	ppb	26176.294	4.99	466365	400000	
Al	27	2	45	1900.376	ppb	1900.376	10.74	7715	400000	
K	39	1	45	845.947	ppb	845.947	3.30	4072527	400000	
K	39	2	45	1920.822	ppb	1920.822	6.45	17622	400000	
Ca	40	1	45	89067.161	ppb	89067.161	0.95	163542811	400000	
Ca	44	2	45	85910.973	ppb	85910.973	3.15	42267	400000	
Ti	47	2	45	427.920	ppb	427.920	22.16	23	4000	
V	51	2	72	190.084	ppb	190.084	3.75	54162	2000	
Cr	52	2	72	198.323	ppb	198.323	2.93	74449	5000	
Mn	55	2	72	457.131	ppb	457.131	0.96	52722	10000	
Fe	57	2	72	2426.526	ppb	2426.526	1.83	18100	400000	
Co	59	2	72	192.101	ppb	192.101	3.93	163414	2000	
Ni	60	2	72	205.487	ppb	205.487	3.73	51880	5000	
Cu	63	2	72	194.786	ppb	194.786	3.61	148262	5000	
Zn	66	2	72	199.221	ppb	199.221	2.76	13649	5000	
As	75	2	72	220.966	ppb	220.966	3.63	9863	2000	
Se	78	1	72	196.980	ppb	196.980	0.82	28949	2000	
Sr	88	2	72	476.007	ppb	476.007	2.50	53931	4000	
Zr	90	2	72	17335.276	ppb	17335.276	3.07	90022	1000	>LDR
Nb	93	2	72	0.716	ppb	0.716	9.67	1027	200	
Mo	95	2	115	189.504	ppb	189.504	2.24	70394	2000	
Pd	105	2	115	0.006	ppb	0.006	4.67	10	100	
Ag	107	2	115	49.290	ppb	49.290	2.43	73006	100	
Cd	111	2	115	193.742	ppb	193.742	1.91	26919	2000	
Sn	120	2	115	196.266	ppb	196.266	3.96	65905	2000	
Sb	121	2	115	202.336	ppb	202.336	3.52	57699	1000	
Ba	137	2	115	251.401	ppb	251.401	5.00	22456	5000	
W	182	2	165	199.490	ppb	199.490	3.93	560516	100	
Pt	195	2	165	0.028	ppb	0.028	58.70	130	100	
Tl	205	2	165	204.064	ppb	204.064	3.88	827463	2000	
Pb	208	2	165	200.850	ppb	200.850	4.53	1062844	5000	
Th	232	2	165	204.359	ppb	204.359	3.68	1292688	2000	
U	238	2	165	212.742	ppb	212.742	6.37	1502595	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161251	2.24	207204	77.82	60	120	
Sc (IS)	45	1	HMI H2	12220668	0.98	15259863	80.08	60	120	
Sc (IS)	45	2	HMI He	171340	3.19	210811	81.28	60	120	
Sc (IS)	45	3	No Gas	26462287	0.36	32682642	80.97	60	120	
Ge Internal Standard	72	1	HMI H2	6958114	0.45	8342951	83.40	60	120	
Ge Internal Standard	72	2	HMI He	300893	1.68	360038	83.57	60	120	
In Internal Standard	115	2	HMI He	885392	1.89	998948	88.63	60	120	
Ho-165	165	2	HMI He	7763247	2.75	8244993	94.16	60	120	

Sample Table

Sample Name	280-104320-a-12-b
Data File Name	205SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-26T23:56:41-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-9.606	ppb	-9.606	-78.96	21757	500000	
Li	7	2	45	56.559	ppb	56.559	94.36	1327	500000	
Li	7	3	45	-27.622	ppb	-27.622	-4.81	786365	50000	
Be	9	1	6	0.418	ppb	0.418	63.07	30	2000	
B	11	1	6	45.271	ppb	45.271	6.07	3937	2000	
Na	23	1	45	8300.914	ppb	8300.914	0.47	8040388	2000	
Na	23	2	45	8211.248	ppb	8211.248	1.51	317092	400000	
Mg	24	2	45	30931.375	ppb	30931.375	0.76	546480	400000	
Al	27	2	45	-0.003	ppb	-0.003	-111040.86	27	400000	
K	39	1	45	-164.818	ppb	-164.818	-6.17	2867265	400000	
K	39	2	45	934.110	ppb	934.110	2.94	10233	400000	
Ca	40	1	45	69841.276	ppb	69841.276	0.83	128300881	400000	
Ca	44	2	45	67717.275	ppb	67717.275	1.30	33068	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.026	ppb	-0.026	-352.82	90	2000	
Cr	52	2	72	0.115	ppb	0.115	120.21	227	5000	
Mn	55	2	72	-3.144	ppb	-3.144	-15.56	223	10000	
Fe	57	2	72	-63.341	ppb	-63.341	-21.31	253	400000	
Co	59	2	72	-0.126	ppb	-0.126	-74.92	110	2000	
Ni	60	2	72	-0.417	ppb	-0.417	-43.11	210	5000	
Cu	63	2	72	0.072	ppb	0.072	532.30	867	5000	
Zn	66	2	72	0.210	ppb	0.210	161.51	103	5000	
As	75	2	72	0.450	ppb	0.450	51.63	25	2000	
Se	78	1	72	0.648	ppb	0.648	35.88	103	2000	
Sr	88	2	72	193.007	ppb	193.007	4.13	21854	4000	
Zr	90	2	72	12.754	ppb	12.754	48.97	97	1000	
Nb	93	2	72	0.021	ppb	0.021	215.77	77	200	
Mo	95	2	115	1.125	ppb	1.125	10.86	447	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.005	ppb	0.005	86.61	7	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.493	ppb	0.493	54.81	243	2000	
Sb	121	2	115	3.596	ppb	3.596	15.63	1027	1000	
Ba	137	2	115	34.270	ppb	34.270	13.47	3050	5000	
W	182	2	165	0.134	ppb	0.134	9.14	643	100	
Pt	195	2	165	0.010	ppb	0.010	134.10	80	100	
Tl	205	2	165	0.075	ppb	0.075	13.48	347	2000	
Pb	208	2	165	98.735	ppb	98.735	0.86	526866	5000	
Th	232	2	165	0.260	ppb	0.260	10.33	1827	2000	
U	238	2	165	1.738	ppb	1.738	1.30	12355	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159877	0.33	207204	77.16	60	120	
Sc (IS)	45	1	HMI H2	12220106	0.23	15259863	80.08	60	120	
Sc (IS)	45	2	HMI He	169875	0.68	210811	80.58	60	120	
Sc (IS)	45	3	No Gas	26702529	0.32	32682642	81.70	60	120	
Ge Internal Standard	72	1	HMI H2	6930213	0.41	8342951	83.07	60	120	
Ge Internal Standard	72	2	HMI He	300458	0.41	360038	83.45	60	120	
In Internal Standard	115	2	HMI He	878429	0.67	998948	87.94	60	120	
Ho-165	165	2	HMI He	7736379	0.20	8244993	93.83	60	120	

Sample Table

Sample Name	280-104320-a-13-b
Data File Name	206SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:00:28-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	4.671	ppb	4.671	169.03	22341	500000	
Li	7	2	45	23.952	ppb	23.952	119.87	1200	500000	
Li	7	3	45	-20.995	ppb	-20.995	-9.22	803581	50000	
Be	9	1	6	0.111	ppb	0.111	135.14	10	2000	
B	11	1	6	29.082	ppb	29.082	9.42	2587	2000	
Na	23	1	45	8353.204	ppb	8353.204	0.79	8004198	2000	
Na	23	2	45	8454.839	ppb	8454.839	0.37	321851	400000	
Mg	24	2	45	14283.417	ppb	14283.417	1.13	250087	400000	
Al	27	2	45	21.948	ppb	21.948	35.29	113	400000	
K	39	1	45	307.687	ppb	307.687	8.27	3393912	400000	
K	39	2	45	1436.144	ppb	1436.144	1.27	13729	400000	
Ca	40	1	45	56956.628	ppb	56956.628	1.19	103558395	400000	
Ca	44	2	45	55958.937	ppb	55958.937	1.36	26954	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.128	ppb	-0.128	-99.93	60	2000	
Cr	52	2	72	0.170	ppb	0.170	65.89	243	5000	
Mn	55	2	72	159.087	ppb	159.087	1.76	18423	10000	
Fe	57	2	72	665.033	ppb	665.033	2.08	5384	400000	
Co	59	2	72	-0.096	ppb	-0.096	-69.23	133	2000	
Ni	60	2	72	-0.889	ppb	-0.889	-16.55	90	5000	
Cu	63	2	72	-0.358	ppb	-0.358	-7.87	533	5000	
Zn	66	2	72	0.629	ppb	0.629	146.74	130	5000	
As	75	2	72	12.144	ppb	12.144	8.36	539	2000	
Se	78	1	72	-0.007	ppb	-0.007	-594.06	7	2000	
Sr	88	2	72	222.973	ppb	222.973	0.56	24869	4000	
Zr	90	2	72	8.443	ppb	8.443	52.79	73	1000	
Nb	93	2	72	0.005	ppb	0.005	341.29	53	200	
Mo	95	2	115	1.482	ppb	1.482	16.36	573	2000	
Pd	105	2	115	0.001	ppb	0.001	1350.35	7	100	
Ag	107	2	115	0.005	ppb	0.005	173.21	7	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.176	ppb	0.176	42.73	137	2000	
Sb	121	2	115	0.183	ppb	0.183	117.12	60	1000	
Ba	137	2	115	112.064	ppb	112.064	4.14	9857	5000	
W	182	2	165	0.146	ppb	0.146	38.04	670	100	
Pt	195	2	165	0.014	ppb	0.014	25.72	90	100	
Tl	205	2	165	0.015	ppb	0.015	9.70	103	2000	
Pb	208	2	165	-0.761	ppb	-0.761	-13.90	7288	5000	
Th	232	2	165	0.101	ppb	0.101	13.68	813	2000	
U	238	2	165	0.202	ppb	0.202	15.49	1517	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161787	0.31	207204	78.08	60	120	
Sc (IS)	45	1	HMI H2	12089515	0.92	15259863	79.22	60	120	
Sc (IS)	45	2	HMI He	167480	0.29	210811	79.45	60	120	
Sc (IS)	45	3	No Gas	26802677	0.20	32682642	82.01	60	120	
Ge Internal Standard	72	1	HMI H2	6894713	0.37	8342951	82.64	60	120	
Ge Internal Standard	72	2	HMI He	295964	0.40	360038	82.20	60	120	
In Internal Standard	115	2	HMI He	870794	0.25	998948	87.17	60	120	
Ho-165	165	2	HMI He	7651386	0.94	8244993	92.80	60	120	

Sample Table

Sample Name	280-104320-e-14-b
Data File Name	207SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:04:17-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	6.226	ppb	6.226	110.17	22224	500000	
Li	7	2	45	70.165	ppb	70.165	68.52	1363	500000	
Li	7	3	45	-24.923	ppb	-24.923	-13.98	804560	50000	
Be	9	1	6	0.263	ppb	0.263	114.63	20	2000	
B	11	1	6	6.041	ppb	6.041	33.48	593	2000	
Na	23	1	45	3831.620	ppb	3831.620	0.68	3655029	2000	
Na	23	2	45	3693.021	ppb	3693.021	0.82	142749	400000	
Mg	24	2	45	9459.401	ppb	9459.401	0.79	167595	400000	
Al	27	2	45	3.355	ppb	3.355	147.83	40	400000	
K	39	1	45	-575.310	ppb	-575.310	-6.30	2330583	400000	
K	39	2	45	508.645	ppb	508.645	8.66	7055	400000	
Ca	40	1	45	30170.994	ppb	30170.994	1.23	54480854	400000	
Ca	44	2	45	27674.153	ppb	27674.153	0.69	13462	400000	
Ti	47	2	45	62.464	ppb	62.464	173.21	3	4000	
V	51	2	72	-0.272	ppb	-0.272	-0.19	20	2000	
Cr	52	2	72	0.073	ppb	0.073	282.83	210	5000	
Mn	55	2	72	266.903	ppb	266.903	2.80	30781	10000	
Fe	57	2	72	3727.168	ppb	3727.168	2.83	27198	400000	
Co	59	2	72	0.231	ppb	0.231	24.26	410	2000	
Ni	60	2	72	1.516	ppb	1.516	31.74	690	5000	
Cu	63	2	72	-0.041	ppb	-0.041	-199.34	777	5000	
Zn	66	2	72	0.469	ppb	0.469	96.57	120	5000	
As	75	2	72	1.370	ppb	1.370	24.98	66	2000	
Se	78	1	72	-0.016	ppb	-0.016	-267.01	5	2000	
Sr	88	2	72	40.281	ppb	40.281	2.07	4551	4000	
Zr	90	2	72	1.214	ppb	1.214	91.15	37	1000	
Nb	93	2	72	-0.010	ppb	-0.010	-238.08	33	200	
Mo	95	2	115	0.262	ppb	0.262	28.01	130	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-219.78	3	100	
Ag	107	2	115	0.000	ppb	0.000	#DIV/0!	0	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.050	ppb	-0.050	-146.82	63	2000	
Sb	121	2	115	0.143	ppb	0.143	128.11	50	1000	
Ba	137	2	115	16.431	ppb	16.431	10.14	1483	5000	
W	182	2	165	0.082	ppb	0.082	43.96	500	100	
Pt	195	2	165	-0.001	ppb	-0.001	-501.32	50	100	
Tl	205	2	165	0.001	ppb	0.001	1349.30	47	2000	
Pb	208	2	165	0.098	ppb	0.098	1326.76	11883	5000	
Th	232	2	165	0.060	ppb	0.060	29.31	570	2000	
U	238	2	165	-0.002	ppb	-0.002	-141.34	97	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	160402	0.97	207204	77.41	60	120	
Sc (IS)	45	1	HMI H2	11978803	1.16	15259863	78.50	60	120	
Sc (IS)	45	2	HMI He	168650	0.53	210811	80.00	60	120	
Sc (IS)	45	3	No Gas	27121565	0.54	32682642	82.98	60	120	
Ge Internal Standard	72	1	HMI H2	6848690	0.65	8342951	82.09	60	120	
Ge Internal Standard	72	2	HMI He	298484	0.74	360038	82.90	60	120	
In Internal Standard	115	2	HMI He	888108	0.98	998948	88.90	60	120	
Ho-165	165	2	HMI He	7760880	0.56	8244993	94.13	60	120	

Sample Table

Sample Name	280-104320-e-15-b
Data File Name	208SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:08:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-2.781	ppb	-2.781	-186.27	21967	500000	
Li	7	2	45	20.870	ppb	20.870	289.67	1207	500000	
Li	7	3	45	-18.202	ppb	-18.202	-14.54	809071	50000	
Be	9	1	6	0.011	ppb	0.011	815.24	3	2000	
B	11	1	6	22.283	ppb	22.283	6.75	2014	2000	
Na	23	1	45	4492.186	ppb	4492.186	0.14	4329680	2000	
Na	23	2	45	4398.262	ppb	4398.262	0.58	170870	400000	
Mg	24	2	45	15971.021	ppb	15971.021	1.23	283393	400000	
Al	27	2	45	14.901	ppb	14.901	69.40	87	400000	
K	39	1	45	77.737	ppb	77.737	3.97	3130179	400000	
K	39	2	45	1170.581	ppb	1170.581	4.20	11974	400000	
Ca	40	1	45	65553.067	ppb	65553.067	0.39	119437042	400000	
Ca	44	2	45	60609.988	ppb	60609.988	1.54	29612	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.166	ppb	-0.166	-21.06	50	2000	
Cr	52	2	72	0.116	ppb	0.116	177.99	227	5000	
Mn	55	2	72	431.660	ppb	431.660	2.23	49630	10000	
Fe	57	2	72	2297.713	ppb	2297.713	4.06	17109	400000	
Co	59	2	72	0.036	ppb	0.036	189.14	247	2000	
Ni	60	2	72	-0.427	ppb	-0.427	-75.57	207	5000	
Cu	63	2	72	0.442	ppb	0.442	42.29	1143	5000	
Zn	66	2	72	1.345	ppb	1.345	44.23	180	5000	
As	75	2	72	14.621	ppb	14.621	7.59	656	2000	
Se	78	1	72	0.002	ppb	0.002	2696.20	8	2000	
Sr	88	2	72	144.301	ppb	144.301	1.04	16308	4000	
Zr	90	2	72	30.206	ppb	30.206	38.94	187	1000	
Nb	93	2	72	0.014	ppb	0.014	213.11	67	200	
Mo	95	2	115	0.423	ppb	0.423	47.27	190	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.000	ppb	0.000	#DIV/0!	0	100	
Cd	111	2	115	0.048	ppb	0.048	173.21	7	2000	
Sn	120	2	115	0.109	ppb	0.109	112.02	117	2000	
Sb	121	2	115	0.144	ppb	0.144	23.57	50	1000	
Ba	137	2	115	51.690	ppb	51.690	7.56	4634	5000	
W	182	2	165	0.054	ppb	0.054	15.22	423	100	
Pt	195	2	165	-0.007	ppb	-0.007	-123.33	33	100	
Tl	205	2	165	0.011	ppb	0.011	57.90	90	2000	
Pb	208	2	165	0.525	ppb	0.525	26.78	14230	5000	
Th	232	2	165	0.041	ppb	0.041	20.56	450	2000	
U	238	2	165	0.126	ppb	0.126	7.23	1010	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162801	0.40	207204	78.57	60	120	
Sc (IS)	45	1	HMI H2	12118158	0.05	15259863	79.41	60	120	
Sc (IS)	45	2	HMI He	169904	0.30	210811	80.60	60	120	
Sc (IS)	45	3	No Gas	26785427	0.99	32682642	81.96	60	120	
Ge Internal Standard	72	1	HMI H2	6909270	0.55	8342951	82.82	60	120	
Ge Internal Standard	72	2	HMI He	299743	0.29	360038	83.25	60	120	
In Internal Standard	115	2	HMI He	886030	0.70	998948	88.70	60	120	
Ho-165	165	2	HMI He	7817804	0.14	8244993	94.82	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	209_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:11:54-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	482.225	ppb	2.918	52679	500	96.4	90	110	
Li	7	2	45	492.446	ppb	14.354	2887	500	98.5	90	110	
Li	7	3	45	526.511	ppb	2.773	2071848	500	105.3	90	110	
Be	9	1	6	41.422	ppb	3.140	2950	50	82.8	90	110	>+\-10%
B	11	1	6	33.408	ppb	5.553	3170	50	66.8	90	110	>+\-10%
Na	23	1	45	4677.932	ppb	1.099	4765186	5000	93.6	90	110	
Na	23	2	45	4599.154	ppb	1.989	184128	5000	92.0	90	110	
Mg	24	2	45	4732.114	ppb	1.965	88342	5000	94.6	90	110	
Al	27	2	45	4592.686	ppb	1.909	19071	5000	91.9	90	110	
K	39	1	45	4503.563	ppb	0.451	8841971	5000	90.1	90	110	
K	39	2	45	4589.224	ppb	1.558	38275	5000	91.8	90	110	
Ca	40	1	45	4748.764	ppb	0.536	9417059	5000	95.0	90	110	
Ca	44	2	45	4419.576	ppb	9.512	2300	5000	88.4	90	110	>+\-10%
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	44.452	ppb	4.763	13045	50	88.9	90	110	>+\-10%
Cr	52	2	72	46.526	ppb	4.476	18023	50	93.1	90	110	
Mn	55	2	72	42.478	ppb	2.001	5554	50	85.0	90	110	>+\-10%
Fe	57	2	72	4626.909	ppb	2.538	34658	5000	92.5	90	110	
Co	59	2	72	46.817	ppb	1.526	40941	50	93.6	90	110	
Ni	60	2	72	45.981	ppb	2.043	12135	50	92.0	90	110	
Cu	63	2	72	46.064	ppb	1.883	36532	50	92.1	90	110	
Zn	66	2	72	46.394	ppb	7.557	3324	50	92.8	90	110	
As	75	2	72	46.391	ppb	1.955	2124	50	92.8	90	110	
Se	78	1	72	49.223	ppb	0.860	7558	50	98.4	90	110	
Sr	88	2	72	51.956	ppb	3.614	6048	50	103.9	90	110	
Zr	90	2	72	26.709	ppb	24.457	173	50	53.4	90	110	>+\-10%
Nb	93	2	72	94.548	ppb	1.090	132268	100	94.5	90	110	
Mo	95	2	115	46.812	ppb	2.635	17910	50	93.6	90	110	
Pd	105	2	115	49.633	ppb	4.193	34355	50	99.3	90	110	
Ag	107	2	115	47.327	ppb	1.637	72106	50	94.7	90	110	
Cd	111	2	115	47.124	ppb	9.148	6732	50	94.2	90	110	
Sn	120	2	115	47.615	ppb	4.459	16505	50	95.2	90	110	
Sb	121	2	115	46.124	ppb	0.900	13539	50	92.2	90	110	
Ba	137	2	115	45.834	ppb	8.935	4224	50	91.7	90	110	
W	182	2	165	47.661	ppb	1.567	137912	50	95.3	90	110	
Pt	195	2	165	47.970	ppb	1.608	135810	50	95.9	90	110	
Tl	205	2	165	48.893	ppb	1.078	203891	50	97.8	90	110	
Pb	208	2	165	47.609	ppb	1.347	267999	50	95.2	90	110	
Th	232	2	165	47.802	ppb	1.259	311058	50	95.6	90	110	
U	238	2	165	47.968	ppb	1.047	348621	50	95.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	173259	0.59	207204	83.62	60	120	
Sc (IS)	45	1	HMI H2	12811282	0.46	15259863	83.95	60	120	
Sc (IS)	45	2	HMI He	175197	0.64	210811	83.11	60	120	
Sc (IS)	45	3	No Gas	28018228	0.23	32682642	85.73	60	120	
Ge Internal Standard	72	1	HMI H2	7263385	0.94	8342951	87.06	60	120	
Ge Internal Standard	72	2	HMI He	307919	0.48	360038	85.52	60	120	
In Internal Standard	115	2	HMI He	910573	1.12	998948	91.15	60	120	
Ho-165	165	2	HMI He	7977550	1.12	8244993	96.76	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	210_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:15:41-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-18.332	ppb	-9.6	844307	10	
Be	9	1	6	-0.039	ppb	0.0	0	0.5	
B	11	1	6	0.525	ppb	79.9	133	0.5	>RL
Na	23	1	45	12.578	ppb	22.2	45727	25	
Na	23	2	45	9.518	ppb	43.5	2494	25	
Mg	24	2	45	45.758	ppb	11.6	3244	25	>RL
Al	27	2	45	5.636	ppb	110.2	50	15	
K	39	1	45	-68.572	ppb	-57.5	3062369	50	
K	39	2	45	-95.335	ppb	-18.8	2670	50	
Ca	40	1	45	-50.841	ppb	-6.9	189511	50	
Ca	44	2	45	-43.061	ppb	-81.5	57	25	
Ti	47	2	45	60.228	ppb	173.2	3	0.5	>RL
V	51	2	72	-0.037	ppb	-701.7	87	1	
Cr	52	2	72	-0.208	ppb	-9.5	107	1	
Mn	55	2	72	-4.206	ppb	-9.6	103	0.5	
Fe	57	2	72	-66.496	ppb	-9.0	233	25	
Co	59	2	72	-0.163	ppb	-20.4	80	0.5	
Ni	60	2	72	-0.755	ppb	-24.2	127	1	
Cu	63	2	72	0.225	ppb	100.7	990	1	
Zn	66	2	72	0.297	ppb	138.5	110	5	
As	75	2	72	-0.050	ppb	-179.0	3	1	
Se	78	1	72	-0.018	ppb	-218.9	5	1	
Sr	88	2	72	0.100	ppb	134.9	37	0.5	
Zr	90	2	72	-0.836	ppb	-470.8	27	1	
Nb	93	2	72	0.944	ppb	13.9	1347	2	
Mo	95	2	115	-0.015	ppb	-576.0	27	0.5	
Pd	105	2	115	0.025	ppb	30.6	23	1	
Ag	107	2	115	0.015	ppb	136.4	23	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.056	ppb	313.8	100	1	
Sb	121	2	115	0.246	ppb	68.9	80	0.6	
Ba	137	2	115	-0.097	ppb	-65.3	3	0.5	
W	182	2	165	0.042	ppb	49.8	387	1	
Pt	195	2	165	0.009	ppb	140.5	77	1	
Tl	205	2	165	0.026	ppb	16.5	150	0.1	
Pb	208	2	165	-1.228	ppb	-11.6	4934	0.5	
Th	232	2	165	0.094	ppb	9.1	783	1	
U	238	2	165	-0.001	ppb	-463.8	107	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	174423	1.91	207204	84.18	60	120	
Sc (IS)	45	1	HMI H2	12552624	2.62	15259863	82.26	60	120	
Sc (IS)	45	2	HMI He	170469	3.86	210811	80.86	60	120	
Sc (IS)	45	3	No Gas	27962658	1.82	32682642	85.56	60	120	
Ge Internal Standard	72	1	HMI H2	7179725	2.13	8342951	86.06	60	120	
Ge Internal Standard	72	2	HMI He	303511	2.04	360038	84.30	60	120	
In Internal Standard	115	2	HMI He	895863	3.04	998948	89.68	60	120	
Ho-165	165	2	HMI He	7762530	2.97	8244993	94.15	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	211LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:19:30-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-11.468	ppb	-17.272	879066	50	-22.9	70	130	>+/-30%
Be	9	1	6	0.754	ppb	91.803	57	1	75.4	70	130	
Na	23	2	45	51.883	ppb	14.386	4151	50	103.8	70	130	
Mg	24	2	45	102.089	ppb	8.249	4267	50	204.2	70	130	>+/-30%
Al	27	2	45	29.375	ppb	29.156	147	30	97.9	70	130	
K	39	2	45	-18.991	ppb	-51.558	3259	100	-19.0	70	130	>+/-30%
Ca	44	2	45	42.243	ppb	288.632	100	50	84.5	70	130	
V	51	2	72	4.653	ppb	18.906	1427	5	93.1	70	130	
Cr	52	2	72	1.478	ppb	17.933	740	2	73.9	70	130	
Mn	55	2	72	-2.282	ppb	-28.156	323	1	-228.2	70	130	>+/-30%
Fe	57	2	72	-39.876	ppb	-17.029	423	50	-79.8	70	130	>+/-30%
Co	59	2	72	0.772	ppb	13.841	877	1	77.2	70	130	
Ni	60	2	72	1.384	ppb	69.404	663	2	69.2	70	130	>+/-30%
Cu	63	2	72	1.653	ppb	12.648	2074	2	82.6	70	130	
Zn	66	2	72	9.911	ppb	7.639	767	10	99.1	70	130	
As	75	2	72	3.948	ppb	12.180	182	5	79.0	70	130	
Se	78	1	72	4.924	ppb	14.959	740	5	98.5	70	130	
Sr	88	2	72	0.747	ppb	21.573	110	1	74.7	70	130	
Zr	90	2	72	9.450	ppb	20.697	80	0.5	1889.9	70	130	>+/-30%
Nb	93	2	72	1.040	ppb	5.263	1473	2	52.0	70	130	>+/-30%
Mo	95	2	115	1.842	ppb	22.953	727	2	92.1	70	130	
Pd	105	2	115	0.025	ppb	32.212	23	1	2.5	70	130	>+/-30%
Ag	107	2	115	4.550	ppb	3.385	6848	5	91.0	70	130	
Cd	111	2	115	0.850	ppb	7.732	120	1	85.0	70	130	
Sn	120	2	115	10.140	ppb	11.000	3534	10	101.4	70	130	
Sb	121	2	115	2.258	ppb	15.303	663	2	112.9	70	130	
Ba	137	2	115	1.405	ppb	50.457	140	1	140.5	70	130	>+/-30%
W	182	2	165	4.791	ppb	7.221	13796	1	479.1	70	130	>+/-30%
Pt	195	2	165	0.040	ppb	51.044	163	1	4.0	70	130	>+/-30%
Tl	205	2	165	1.095	ppb	5.259	4508	1	109.5	70	130	
Pb	208	2	165	0.053	ppb	161.198	11714	1	5.3	70	130	>+/-30%
Th	232	2	165	1.982	ppb	2.839	12796	2	99.1	70	130	
U	238	2	165	1.005	ppb	9.053	7252	1	100.5	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	172382	1.93	207204	83.19	60	120	
Sc (IS)	45	1	HMI H2	12354876	1.48	15259863	80.96	60	120	
Sc (IS)	45	2	HMI He	171558	2.51	210811	81.38	60	120	
Sc (IS)	45	3	No Gas	28590635	0.40	32682642	87.48	60	120	
Ge Internal Standard	72	1	HMI H2	7045444	1.30	8342951	84.45	60	120	
Ge Internal Standard	72	2	HMI He	302030	0.87	360038	83.89	60	120	
In Internal Standard	115	2	HMI He	899317	1.02	998948	90.03	60	120	
Ho-165	165	2	HMI He	7801572	1.00	8244993	94.62	60	120	

Sample Table

Sample Name	280-104320-e-16-b
Data File Name	212SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:23:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	28.935	ppb	28.935	41.26	23108	500000	
Li	7	2	45	65.996	ppb	65.996	45.08	1290	500000	
Li	7	3	45	2.525	ppb	2.525	65.10	851166	50000	
Be	9	1	6	0.114	ppb	0.114	133.27	10	2000	
B	11	1	6	44.703	ppb	44.703	2.34	3854	2000	
Na	23	1	45	3897.400	ppb	3897.400	0.36	3653282	2000	
Na	23	2	45	3860.069	ppb	3860.069	2.14	142476	400000	
Mg	24	2	45	33892.263	ppb	33892.263	1.23	567842	400000	
Al	27	2	45	2064.404	ppb	2064.404	3.90	7899	400000	
K	39	1	45	372.563	ppb	372.563	3.34	3379449	400000	
K	39	2	45	1444.029	ppb	1444.029	5.71	13262	400000	
Ca	40	1	45	76254.342	ppb	76254.342	0.28	134923345	400000	
Ca	44	2	45	73774.536	ppb	73774.536	1.90	34170	400000	
Ti	47	2	45	980.333	ppb	980.333	35.34	50	4000	
V	51	2	72	3.609	ppb	3.609	12.04	1083	2000	
Cr	52	2	72	3.932	ppb	3.932	12.61	1597	5000	
Mn	55	2	72	106.236	ppb	106.236	4.14	12241	10000	
Fe	57	2	72	4504.810	ppb	4504.810	1.75	31799	400000	
Co	59	2	72	1.755	ppb	1.755	5.83	1647	2000	
Ni	60	2	72	4.325	ppb	4.325	7.79	1350	5000	
Cu	63	2	72	3.567	ppb	3.567	5.12	3387	5000	
Zn	66	2	72	11.237	ppb	11.237	3.26	823	5000	
As	75	2	72	1.550	ppb	1.550	14.81	72	2000	
Se	78	1	72	0.600	ppb	0.600	25.41	93	2000	
Sr	88	2	72	188.392	ppb	188.392	2.05	20590	4000	
Zr	90	2	72	83.324	ppb	83.324	9.15	447	1000	
Nb	93	2	72	0.158	ppb	0.158	24.40	253	200	
Mo	95	2	115	0.604	ppb	0.604	18.31	247	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.019	ppb	0.019	56.92	27	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.154	ppb	0.154	181.04	127	2000	
Sb	121	2	115	0.102	ppb	0.102	167.48	37	1000	
Ba	137	2	115	34.612	ppb	34.612	4.24	2984	5000	
W	182	2	165	0.064	ppb	0.064	31.49	440	100	
Pt	195	2	165	-0.005	ppb	-0.005	-157.49	40	100	
Tl	205	2	165	0.060	ppb	0.060	34.57	283	2000	
Pb	208	2	165	2.271	ppb	2.271	10.75	22844	5000	
Th	232	2	165	0.925	ppb	0.925	3.44	5931	2000	
U	238	2	165	1.018	ppb	1.018	3.31	7175	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	158437	1.11	207204	76.46	60	120	
Sc (IS)	45	1	HMI H2	11772118	0.29	15259863	77.14	60	120	
Sc (IS)	45	2	HMI He	161168	1.20	210811	76.45	60	120	
Sc (IS)	45	3	No Gas	26707523	0.23	32682642	81.72	60	120	
Ge Internal Standard	72	1	HMI H2	6762983	0.31	8342951	81.06	60	120	
Ge Internal Standard	72	2	HMI He	289989	0.60	360038	80.54	60	120	
In Internal Standard	115	2	HMI He	851303	0.63	998948	85.22	60	120	
Ho-165	165	2	HMI He	7619828	0.87	8244993	92.42	60	120	

Sample Table

Sample Name	280-104320-e-17-b
Data File Name	213SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:27:09-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	18.654	ppb	18.654	45.61	23078	500000	
Li	7	2	45	80.877	ppb	80.877	68.68	1377	500000	
Li	7	3	45	-2.240	ppb	-2.240	-17.23	854658	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	14.605	ppb	14.605	4.86	1337	2000	
Na	23	1	45	4417.762	ppb	4417.762	0.41	4236649	2000	
Na	23	2	45	4389.985	ppb	4389.985	3.02	166316	400000	
Mg	24	2	45	27429.182	ppb	27429.182	3.27	472904	400000	
Al	27	2	45	21.395	ppb	21.395	35.36	110	400000	
K	39	1	45	23.587	ppb	23.587	146.01	3050569	400000	
K	39	2	45	1111.805	ppb	1111.805	8.00	11254	400000	
Ca	40	1	45	88379.648	ppb	88379.648	0.47	160105418	400000	
Ca	44	2	45	85476.998	ppb	85476.998	3.21	40690	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.136	ppb	-0.136	-17.91	57	2000	
Cr	52	2	72	0.278	ppb	0.278	83.01	277	5000	
Mn	55	2	72	181.107	ppb	181.107	7.61	20469	10000	
Fe	57	2	72	-21.053	ppb	-21.053	-24.20	537	400000	
Co	59	2	72	-0.056	ppb	-0.056	-117.97	163	2000	
Ni	60	2	72	-0.547	ppb	-0.547	-57.07	170	5000	
Cu	63	2	72	0.326	ppb	0.326	27.86	1023	5000	
Zn	66	2	72	1.272	ppb	1.272	48.59	170	5000	
As	75	2	72	0.091	ppb	0.091	161.25	9	2000	
Se	78	1	72	0.085	ppb	0.085	112.19	20	2000	
Sr	88	2	72	114.904	ppb	114.904	8.14	12565	4000	
Zr	90	2	72	2.708	ppb	2.708	106.16	43	1000	
Nb	93	2	72	0.087	ppb	0.087	12.23	160	200	
Mo	95	2	115	0.275	ppb	0.275	72.08	130	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-233.33	3	100	
Ag	107	2	115	0.007	ppb	0.007	101.17	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.130	ppb	0.130	99.46	120	2000	
Sb	121	2	115	0.028	ppb	0.028	362.34	17	1000	
Ba	137	2	115	15.964	ppb	15.964	15.85	1393	5000	
W	182	2	165	0.074	ppb	0.074	37.91	470	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1087.43	50	100	
Tl	205	2	165	0.018	ppb	0.018	12.81	113	2000	
Pb	208	2	165	-0.046	ppb	-0.046	-1008.44	11001	5000	
Th	232	2	165	0.071	ppb	0.071	33.84	627	2000	
U	238	2	165	1.821	ppb	1.821	4.63	12782	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161665	1.27	207204	78.02	60	120	
Sc (IS)	45	1	HMI H2	12056194	0.58	15259863	79.01	60	120	
Sc (IS)	45	2	HMI He	165736	1.78	210811	78.62	60	120	
Sc (IS)	45	3	No Gas	27142930	0.42	32682642	83.05	60	120	
Ge Internal Standard	72	1	HMI H2	6841891	0.30	8342951	82.01	60	120	
Ge Internal Standard	72	2	HMI He	290313	2.62	360038	80.63	60	120	
In Internal Standard	115	2	HMI He	859482	1.95	998948	86.04	60	120	
Ho-165	165	2	HMI He	7645389	2.73	8244993	92.73	60	120	

Sample Table

Sample Name	280-104320-e-18-b
Data File Name	214SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:30:58-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	12.430	ppb	12.430	122.30	22811	500000	
Li	7	2	45	42.770	ppb	42.770	24.09	1237	500000	
Li	7	3	45	-4.913	ppb	-4.913	-16.51	843497	50000	
Be	9	1	6	0.010	ppb	0.010	828.90	3	2000	
B	11	1	6	60.300	ppb	60.300	3.76	5361	2000	
Na	23	1	45	4817.351	ppb	4817.351	1.05	4635485	2000	
Na	23	2	45	4764.829	ppb	4764.829	1.13	178558	400000	
Mg	24	2	45	20843.843	ppb	20843.843	1.36	356378	400000	
Al	27	2	45	181.500	ppb	181.500	7.59	730	400000	
K	39	1	45	-369.342	ppb	-369.342	-3.69	2598648	400000	
K	39	2	45	758.656	ppb	758.656	10.97	8639	400000	
Ca	40	1	45	62905.593	ppb	62905.593	1.15	114492338	400000	
Ca	44	2	45	60501.219	ppb	60501.219	1.17	28543	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.445	ppb	0.445	8.65	217	2000	
Cr	52	2	72	0.133	ppb	0.133	114.48	227	5000	
Mn	55	2	72	812.569	ppb	812.569	1.78	90204	10000	
Fe	57	2	72	307.290	ppb	307.290	7.36	2814	400000	
Co	59	2	72	2.612	ppb	2.612	4.11	2357	2000	
Ni	60	2	72	0.504	ppb	0.504	66.61	427	5000	
Cu	63	2	72	1.024	ppb	1.024	2.23	1537	5000	
Zn	66	2	72	2.340	ppb	2.340	40.59	240	5000	
As	75	2	72	0.333	ppb	0.333	37.16	20	2000	
Se	78	1	72	0.011	ppb	0.011	505.51	9	2000	
Sr	88	2	72	96.807	ppb	96.807	8.73	10630	4000	
Zr	90	2	72	431.804	ppb	431.804	9.63	2197	1000	
Nb	93	2	72	0.073	ppb	0.073	98.80	143	200	
Mo	95	2	115	1.440	ppb	1.440	13.03	550	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-236.06	3	100	
Ag	107	2	115	0.012	ppb	0.012	35.11	17	100	
Cd	111	2	115	0.050	ppb	0.050	173.21	7	2000	
Sn	120	2	115	-0.013	ppb	-0.013	-822.82	73	2000	
Sb	121	2	115	0.017	ppb	0.017	241.70	13	1000	
Ba	137	2	115	22.329	ppb	22.329	15.43	1950	5000	
W	182	2	165	0.057	ppb	0.057	39.83	423	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1428.23	50	100	
Tl	205	2	165	0.024	ppb	0.024	17.36	140	2000	
Pb	208	2	165	-0.098	ppb	-0.098	-149.69	10709	5000	
Th	232	2	165	0.110	ppb	0.110	14.55	870	2000	
U	238	2	165	0.606	ppb	0.606	3.66	4336	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	164260	1.07	207204	79.27	60	120	
Sc (IS)	45	1	HMI H2	12104844	0.77	15259863	79.32	60	120	
Sc (IS)	45	2	HMI He	164056	1.31	210811	77.82	60	120	
Sc (IS)	45	3	No Gas	26972130	0.40	32682642	82.53	60	120	
Ge Internal Standard	72	1	HMI H2	6859829	0.76	8342951	82.22	60	120	
Ge Internal Standard	72	2	HMI He	291011	1.23	360038	80.83	60	120	
In Internal Standard	115	2	HMI He	859686	1.45	998948	86.06	60	120	
Ho-165	165	2	HMI He	7653057	0.45	8244993	92.82	60	120	

Sample Table

Sample Name	280-104320-e-20-b
Data File Name	215SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:34:47-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	27.975	ppb	27.975	14.10	23325	500000	
Li	7	2	45	25.913	ppb	25.913	173.30	1177	500000	
Li	7	3	45	1.966	ppb	1.966	150.37	868947	50000	
Be	9	1	6	0.011	ppb	0.011	768.57	3	2000	
B	11	1	6	52.885	ppb	52.885	13.41	4651	2000	
Na	23	1	45	10117.387	ppb	10117.387	0.39	9543642	2000	>LDR
Na	23	2	45	9975.325	ppb	9975.325	1.45	369738	400000	
Mg	24	2	45	27869.481	ppb	27869.481	1.53	473374	400000	
Al	27	2	45	4.571	ppb	4.571	34.46	43	400000	
K	39	1	45	2041.296	ppb	2041.296	1.38	5358006	400000	
K	39	2	45	3034.248	ppb	3034.248	2.70	24671	400000	
Ca	40	1	45	106230.771	ppb	106230.771	0.54	190043064	400000	
Ca	44	2	45	101080.628	ppb	101080.628	3.88	47390	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.233	ppb	-0.233	-26.89	30	2000	
Cr	52	2	72	-0.242	ppb	-0.242	-74.68	90	5000	
Mn	55	2	72	89.343	ppb	89.343	2.44	10363	10000	
Fe	57	2	72	803.304	ppb	803.304	7.60	6218	400000	
Co	59	2	72	-0.162	ppb	-0.162	-9.22	77	2000	
Ni	60	2	72	-0.825	ppb	-0.825	-13.04	103	5000	
Cu	63	2	72	-0.251	ppb	-0.251	-12.08	600	5000	
Zn	66	2	72	0.066	ppb	0.066	1291.60	90	5000	
As	75	2	72	1.460	ppb	1.460	20.10	68	2000	
Se	78	1	72	-0.025	ppb	-0.025	-0.23	4	2000	
Sr	88	2	72	350.081	ppb	350.081	1.99	38163	4000	
Zr	90	2	72	20.775	ppb	20.775	55.98	133	1000	
Nb	93	2	72	0.046	ppb	0.046	132.82	107	200	
Mo	95	2	115	0.621	ppb	0.621	33.03	257	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-232.12	3	100	
Ag	107	2	115	0.000	ppb	0.000	#DIV/0!	0	100	
Cd	111	2	115	0.049	ppb	0.049	173.21	7	2000	
Sn	120	2	115	0.046	ppb	0.046	157.05	93	2000	
Sb	121	2	115	0.078	ppb	0.078	163.37	30	1000	
Ba	137	2	115	19.596	ppb	19.596	3.65	1724	5000	
W	182	2	165	0.046	ppb	0.046	73.60	397	100	
Pt	195	2	165	0.003	ppb	0.003	241.90	60	100	
Tl	205	2	165	-0.001	ppb	-0.001	-967.38	40	2000	
Pb	208	2	165	-0.356	ppb	-0.356	-32.35	9435	5000	
Th	232	2	165	0.016	ppb	0.016	27.87	287	2000	
U	238	2	165	0.064	ppb	0.064	32.87	557	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162208	0.73	207204	78.28	60	120	
Sc (IS)	45	1	HMI H2	11909314	0.66	15259863	78.04	60	120	
Sc (IS)	45	2	HMI He	163243	0.67	210811	77.44	60	120	
Sc (IS)	45	3	No Gas	27303872	0.35	32682642	83.54	60	120	
Ge Internal Standard	72	1	HMI H2	6841987	0.21	8342951	82.01	60	120	
Ge Internal Standard	72	2	HMI He	289409	0.76	360038	80.38	60	120	
In Internal Standard	115	2	HMI He	865656	1.88	998948	86.66	60	120	
Ho-165	165	2	HMI He	7699904	0.76	8244993	93.39	60	120	

Sample Table

Sample Name	280-104320-g-21-b
Data File Name	216SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:38:36-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	16.806	ppb	16.806	40.49	22808	500000	
Li	7	2	45	42.154	ppb	42.154	32.98	1230	500000	
Li	7	3	45	-9.564	ppb	-9.564	-35.70	855503	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	18.062	ppb	18.062	10.90	1640	2000	
Na	23	1	45	10425.378	ppb	10425.378	3.21	9880669	2000	>LDR
Na	23	2	45	10305.084	ppb	10305.084	1.06	382228	400000	
Mg	24	2	45	29094.369	ppb	29094.369	1.27	494508	400000	
Al	27	2	45	3.731	ppb	3.731	209.84	40	400000	
K	39	1	45	592.246	ppb	592.246	7.39	3692388	400000	
K	39	2	45	1665.340	ppb	1665.340	1.09	15013	400000	
Ca	40	1	45	80851.048	ppb	80851.048	3.25	145404015	400000	
Ca	44	2	45	76450.924	ppb	76450.924	2.22	35893	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.221	ppb	-0.221	-37.70	33	2000	
Cr	52	2	72	-0.148	ppb	-0.148	-40.96	123	5000	
Mn	55	2	72	223.410	ppb	223.410	2.45	25008	10000	
Fe	57	2	72	1583.386	ppb	1583.386	7.19	11564	400000	
Co	59	2	72	0.055	ppb	0.055	103.89	253	2000	
Ni	60	2	72	-0.991	ppb	-0.991	-10.67	63	5000	
Cu	63	2	72	-0.303	ppb	-0.303	-65.96	560	5000	
Zn	66	2	72	0.878	ppb	0.878	143.68	143	5000	
As	75	2	72	10.028	ppb	10.028	2.03	435	2000	
Se	78	1	72	-0.016	ppb	-0.016	-263.36	5	2000	
Sr	88	2	72	141.769	ppb	141.769	3.34	15431	4000	
Zr	90	2	72	8.818	ppb	8.818	13.56	73	1000	
Nb	93	2	72	0.009	ppb	0.009	271.24	57	200	
Mo	95	2	115	0.824	ppb	0.824	10.30	333	2000	
Pd	105	2	115	0.006	ppb	0.006	239.64	10	100	
Ag	107	2	115	0.007	ppb	0.007	100.11	10	100	
Cd	111	2	115	0.024	ppb	0.024	173.21	3	2000	
Sn	120	2	115	0.176	ppb	0.176	43.34	137	2000	
Sb	121	2	115	0.016	ppb	0.016	249.99	13	1000	
Ba	137	2	115	45.732	ppb	45.732	2.75	4034	5000	
W	182	2	165	0.052	ppb	0.052	75.65	417	100	
Pt	195	2	165	0.010	ppb	0.010	151.39	80	100	
Tl	205	2	165	0.009	ppb	0.009	27.87	80	2000	
Pb	208	2	165	-0.609	ppb	-0.609	-26.27	8225	5000	
Th	232	2	165	0.014	ppb	0.014	16.82	277	2000	
U	238	2	165	0.859	ppb	0.859	2.77	6212	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161911	2.43	207204	78.14	60	120	
Sc (IS)	45	1	HMI H2	11969791	1.23	15259863	78.44	60	120	
Sc (IS)	45	2	HMI He	163384	0.77	210811	77.50	60	120	
Sc (IS)	45	3	No Gas	27687905	0.78	32682642	84.72	60	120	
Ge Internal Standard	72	1	HMI H2	6898733	2.10	8342951	82.69	60	120	
Ge Internal Standard	72	2	HMI He	288710	0.78	360038	80.19	60	120	
In Internal Standard	115	2	HMI He	871757	0.19	998948	87.27	60	120	
Ho-165	165	2	HMI He	7793645	0.23	8244993	94.53	60	120	

Sample Table

Sample Name	280-104320-a-22-b
Data File Name	217SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:42:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.830	ppb	-5.830	-272.67	21627	500000	
Li	7	2	45	18.378	ppb	18.378	124.98	1143	500000	
Li	7	3	45	-25.139	ppb	-25.139	-14.76	822010	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	49.678	ppb	49.678	6.20	4374	2000	
Na	23	1	45	3704.945	ppb	3704.945	1.26	3549870	2000	
Na	23	2	45	3723.653	ppb	3723.653	3.58	138262	400000	
Mg	24	2	45	8505.839	ppb	8505.839	2.73	145031	400000	
Al	27	2	45	2.909	ppb	2.909	52.69	37	400000	
K	39	1	45	-184.241	ppb	-184.241	-6.02	2799425	400000	
K	39	2	45	974.087	ppb	974.087	6.27	10040	400000	
Ca	40	1	45	56800.456	ppb	56800.456	0.95	102754515	400000	
Ca	44	2	45	56170.745	ppb	56170.745	5.64	26167	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.651	ppb	0.651	37.13	270	2000	
Cr	52	2	72	-0.082	ppb	-0.082	-24.28	147	5000	
Mn	55	2	72	3.590	ppb	3.590	39.77	950	10000	
Fe	57	2	72	-15.182	ppb	-15.182	-56.07	573	400000	
Co	59	2	72	-0.050	ppb	-0.050	-101.89	167	2000	
Ni	60	2	72	-0.571	ppb	-0.571	-69.43	163	5000	
Cu	63	2	72	0.268	ppb	0.268	28.70	973	5000	
Zn	66	2	72	0.177	ppb	0.177	191.14	97	5000	
As	75	2	72	0.091	ppb	0.091	188.12	9	2000	
Se	78	1	72	1.110	ppb	1.110	27.63	169	2000	
Sr	88	2	72	165.456	ppb	165.456	3.50	17957	4000	
Zr	90	2	72	8.905	ppb	8.905	86.85	73	1000	
Nb	93	2	72	0.009	ppb	0.009	406.99	57	200	
Mo	95	2	115	-0.041	ppb	-0.041	-39.65	17	2000	
Pd	105	2	115	0.001	ppb	0.001	1296.70	7	100	
Ag	107	2	115	0.012	ppb	0.012	34.79	17	100	
Cd	111	2	115	0.098	ppb	0.098	86.63	13	2000	
Sn	120	2	115	0.301	ppb	0.301	21.42	177	2000	
Sb	121	2	115	0.088	ppb	0.088	60.57	33	1000	
Ba	137	2	115	16.362	ppb	16.362	9.03	1437	5000	
W	182	2	165	0.132	ppb	0.132	36.57	637	100	
Pt	195	2	165	0.000	ppb	0.000	5122.29	53	100	
Tl	205	2	165	0.012	ppb	0.012	97.03	93	2000	
Pb	208	2	165	-0.815	ppb	-0.815	-4.28	7054	5000	
Th	232	2	165	0.015	ppb	0.015	56.37	280	2000	
U	238	2	165	0.614	ppb	0.614	4.10	4417	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162149	0.80	207204	78.26	60	120	
Sc (IS)	45	1	HMI H2	12028054	0.55	15259863	78.82	60	120	
Sc (IS)	45	2	HMI He	162110	2.37	210811	76.90	60	120	
Sc (IS)	45	3	No Gas	27725767	0.49	32682642	84.83	60	120	
Ge Internal Standard	72	1	HMI H2	6897506	0.58	8342951	82.67	60	120	
Ge Internal Standard	72	2	HMI He	287944	1.13	360038	79.98	60	120	
In Internal Standard	115	2	HMI He	863675	1.32	998948	86.46	60	120	
Ho-165	165	2	HMI He	7701548	1.58	8244993	93.41	60	120	

Sample Table

Sample Name	280-104320-a-23-b
Data File Name	218SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:46:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-11.940	ppb	-11.940	-36.14	21149	500000	
Li	7	2	45	37.091	ppb	37.091	126.87	1227	500000	
Li	7	3	45	-18.436	ppb	-18.436	-8.34	820204	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	11.568	ppb	11.568	11.71	1060	2000	
Na	23	1	45	44353.724	ppb	44353.724	0.48	41886269	2000	>LDR
Na	23	2	45	45139.506	ppb	45139.506	0.73	1685260	400000	
Mg	24	2	45	18303.081	ppb	18303.081	0.78	315305	400000	
Al	27	2	45	30.007	ppb	30.007	26.92	143	400000	
K	39	1	45	67.819	ppb	67.819	18.23	3076031	400000	
K	39	2	45	1140.233	ppb	1140.233	5.45	11421	400000	
Ca	40	1	45	61458.506	ppb	61458.506	0.16	110471418	400000	
Ca	44	2	45	57523.338	ppb	57523.338	1.85	27318	400000	
Ti	47	2	45	63.587	ppb	63.587	173.21	3	4000	
V	51	2	72	-0.049	ppb	-0.049	-467.42	80	2000	
Cr	52	2	72	-0.017	ppb	-0.017	-503.47	170	5000	
Mn	55	2	72	115.780	ppb	115.780	1.18	13202	10000	
Fe	57	2	72	3758.872	ppb	3758.872	1.67	26471	400000	
Co	59	2	72	0.535	ppb	0.535	5.06	643	2000	
Ni	60	2	72	0.286	ppb	0.286	95.15	370	5000	
Cu	63	2	72	0.084	ppb	0.084	160.60	840	5000	
Zn	66	2	72	1.043	ppb	1.043	30.54	153	5000	
As	75	2	72	3.257	ppb	3.257	25.21	144	2000	
Se	78	1	72	0.614	ppb	0.614	35.09	96	2000	
Sr	88	2	72	88.111	ppb	88.111	1.89	9580	4000	
Zr	90	2	72	7.513	ppb	7.513	56.12	67	1000	
Nb	93	2	72	0.009	ppb	0.009	417.47	57	200	
Mo	95	2	115	-0.023	ppb	-0.023	-249.96	23	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.012	ppb	0.012	124.87	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.088	ppb	0.088	41.82	107	2000	
Sb	121	2	115	-0.007	ppb	-0.007	-601.17	7	1000	
Ba	137	2	115	9.007	ppb	9.007	12.40	797	5000	
W	182	2	165	0.081	ppb	0.081	24.67	497	100	
Pt	195	2	165	0.008	ppb	0.008	212.40	77	100	
Tl	205	2	165	0.015	ppb	0.015	63.82	103	2000	
Pb	208	2	165	-1.056	ppb	-1.056	-5.55	5854	5000	
Th	232	2	165	0.014	ppb	0.014	39.22	277	2000	
U	238	2	165	0.597	ppb	0.597	5.00	4341	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159489	1.48	207204	76.97	60	120	
Sc (IS)	45	1	HMI H2	11953397	0.22	15259863	78.33	60	120	
Sc (IS)	45	2	HMI He	165130	0.44	210811	78.33	60	120	
Sc (IS)	45	3	No Gas	27171313	0.57	32682642	83.14	60	120	
Ge Internal Standard	72	1	HMI H2	6803795	1.41	8342951	81.55	60	120	
Ge Internal Standard	72	2	HMI He	288073	0.20	360038	80.01	60	120	
In Internal Standard	115	2	HMI He	863617	0.94	998948	86.45	60	120	
Ho-165	165	2	HMI He	7771827	0.38	8244993	94.26	60	120	

Sample Table

Sample Name	280-104320-a-24-b
Data File Name	219SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:50:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	12.848	ppb	12.848	69.54	22364	500000	
Li	7	2	45	83.249	ppb	83.249	35.63	1383	500000	
Li	7	3	45	-3.997	ppb	-3.997	-27.64	862306	50000	
Be	9	1	6	0.012	ppb	0.012	749.13	3	2000	
B	11	1	6	226.212	ppb	226.212	3.00	19327	2000	
Na	23	1	45	10396.000	ppb	10396.000	0.37	9758922	2000	>LDR
Na	23	2	45	10180.993	ppb	10180.993	1.59	383292	400000	
Mg	24	2	45	11573.216	ppb	11573.216	2.11	201047	400000	
Al	27	2	45	11.309	ppb	11.309	120.57	70	400000	
K	39	1	45	3446.620	ppb	3446.620	1.56	6957851	400000	
K	39	2	45	4448.176	ppb	4448.176	2.65	35212	400000	
Ca	40	1	45	28416.664	ppb	28416.664	0.35	50792441	400000	
Ca	44	2	45	29258.831	ppb	29258.831	4.42	13986	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.159	ppb	-0.159	-1.93	50	2000	
Cr	52	2	72	-0.175	ppb	-0.175	-42.98	113	5000	
Mn	55	2	72	-3.612	ppb	-3.612	-14.69	163	10000	
Fe	57	2	72	-40.454	ppb	-40.454	-12.01	400	400000	
Co	59	2	72	-0.186	ppb	-0.186	-20.74	57	2000	
Ni	60	2	72	0.006	ppb	0.006	5441.48	303	5000	
Cu	63	2	72	0.120	ppb	0.120	83.80	867	5000	
Zn	66	2	72	4.990	ppb	4.990	28.24	410	5000	
As	75	2	72	-0.092	ppb	-0.092	-29.09	1	2000	
Se	78	1	72	0.330	ppb	0.330	31.70	55	2000	
Sr	88	2	72	535.630	ppb	535.630	3.49	58145	4000	
Zr	90	2	72	4.751	ppb	4.751	204.76	53	1000	
Nb	93	2	72	0.014	ppb	0.014	138.30	63	200	
Mo	95	2	115	-0.060	ppb	-0.060	-46.75	10	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-228.67	3	100	
Ag	107	2	115	0.019	ppb	0.019	78.85	27	100	
Cd	111	2	115	0.050	ppb	0.050	173.21	7	2000	
Sn	120	2	115	0.078	ppb	0.078	111.11	103	2000	
Sb	121	2	115	0.053	ppb	0.053	40.51	23	1000	
Ba	137	2	115	236.911	ppb	236.911	1.76	20623	5000	
W	182	2	165	0.043	ppb	0.043	29.45	387	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1971.37	50	100	
Tl	205	2	165	0.007	ppb	0.007	101.04	73	2000	
Pb	208	2	165	-1.071	ppb	-1.071	-9.35	5707	5000	
Th	232	2	165	0.014	ppb	0.014	2.27	277	2000	
U	238	2	165	0.074	ppb	0.074	42.11	627	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159559	0.31	207204	77.01	60	120	
Sc (IS)	45	1	HMI H2	11852541	0.15	15259863	77.67	60	120	
Sc (IS)	45	2	HMI He	165824	1.37	210811	78.66	60	120	
Sc (IS)	45	3	No Gas	27509117	0.22	32682642	84.17	60	120	
Ge Internal Standard	72	1	HMI H2	6757210	0.68	8342951	80.99	60	120	
Ge Internal Standard	72	2	HMI He	288322	1.66	360038	80.08	60	120	
In Internal Standard	115	2	HMI He	862460	1.50	998948	86.34	60	120	
Ho-165	165	2	HMI He	7678670	1.39	8244993	93.13	60	120	

Sample Report

Sample Table

Sample Name	280-104320-c-25-b
Data File Name	220SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:53:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	12.539	ppb	12.539	71.05	22561	500000	
Li	7	2	45	50.381	ppb	50.381	149.38	1243	500000	
Li	7	3	45	-9.796	ppb	-9.796	-20.68	840400	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	22.054	ppb	22.054	4.06	1990	2000	
Na	23	1	45	7425.471	ppb	7425.471	2.82	7046160	2000	
Na	23	2	45	7565.747	ppb	7565.747	0.45	278055	400000	
Mg	24	2	45	15883.073	ppb	15883.073	1.46	268003	400000	
Al	27	2	45	10.921	ppb	10.921	135.23	67	400000	
K	39	1	45	-536.655	ppb	-536.655	-10.40	2373380	400000	
K	39	2	45	553.600	ppb	553.600	11.97	7068	400000	
Ca	40	1	45	55705.001	ppb	55705.001	3.76	100242385	400000	
Ca	44	2	45	55029.731	ppb	55029.731	3.46	25566	400000	
Ti	47	2	45	64.576	ppb	64.576	173.21	3	4000	
V	51	2	72	-0.135	ppb	-0.135	-16.14	57	2000	
Cr	52	2	72	-0.120	ppb	-0.120	-95.57	133	5000	
Mn	55	2	72	-3.460	ppb	-3.460	-7.79	180	10000	
Fe	57	2	72	-29.343	ppb	-29.343	-85.55	477	400000	
Co	59	2	72	-0.215	ppb	-0.215	-8.77	33	2000	
Ni	60	2	72	-0.852	ppb	-0.852	-5.73	97	5000	
Cu	63	2	72	-0.243	ppb	-0.243	-96.99	603	5000	
Zn	66	2	72	-0.290	ppb	-0.290	-317.36	67	5000	
As	75	2	72	0.015	ppb	0.015	612.17	6	2000	
Se	78	1	72	0.310	ppb	0.310	56.58	52	2000	
Sr	88	2	72	88.566	ppb	88.566	3.38	9643	4000	
Zr	90	2	72	0.127	ppb	0.127	1588.11	30	1000	
Nb	93	2	72	0.006	ppb	0.006	262.08	53	200	
Mo	95	2	115	-0.051	ppb	-0.051	-62.21	13	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-234.84	3	100	
Ag	107	2	115	0.009	ppb	0.009	86.60	13	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.066	ppb	-0.066	-26.02	57	2000	
Sb	121	2	115	0.016	ppb	0.016	330.42	13	1000	
Ba	137	2	115	2.449	ppb	2.449	39.35	227	5000	
W	182	2	165	0.028	ppb	0.028	73.94	347	100	
Pt	195	2	165	0.014	ppb	0.014	161.84	90	100	
Tl	205	2	165	0.001	ppb	0.001	378.28	47	2000	
Pb	208	2	165	-1.127	ppb	-1.127	-2.69	5427	5000	
Th	232	2	165	0.021	ppb	0.021	14.72	320	2000	
U	238	2	165	0.489	ppb	0.489	6.92	3537	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162575	1.17	207204	78.46	60	120	
Sc (IS)	45	1	HMI H2	11969601	1.95	15259863	78.44	60	120	
Sc (IS)	45	2	HMI He	161575	1.41	210811	76.64	60	120	
Sc (IS)	45	3	No Gas	27214550	0.24	32682642	83.27	60	120	
Ge Internal Standard	72	1	HMI H2	6823703	1.50	8342951	81.79	60	120	
Ge Internal Standard	72	2	HMI He	288477	0.31	360038	80.12	60	120	
In Internal Standard	115	2	HMI He	869656	0.24	998948	87.06	60	120	
Ho-165	165	2	HMI He	7691582	0.37	8244993	93.29	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	221_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T00:57:40-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	480.836	ppb	3.040	50596	500	96.2	90	110	
Li	7	2	45	513.334	ppb	19.778	2784	500	102.7	90	110	
Li	7	3	45	549.266	ppb	2.681	2117293	500	109.9	90	110	
Be	9	1	6	43.172	ppb	6.056	2980	50	86.3	90	110	>+\-10%
B	11	1	6	35.897	ppb	9.740	3294	50	71.8	90	110	>+\-10%
Na	23	1	45	4737.209	ppb	1.364	4640889	5000	94.7	90	110	
Na	23	2	45	4752.330	ppb	1.157	178920	5000	95.0	90	110	
Mg	24	2	45	4785.159	ppb	2.733	84015	5000	95.7	90	110	
Al	27	2	45	4900.799	ppb	2.014	19144	5000	98.0	90	110	
K	39	1	45	4549.277	ppb	1.727	8559545	5000	91.0	90	110	
K	39	2	45	4679.964	ppb	0.736	36651	5000	93.6	90	110	
Ca	40	1	45	4818.936	ppb	1.107	9187544	5000	96.4	90	110	
Ca	44	2	45	4871.675	ppb	8.090	2377	5000	97.4	90	110	
Ti	47	2	45	128.784	ppb	173.205	7	50	257.6	90	110	>+\-10%
V	51	2	72	45.276	ppb	2.927	12675	50	90.6	90	110	
Cr	52	2	72	45.933	ppb	1.642	16982	50	91.9	90	110	
Mn	55	2	72	41.937	ppb	4.522	5241	50	83.9	90	110	>+\-10%
Fe	57	2	72	4740.293	ppb	1.270	33866	5000	94.8	90	110	
Co	59	2	72	46.268	ppb	1.755	38610	50	92.5	90	110	
Ni	60	2	72	46.713	ppb	4.014	11758	50	93.4	90	110	
Cu	63	2	72	48.223	ppb	1.141	36455	50	96.4	90	110	
Zn	66	2	72	49.481	ppb	2.394	3377	50	99.0	90	110	
As	75	2	72	45.436	ppb	5.408	1986	50	90.9	90	110	
Se	78	1	72	52.181	ppb	1.282	7752	50	104.4	90	110	
Sr	88	2	72	52.824	ppb	1.122	5868	50	105.6	90	110	
Zr	90	2	72	21.721	ppb	18.763	140	50	43.4	90	110	>+\-10%
Nb	93	2	72	97.533	ppb	0.642	130198	100	97.5	90	110	
Mo	95	2	115	46.430	ppb	1.816	16982	50	92.9	90	110	
Pd	105	2	115	49.674	ppb	1.603	32872	50	99.3	90	110	
Ag	107	2	115	48.080	ppb	2.483	70020	50	96.2	90	110	
Cd	111	2	115	46.131	ppb	3.649	6301	50	92.3	90	110	
Sn	120	2	115	48.202	ppb	0.888	15975	50	96.4	90	110	
Sb	121	2	115	49.578	ppb	1.978	13910	50	99.2	90	110	
Ba	137	2	115	50.130	ppb	4.096	4414	50	100.3	90	110	
W	182	2	165	49.943	ppb	2.054	138782	50	99.9	90	110	
Pt	195	2	165	49.296	ppb	1.483	134043	50	98.6	90	110	
Tl	205	2	165	50.076	ppb	1.081	200561	50	100.2	90	110	
Pb	208	2	165	48.753	ppb	1.402	263310	50	97.5	90	110	
Th	232	2	165	50.143	ppb	2.133	313359	50	100.3	90	110	
U	238	2	165	49.877	ppb	1.178	348138	50	99.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	167881	0.68	207204	81.02	60	120	
Sc (IS)	45	1	HMI H2	12323400	1.22	15259863	80.76	60	120	
Sc (IS)	45	2	HMI He	164821	1.38	210811	78.18	60	120	
Sc (IS)	45	3	No Gas	27943641	0.57	32682642	85.50	60	120	
Ge Internal Standard	72	1	HMI H2	7028873	0.75	8342951	84.25	60	120	
Ge Internal Standard	72	2	HMI He	293826	0.59	360038	81.61	60	120	
In Internal Standard	115	2	HMI He	870357	0.45	998948	87.13	60	120	
Ho-165	165	2	HMI He	7661764	0.91	8244993	92.93	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	222_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:01:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-9.969	ppb	-25.4	854046	10	
Be	9	1	6	0.336	ppb	24.2	27	0.5	
B	11	1	6	1.300	ppb	28.5	203	0.5	>RL
Na	23	1	45	20.259	ppb	1.9	52589	25	
Na	23	2	45	13.235	ppb	53.8	2580	25	
Mg	24	2	45	14.249	ppb	81.8	2630	25	
Al	27	2	45	2.704	ppb	277.6	37	15	
K	39	1	45	-125.114	ppb	-12.5	2949269	50	
K	39	2	45	-114.972	ppb	-19.1	2474	50	
Ca	40	1	45	-55.761	ppb	-1.8	177668	50	
Ca	44	2	45	-54.781	ppb	-68.8	50	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.138	ppb	-105.1	57	1	
Cr	52	2	72	-0.162	ppb	-58.4	120	1	
Mn	55	2	72	-3.606	ppb	-1.5	167	0.5	
Fe	57	2	72	-69.136	ppb	-8.1	207	25	
Co	59	2	72	-0.179	ppb	-37.2	63	0.5	
Ni	60	2	72	-1.022	ppb	-14.2	57	1	
Cu	63	2	72	0.281	ppb	46.5	1000	1	
Zn	66	2	72	-0.053	ppb	-720.7	83	5	
As	75	2	72	-0.017	ppb	-397.9	5	1	
Se	78	1	72	-0.035	ppb	-44.3	3	1	
Sr	88	2	72	-0.010	ppb	-1975.4	23	0.5	
Zr	90	2	72	3.325	ppb	137.5	47	1	>RL
Nb	93	2	72	1.125	ppb	14.7	1543	2	
Mo	95	2	115	-0.042	ppb	-98.7	17	0.5	
Pd	105	2	115	0.001	ppb	822.5	7	1	
Ag	107	2	115	0.027	ppb	108.1	40	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.018	ppb	-691.5	73	1	
Sb	121	2	115	0.144	ppb	63.7	50	0.6	
Ba	137	2	115	-0.059	ppb	-218.5	7	0.5	
W	182	2	165	0.032	ppb	33.2	360	1	
Pt	195	2	165	0.006	ppb	101.4	70	1	
Tl	205	2	165	0.012	ppb	59.6	93	0.1	
Pb	208	2	165	-1.299	ppb	-3.7	4577	0.5	
Th	232	2	165	0.074	ppb	35.6	657	1	
U	238	2	165	0.006	ppb	144.6	153	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	172910	0.76	207204	83.45	60	120	
Sc (IS)	45	1	HMI H2	12365330	0.42	15259863	81.03	60	120	
Sc (IS)	45	2	HMI He	166866	1.90	210811	79.15	60	120	
Sc (IS)	45	3	No Gas	27668873	0.15	32682642	84.66	60	120	
Ge Internal Standard	72	1	HMI H2	7042400	0.69	8342951	84.41	60	120	
Ge Internal Standard	72	2	HMI He	293126	0.48	360038	81.42	60	120	
In Internal Standard	115	2	HMI He	886373	1.39	998948	88.73	60	120	
Ho-165	165	2	HMI He	7762414	0.96	8244993	94.15	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	223LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:05:18-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	6.242	ppb	313.319	900714	50	12.5	70	130	>+/-30%
Be	9	1	6	0.718	ppb	81.517	53	1	71.8	70	130	
Na	23	2	45	56.331	ppb	17.747	4111	50	112.7	70	130	
Mg	24	2	45	72.430	ppb	28.208	3554	50	144.9	70	130	>+/-30%
Al	27	2	45	20.890	ppb	102.837	107	30	69.6	70	130	>+/-30%
K	39	2	45	20.358	ppb	167.228	3377	100	20.4	70	130	>+/-30%
Ca	44	2	45	68.028	ppb	117.842	107	50	136.1	70	130	>+/-30%
V	51	2	72	4.082	ppb	15.918	1210	5	81.6	70	130	
Cr	52	2	72	1.491	ppb	8.471	713	2	74.6	70	130	
Mn	55	2	72	-3.620	ppb	-15.878	163	1	-362.0	70	130	>+/-30%
Fe	57	2	72	-22.818	ppb	-37.760	523	50	-45.6	70	130	>+/-30%
Co	59	2	72	0.727	ppb	21.401	803	1	72.7	70	130	
Ni	60	2	72	1.178	ppb	16.176	587	2	58.9	70	130	>+/-30%
Cu	63	2	72	1.593	ppb	9.824	1940	2	79.6	70	130	
Zn	66	2	72	8.987	ppb	11.434	673	10	89.9	70	130	
As	75	2	72	4.330	ppb	15.431	191	5	86.6	70	130	
Se	78	1	72	4.272	ppb	7.195	640	5	85.4	70	130	
Sr	88	2	72	0.944	ppb	39.946	127	1	94.4	70	130	
Zr	90	2	72	7.462	ppb	16.358	67	0.5	1492.5	70	130	>+/-30%
Nb	93	2	72	1.070	ppb	15.030	1450	2	53.5	70	130	>+/-30%
Mo	95	2	115	1.914	ppb	18.363	730	2	95.7	70	130	
Pd	105	2	115	0.001	ppb	703.813	7	1	0.1	70	130	>+/-30%
Ag	107	2	115	4.426	ppb	5.926	6448	5	88.5	70	130	
Cd	111	2	115	0.902	ppb	32.309	123	1	90.2	70	130	
Sn	120	2	115	10.112	ppb	12.893	3411	10	101.1	70	130	
Sb	121	2	115	1.766	ppb	22.523	503	2	88.3	70	130	
Ba	137	2	115	0.966	ppb	28.431	97	1	96.6	70	130	
W	182	2	165	4.696	ppb	3.324	13226	1	469.6	70	130	>+/-30%
Pt	195	2	165	0.036	ppb	45.337	150	1	3.6	70	130	>+/-30%
Tl	205	2	165	1.053	ppb	6.598	4241	1	105.3	70	130	
Pb	208	2	165	-0.022	ppb	-915.428	11062	1	-2.2	70	130	>+/-30%
Th	232	2	165	1.938	ppb	3.028	12229	2	96.9	70	130	
U	238	2	165	0.994	ppb	1.890	7015	1	99.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	172883	1.50	207204	83.44	60	120	
Sc (IS)	45	1	HMI H2	12186247	1.45	15259863	79.86	60	120	
Sc (IS)	45	2	HMI He	163182	1.67	210811	77.41	60	120	
Sc (IS)	45	3	No Gas	28001139	0.31	32682642	85.68	60	120	
Ge Internal Standard	72	1	HMI H2	7003404	1.73	8342951	83.94	60	120	
Ge Internal Standard	72	2	HMI He	289128	1.01	360038	80.30	60	120	
In Internal Standard	115	2	HMI He	870469	1.15	998948	87.14	60	120	
Ho-165	165	2	HMI He	7625119	0.74	8244993	92.48	60	120	

Sample Table

Sample Name	280-104384-m-6-d
Data File Name	224SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:09:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	35.398	ppb	35.398	32.65	22581	500000	
Li	7	2	45	87.079	ppb	87.079	44.05	1323	500000	
Li	7	3	45	22.829	ppb	22.829	6.91	885237	50000	
Be	9	1	6	0.066	ppb	0.066	137.57	7	2000	
B	11	1	6	22.851	ppb	22.851	7.77	1947	2000	
Na	23	1	45	17944.489	ppb	17944.489	2.00	16074744	2000	>LDR
Na	23	2	45	17460.657	ppb	17460.657	0.63	621870	400000	
Mg	24	2	45	39574.310	ppb	39574.310	0.41	646481	400000	
Al	27	2	45	1067.866	ppb	1067.866	4.18	3997	400000	
K	39	1	45	779.653	ppb	779.653	10.60	3701153	400000	
K	39	2	45	1800.813	ppb	1800.813	4.57	15367	400000	
Ca	40	1	45	68262.058	ppb	68262.058	2.91	116224952	400000	
Ca	44	2	45	64826.360	ppb	64826.360	3.93	29305	400000	
Ti	47	2	45	1135.006	ppb	1135.006	36.30	57	4000	
V	51	2	72	1.631	ppb	1.631	26.94	513	2000	
Cr	52	2	72	1.437	ppb	1.437	1.91	660	5000	
Mn	55	2	72	110.318	ppb	110.318	1.23	12031	10000	
Fe	57	2	72	3244.216	ppb	3244.216	1.30	21894	400000	
Co	59	2	72	1.431	ppb	1.431	13.61	1310	2000	
Ni	60	2	72	1.986	ppb	1.986	24.13	743	5000	
Cu	63	2	72	2.365	ppb	2.365	17.14	2380	5000	
Zn	66	2	72	7.529	ppb	7.529	26.42	550	5000	
As	75	2	72	19.959	ppb	19.959	5.45	819	2000	
Se	78	1	72	0.024	ppb	0.024	246.05	11	2000	
Sr	88	2	72	247.296	ppb	247.296	3.06	25620	4000	
Zr	90	2	72	60.146	ppb	60.146	18.24	313	1000	
Nb	93	2	72	0.109	ppb	0.109	29.09	180	200	
Mo	95	2	115	2.217	ppb	2.217	13.01	793	2000	
Pd	105	2	115	0.007	ppb	0.007	222.90	10	100	
Ag	107	2	115	0.022	ppb	0.022	32.36	30	100	
Cd	111	2	115	0.104	ppb	0.104	44.22	13	2000	
Sn	120	2	115	-0.003	ppb	-0.003	-2564.52	73	2000	
Sb	121	2	115	0.108	ppb	0.108	54.15	37	1000	
Ba	137	2	115	26.310	ppb	26.310	7.71	2190	5000	
W	182	2	165	0.052	ppb	0.052	80.89	400	100	
Pt	195	2	165	0.005	ppb	0.005	53.05	63	100	
Tl	205	2	165	0.040	ppb	0.040	34.93	197	2000	
Pb	208	2	165	-0.227	ppb	-0.227	-53.88	9785	5000	
Th	232	2	165	0.575	ppb	0.575	2.64	3674	2000	
U	238	2	165	2.515	ppb	2.515	1.85	17197	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	153683	0.41	207204	74.17	60	120	
Sc (IS)	45	1	HMI H2	11327799	1.25	15259863	74.23	60	120	
Sc (IS)	45	2	HMI He	157220	0.71	210811	74.58	60	120	
Sc (IS)	45	3	No Gas	26424716	0.25	32682642	80.85	60	120	
Ge Internal Standard	72	1	HMI H2	6507447	1.04	8342951	78.00	60	120	
Ge Internal Standard	72	2	HMI He	274955	0.28	360038	76.37	60	120	
In Internal Standard	115	2	HMI He	820843	1.04	998948	82.17	60	120	
Ho-165	165	2	HMI He	7457958	1.01	8244993	90.45	60	120	

Sample Report

Sample Table

Sample Name	280-104384-m-6-dSD@5
Data File Name	225SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:12:56-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	23.776	ppb	23.776	30.17	23269	500000	
Li	7	2	45	46.501	ppb	46.501	89.51	1250	500000	
Li	7	3	45	-2.019	ppb	-2.019	-156.40	881726	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	4.395	ppb	4.395	4.89	477	2000	
Na	23	1	45	3676.064	ppb	3676.064	0.87	3515068	2000	
Na	23	2	45	3525.170	ppb	3525.170	2.16	132705	400000	
Mg	24	2	45	7987.500	ppb	7987.500	2.80	138085	400000	
Al	27	2	45	362.159	ppb	362.159	10.06	1433	400000	
K	39	1	45	-144.766	ppb	-144.766	-33.11	2839812	400000	
K	39	2	45	256.407	ppb	256.407	1.90	5074	400000	
Ca	40	1	45	13472.958	ppb	13472.958	1.14	24530112	400000	
Ca	44	2	45	11884.317	ppb	11884.317	2.65	5671	400000	
Ti	47	2	45	382.085	ppb	382.085	99.21	20	4000	
V	51	2	72	0.238	ppb	0.238	40.78	160	2000	
Cr	52	2	72	0.170	ppb	0.170	68.43	240	5000	
Mn	55	2	72	17.227	ppb	17.227	21.67	2470	10000	
Fe	57	2	72	576.463	ppb	576.463	6.94	4687	400000	
Co	59	2	72	0.000	ppb	0.000	-6246.15	210	2000	
Ni	60	2	72	-0.282	ppb	-0.282	-55.15	237	5000	
Cu	63	2	72	1.308	ppb	1.308	8.89	1747	5000	
Zn	66	2	72	1.122	ppb	1.122	120.58	160	5000	
As	75	2	72	4.020	ppb	4.020	3.18	179	2000	
Se	78	1	72	-0.007	ppb	-0.007	-796.00	7	2000	
Sr	88	2	72	48.483	ppb	48.483	7.57	5341	4000	
Zr	90	2	72	14.021	ppb	14.021	39.45	100	1000	
Nb	93	2	72	0.056	ppb	0.056	47.08	120	200	
Mo	95	2	115	0.468	ppb	0.468	35.32	203	2000	
Pd	105	2	115	-0.004	ppb	-0.004	-226.80	3	100	
Ag	107	2	115	0.020	ppb	0.020	120.17	30	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.013	ppb	0.013	1053.88	83	2000	
Sb	121	2	115	0.075	ppb	0.075	140.14	30	1000	
Ba	137	2	115	4.827	ppb	4.827	27.13	437	5000	
W	182	2	165	0.024	ppb	0.024	55.71	337	100	
Pt	195	2	165	-0.006	ppb	-0.006	-35.17	37	100	
Tl	205	2	165	0.014	ppb	0.014	53.38	100	2000	
Pb	208	2	165	-1.142	ppb	-1.142	-4.09	5371	5000	
Th	232	2	165	0.072	ppb	0.072	31.97	643	2000	
U	238	2	165	0.502	ppb	0.502	3.55	3644	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	168713	0.90	207204	81.42	60	120	
Sc (IS)	45	1	HMI H2	12002627	0.27	15259863	78.65	60	120	
Sc (IS)	45	2	HMI He	164157	1.22	210811	77.87	60	120	
Sc (IS)	45	3	No Gas	27987200	0.40	32682642	85.63	60	120	
Ge Internal Standard	72	1	HMI H2	6887740	0.66	8342951	82.56	60	120	
Ge Internal Standard	72	2	HMI He	291462	1.24	360038	80.95	60	120	
In Internal Standard	115	2	HMI He	874405	1.23	998948	87.53	60	120	
Ho-165	165	2	HMI He	7725111	0.02	8244993	93.69	60	120	

Sample Table

Sample Name	280-104384-m-6-e ms
Data File Name	226SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:16:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	89.553	ppb	89.553	11.09	25338	500000	
Li	7	2	45	95.366	ppb	95.366	48.05	1327	500000	
Li	7	3	45	114.588	ppb	114.588	1.45	1089727	50000	
Be	9	1	6	39.077	ppb	39.077	3.66	2490	2000	
B	11	1	6	46.322	ppb	46.322	7.41	3904	2000	
Na	23	1	45	17427.351	ppb	17427.351	0.47	15519902	2000	>LDR
Na	23	2	45	17315.190	ppb	17315.190	1.89	606073	400000	
Mg	24	2	45	39127.613	ppb	39127.613	2.86	628081	400000	
Al	27	2	45	1429.320	ppb	1429.320	7.37	5254	400000	
K	39	1	45	688.955	ppb	688.955	2.56	3579759	400000	
K	39	2	45	1816.485	ppb	1816.485	3.70	15207	400000	
Ca	40	1	45	66274.140	ppb	66274.140	0.17	112186578	400000	
Ca	44	2	45	63709.209	ppb	63709.209	2.10	28303	400000	
Ti	47	2	45	1224.380	ppb	1224.380	2.38	60	4000	
V	51	2	72	39.304	ppb	39.304	4.34	10340	2000	
Cr	52	2	72	38.889	ppb	38.889	3.72	13519	5000	
Mn	55	2	72	141.982	ppb	141.982	6.37	15374	10000	
Fe	57	2	72	3478.845	ppb	3478.845	0.88	23506	400000	
Co	59	2	72	38.160	ppb	38.160	1.64	29926	2000	
Ni	60	2	72	39.458	ppb	39.458	6.25	9366	5000	
Cu	63	2	72	38.793	ppb	38.793	1.40	27676	5000	
Zn	66	2	72	47.720	ppb	47.720	7.56	3060	5000	
As	75	2	72	56.446	ppb	56.446	2.37	2315	2000	
Se	78	1	72	39.459	ppb	39.459	1.63	5394	2000	
Sr	88	2	72	280.975	ppb	280.975	2.89	29195	4000	
Zr	90	2	72	2974.537	ppb	2974.537	2.42	14190	1000	
Nb	93	2	72	0.069	ppb	0.069	40.37	130	200	
Mo	95	2	115	39.953	ppb	39.953	4.91	13903	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	38.385	ppb	38.385	3.10	53187	100	
Cd	111	2	115	38.673	ppb	38.673	5.59	5028	2000	
Sn	120	2	115	30.096	ppb	30.096	1.95	9516	2000	
Sb	121	2	115	33.241	ppb	33.241	6.77	8876	1000	
Ba	137	2	115	62.576	ppb	62.576	3.57	5238	5000	
W	182	2	165	38.135	ppb	38.135	0.62	102734	100	
Pt	195	2	165	-0.012	ppb	-0.012	-31.78	20	100	
Tl	205	2	165	39.628	ppb	39.628	2.09	153776	2000	
Pb	208	2	165	39.564	ppb	39.564	2.45	209073	5000	
Th	232	2	165	40.251	ppb	40.251	1.97	243741	2000	
U	238	2	165	42.689	ppb	42.689	2.22	288691	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	155003	0.18	207204	74.81	60	120	
Sc (IS)	45	1	HMI H2	11259016	0.34	15259863	73.78	60	120	
Sc (IS)	45	2	HMI He	154551	2.37	210811	73.31	60	120	
Sc (IS)	45	3	No Gas	26663825	0.37	32682642	81.58	60	120	
Ge Internal Standard	72	1	HMI H2	6465359	0.40	8342951	77.49	60	120	
Ge Internal Standard	72	2	HMI He	275823	1.12	360038	76.61	60	120	
In Internal Standard	115	2	HMI He	828026	0.86	998948	82.89	60	120	
Ho-165	165	2	HMI He	7423091	0.77	8244993	90.03	60	120	

Sample Table

Sample Name	280-104384-m-6-f msd
Data File Name	227SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:20:30-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	92.346	ppb	92.346	14.06	25672	500000	
Li	7	2	45	141.530	ppb	141.530	21.02	1477	500000	
Li	7	3	45	109.442	ppb	109.442	2.45	1096326	50000	
Be	9	1	6	36.871	ppb	36.871	9.85	2377	2000	
B	11	1	6	47.831	ppb	47.831	8.75	4077	2000	
Na	23	1	45	18513.925	ppb	18513.925	0.88	16605785	2000	>LDR
Na	23	2	45	18321.791	ppb	18321.791	0.84	644845	400000	
Mg	24	2	45	41380.042	ppb	41380.042	0.37	668014	400000	
Al	27	2	45	1366.108	ppb	1366.108	4.10	5048	400000	
K	39	1	45	720.959	ppb	720.959	2.94	3641318	400000	
K	39	2	45	1830.636	ppb	1830.636	4.56	15394	400000	
Ca	40	1	45	70503.935	ppb	70503.935	1.14	120198055	400000	
Ca	44	2	45	68489.906	ppb	68489.906	2.64	30590	400000	
Ti	47	2	45	812.779	ppb	812.779	43.89	40	4000	
V	51	2	72	38.455	ppb	38.455	6.16	10110	2000	
Cr	52	2	72	39.628	ppb	39.628	2.41	13762	5000	
Mn	55	2	72	149.746	ppb	149.746	2.37	16178	10000	
Fe	57	2	72	3423.134	ppb	3423.134	2.90	23116	400000	
Co	59	2	72	39.072	ppb	39.072	4.95	30607	2000	
Ni	60	2	72	40.657	ppb	40.657	1.01	9636	5000	
Cu	63	2	72	40.098	ppb	40.098	1.51	28554	5000	
Zn	66	2	72	42.729	ppb	42.729	5.96	2747	5000	
As	75	2	72	58.226	ppb	58.226	2.54	2385	2000	
Se	78	1	72	38.937	ppb	38.937	5.59	5330	2000	
Sr	88	2	72	303.384	ppb	303.384	2.50	31496	4000	
Zr	90	2	72	3090.330	ppb	3090.330	3.94	14723	1000	
Nb	93	2	72	0.051	ppb	0.051	92.81	107	200	
Mo	95	2	115	40.684	ppb	40.684	2.19	14043	2000	
Pd	105	2	115	0.018	ppb	0.018	136.38	17	100	
Ag	107	2	115	38.605	ppb	38.605	3.89	53046	100	
Cd	111	2	115	37.012	ppb	37.012	5.01	4771	2000	
Sn	120	2	115	33.338	ppb	33.338	2.27	10447	2000	
Sb	121	2	115	37.606	ppb	37.606	3.33	9957	1000	
Ba	137	2	115	67.751	ppb	67.751	6.36	5625	5000	
W	182	2	165	37.121	ppb	37.121	2.13	100299	100	
Pt	195	2	165	0.006	ppb	0.006	98.56	67	100	
Tl	205	2	165	40.107	ppb	40.107	1.03	156098	2000	
Pb	208	2	165	39.578	ppb	39.578	0.55	209775	5000	
Th	232	2	165	40.577	ppb	40.577	2.81	246411	2000	
U	238	2	165	43.066	ppb	43.066	1.42	292116	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	156788	0.90	207204	75.67	60	120	
Sc (IS)	45	1	HMI H2	11341260	0.49	15259863	74.32	60	120	
Sc (IS)	45	2	HMI He	155392	0.66	210811	73.71	60	120	
Sc (IS)	45	3	No Gas	27099211	0.23	32682642	82.92	60	120	
Ge Internal Standard	72	1	HMI H2	6476093	0.74	8342951	77.62	60	120	
Ge Internal Standard	72	2	HMI He	275584	0.79	360038	76.54	60	120	
In Internal Standard	115	2	HMI He	821199	0.34	998948	82.21	60	120	
Ho-165	165	2	HMI He	7445020	1.05	8244993	90.30	60	120	

Sample Table

Sample Name	280-104384-m-6-d PDS
Data File Name	228SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:24:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	55.283	ppb	55.283	16.90	22992	500000	
Li	7	2	45	97.231	ppb	97.231	114.16	1353	500000	
Li	7	3	45	47.403	ppb	47.403	45.57	962536	50000	
Be	9	1	6	185.272	ppb	185.272	2.64	11707	2000	
B	11	1	6	25.218	ppb	25.218	1.52	2144	2000	
Na	23	1	45	18757.621	ppb	18757.621	2.39	16332536	2000	>LDR
Na	23	2	45	17565.449	ppb	17565.449	1.98	623150	400000	
Mg	24	2	45	39505.832	ppb	39505.832	2.18	642840	400000	
Al	27	2	45	3596.719	ppb	3596.719	4.17	13352	400000	
K	39	1	45	1047.092	ppb	1047.092	2.18	3885622	400000	
K	39	2	45	1937.235	ppb	1937.235	2.46	16238	400000	
Ca	40	1	45	71202.738	ppb	71202.738	2.65	117839445	400000	
Ca	44	2	45	64198.055	ppb	64198.055	3.08	28904	400000	
Ti	47	2	45	2617.094	ppb	2617.094	26.72	130	4000	
V	51	2	72	183.770	ppb	183.770	1.21	48226	2000	
Cr	52	2	72	191.671	ppb	191.671	0.61	66260	5000	
Mn	55	2	72	301.183	ppb	301.183	3.14	32160	10000	
Fe	57	2	72	5033.728	ppb	5033.728	1.85	33860	400000	
Co	59	2	72	184.448	ppb	184.448	1.35	144513	2000	
Ni	60	2	72	187.540	ppb	187.540	1.35	43627	5000	
Cu	63	2	72	186.780	ppb	186.780	1.77	130945	5000	
Zn	66	2	72	202.007	ppb	202.007	4.29	12745	5000	
As	75	2	72	195.121	ppb	195.121	2.22	8021	2000	
Se	78	1	72	203.709	ppb	203.709	2.48	27231	2000	
Sr	88	2	72	248.814	ppb	248.814	1.36	25970	4000	
Zr	90	2	72	17156.845	ppb	17156.845	1.64	82050	1000	>LDR
Nb	93	2	72	0.707	ppb	0.707	21.96	933	200	
Mo	95	2	115	188.773	ppb	188.773	1.05	65765	2000	
Pd	105	2	115	0.065	ppb	0.065	37.38	47	100	
Ag	107	2	115	46.930	ppb	46.930	1.19	65188	100	
Cd	111	2	115	186.892	ppb	186.892	1.01	24352	2000	
Sn	120	2	115	196.129	ppb	196.129	0.99	61767	2000	
Sb	121	2	115	197.349	ppb	197.349	0.44	52790	1000	
Ba	137	2	115	220.088	ppb	220.088	1.09	18444	5000	
W	182	2	165	197.065	ppb	197.065	1.04	537763	100	
Pt	195	2	165	0.028	ppb	0.028	8.28	127	100	
Tl	205	2	165	198.006	ppb	198.006	0.75	779780	2000	
Pb	208	2	165	194.380	ppb	194.380	0.31	999483	5000	
Th	232	2	165	1.013	ppb	1.013	3.61	6402	2000	
U	238	2	165	202.248	ppb	202.248	0.79	1387954	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	153858	1.53	207204	74.25	60	120	
Sc (IS)	45	1	HMI H2	11011055	0.84	15259863	72.16	60	120	
Sc (IS)	45	2	HMI He	156638	1.55	210811	74.30	60	120	
Sc (IS)	45	3	No Gas	27135846	0.27	32682642	83.03	60	120	
Ge Internal Standard	72	1	HMI H2	6329888	1.00	8342951	75.87	60	120	
Ge Internal Standard	72	2	HMI He	276986	0.63	360038	76.93	60	120	
In Internal Standard	115	2	HMI He	830162	1.11	998948	83.10	60	120	
Ho-165	165	2	HMI He	7534503	0.43	8244993	91.38	60	120	

Sample Table

Sample Name	280-104384-e-8-b
Data File Name	229SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:28:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	77.789	ppb	77.789	17.33	25044	500000	
Li	7	2	45	133.461	ppb	133.461	25.07	1443	500000	
Li	7	3	45	86.668	ppb	86.668	5.04	1064933	50000	
Be	9	1	6	0.311	ppb	0.311	194.95	23	2000	
B	11	1	6	36.055	ppb	36.055	3.72	3154	2000	
Na	23	1	45	22944.773	ppb	22944.773	1.15	20701455	2000	>LDR
Na	23	2	45	22760.207	ppb	22760.207	1.41	795790	400000	
Mg	24	2	45	52788.703	ppb	52788.703	1.23	846482	400000	
Al	27	2	45	8142.008	ppb	8142.008	2.14	29785	400000	
K	39	1	45	2582.158	ppb	2582.158	3.64	5736435	400000	
K	39	2	45	3717.022	ppb	3717.022	1.12	27916	400000	
Ca	40	1	45	107521.548	ppb	107521.548	1.38	184319424	400000	
Ca	44	2	45	102102.847	ppb	102102.847	2.86	45295	400000	
Ti	47	2	45	4075.307	ppb	4075.307	25.70	200	4000	
V	51	2	72	13.744	ppb	13.744	4.51	3694	2000	
Cr	52	2	72	11.954	ppb	11.954	2.88	4297	5000	
Mn	55	2	72	674.323	ppb	674.323	1.74	71446	10000	
Fe	57	2	72	27306.554	ppb	27306.554	1.79	181035	400000	
Co	59	2	72	13.186	ppb	13.186	3.66	10530	2000	
Ni	60	2	72	21.601	ppb	21.601	2.70	5288	5000	
Cu	63	2	72	15.885	ppb	15.885	5.75	11834	5000	
Zn	66	2	72	52.784	ppb	52.784	5.52	3394	5000	
As	75	2	72	17.200	ppb	17.200	6.08	712	2000	
Se	78	1	72	0.157	ppb	0.157	100.30	29	2000	
Sr	88	2	72	310.305	ppb	310.305	1.64	32421	4000	
Zr	90	2	72	142.491	ppb	142.491	9.41	710	1000	
Nb	93	2	72	0.063	ppb	0.063	68.98	123	200	
Mo	95	2	115	1.145	ppb	1.145	23.92	427	2000	
Pd	105	2	115	0.007	ppb	0.007	223.22	10	100	
Ag	107	2	115	0.024	ppb	0.024	44.61	33	100	
Cd	111	2	115	0.051	ppb	0.051	173.21	7	2000	
Sn	120	2	115	0.126	ppb	0.126	90.90	113	2000	
Sb	121	2	115	0.220	ppb	0.220	8.54	67	1000	
Ba	137	2	115	56.271	ppb	56.271	3.11	4691	5000	
W	182	2	165	0.143	ppb	0.143	19.47	653	100	
Pt	195	2	165	-0.008	ppb	-0.008	-80.36	30	100	
Tl	205	2	165	0.201	ppb	0.201	13.25	833	2000	
Pb	208	2	165	11.340	ppb	11.340	0.80	68784	5000	
Th	232	2	165	5.271	ppb	5.271	4.79	32585	2000	
U	238	2	165	2.764	ppb	2.764	3.47	19096	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159987	1.16	207204	77.21	60	120	
Sc (IS)	45	1	HMI H2	11412309	0.53	15259863	74.79	60	120	
Sc (IS)	45	2	HMI He	154475	1.16	210811	73.28	60	120	
Sc (IS)	45	3	No Gas	27570070	0.37	32682642	84.36	60	120	
Ge Internal Standard	72	1	HMI H2	6600604	0.49	8342951	79.12	60	120	
Ge Internal Standard	72	2	HMI He	277358	1.04	360038	77.04	60	120	
In Internal Standard	115	2	HMI He	824226	1.49	998948	82.51	60	120	
Ho-165	165	2	HMI He	7542424	0.96	8244993	91.48	60	120	

Sample Report

Sample Table

Sample Name	280-104384-e-10-b
Data File Name	230SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:31:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.303	ppb	3.303	245.33	21733	500000	
Li	7	2	45	71.132	ppb	71.132	69.56	1297	500000	
Li	7	3	45	-9.943	ppb	-9.943	-43.82	856320	50000	
Be	9	1	6	0.011	ppb	0.011	817.86	3	2000	
B	11	1	6	22.333	ppb	22.333	7.47	2014	2000	
Na	23	1	45	3149.920	ppb	3149.920	0.80	2965451	2000	
Na	23	2	45	3024.224	ppb	3024.224	0.82	111215	400000	
Mg	24	2	45	7057.525	ppb	7057.525	2.34	119151	400000	
Al	27	2	45	26.715	ppb	26.715	63.40	127	400000	
K	39	1	45	106.113	ppb	106.113	31.16	3080386	400000	
K	39	2	45	1237.439	ppb	1237.439	12.94	11728	400000	
Ca	40	1	45	22567.877	ppb	22567.877	1.06	40211747	400000	
Ca	44	2	45	21379.429	ppb	21379.429	0.91	9880	400000	
Ti	47	2	45	131.869	ppb	131.869	86.61	7	4000	
V	51	2	72	-0.107	ppb	-0.107	-50.50	63	2000	
Cr	52	2	72	0.341	ppb	0.341	47.54	293	5000	
Mn	55	2	72	-3.242	ppb	-3.242	-24.75	200	10000	
Fe	57	2	72	-36.620	ppb	-36.620	-16.45	420	400000	
Co	59	2	72	-0.181	ppb	-0.181	-24.66	60	2000	
Ni	60	2	72	0.522	ppb	0.522	42.59	420	5000	
Cu	63	2	72	0.083	ppb	0.083	157.62	827	5000	
Zn	66	2	72	2.015	ppb	2.015	52.63	213	5000	
As	75	2	72	0.127	ppb	0.127	150.21	10	2000	
Se	78	1	72	0.235	ppb	0.235	29.75	41	2000	
Sr	88	2	72	64.700	ppb	64.700	4.64	6932	4000	
Zr	90	2	72	2.973	ppb	2.973	173.94	43	1000	
Nb	93	2	72	-0.012	ppb	-0.012	-175.38	30	200	
Mo	95	2	115	-0.041	ppb	-0.041	-102.63	17	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.030	ppb	0.030	70.76	43	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.111	ppb	0.111	86.09	113	2000	
Sb	121	2	115	0.342	ppb	0.342	61.50	103	1000	
Ba	137	2	115	15.910	ppb	15.910	6.16	1390	5000	
W	182	2	165	0.079	ppb	0.079	15.17	487	100	
Pt	195	2	165	0.005	ppb	0.005	340.18	67	100	
Tl	205	2	165	0.008	ppb	0.008	36.10	77	2000	
Pb	208	2	165	-1.386	ppb	-1.386	-4.02	4077	5000	
Th	232	2	165	0.024	ppb	0.024	59.43	337	2000	
U	238	2	165	0.011	ppb	0.011	26.54	190	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162520	0.83	207204	78.43	60	120	
Sc (IS)	45	1	HMI H2	11800148	1.31	15259863	77.33	60	120	
Sc (IS)	45	2	HMI He	159931	0.94	210811	75.86	60	120	
Sc (IS)	45	3	No Gas	27743125	1.21	32682642	84.89	60	120	
Ge Internal Standard	72	1	HMI H2	6802389	0.48	8342951	81.53	60	120	
Ge Internal Standard	72	2	HMI He	283579	1.20	360038	78.76	60	120	
In Internal Standard	115	2	HMI He	858846	0.45	998948	85.98	60	120	
Ho-165	165	2	HMI He	7684594	0.50	8244993	93.20	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	231_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:35:43-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	528.063	ppb	0.737	53678	500	105.6	90	110	
Li	7	2	45	589.092	ppb	3.132	3074	500	117.8	90	110	>+\-10%
Li	7	3	45	583.904	ppb	0.634	2264303	500	116.8	90	110	>+\-10%
Be	9	1	6	43.118	ppb	7.822	3164	50	86.2	90	110	>+\-10%
B	11	1	6	43.083	ppb	5.778	4187	50	86.2	90	110	>+\-10%
Na	23	1	45	4838.893	ppb	1.907	4768399	5000	96.8	90	110	
Na	23	2	45	4727.432	ppb	6.453	180128	5000	94.5	90	110	
Mg	24	2	45	4794.455	ppb	7.166	85167	5000	95.9	90	110	
Al	27	2	45	4713.302	ppb	4.430	18640	5000	94.3	90	110	
K	39	1	45	4611.246	ppb	4.161	8685276	5000	92.2	90	110	
K	39	2	45	4700.372	ppb	5.085	37256	5000	94.0	90	110	
Ca	40	1	45	4858.722	ppb	3.355	9315334	5000	97.2	90	110	
Ca	44	2	45	4741.244	ppb	11.978	2347	5000	94.8	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	46.427	ppb	9.981	13015	50	92.9	90	110	
Cr	52	2	72	47.771	ppb	7.732	17686	50	95.5	90	110	
Mn	55	2	72	45.648	ppb	11.900	5661	50	91.3	90	110	
Fe	57	2	72	4756.421	ppb	5.800	34057	5000	95.1	90	110	
Co	59	2	72	46.837	ppb	4.592	39177	50	93.7	90	110	
Ni	60	2	72	48.317	ppb	6.055	12178	50	96.6	90	110	
Cu	63	2	72	48.035	ppb	6.437	36392	50	96.1	90	110	
Zn	66	2	72	48.765	ppb	3.643	3340	50	97.5	90	110	
As	75	2	72	47.143	ppb	4.910	2065	50	94.3	90	110	
Se	78	1	72	51.723	ppb	1.666	7715	50	103.4	90	110	
Sr	88	2	72	51.914	ppb	5.330	5781	50	103.8	90	110	
Zr	90	2	72	62.224	ppb	24.408	347	50	124.4	90	110	>+\-10%
Nb	93	2	72	99.784	ppb	4.567	133519	100	99.8	90	110	
Mo	95	2	115	44.984	ppb	7.997	16729	50	90.0	90	110	>+\-10%
Pd	105	2	115	50.815	ppb	3.919	34222	50	101.6	90	110	
Ag	107	2	115	47.749	ppb	5.438	70747	50	95.5	90	110	
Cd	111	2	115	47.171	ppb	5.974	6555	50	94.3	90	110	
Sn	120	2	115	46.659	ppb	1.021	15755	50	93.3	90	110	
Sb	121	2	115	49.225	ppb	5.645	14050	50	98.4	90	110	
Ba	137	2	115	50.440	ppb	3.377	4521	50	100.9	90	110	
W	182	2	165	49.789	ppb	6.366	141914	50	99.6	90	110	
Pt	195	2	165	49.509	ppb	6.247	138089	50	99.0	90	110	
Tl	205	2	165	49.927	ppb	5.701	205140	50	99.9	90	110	
Pb	208	2	165	48.312	ppb	7.363	267711	50	96.6	90	110	
Th	232	2	165	48.858	ppb	6.193	313215	50	97.7	90	110	
U	238	2	165	49.137	ppb	7.546	351700	50	98.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178528	0.65	207204	86.16	60	120	
Sc (IS)	45	1	HMI H2	12398990	1.65	15259863	81.25	60	120	
Sc (IS)	45	2	HMI He	167068	4.05	210811	79.25	60	120	
Sc (IS)	45	3	No Gas	28824520	0.57	32682642	88.20	60	120	
Ge Internal Standard	72	1	HMI H2	7056505	1.37	8342951	84.58	60	120	
Ge Internal Standard	72	2	HMI He	294738	2.45	360038	81.86	60	120	
In Internal Standard	115	2	HMI He	886564	3.60	998948	88.75	60	120	
Ho-165	165	2	HMI He	7869795	3.46	8244993	95.45	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	232_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:39:31-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	9.843	ppb	251.8	956276	10	
Be	9	1	6	0.005	ppb	1419.1	3	0.5	
B	11	1	6	0.848	ppb	62.0	167	0.5	>RL
Na	23	1	45	51.989	ppb	1.6	83637	25	>RL
Na	23	2	45	39.960	ppb	11.0	3540	25	>RL
Mg	24	2	45	33.818	ppb	67.6	2927	25	>RL
Al	27	2	45	13.836	ppb	72.8	80	15	
K	39	1	45	-118.004	ppb	-19.5	2960418	50	
K	39	2	45	-125.709	ppb	-10.9	2364	50	
Ca	40	1	45	-21.930	ppb	-11.4	240606	50	
Ca	44	2	45	-4.256	ppb	-296.4	73	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.078	ppb	-207.4	73	1	
Cr	52	2	72	-0.244	ppb	-10.8	90	1	
Mn	55	2	72	-4.053	ppb	-4.7	117	0.5	
Fe	57	2	72	-55.715	ppb	-14.1	300	25	
Co	59	2	72	-0.155	ppb	-12.2	83	0.5	
Ni	60	2	72	-0.762	ppb	-23.5	120	1	
Cu	63	2	72	0.420	ppb	14.4	1100	1	
Zn	66	2	72	1.007	ppb	8.7	153	5	
As	75	2	72	-0.032	ppb	-283.2	4	1	
Se	78	1	72	-0.026	ppb	-181.2	4	1	
Sr	88	2	72	-0.101	ppb	-137.8	13	0.5	
Zr	90	2	72	4.661	ppb	49.1	53	1	>RL
Nb	93	2	72	1.177	ppb	15.9	1610	2	
Mo	95	2	115	0.021	ppb	222.6	40	0.5	
Pd	105	2	115	0.036	ppb	71.8	30	1	
Ag	107	2	115	0.034	ppb	0.5	50	1	
Cd	111	2	115	0.048	ppb	173.2	7	0.5	
Sn	120	2	115	0.152	ppb	89.6	130	1	
Sb	121	2	115	0.204	ppb	35.5	67	0.6	
Ba	137	2	115	0.017	ppb	1015.4	13	0.5	
W	182	2	165	0.033	ppb	67.2	360	1	
Pt	195	2	165	0.011	ppb	152.7	83	1	
Tl	205	2	165	0.048	ppb	37.7	237	0.1	
Pb	208	2	165	-0.969	ppb	-3.7	6271	0.5	
Th	232	2	165	0.083	ppb	9.1	707	1	
U	238	2	165	0.006	ppb	80.2	157	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	177971	2.27	207204	85.89	60	120	
Sc (IS)	45	1	HMI H2	12377275	1.59	15259863	81.11	60	120	
Sc (IS)	45	2	HMI He	164496	0.95	210811	78.03	60	120	
Sc (IS)	45	3	No Gas	29456840	0.45	32682642	90.13	60	120	
Ge Internal Standard	72	1	HMI H2	7090811	2.20	8342951	84.99	60	120	
Ge Internal Standard	72	2	HMI He	292556	0.43	360038	81.26	60	120	
In Internal Standard	115	2	HMI He	879756	0.46	998948	88.07	60	120	
Ho-165	165	2	HMI He	7722387	0.37	8244993	93.66	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	233LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:43:19-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	52.655	ppb	7.142	1075905	50	105.3	70	130	
Be	9	1	6	0.413	ppb	36.618	33	1	41.3	70	130	>+/-30%
Na	23	2	45	65.179	ppb	3.184	4394	50	130.4	70	130	>+/-30%
Mg	24	2	45	100.800	ppb	16.224	3991	50	201.6	70	130	>+/-30%
Al	27	2	45	21.389	ppb	57.387	107	30	71.3	70	130	
K	39	2	45	-14.564	ppb	-233.552	3094	100	-14.6	70	130	>+/-30%
Ca	44	2	45	5.531	ppb	551.528	77	50	11.1	70	130	>+/-30%
V	51	2	72	4.346	ppb	8.294	1277	5	86.9	70	130	
Cr	52	2	72	2.030	ppb	14.356	903	2	101.5	70	130	
Mn	55	2	72	-3.183	ppb	-11.111	210	1	-318.3	70	130	>+/-30%
Fe	57	2	72	-19.967	ppb	-78.467	540	50	-39.9	70	130	>+/-30%
Co	59	2	72	0.758	ppb	26.040	823	1	75.8	70	130	
Ni	60	2	72	0.977	ppb	49.807	537	2	48.9	70	130	>+/-30%
Cu	63	2	72	2.579	ppb	4.055	2647	2	128.9	70	130	
Zn	66	2	72	10.901	ppb	16.917	797	10	109.0	70	130	
As	75	2	72	4.735	ppb	16.214	207	5	94.7	70	130	
Se	78	1	72	4.920	ppb	6.954	731	5	98.4	70	130	
Sr	88	2	72	1.103	ppb	42.657	143	1	110.3	70	130	
Zr	90	2	72	6.804	ppb	131.208	63	0.5	1360.8	70	130	>+/-30%
Nb	93	2	72	1.050	ppb	12.461	1417	2	52.5	70	130	>+/-30%
Mo	95	2	115	1.947	ppb	16.302	737	2	97.3	70	130	
Pd	105	2	115	-0.004	ppb	-227.611	3	1	-0.4	70	130	>+/-30%
Ag	107	2	115	5.043	ppb	3.528	7295	5	100.9	70	130	
Cd	111	2	115	1.108	ppb	19.378	150	1	110.8	70	130	
Sn	120	2	115	10.081	ppb	3.774	3379	10	100.8	70	130	
Sb	121	2	115	2.068	ppb	19.292	583	2	103.4	70	130	
Ba	137	2	115	0.854	ppb	71.577	87	1	85.4	70	130	
W	182	2	165	4.986	ppb	4.681	13903	1	498.6	70	130	>+/-30%
Pt	195	2	165	0.015	ppb	76.291	93	1	1.5	70	130	>+/-30%
Tl	205	2	165	1.051	ppb	3.813	4194	1	105.1	70	130	
Pb	208	2	165	-0.589	ppb	-14.221	8071	1	-58.9	70	130	>+/-30%
Th	232	2	165	2.153	ppb	4.470	13450	2	107.7	70	130	
U	238	2	165	1.067	ppb	5.462	7455	1	106.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178793	1.89	207204	86.29	60	120	
Sc (IS)	45	1	HMI H2	12160430	0.15	15259863	79.69	60	120	
Sc (IS)	45	2	HMI He	161443	1.79	210811	76.58	60	120	
Sc (IS)	45	3	No Gas	29972493	1.20	32682642	91.71	60	120	
Ge Internal Standard	72	1	HMI H2	6957671	1.06	8342951	83.40	60	120	
Ge Internal Standard	72	2	HMI He	287970	1.33	360038	79.98	60	120	
In Internal Standard	115	2	HMI He	864410	2.27	998948	86.53	60	120	
Ho-165	165	2	HMI He	7560633	1.59	8244993	91.70	60	120	

Sample Table

Sample Name	280-104663-b-5-b
Data File Name	234SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:47:08-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	25.132	ppb	25.132	31.68	22181	500000	
Li	7	2	45	68.687	ppb	68.687	46.60	1223	500000	
Li	7	3	45	4.795	ppb	4.795	14.79	882058	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	11.506	ppb	11.506	16.19	1070	2000	
Na	23	1	45	23172.329	ppb	23172.329	0.43	20891530	2000	>LDR
Na	23	2	45	23345.049	ppb	23345.049	1.46	802430	400000	
Mg	24	2	45	7345.790	ppb	7345.790	1.73	117671	400000	
Al	27	2	45	4.477	ppb	4.477	2.49	40	400000	
K	39	1	45	830.722	ppb	830.722	2.77	3783567	400000	
K	39	2	45	1992.305	ppb	1992.305	1.17	16104	400000	
Ca	40	1	45	49680.393	ppb	49680.393	0.08	85244315	400000	
Ca	44	2	45	50614.046	ppb	50614.046	0.81	22114	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	5.010	ppb	5.010	20.79	1370	2000	
Cr	52	2	72	1.989	ppb	1.989	17.88	837	5000	
Mn	55	2	72	-0.367	ppb	-0.367	-316.64	487	10000	
Fe	57	2	72	-71.383	ppb	-71.383	-6.84	177	400000	
Co	59	2	72	-0.208	ppb	-0.208	-7.39	37	2000	
Ni	60	2	72	-0.782	ppb	-0.782	-17.57	107	5000	
Cu	63	2	72	1.429	ppb	1.429	27.58	1707	5000	
Zn	66	2	72	18.707	ppb	18.707	5.81	1227	5000	
As	75	2	72	2.611	ppb	2.611	27.88	110	2000	
Se	78	1	72	1.521	ppb	1.521	5.12	217	2000	
Sr	88	2	72	303.326	ppb	303.326	1.63	30952	4000	
Zr	90	2	72	7.645	ppb	7.645	15.92	63	1000	
Nb	93	2	72	0.123	ppb	0.123	16.72	193	200	
Mo	95	2	115	1.312	ppb	1.312	13.73	480	2000	
Pd	105	2	115	0.007	ppb	0.007	222.10	10	100	
Ag	107	2	115	0.010	ppb	0.010	115.36	13	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.096	ppb	0.096	167.03	103	2000	
Sb	121	2	115	0.171	ppb	0.171	100.51	53	1000	
Ba	137	2	115	100.129	ppb	100.129	6.49	8259	5000	
W	182	2	165	0.887	ppb	0.887	10.94	2610	100	
Pt	195	2	165	-0.007	ppb	-0.007	-146.94	33	100	
Tl	205	2	165	0.016	ppb	0.016	60.78	103	2000	
Pb	208	2	165	-1.080	ppb	-1.080	-7.59	5404	5000	
Th	232	2	165	0.061	ppb	0.061	12.48	540	2000	
U	238	2	165	3.515	ppb	3.515	3.19	23572	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	161820	1.01	207204	78.10	60	120	
Sc (IS)	45	1	HMI H2	11403834	0.29	15259863	74.73	60	120	
Sc (IS)	45	2	HMI He	151869	1.00	210811	72.04	60	120	
Sc (IS)	45	3	No Gas	27519146	0.49	32682642	84.20	60	120	
Ge Internal Standard	72	1	HMI H2	6536427	0.69	8342951	78.35	60	120	
Ge Internal Standard	72	2	HMI He	270856	0.45	360038	75.23	60	120	
In Internal Standard	115	2	HMI He	816562	1.51	998948	81.74	60	120	
Ho-165	165	2	HMI He	7331199	0.47	8244993	88.92	60	120	

Sample Report

Sample Table

Sample Name	280-104663-b-6-b
Data File Name	235SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:50:58-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	20.278	ppb	20.278	21.67	22007	500000	
Li	7	2	45	17.254	ppb	17.254	136.74	1097	500000	
Li	7	3	45	4.574	ppb	4.574	42.48	884918	50000	
Be	9	1	6	0.112	ppb	0.112	233.60	10	2000	
B	11	1	6	19.611	ppb	19.611	7.83	1773	2000	
Na	23	1	45	21092.953	ppb	21092.953	1.71	19094197	2000	>LDR
Na	23	2	45	20890.182	ppb	20890.182	2.86	737918	400000	
Mg	24	2	45	5532.784	ppb	5532.784	2.76	91608	400000	
Al	27	2	45	-1.212	ppb	-1.212	-229.38	20	400000	
K	39	1	45	1401.771	ppb	1401.771	3.95	4436420	400000	
K	39	2	45	2479.456	ppb	2479.456	2.59	19838	400000	
Ca	40	1	45	39874.007	ppb	39874.007	1.09	68739177	400000	
Ca	44	2	45	40283.259	ppb	40283.259	4.07	18093	400000	
Ti	47	2	45	135.703	ppb	135.703	86.61	7	4000	
V	51	2	72	1.682	ppb	1.682	17.54	527	2000	
Cr	52	2	72	0.335	ppb	0.335	46.48	283	5000	
Mn	55	2	72	116.775	ppb	116.775	2.06	12725	10000	
Fe	57	2	72	519.531	ppb	519.531	8.53	4054	400000	
Co	59	2	72	0.075	ppb	0.075	46.78	257	2000	
Ni	60	2	72	-0.155	ppb	-0.155	-262.59	253	5000	
Cu	63	2	72	2.457	ppb	2.457	8.30	2447	5000	
Zn	66	2	72	5.099	ppb	5.099	26.11	400	5000	
As	75	2	72	12.061	ppb	12.061	9.44	497	2000	
Se	78	1	72	0.419	ppb	0.419	11.41	65	2000	
Sr	88	2	72	273.766	ppb	273.766	2.70	28404	4000	
Zr	90	2	72	3.908	ppb	3.908	28.43	47	1000	
Nb	93	2	72	0.059	ppb	0.059	8.42	117	200	
Mo	95	2	115	2.773	ppb	2.773	6.17	1000	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.031	ppb	0.031	74.32	43	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.048	ppb	0.048	238.10	90	2000	
Sb	121	2	115	0.230	ppb	0.230	30.00	70	1000	
Ba	137	2	115	130.741	ppb	130.741	6.13	10994	5000	
W	182	2	165	12.645	ppb	12.645	0.80	34020	100	
Pt	195	2	165	0.001	ppb	0.001	574.08	53	100	
Tl	205	2	165	0.004	ppb	0.004	255.77	57	2000	
Pb	208	2	165	-0.920	ppb	-0.920	-3.52	6231	5000	
Th	232	2	165	0.036	ppb	0.036	8.57	397	2000	
U	238	2	165	0.899	ppb	0.899	3.86	6145	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	162120	0.72	207204	78.24	60	120	
Sc (IS)	45	1	HMI H2	11449403	0.70	15259863	75.03	60	120	
Sc (IS)	45	2	HMI He	156051	1.39	210811	74.02	60	120	
Sc (IS)	45	3	No Gas	27623861	0.37	32682642	84.52	60	120	
Ge Internal Standard	72	1	HMI H2	6559286	1.08	8342951	78.62	60	120	
Ge Internal Standard	72	2	HMI He	275411	1.22	360038	76.49	60	120	
In Internal Standard	115	2	HMI He	833241	1.81	998948	83.41	60	120	
Ho-165	165	2	HMI He	7375806	0.92	8244993	89.46	60	120	

Sample Report

Sample Table

Sample Name	280-104663-b-7-b
Data File Name	236SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:54:46-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	26.429	ppb	26.429	64.71	22020	500000	
Li	7	2	45	69.787	ppb	69.787	55.40	1230	500000	
Li	7	3	45	-2.143	ppb	-2.143	-52.52	868664	50000	
Be	9	1	6	0.111	ppb	0.111	234.22	10	2000	
B	11	1	6	12.340	ppb	12.340	7.48	1127	2000	
Na	23	1	45	19701.328	ppb	19701.328	1.12	17581336	2000	>LDR
Na	23	2	45	19101.042	ppb	19101.042	2.87	658495	400000	
Mg	24	2	45	6255.632	ppb	6255.632	1.00	100792	400000	
Al	27	2	45	1673.233	ppb	1673.233	3.95	6051	400000	
K	39	1	45	760.737	ppb	760.737	3.54	3667290	400000	
K	39	2	45	1786.033	ppb	1786.033	4.29	14783	400000	
Ca	40	1	45	42325.764	ppb	42325.764	0.86	71906439	400000	
Ca	44	2	45	40047.066	ppb	40047.066	3.86	17552	400000	
Ti	47	2	45	1863.754	ppb	1863.754	19.29	90	4000	
V	51	2	72	7.718	ppb	7.718	15.64	2087	2000	
Cr	52	2	72	1.464	ppb	1.464	32.94	667	5000	
Mn	55	2	72	77.673	ppb	77.673	3.13	8582	10000	
Fe	57	2	72	1210.613	ppb	1210.613	4.62	8529	400000	
Co	59	2	72	0.464	ppb	0.464	40.46	557	2000	
Ni	60	2	72	1.187	ppb	1.187	29.43	557	5000	
Cu	63	2	72	9.198	ppb	9.198	10.32	7068	5000	
Zn	66	2	72	38.711	ppb	38.711	1.40	2477	5000	
As	75	2	72	2.152	ppb	2.152	24.27	92	2000	
Se	78	1	72	0.809	ppb	0.809	3.68	117	2000	
Sr	88	2	72	273.145	ppb	273.145	5.72	28137	4000	
Zr	90	2	72	88.707	ppb	88.707	11.43	447	1000	
Nb	93	2	72	0.287	ppb	0.287	49.56	400	200	
Mo	95	2	115	1.740	ppb	1.740	13.41	637	2000	
Pd	105	2	115	-0.003	ppb	-0.003	-273.55	3	100	
Ag	107	2	115	0.005	ppb	0.005	86.63	7	100	
Cd	111	2	115	0.077	ppb	0.077	100.89	10	2000	
Sn	120	2	115	0.208	ppb	0.208	72.62	140	2000	
Sb	121	2	115	0.131	ppb	0.131	42.75	43	1000	
Ba	137	2	115	117.781	ppb	117.781	2.34	9883	5000	
W	182	2	165	2.648	ppb	2.648	3.13	7392	100	
Pt	195	2	165	0.001	ppb	0.001	1279.16	53	100	
Tl	205	2	165	0.013	ppb	0.013	63.68	93	2000	
Pb	208	2	165	1.862	ppb	1.862	6.01	20256	5000	
Th	232	2	165	1.964	ppb	1.964	4.74	12092	2000	
U	238	2	165	1.962	ppb	1.962	3.13	13403	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159569	1.49	207204	77.01	60	120	
Sc (IS)	45	1	HMI H2	11285250	0.65	15259863	73.95	60	120	
Sc (IS)	45	2	HMI He	152259	1.25	210811	72.23	60	120	
Sc (IS)	45	3	No Gas	27581019	0.40	32682642	84.39	60	120	
Ge Internal Standard	72	1	HMI H2	6444161	0.55	8342951	77.24	60	120	
Ge Internal Standard	72	2	HMI He	273514	1.09	360038	75.97	60	120	
In Internal Standard	115	2	HMI He	830713	1.61	998948	83.16	60	120	
Ho-165	165	2	HMI He	7439476	0.44	8244993	90.23	60	120	

Sample Report

Sample Table

Sample Name	280-104384-c-1-b
Data File Name	237SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T01:58:36-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	559.012	ppb	559.012	2.79	47802	500000	
Li	7	2	45	533.695	ppb	533.695	7.99	2534	500000	
Li	7	3	45	533.126	ppb	533.126	2.19	1900019	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	52.294	ppb	52.294	8.38	4204	2000	
Na	23	1	45	36286.077	ppb	36286.077	0.27	30620660	2000	>LDR
Na	23	2	45	35987.203	ppb	35987.203	1.27	1191599	400000	
Mg	24	2	45	320696.195	ppb	320696.195	1.37	4863573	400000	
Al	27	2	45	28.848	ppb	28.848	74.54	123	400000	
K	39	1	45	53753.243	ppb	53753.243	0.88	58693622	400000	
K	39	2	45	53560.978	ppb	53560.978	1.77	342312	400000	
Ca	40	1	45	1168744.680	ppb	1168744.680	0.24	1872539492	400000	
Ca	44	2	45	1086799.916	ppb	1086799.916	0.92	456406	400000	
Ti	47	2	45	217.942	ppb	217.942	173.21	10	4000	
V	51	2	72	-0.191	ppb	-0.191	-33.47	37	2000	
Cr	52	2	72	-0.029	ppb	-0.029	-659.29	147	5000	
Mn	55	2	72	2499.008	ppb	2499.008	2.33	242483	10000	
Fe	57	2	72	3.811	ppb	3.811	704.81	623	400000	
Co	59	2	72	10.637	ppb	10.637	3.91	7859	2000	
Ni	60	2	72	15.199	ppb	15.199	4.00	3507	5000	
Cu	63	2	72	0.299	ppb	0.299	25.35	883	5000	
Zn	66	2	72	3.997	ppb	3.997	7.05	307	5000	
As	75	2	72	0.531	ppb	0.531	57.37	25	2000	
Se	78	1	72	0.210	ppb	0.210	48.16	33	2000	
Sr	88	2	72	2847.797	ppb	2847.797	2.23	273885	4000	
Zr	90	2	72	20.544	ppb	20.544	27.33	117	1000	
Nb	93	2	72	0.017	ppb	0.017	182.56	60	200	
Mo	95	2	115	0.163	ppb	0.163	101.55	80	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.005	ppb	0.005	173.21	7	100	
Cd	111	2	115	0.139	ppb	0.139	69.54	17	2000	
Sn	120	2	115	0.016	ppb	0.016	333.92	73	2000	
Sb	121	2	115	0.132	ppb	0.132	82.04	40	1000	
Ba	137	2	115	267.349	ppb	267.349	2.11	20593	5000	
W	182	2	165	0.069	ppb	0.069	40.35	423	100	
Pt	195	2	165	0.005	ppb	0.005	234.39	60	100	
Tl	205	2	165	0.714	ppb	0.714	2.66	2684	2000	
Pb	208	2	165	-1.342	ppb	-1.342	-3.98	3967	5000	
Th	232	2	165	0.067	ppb	0.067	22.66	560	2000	
U	238	2	165	25.183	ppb	25.183	1.31	162491	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	148100	1.64	207204	71.48	60	120	
Sc (IS)	45	1	HMI H2	10679469	0.12	15259863	69.98	60	120	
Sc (IS)	45	2	HMI He	146415	1.08	210811	69.45	60	120	
Sc (IS)	45	3	No Gas	25512238	0.79	32682642	78.06	60	120	
Ge Internal Standard	72	1	HMI H2	5991703	0.28	8342951	71.82	60	120	
Ge Internal Standard	72	2	HMI He	255463	1.03	360038	70.95	60	120	
In Internal Standard	115	2	HMI He	763121	0.29	998948	76.39	60	120	
Ho-165	165	2	HMI He	7080605	0.95	8244993	85.88	60	120	

Sample Table

Sample Name	280-104384-e-3-b
Data File Name	238SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:02:31-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	66.622	ppb	66.622	4.29	22628	500000	
Li	7	2	45	86.522	ppb	86.522	63.61	1200	500000	
Li	7	3	45	40.743	ppb	40.743	2.78	874912	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	41.440	ppb	41.440	4.64	3307	2000	
Na	23	1	45	23530.509	ppb	23530.509	5.09	19634436	2000	>LDR
Na	23	2	45	22886.998	ppb	22886.998	1.88	739863	400000	
Mg	24	2	45	65233.935	ppb	65233.935	1.72	966650	400000	
Al	27	2	45	517.502	ppb	517.502	8.51	1773	400000	
K	39	1	45	2231.059	ppb	2231.059	8.85	4945055	400000	
K	39	2	45	3161.526	ppb	3161.526	3.00	22371	400000	
Ca	40	1	45	152472.891	ppb	152472.891	5.26	241634830	400000	
Ca	44	2	45	142306.548	ppb	142306.548	2.85	58345	400000	
Ti	47	2	45	953.656	ppb	953.656	25.25	43	4000	
V	51	2	72	0.590	ppb	0.590	19.40	223	2000	
Cr	52	2	72	0.865	ppb	0.865	34.59	427	5000	
Mn	55	2	72	237.917	ppb	237.917	2.48	23323	10000	
Fe	57	2	72	1672.687	ppb	1672.687	2.64	10680	400000	
Co	59	2	72	1.940	ppb	1.940	6.31	1570	2000	
Ni	60	2	72	1.746	ppb	1.746	35.58	633	5000	
Cu	63	2	72	0.720	ppb	0.720	12.68	1143	5000	
Zn	66	2	72	3.813	ppb	3.813	13.45	293	5000	
As	75	2	72	2.540	ppb	2.540	30.45	100	2000	
Se	78	1	72	-0.001	ppb	-0.001	-2670.40	7	2000	
Sr	88	2	72	331.164	ppb	331.164	1.29	31576	4000	
Zr	90	2	72	23.098	ppb	23.098	20.63	127	1000	
Nb	93	2	72	0.009	ppb	0.009	259.68	50	200	
Mo	95	2	115	1.874	ppb	1.874	33.52	637	2000	
Pd	105	2	115	-0.003	ppb	-0.003	-307.65	3	100	
Ag	107	2	115	0.013	ppb	0.013	91.35	17	100	
Cd	111	2	115	0.028	ppb	0.028	173.21	3	2000	
Sn	120	2	115	-0.113	ppb	-0.113	-61.73	37	2000	
Sb	121	2	115	0.075	ppb	0.075	200.05	27	1000	
Ba	137	2	115	22.039	ppb	22.039	9.25	1730	5000	
W	182	2	165	0.052	ppb	0.052	76.51	380	100	
Pt	195	2	165	-0.001	ppb	-0.001	-342.57	47	100	
Tl	205	2	165	0.033	ppb	0.033	35.59	163	2000	
Pb	208	2	165	-0.894	ppb	-0.894	-6.43	6091	5000	
Th	232	2	165	0.262	ppb	0.262	13.13	1680	2000	
U	238	2	165	4.149	ppb	4.149	2.72	26761	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	146315	2.89	207204	70.61	60	120	
Sc (IS)	45	1	HMI H2	10565909	3.16	15259863	69.24	60	120	
Sc (IS)	45	2	HMI He	142840	1.95	210811	67.76	60	120	
Sc (IS)	45	3	No Gas	25040928	0.52	32682642	76.62	60	120	
Ge Internal Standard	72	1	HMI H2	6075368	3.39	8342951	72.82	60	120	
Ge Internal Standard	72	2	HMI He	253115	0.75	360038	70.30	60	120	
In Internal Standard	115	2	HMI He	773294	0.79	998948	77.41	60	120	
Ho-165	165	2	HMI He	7056141	1.84	8244993	85.58	60	120	

Sample Table

Sample Name	280-104384-e-4-b
Data File Name	239SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:06:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	398799 6020A DOD5
ISTD Ref FileName	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	58.245	ppb	58.245	9.55	22711	500000	
Li	7	2	45	120.287	ppb	120.287	57.35	1303	500000	
Li	7	3	45	29.960	ppb	29.960	5.71	878606	50000	
Be	9	1	6	-0.039	ppb	-0.039	0.00	0	2000	
B	11	1	6	44.790	ppb	44.790	7.80	3507	2000	
Na	23	1	45	24615.306	ppb	24615.306	1.39	21023699	2000	>LDR
Na	23	2	45	24031.341	ppb	24031.341	1.56	781176	400000	
Mg	24	2	45	68066.509	ppb	68066.509	1.85	1014236	400000	
Al	27	2	45	540.161	ppb	540.161	11.01	1860	400000	
K	39	1	45	2286.955	ppb	2286.955	1.85	5120027	400000	
K	39	2	45	3286.460	ppb	3286.460	4.16	23272	400000	
Ca	40	1	45	157967.108	ppb	157967.108	1.25	256261590	400000	
Ca	44	2	45	149227.133	ppb	149227.133	0.93	61533	400000	
Ti	47	2	45	731.785	ppb	731.785	17.47	33	4000	
V	51	2	72	0.827	ppb	0.827	31.66	280	2000	
Cr	52	2	72	0.608	ppb	0.608	28.83	347	5000	
Mn	55	2	72	263.761	ppb	263.761	0.44	25820	10000	
Fe	57	2	72	1668.601	ppb	1668.601	6.33	10664	400000	
Co	59	2	72	1.701	ppb	1.701	2.86	1400	2000	
Ni	60	2	72	2.169	ppb	2.169	23.88	723	5000	
Cu	63	2	72	0.756	ppb	0.756	24.17	1167	5000	
Zn	66	2	72	3.227	ppb	3.227	28.66	260	5000	
As	75	2	72	2.278	ppb	2.278	21.86	90	2000	
Se	78	1	72	0.009	ppb	0.009	360.15	8	2000	
Sr	88	2	72	349.697	ppb	349.697	2.41	33370	4000	
Zr	90	2	72	33.750	ppb	33.750	28.25	173	1000	
Nb	93	2	72	0.018	ppb	0.018	131.31	60	200	
Mo	95	2	115	1.952	ppb	1.952	25.89	670	2000	
Pd	105	2	115	-0.009	ppb	-0.009	0.00	0	100	
Ag	107	2	115	0.008	ppb	0.008	100.82	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.032	ppb	0.032	465.51	80	2000	
Sb	121	2	115	0.088	ppb	0.088	90.33	30	1000	
Ba	137	2	115	24.472	ppb	24.472	11.77	1944	5000	
W	182	2	165	0.079	ppb	0.079	43.09	453	100	
Pt	195	2	165	-0.008	ppb	-0.008	-137.12	30	100	
Tl	205	2	165	0.018	ppb	0.018	52.38	107	2000	
Pb	208	2	165	-0.653	ppb	-0.653	-8.96	7314	5000	
Th	232	2	165	0.257	ppb	0.257	3.84	1667	2000	
U	238	2	165	4.368	ppb	4.368	1.72	28484	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	143925	0.37	207204	69.46	60	120	
Sc (IS)	45	1	HMI H2	10805115	1.04	15259863	70.81	60	120	
Sc (IS)	45	2	HMI He	143636	1.17	210811	68.14	60	120	
Sc (IS)	45	3	No Gas	25786315	0.71	32682642	78.90	60	120	
Ge Internal Standard	72	1	HMI H2	6162525	0.65	8342951	73.87	60	120	
Ge Internal Standard	72	2	HMI He	253310	0.09	360038	70.36	60	120	
In Internal Standard	115	2	HMI He	783436	1.24	998948	78.43	60	120	
Ho-165	165	2	HMI He	7134725	0.55	8244993	86.53	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	240_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:10:09-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	531.510	ppb	4.098	49804	500	106.3	90	110	
Li	7	2	45	542.492	ppb	7.681	2577	500	108.5	90	110	
Li	7	3	45	522.178	ppb	1.034	2031607	500	104.4	90	110	
Be	9	1	6	45.163	ppb	10.528	2914	50	90.3	90	110	
B	11	1	6	45.023	ppb	8.208	3841	50	90.0	90	110	
Na	23	1	45	4963.802	ppb	2.350	4521440	5000	99.3	90	110	
Na	23	2	45	4735.190	ppb	1.329	159494	5000	94.7	90	110	
Mg	24	2	45	4813.932	ppb	1.752	75603	5000	96.3	90	110	
Al	27	2	45	4873.763	ppb	4.581	17032	5000	97.5	90	110	
K	39	1	45	4887.647	ppb	1.553	8340504	5000	97.8	90	110	
K	39	2	45	4790.168	ppb	2.863	33488	5000	95.8	90	110	
Ca	40	1	45	5001.429	ppb	1.661	8859371	5000	100.0	90	110	
Ca	44	2	45	4507.070	ppb	3.318	1974	5000	90.1	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	44.161	ppb	2.896	11141	50	88.3	90	110	>+\-10%
Cr	52	2	72	47.148	ppb	3.774	15697	50	94.3	90	110	
Mn	55	2	72	43.387	ppb	3.518	4868	50	86.8	90	110	>+\-10%
Fe	57	2	72	4786.470	ppb	4.855	30798	5000	95.7	90	110	
Co	59	2	72	47.978	ppb	1.767	36071	50	96.0	90	110	
Ni	60	2	72	48.971	ppb	4.398	11091	50	97.9	90	110	
Cu	63	2	72	48.292	ppb	1.365	32891	50	96.6	90	110	
Zn	66	2	72	50.184	ppb	7.037	3084	50	100.4	90	110	
As	75	2	72	46.364	ppb	1.668	1826	50	92.7	90	110	
Se	78	1	72	53.765	ppb	4.190	7495	50	107.5	90	110	
Sr	88	2	72	55.023	ppb	6.937	5504	50	110.0	90	110	>+\-10%
Zr	90	2	72	73.627	ppb	2.195	363	50	147.3	90	110	>+\-10%
Nb	93	2	72	102.812	ppb	1.305	123655	100	102.8	90	110	
Mo	95	2	115	46.323	ppb	2.732	16001	50	92.6	90	110	
Pd	105	2	115	50.537	ppb	0.267	31590	50	101.1	90	110	
Ag	107	2	115	48.378	ppb	1.317	66550	50	96.8	90	110	
Cd	111	2	115	47.315	ppb	6.635	6105	50	94.6	90	110	
Sn	120	2	115	49.739	ppb	0.678	15568	50	99.5	90	110	
Sb	121	2	115	51.346	ppb	4.620	13606	50	102.7	90	110	
Ba	137	2	115	48.273	ppb	9.191	4017	50	96.5	90	110	
W	182	2	165	50.927	ppb	2.569	135026	50	101.9	90	110	
Pt	195	2	165	50.619	ppb	2.051	131330	50	101.2	90	110	
Tl	205	2	165	51.184	ppb	1.826	195596	50	102.4	90	110	
Pb	208	2	165	50.591	ppb	1.922	260306	50	101.2	90	110	
Th	232	2	165	50.741	ppb	1.538	302571	50	101.5	90	110	
U	238	2	165	51.088	ppb	1.605	340241	50	102.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	156847	1.15	207204	75.70	60	120	
Sc (IS)	45	1	HMI H2	11463250	1.48	15259863	75.12	60	120	
Sc (IS)	45	2	HMI He	147446	0.82	210811	69.94	60	120	
Sc (IS)	45	3	No Gas	27604660	1.15	32682642	84.46	60	120	
Ge Internal Standard	72	1	HMI H2	6596992	0.81	8342951	79.07	60	120	
Ge Internal Standard	72	2	HMI He	264749	0.99	360038	73.53	60	120	
In Internal Standard	115	2	HMI He	822126	0.95	998948	82.30	60	120	
Ho-165	165	2	HMI He	7310524	0.71	8244993	88.67	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	241_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:13:56-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-22.467	ppb	-6.9	826362	10	
Be	9	1	6	0.317	ppb	155.1	23	0.5	
B	11	1	6	1.531	ppb	63.8	207	0.5	>RL
Na	23	1	45	59.008	ppb	0.3	83710	25	>RL
Na	23	2	45	53.670	ppb	18.1	3657	25	>RL
Mg	24	2	45	36.287	ppb	27.6	2687	25	>RL
Al	27	2	45	3.946	ppb	399.0	40	15	
K	39	1	45	-95.162	ppb	-45.3	2763794	50	
K	39	2	45	-118.335	ppb	-40.2	2174	50	
Ca	40	1	45	-7.073	ppb	-35.4	248086	50	
Ca	44	2	45	-49.490	ppb	-101.0	47	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.052	ppb	-183.5	73	1	
Cr	52	2	72	-0.284	ppb	-47.4	70	1	
Mn	55	2	72	-3.784	ppb	-14.8	133	0.5	
Fe	57	2	72	-49.289	ppb	-17.1	317	25	
Co	59	2	72	-0.190	ppb	-6.2	50	0.5	
Ni	60	2	72	-0.690	ppb	-7.7	127	1	
Cu	63	2	72	0.064	ppb	151.0	773	1	
Zn	66	2	72	1.134	ppb	133.3	147	5	
As	75	2	72	-0.012	ppb	-947.4	5	1	
Se	78	1	72	0.014	ppb	465.9	9	1	
Sr	88	2	72	0.206	ppb	57.5	43	0.5	
Zr	90	2	72	-1.713	ppb	-200.5	20	1	
Nb	93	2	72	1.141	ppb	4.6	1440	2	
Mo	95	2	115	0.009	ppb	254.0	33	0.5	
Pd	105	2	115	0.023	ppb	66.9	20	1	
Ag	107	2	115	0.026	ppb	103.3	37	1	
Cd	111	2	115	0.048	ppb	173.2	7	0.5	
Sn	120	2	115	0.053	ppb	202.7	90	1	
Sb	121	2	115	0.153	ppb	40.5	50	0.6	
Ba	137	2	115	0.036	ppb	558.5	13	0.5	
W	182	2	165	0.027	ppb	22.1	330	1	
Pt	195	2	165	0.020	ppb	116.7	100	1	
Tl	205	2	165	0.038	ppb	27.4	190	0.1	
Pb	208	2	165	-0.954	ppb	-22.4	6027	0.5	
Th	232	2	165	0.098	ppb	19.9	770	1	
U	238	2	165	0.008	ppb	69.4	160	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159370	0.87	207204	76.91	60	120	
Sc (IS)	45	1	HMI H2	11448220	0.68	15259863	75.02	60	120	
Sc (IS)	45	2	HMI He	149075	8.72	210811	70.72	60	120	
Sc (IS)	45	3	No Gas	27671504	0.47	32682642	84.67	60	120	
Ge Internal Standard	72	1	HMI H2	6580581	0.38	8342951	78.88	60	120	
Ge Internal Standard	72	2	HMI He	269983	5.41	360038	74.99	60	120	
In Internal Standard	115	2	HMI He	830870	7.19	998948	83.17	60	120	
Ho-165	165	2	HMI He	7394431	7.64	8244993	89.68	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	242LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:17:47-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-11.148	ppb	-30.021	835155	50	-22.3	70	130	>+/-30%
Be	9	1	6	0.774	ppb	56.373	53	1	77.4	70	130	
Na	23	2	45	70.282	ppb	16.197	4104	50	140.6	70	130	>+/-30%
Mg	24	2	45	100.745	ppb	15.872	3581	50	201.5	70	130	>+/-30%
Al	27	2	45	31.348	ppb	19.210	130	30	104.5	70	130	
K	39	2	45	-20.394	ppb	-63.725	2747	100	-20.4	70	130	>+/-30%
Ca	44	2	45	97.267	ppb	22.152	107	50	194.5	70	130	>+/-30%
V	51	2	72	4.852	ppb	16.593	1293	5	97.0	70	130	
Cr	52	2	72	1.645	ppb	9.966	700	2	82.2	70	130	
Mn	55	2	72	-3.027	ppb	-15.170	207	1	-302.7	70	130	>+/-30%
Fe	57	2	72	-16.112	ppb	-91.909	517	50	-32.2	70	130	>+/-30%
Co	59	2	72	0.801	ppb	21.826	783	1	80.1	70	130	
Ni	60	2	72	1.122	ppb	43.301	520	2	56.1	70	130	>+/-30%
Cu	63	2	72	2.654	ppb	6.704	2470	2	132.7	70	130	>+/-30%
Zn	66	2	72	9.327	ppb	10.019	633	10	93.3	70	130	
As	75	2	72	3.979	ppb	26.358	160	5	79.6	70	130	
Se	78	1	72	4.841	ppb	15.194	687	5	96.8	70	130	
Sr	88	2	72	1.133	ppb	47.294	133	1	113.3	70	130	
Zr	90	2	72	5.843	ppb	20.806	53	0.5	1168.6	70	130	>+/-30%
Nb	93	2	72	1.181	ppb	9.129	1453	2	59.0	70	130	>+/-30%
Mo	95	2	115	2.111	ppb	12.896	743	2	105.6	70	130	
Pd	105	2	115	0.008	ppb	216.265	10	1	0.8	70	130	>+/-30%
Ag	107	2	115	5.022	ppb	4.388	6782	5	100.4	70	130	
Cd	111	2	115	0.900	ppb	42.314	113	1	90.0	70	130	
Sn	120	2	115	10.314	ppb	3.308	3227	10	103.1	70	130	
Sb	121	2	115	2.199	ppb	37.701	577	2	110.0	70	130	
Ba	137	2	115	1.061	ppb	50.359	97	1	106.1	70	130	
W	182	2	165	5.215	ppb	8.317	13733	1	521.5	70	130	>+/-30%
Pt	195	2	165	0.024	ppb	45.509	110	1	2.4	70	130	>+/-30%
Tl	205	2	165	1.070	ppb	9.838	4034	1	107.0	70	130	
Pb	208	2	165	-0.419	ppb	-11.762	8461	1	-41.9	70	130	>+/-30%
Th	232	2	165	2.096	ppb	8.849	12375	2	104.8	70	130	
U	238	2	165	1.084	ppb	6.469	7162	1	108.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159226	0.96	207204	76.85	60	120	
Sc (IS)	45	1	HMI H2	11350579	0.34	15259863	74.38	60	120	
Sc (IS)	45	2	HMI He	145015	3.96	210811	68.79	60	120	
Sc (IS)	45	3	No Gas	27140260	0.41	32682642	83.04	60	120	
Ge Internal Standard	72	1	HMI H2	6640370	0.96	8342951	79.59	60	120	
Ge Internal Standard	72	2	HMI He	263084	2.38	360038	73.07	60	120	
In Internal Standard	115	2	HMI He	807474	2.61	998948	80.83	60	120	
Ho-165	165	2	HMI He	7155864	3.36	8244993	86.79	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	243WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:21:39-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.169	ppb	106.6558034	13	0.5
Na	23	2	45	3.945	ppb	318.1045907	1970	25
Mg	24	2	45	47.478	ppb	64.24870544	2830	25
Al	27	2	45	-2.822	ppb	-59.86620469	13	15
K	39	2	45	-110.082	ppb	-11.41148629	2217	50
Ca	44	2	45	-72.555	ppb	-151.7936657	37	25
V	51	2	72	-0.064	ppb	-188.410452	70	1
Cr	52	2	72	-0.149	ppb	-57.29364977	113	1
Mn	55	2	72	-3.819	ppb	-16.09279592	130	0.5
Fe	57	2	72	-69.312	ppb	-9.072267366	187	25
Co	59	2	72	-0.216	ppb	-10.65527462	30	0.5
Ni	60	2	72	-0.939	ppb	-4.674198724	70	1
Cu	63	2	72	-0.303	ppb	-37.95695725	517	1
Zn	66	2	72	0.626	ppb	168.9441303	117	5
As	75	2	72	-0.056	ppb	-101.4138136	3	1
Se	78	1	72	-0.005	ppb	-319.5807341	7	1
Nb	93	2	72	0.065	ppb	23.12944915	120	2
Mo	95	2	115	0.068	ppb	100.7073376	53	0.5
Pd	105	2	115	-0.009	ppb	0	0	1
Ag	107	2	115	0.005	ppb	86.60420849	7	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.062	ppb	105.6757444	93	1
Sb	121	2	115	0.032	ppb	179.543956	17	0.6
Ba	137	2	115	-0.093	ppb	-74.30963385	3	0.5
W	182	2	165	0.002	ppb	817.0367982	260	1
Pt	195	2	165	-0.005	ppb	-155.4902349	37	1
Tl	205	2	165	0.003	ppb	127.2886538	53	0.1
Pb	208	2	165	-1.495	ppb	-3.624632164	3334	0.5
Th	232	2	165	0.004	ppb	278.967744	203	1
U	238	2	165	-0.003	ppb	-216.336943	83	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	156384	1.69	207204	75.47	60	120	
Sc (IS)	45	1	HMI H2	11400056	1.24	15259863	74.71	60	120	
Sc (IS)	45	2	HMI He	147383	1.27	210811	69.91	60	120	
Sc (IS)	45	3	No Gas	24958429	1.68	32682642	76.37	60	120	
Ge Internal Standard	72	1	HMI H2	6593318	0.64	8342951	79.03	60	120	
Ge Internal Standard	72	2	HMI He	266065	0.62	360038	73.90	60	120	
In Internal Standard	115	2	HMI He	820359	0.85	998948	82.12	60	120	
Ho-165	165	2	HMI He	7291693	0.12	8244993	88.44	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	244WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:25:31-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.012	ppb	721.7007785	3	0.5
Na	23	2	45	-1.256	ppb	-169.8842896	1807	25
Mg	24	2	45	36.098	ppb	47.93184491	2670	25
Al	27	2	45	13.335	ppb	0.92991441	70	15
K	39	2	45	-171.969	ppb	-1.029618755	1830	50
Ca	44	2	45	-120.346	ppb	-22.88272824	17	25
V	51	2	72	-0.023	ppb	-162.4625283	80	1
Cr	52	2	72	-0.268	ppb	-18.03687014	73	1
Mn	55	2	72	-4.172	ppb	-14.22644406	93	0.5
Fe	57	2	72	-74.379	ppb	-13.14470277	153	25
Co	59	2	72	-0.202	ppb	-13.35667293	40	0.5
Ni	60	2	72	-1.043	ppb	-13.30010597	47	1
Cu	63	2	72	-0.568	ppb	-8.301542506	337	1
Zn	66	2	72	0.142	ppb	384.9795693	87	5
As	75	2	72	-0.055	ppb	-139.2524645	3	1
Se	78	1	72	-0.033	ppb	-101.9793986	3	1
Nb	93	2	72	0.068	ppb	67.99360001	123	2
Mo	95	2	115	-0.010	ppb	-862.7153321	27	0.5
Pd	105	2	115	-0.009	ppb	0	0	1
Ag	107	2	115	0.002	ppb	173.2050808	3	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.073	ppb	223.7663366	97	1
Sb	121	2	115	-0.018	ppb	-118.9837426	3	0.6
Ba	137	2	115	-0.133	ppb	0	0	0.5
W	182	2	165	0.036	ppb	67.52529918	353	1
Pt	195	2	165	-0.008	ppb	-208.0473446	30	1
Tl	205	2	165	0.000	ppb	2451.952793	43	0.1
Pb	208	2	165	-1.584	ppb	-2.380145058	2934	0.5
Th	232	2	165	0.007	ppb	49.70467877	223	1
U	238	2	165	-0.002	ppb	-324.0677349	93	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	157040	0.99	207204	75.79	60	120	
Sc (IS)	45	1	HMI H2	11208837	1.27	15259863	73.45	60	120	
Sc (IS)	45	2	HMI He	147987	0.62	210811	70.20	60	120	
Sc (IS)	45	3	No Gas	26460442	0.19	32682642	80.96	60	120	
Ge Internal Standard	72	1	HMI H2	6492837	0.81	8342951	77.82	60	120	
Ge Internal Standard	72	2	HMI He	264404	0.88	360038	73.44	60	120	
In Internal Standard	115	2	HMI He	821598	1.04	998948	82.25	60	120	
Ho-165	165	2	HMI He	7395802	0.61	8244993	89.70	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	245WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:29:22-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.039	ppb	-1.68481E-06	0	0.5
Na	23	2	45	-1.733	ppb	-499.6830077	1754	25
Mg	24	2	45	37.183	ppb	30.86507819	2634	25
Al	27	2	45	-2.791	ppb	-239.6379681	13	15
K	39	2	45	-122.148	ppb	-15.63946929	2110	50
Ca	44	2	45	-111.051	ppb	-38.95920173	20	25
V	51	2	72	0.051	ppb	288.839917	97	1
Cr	52	2	72	-0.254	ppb	-14.88802586	77	1
Mn	55	2	72	-3.827	ppb	-12.09428978	127	0.5
Fe	57	2	72	-67.102	ppb	-9.246625612	197	25
Co	59	2	72	-0.224	ppb	-15.31679867	23	0.5
Ni	60	2	72	-1.023	ppb	-16.28416482	50	1
Cu	63	2	72	-0.420	ppb	-40.44127329	430	1
Zn	66	2	72	0.329	ppb	75.85124184	97	5
As	75	2	72	-0.072	ppb	-69.66562776	2	1
Se	78	1	72	-0.003	ppb	-1297.341423	7	1
Nb	93	2	72	-0.004	ppb	-491.7508634	37	2
Mo	95	2	115	-0.028	ppb	-107.3246284	20	0.5
Pd	105	2	115	0.002	ppb	899.3492774	7	1
Ag	107	2	115	0.007	ppb	100.9281534	10	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.056	ppb	65.47342867	90	1
Sb	121	2	115	0.046	ppb	166.0679493	20	0.6
Ba	137	2	115	-0.133	ppb	0	0	0.5
W	182	2	165	-0.017	ppb	-56.4590024	210	1
Pt	195	2	165	-0.012	ppb	-65.44008362	20	1
Tl	205	2	165	0.006	ppb	68.31183073	63	0.1
Pb	208	2	165	-1.600	ppb	-2.529588279	2827	0.5
Th	232	2	165	-0.001	ppb	-1512.135027	173	1
U	238	2	165	-0.011	ppb	-42.68186329	33	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	154246	1.93	207204	74.44	60	120	
Sc (IS)	45	1	HMI H2	10925835	1.11	15259863	71.60	60	120	
Sc (IS)	45	2	HMI He	145242	2.45	210811	68.90	60	120	
Sc (IS)	45	3	No Gas	26474860	0.68	32682642	81.01	60	120	
Ge Internal Standard	72	1	HMI H2	6392774	0.75	8342951	76.62	60	120	
Ge Internal Standard	72	2	HMI He	260582	1.15	360038	72.38	60	120	
In Internal Standard	115	2	HMI He	809450	2.21	998948	81.03	60	120	
Ho-165	165	2	HMI He	7315594	1.86	8244993	88.73	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	246WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:33:11-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.171	ppb	106.4444594	13	0.5
Na	23	2	45	-7.108	ppb	-74.21844595	1553	25
Mg	24	2	45	25.474	ppb	40.60608811	2414	25
Al	27	2	45	5.054	ppb	108.0262978	40	15
K	39	2	45	-126.549	ppb	-7.295784183	2044	50
Ca	44	2	45	-28.750	ppb	-276.4105876	53	25
V	51	2	72	0.000	ppb	-14289.21391	83	1
Cr	52	2	72	-0.294	ppb	-21.77436253	63	1
Mn	55	2	72	-4.355	ppb	-4.800168692	73	0.5
Fe	57	2	72	-76.304	ppb	-11.17495182	137	25
Co	59	2	72	-0.173	ppb	-32.12418246	60	0.5
Ni	60	2	72	-1.022	ppb	-4.069483045	50	1
Cu	63	2	72	-0.274	ppb	-50.27751929	517	1
Zn	66	2	72	-0.060	ppb	-1107.137261	73	5
As	75	2	72	-0.019	ppb	-285.8247751	4	1
Se	78	1	72	-0.032	ppb	-111.1002712	3	1
Nb	93	2	72	-0.009	ppb	-231.5855829	30	2
Mo	95	2	115	-0.037	ppb	-239.1229242	17	0.5
Pd	105	2	115	0.002	ppb	447.7206841	7	1
Ag	107	2	115	0.015	ppb	100.1549912	20	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.018	ppb	-656.81464	67	1
Sb	121	2	115	0.021	ppb	287.5389488	13	0.6
Ba	137	2	115	-0.091	ppb	-80.27685131	3	0.5
W	182	2	165	-0.016	ppb	-16.38445658	210	1
Pt	195	2	165	-0.004	ppb	-222.568598	40	1
Tl	205	2	165	0.002	ppb	358.7858233	47	0.1
Pb	208	2	165	-1.536	ppb	-3.590918644	3090	0.5
Th	232	2	165	0.003	ppb	175.052623	193	1
U	238	2	165	-0.010	ppb	-8.111983175	37	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	152775	2.43	207204	73.73	60	120	
Sc (IS)	45	1	HMI H2	10803581	2.22	15259863	70.80	60	120	
Sc (IS)	45	2	HMI He	142640	3.94	210811	67.66	60	120	
Sc (IS)	45	3	No Gas	26371198	1.97	32682642	80.69	60	120	
Ge Internal Standard	72	1	HMI H2	6235648	1.89	8342951	74.74	60	120	
Ge Internal Standard	72	2	HMI He	257329	2.68	360038	71.47	60	120	
In Internal Standard	115	2	HMI He	798574	2.65	998948	79.94	60	120	
Ho-165	165	2	HMI He	7209425	2.50	8244993	87.44	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	247WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:37:00-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	183CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.039	ppb	-1.68481E-06	0	0.5
Na	23	2	45	-7.790	ppb	-28.16672056	1570	25
Mg	24	2	45	22.549	ppb	37.94902406	2434	25
Al	27	2	45	-2.789	ppb	-159.5813431	13	15
K	39	2	45	-161.235	ppb	-3.786415965	1877	50
Ca	44	2	45	-64.038	ppb	-99.80740878	40	25
V	51	2	72	0.121	ppb	52.96809229	113	1
Cr	52	2	72	-0.232	ppb	-28.54175477	83	1
Mn	55	2	72	-4.054	ppb	-10.23776543	103	0.5
Fe	57	2	72	-70.082	ppb	-3.553885772	177	25
Co	59	2	72	-0.237	ppb	-3.356573851	13	0.5
Ni	60	2	72	-1.007	ppb	-9.539417639	53	1
Cu	63	2	72	-0.337	ppb	-68.62499647	480	1
Zn	66	2	72	0.400	ppb	45.23253449	100	5
As	75	2	72	-0.003	ppb	-4066.984602	5	1
Se	78	1	72	-0.053	ppb	0	0	1
Nb	93	2	72	-0.003	ppb	-533.2860397	37	2
Mo	95	2	115	-0.067	ppb	-25.57062852	7	0.5
Pd	105	2	115	0.002	ppb	468.1849435	7	1
Ag	107	2	115	0.015	ppb	101.5588328	20	1
Cd	111	2	115	0.051	ppb	173.2050808	7	0.5
Sn	120	2	115	-0.074	ppb	-92.83227809	50	1
Sb	121	2	115	0.008	ppb	495.1588592	10	0.6
Ba	137	2	115	-0.133	ppb	0	0	0.5
W	182	2	165	0.012	ppb	447.5390949	283	1
Pt	195	2	165	-0.003	ppb	-87.2687571	43	1
Tl	205	2	165	0.001	ppb	281.6467956	47	0.1
Pb	208	2	165	-1.586	ppb	-3.267828849	2874	0.5
Th	232	2	165	0.005	ppb	199.7801123	207	1
U	238	2	165	-0.006	ppb	-15.41260466	67	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	150388	0.44	207204	72.58	60	120	
Sc (IS)	45	1	HMI H2	10314230	1.62	15259863	67.59	60	120	
Sc (IS)	45	2	HMI He	146246	0.93	210811	69.37	60	120	
Sc (IS)	45	3	No Gas	24588915	0.39	32682642	75.24	60	120	
Ge Internal Standard	72	1	HMI H2	5987017	0.72	8342951	71.76	60	120	
Ge Internal Standard	72	2	HMI He	258702	0.77	360038	71.85	60	120	
In Internal Standard	115	2	HMI He	809892	2.48	998948	81.07	60	120	
Ho-165	165	2	HMI He	7279108	2.36	8244993	88.29	60	120	

Calibration Blank Report

Sample Table

Sample Name	ICIS-4905058
Data File Name	248CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:40:48-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	20779	0.01
Li	7	2	HMI He	1183	0.41
Li	7	3	No Gas	782202	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	43	162.69
Na	23	1	HMI H2	36731	0.00
Na	23	2	HMI He	1970	0.07
Mg	24	2	HMI He	2727	0.23
Al	27	2	HMI He	13	859.23
K	39	2	HMI He	2067	0.16
Ca	44	2	HMI He	37	113.62
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	50	69.30
Cr	52	2	HMI He	60	27.78
Mn	55	2	HMI He	107	41.53
Fe	57	2	HMI He	140	10.21
Co	59	2	HMI He	23	106.04
Ni	60	2	HMI He	97	71.26
Cu	63	2	HMI He	650	3.70
Zn	66	2	HMI He	73	65.31
As	75	2	HMI He	5	3012.39
Se	78	1	HMI H2	7	1873.50
Sr	88	2	HMI He	20	661.44
Zr	90	2	HMI He	17	415.69
Nb	93	2	HMI He	80	41.35
Mo	95	2	HMI He	0	#VALUE!
Pd	105	2	HMI He	0	#VALUE!
Ag	107	2	HMI He	0	#VALUE!
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	93	72.90
Sb	121	2	HMI He	0	#VALUE!
Ba	137	2	HMI He	10	1000.00
W	182	2	HMI He	210	8.18
Pt	195	2	HMI He	53	40.59
Tl	205	2	HMI He	47	95.59
Pb	208	2	HMI He	2830	0.15
Th	232	2	HMI He	123	43.77
U	238	2	HMI He	37	171.77

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	157155	2.21
Sc (IS)	45	1	HMI H2	10893281	1.05
Sc (IS)	45	2	HMI He	139602	0.93
Sc (IS)	45	3	No Gas	25015540	1.97
Ge Internal Standard	72	1	HMI H2	6327370	1.50
Ge Internal Standard	72	2	HMI He	250449	0.65
In Internal Standard	115	2	HMI He	777454	0.61
Ho-165	165	2	HMI He	7024583	0.58

Calibration Standard Report

Sample Table

Sample Name	IC-4905059
Data File Name	249CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:44:39-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	67034	0.00
Li	7	2	HMI He	3577	0.22
Li	7	3	No Gas	2895601	0.00
Be	9	1	HMI H2	5178	0.30
B	11	1	HMI H2	7005	0.05
Na	23	1	HMI H2	7485877	0.00
Na	23	2	HMI He	280780	0.00
Mg	24	2	HMI He	132258	0.00
Al	27	2	HMI He	30737	0.01
K	39	1	HMI H2	11937041	0.00
K	39	2	HMI He	57425	0.00
Ca	40	1	HMI H2	14744516	0.00
Ca	44	2	HMI He	3694	0.15
Ti	47	2	HMI He	13	1299.04
V	51	2	HMI He	19828	0.00
Cr	52	2	HMI He	28640	0.01
Mn	55	2	HMI He	8696	0.03
Fe	57	2	HMI He	54103	0.00
Co	59	2	HMI He	63876	0.00
Ni	60	2	HMI He	19084	0.01
Cu	63	2	HMI He	58076	0.01
Zn	66	2	HMI He	5358	0.02
As	75	2	HMI He	3328	0.04
Se	78	1	HMI H2	12348	0.01
Sr	88	2	HMI He	9476	0.02
Zr	90	2	HMI He	333	5.12
Nb	93	2	HMI He	224857	0.00
Mo	95	2	HMI He	29055	0.01
Pd	105	2	HMI He	53584	0.00
Ag	107	2	HMI He	119080	0.00
Cd	111	2	HMI He	10924	0.01
Sn	120	2	HMI He	27884	0.01
Sb	121	2	HMI He	23677	0.02
Ba	137	2	HMI He	7129	0.05
Nd	146	2	HMI He	34116	0.00
Sm	147	2	HMI He	30796	0.00
Sm	150	2	HMI He	30850	0.01
Gd	156	1	HMI H2	312591	0.00
Gd	157	1	HMI H2	237640	0.00
W	182	2	HMI He	243278	0.00
Pt	195	2	HMI He	240759	0.00
Tl	205	2	HMI He	351819	0.00
Pb	208	2	HMI He	463281	0.00
Th	232	2	HMI He	555246	0.00
U	238	2	HMI He	622844	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	143443	0.58	157155	91.27	60	120	
Sc (IS)	45	1	HMI H2	10223287	0.70	10893281	93.85	60	120	
Sc (IS)	45	2	HMI He	134276	1.31	139602	96.18	60	120	
Sc (IS)	45	3	No Gas	24957722	0.88	25015540	99.77	60	120	
Ge Internal Standard	72	1	HMI H2	5936382	0.13	6327370	93.82	60	120	
Ge Internal Standard	72	2	HMI He	242512	1.87	250449	96.83	60	120	
In Internal Standard	115	2	HMI He	748602	1.20	777454	96.29	60	120	
Ho-165	165	2	HMI He	6786980	1.19	7024583	96.62	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	250_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:48:28-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	498.590	ppb	3.444	45045	500	99.7	90	110	
Li	7	2	45	393.085	ppb	6.853	2204	500	78.6	90	110	>+\-10%
Li	7	3	45	526.450	ppb	1.501	1972720	500	105.3	90	110	
Be	9	1	6	46.090	ppb	5.785	2497	50	92.2	90	110	
B	11	1	6	33.041	ppb	4.857	2450	50	66.1	90	110	>+\-10%
Na	23	1	45	4914.301	ppb	1.773	3853812	5000	98.3	90	110	
Na	23	2	45	4869.685	ppb	2.106	144657	5000	97.4	90	110	
Mg	24	2	45	4913.542	ppb	1.936	69676	5000	98.3	90	110	
Al	27	2	45	4773.670	ppb	4.814	15414	5000	95.5	90	110	
K	39	1	45	4813.238	ppb	2.837	7303257	5000	96.3	90	110	
K	39	2	45	4920.970	ppb	1.197	30750	5000	98.4	90	110	
Ca	40	1	45	4856.662	ppb	1.605	7549614	5000	97.1	90	110	
Ca	44	2	45	4849.616	ppb	6.005	1900	5000	97.0	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	52.973	ppb	2.811	10994	50	105.9	90	110	
Cr	52	2	72	47.240	ppb	3.815	14166	50	94.5	90	110	
Mn	55	2	72	48.913	ppb	5.808	4497	50	97.8	90	110	
Fe	57	2	72	4842.524	ppb	1.457	27445	5000	96.9	90	110	
Co	59	2	72	48.343	ppb	1.666	32280	50	96.7	90	110	
Ni	60	2	72	50.503	ppb	1.700	10117	50	101.0	90	110	
Cu	63	2	72	49.383	ppb	3.985	30300	50	98.8	90	110	
Zn	66	2	72	45.510	ppb	6.170	2587	50	91.0	90	110	
As	75	2	72	48.572	ppb	3.289	1691	50	97.1	90	110	
Se	78	1	72	48.434	ppb	3.982	6153	50	96.9	90	110	
Sr	88	2	72	49.755	ppb	4.674	4934	50	99.5	90	110	
Zr	90	2	72	20.038	ppb	56.299	83	50	40.1	90	110	>+\-10%
Nb	93	2	72	96.939	ppb	2.157	113884	100	96.9	90	110	
Mo	95	2	115	47.727	ppb	1.384	14503	50	95.5	90	110	
Pd	105	2	115	52.398	ppb	2.113	29353	50	104.8	90	110	
Ag	107	2	115	49.017	ppb	3.629	61046	50	98.0	90	110	
Cd	111	2	115	49.879	ppb	6.651	5695	50	99.8	90	110	
Sn	120	2	115	45.958	ppb	5.616	13446	50	91.9	90	110	
Sb	121	2	115	48.813	ppb	4.792	12081	50	97.6	90	110	
Ba	137	2	115	49.480	ppb	10.504	3694	50	99.0	90	110	
W	182	2	165	48.475	ppb	2.361	123320	50	97.0	90	110	
Pt	195	2	165	48.016	ppb	1.905	120802	50	96.0	90	110	
Tl	205	2	165	48.681	ppb	2.525	178947	50	97.4	90	110	
Pb	208	2	165	48.054	ppb	2.338	234055	50	96.1	90	110	
Th	232	2	165	48.105	ppb	4.132	279102	50	96.2	90	110	
U	238	2	165	47.748	ppb	2.048	310721	50	95.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	150145	0.63	157155	95.54	60	120	
Sc (IS)	45	1	HMI H2	10660817	1.57	10893281	97.87	60	120	
Sc (IS)	45	2	HMI He	141047	1.42	139602	101.03	60	120	
Sc (IS)	45	3	No Gas	25994340	0.59	25015540	103.91	60	120	
Ge Internal Standard	72	1	HMI H2	6105350	1.29	6327370	96.49	60	120	
Ge Internal Standard	72	2	HMI He	253291	0.99	250449	101.14	60	120	
In Internal Standard	115	2	HMI He	782847	1.50	777454	100.69	60	120	
Ho-165	165	2	HMI He	7090729	1.22	7024583	100.94	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	251_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:52:18-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	3.713	ppb	48.0	798257	10	
Be	9	1	6	0.059	ppb	173.2	3	0.5	
B	11	1	6	1.433	ppb	19.9	153	0.5	>RL
Na	23	1	45	5.304	ppb	28.1	41234	25	
Na	23	2	45	2.687	ppb	165.3	2087	25	
Mg	24	2	45	15.643	ppb	193.3	2984	25	
Al	27	2	45	7.135	ppb	67.0	37	15	
K	39	1	45	15.654	ppb	255.0	2620654	50	
K	39	2	45	-24.647	ppb	-6.4	1964	50	
Ca	40	1	45	-6.531	ppb	-49.1	156334	50	
Ca	44	2	45	-10.806	ppb	-114.5	33	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.134	ppb	-80.4	23	1	
Cr	52	2	72	0.104	ppb	152.6	93	1	
Mn	55	2	72	-0.175	ppb	-117.0	93	0.5	
Fe	57	2	72	-2.188	ppb	-479.1	130	25	
Co	59	2	72	0.055	ppb	147.9	60	0.5	
Ni	60	2	72	-0.047	ppb	-304.9	90	1	
Cu	63	2	72	0.023	ppb	1267.3	680	1	
Zn	66	2	72	-0.391	ppb	-58.2	53	5	
As	75	2	72	0.070	ppb	161.4	7	1	
Se	78	1	72	0.021	ppb	224.0	9	1	
Sr	88	2	72	-0.206	ppb	0.0	0	0.5	
Zr	90	2	72	2.868	ppb	66.1	27	1	>RL
Nb	93	2	72	1.148	ppb	12.6	1447	2	
Mo	95	2	115	0.119	ppb	41.6	37	0.5	
Pd	105	2	115	0.035	ppb	49.0	20	1	
Ag	107	2	115	0.024	ppb	92.3	30	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.076	ppb	156.2	117	1	
Sb	121	2	115	0.308	ppb	56.9	77	0.6	
Ba	137	2	115	-0.043	ppb	-376.6	7	0.5	
W	182	2	165	0.061	ppb	54.5	367	1	
Pt	195	2	165	0.000	ppb	-5995.8	53	1	
Tl	205	2	165	0.028	ppb	29.9	150	0.1	
Pb	208	2	165	-0.029	ppb	-330.8	2720	0.5	
Th	232	2	165	0.088	ppb	22.3	630	1	
U	238	2	165	0.027	ppb	27.7	210	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	158114	0.83	157155	100.61	60	120	
Sc (IS)	45	1	HMI H2	10971101	1.56	10893281	100.71	60	120	
Sc (IS)	45	2	HMI He	142361	5.03	139602	101.98	60	120	
Sc (IS)	45	3	No Gas	25270432	0.70	25015540	101.02	60	120	
Ge Internal Standard	72	1	HMI H2	6290936	1.16	6327370	99.42	60	120	
Ge Internal Standard	72	2	HMI He	257279	3.61	250449	102.73	60	120	
In Internal Standard	115	2	HMI He	796318	4.37	777454	102.43	60	120	
Ho-165	165	2	HMI He	7093143	4.23	7024583	100.98	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	CCVL-4905063
Data File Name	252LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:56:06-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	13.509	ppb	34.281	825583	50	27.0	70	130	>+/-30%
Be	9	1	6	1.138	ppb	11.395	63	1	113.8	70	130	
Na	23	2	45	54.719	ppb	8.768	3721	50	109.4	70	130	
Mg	24	2	45	63.806	ppb	42.335	3751	50	127.6	70	130	
Al	27	2	45	14.821	ppb	48.343	63	30	49.4	70	130	>+/-30%
K	39	2	45	92.687	ppb	6.300	2720	100	92.7	70	130	
Ca	44	2	45	62.755	ppb	47.510	63	50	125.5	70	130	
V	51	2	72	4.908	ppb	8.680	1100	5	98.2	70	130	
Cr	52	2	72	1.775	ppb	10.849	610	2	88.7	70	130	
Mn	55	2	72	0.451	ppb	133.838	153	1	45.1	70	130	>+/-30%
Fe	57	2	72	48.296	ppb	54.063	427	50	96.6	70	130	
Co	59	2	72	0.881	ppb	8.465	633	1	88.1	70	130	
Ni	60	2	72	1.648	ppb	38.421	440	2	82.4	70	130	
Cu	63	2	72	1.633	ppb	9.571	1693	2	81.7	70	130	
Zn	66	2	72	6.802	ppb	37.766	463	10	68.0	70	130	>+/-30%
As	75	2	72	4.519	ppb	16.076	167	5	90.4	70	130	
Se	78	1	72	4.667	ppb	18.474	596	5	93.3	70	130	
Sr	88	2	72	0.615	ppb	54.509	83	1	61.5	70	130	>+/-30%
Zr	90	2	72	13.394	ppb	32.317	63	0.5	2678.8	70	130	>+/-30%
Nb	93	2	72	1.269	ppb	9.399	1627	2	63.5	70	130	>+/-30%
Mo	95	2	115	1.974	ppb	13.839	617	2	98.7	70	130	
Pd	105	2	115	0.006	ppb	173.205	3	1	0.6	70	130	>+/-30%
Ag	107	2	115	4.586	ppb	4.502	5881	5	91.7	70	130	
Cd	111	2	115	0.715	ppb	72.386	83	1	71.5	70	130	
Sn	120	2	115	9.813	ppb	13.281	3030	10	98.1	70	130	
Sb	121	2	115	1.650	ppb	14.663	420	2	82.5	70	130	
Ba	137	2	115	0.606	ppb	27.607	57	1	60.6	70	130	>+/-30%
W	182	2	165	4.633	ppb	4.123	12219	1	463.3	70	130	>+/-30%
Pt	195	2	165	0.044	ppb	51.583	167	1	4.4	70	130	>+/-30%
Tl	205	2	165	1.054	ppb	8.954	4004	1	105.4	70	130	
Pb	208	2	165	1.137	ppb	7.104	8498	1	113.7	70	130	
Th	232	2	165	1.867	ppb	2.279	11174	2	93.3	70	130	
U	238	2	165	0.988	ppb	0.739	6598	1	98.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	154452	2.44	157155	98.28	60	120	
Sc (IS)	45	1	HMI H2	10486248	1.78	10893281	96.26	60	120	
Sc (IS)	45	2	HMI He	145988	1.08	139602	104.57	60	120	
Sc (IS)	45	3	No Gas	25466902	0.74	25015540	101.80	60	120	
Ge Internal Standard	72	1	HMI H2	6093364	2.14	6327370	96.30	60	120	
Ge Internal Standard	72	2	HMI He	261945	2.18	250449	104.59	60	120	
In Internal Standard	115	2	HMI He	806401	1.99	777454	103.72	60	120	
Ho-165	165	2	HMI He	7235260	1.76	7024583	103.00	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399323/1-A
Data File Name	253_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T02:59:55-07:00
Sample Type	Blank
Dilution	1
Comment	399323 200.8
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-2.228	ppb	-1062.089488	19724	0.5
Li	7	2	45	23.375	ppb	155.7444019	1243	0.5
Li	7	3	45	7.398	ppb	18.95511861	819481	10
Be	9	1	6	0.067	ppb	173.2050808	3	0.5
B	11	1	6	0.720	ppb	64.00551512	93	0.5
Na	23	1	45	15.132	ppb	58.35435558	46229	25
Na	23	2	45	12.552	ppb	83.75413788	2334	25
Mg	24	2	45	24.795	ppb	88.64891623	3064	25
Al	27	2	45	-1.086	ppb	-284.8594289	10	15
K	39	1	45	340.324	ppb	98.99941621	2785325	50
K	39	2	45	-5.346	ppb	-1668.527652	2034	50
Ca	40	1	45	13.356	ppb	102.3409082	176955	50
Ca	44	2	45	-26.177	ppb	-156.1136682	27	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	0.045	ppb	326.1764944	60	1
Cr	52	2	72	0.097	ppb	179.9962558	90	1
Mn	55	2	72	0.162	ppb	312.3610509	123	0.5
Fe	57	2	72	-1.047	ppb	-81.5431393	137	25
Co	59	2	72	0.014	ppb	159.566712	33	0.5
Ni	60	2	72	0.041	ppb	738.5194939	107	1
Cu	63	2	72	0.494	ppb	11.51093173	960	1
Zn	66	2	72	1.292	ppb	8.008619741	147	5
As	75	2	72	0.034	ppb	281.5927312	6	1
Se	78	1	72	-0.039	ppb	-52.41922531	1	1
Sr	88	2	72	-0.139	ppb	-82.54065621	7	0.5
Zr	90	2	72	1.904	ppb	91.69805244	23	1
Nb	93	2	72	0.041	ppb	92.02498248	130	2
Mo	95	2	115	0.428	ppb	55.77733067	130	0.5
Pd	105	2	115	0.036	ppb	100.4802295	20	1
Ag	107	2	115	0.011	ppb	115.0921419	13	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.022	ppb	578.8781104	100	1
Sb	121	2	115	0.108	ppb	21.39356023	27	0.6
Ba	137	2	115	0.223	ppb	35.84367591	27	0.5
W	182	2	165	0.007	ppb	179.707518	230	1
Pt	195	2	165	0.000	ppb	-4557.836715	53	1
Tl	205	2	165	0.007	ppb	56.4535335	73	0.1
Pb	208	2	165	-0.154	ppb	-28.05934649	2107	0.5
Th	232	2	165	0.025	ppb	47.47448492	270	1
U	238	2	165	0.007	ppb	35.05628868	83	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	152517	8.45	157155	97.05	60	120	
Sc (IS)	45	1	HMI H2	10439617	11.03	10893281	95.84	60	120	
Sc (IS)	45	2	HMI He	139635	1.17	139602	100.02	60	120	
Sc (IS)	45	3	No Gas	25688006	0.33	25015540	102.69	60	120	
Ge Internal Standard	72	1	HMI H2	6094958	8.81	6327370	96.33	60	120	
Ge Internal Standard	72	2	HMI He	255082	0.95	250449	101.85	60	120	
In Internal Standard	115	2	HMI He	783135	0.79	777454	100.73	60	120	
Ho-165	165	2	HMI He	7063545	1.23	7024583	100.55	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399323/2-A
Data File Name	254_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:03:46-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399323 200.8
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	29.834	29.834	ppb	35.680	21940	400	7.5	80	120	>+/-20%
Li	7	2	45	86.286	86.286	ppb	28.963	1413	400	21.6	80	120	>+/-20%
Li	7	3	45	28.133	28.133	ppb	8.383	868165	400	7.0	80	120	>+/-20%
Be	9	1	6	27.260	27.260	ppb	11.874	1527	40	68.1	80	120	>+/-20%
Na	23	2	45	2.828	2.828	ppb	246.688	2070	40	7.1	80	120	>+/-20%
Mg	24	2	45	22.959	22.959	ppb	34.209	3064	40	57.4	80	120	>+/-20%
Al	27	2	45	285.298	285.298	ppb	19.994	933	40	713.2	80	120	>+/-20%
K	39	2	45	-42.930	-42.930	ppb	-50.480	1837	40	-107.3	80	120	>+/-20%
Ca	44	2	45	59.919	59.919	ppb	6.211	60	40	149.8	80	120	>+/-20%
V	51	2	72	30.698	30.698	ppb	2.971	6481	40	76.7	80	120	>+/-20%
Cr	52	2	72	27.620	27.620	ppb	0.594	8426	40	69.1	80	120	>+/-20%
Mn	55	2	72	28.328	28.328	ppb	9.352	2687	40	70.8	80	120	>+/-20%
Fe	57	2	72	306.598	306.598	ppb	5.581	1897	40	766.5	80	120	>+/-20%
Co	59	2	72	28.227	28.227	ppb	5.056	19118	40	70.6	80	120	>+/-20%
Ni	60	2	72	30.069	30.069	ppb	2.530	6148	40	75.2	80	120	>+/-20%
Cu	63	2	72	29.102	29.102	ppb	2.433	18377	40	72.8	80	120	>+/-20%
Zn	66	2	72	28.782	28.782	ppb	1.431	1687	40	72.0	80	120	>+/-20%
As	75	2	72	26.721	26.721	ppb	2.491	945	40	66.8	80	120	>+/-20%
Se	78	1	72	28.089	28.089	ppb	5.845	3630	40	70.2	80	120	>+/-20%
Nb	93	2	72	0.091	0.091	ppb	17.185	190	40	0.2	80	120	>+/-20%
Mo	95	2	115	28.885	28.885	ppb	3.152	8909	40	72.2	80	120	>+/-20%
Pd	105	2	115	0.023	0.023	ppb	42.332	13	40	0.1	80	120	>+/-20%
Ag	107	2	115	28.192	28.192	ppb	0.294	35645	40	70.5	80	120	>+/-20%
Cd	111	2	115	27.926	27.926	ppb	6.190	3237	40	69.8	80	120	>+/-20%
Sn	120	2	115	28.331	28.331	ppb	2.768	8456	40	70.8	80	120	>+/-20%
Sb	121	2	115	28.691	28.691	ppb	2.509	7212	40	71.7	80	120	>+/-20%
Ba	137	2	115	27.932	27.932	ppb	5.724	2120	40	69.8	80	120	>+/-20%
W	182	2	165	25.004	25.004	ppb	2.920	64416	40	62.5	80	120	>+/-20%
Pt	195	2	165	0.001	0.001	ppb	505.168	57	40	0.0	80	120	>+/-20%
Tl	205	2	165	28.503	28.503	ppb	1.798	105969	40	71.3	80	120	>+/-20%
Pb	208	2	165	27.984	27.984	ppb	3.141	139015	40	70.0	80	120	>+/-20%
Th	232	2	165	27.537	27.537	ppb	5.173	161554	40	68.8	80	120	>+/-20%
U	238	2	165	27.822	27.822	ppb	3.300	183055	40	69.6	80	120	>+/-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	155145	0.56	157155	98.72	60	120	
Sc (IS)	45	1	HMI H2	10721901	0.58	10893281	98.43	60	120	
Sc (IS)	45	2	HMI He	140774	2.39	139602	100.84	60	120	
Sc (IS)	45	3	No Gas	25793390	0.48	25015540	103.11	60	120	
Ge Internal Standard	72	1	HMI H2	6205065	0.46	6327370	98.07	60	120	
Ge Internal Standard	72	2	HMI He	256810	0.78	250449	102.54	60	120	
In Internal Standard	115	2	HMI He	794722	1.26	777454	102.22	60	120	
Ho-165	165	2	HMI He	7170431	2.06	7024583	102.08	60	120	

Sample Table

Sample Name	280-104726-A-1-A
Data File Name	255SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:07:34-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	9.315	ppb	9.315	101.94	19211	500000	
Li	7	2	45	-84.181	ppb	-84.181	-37.05	910	500000	
Li	7	3	45	6.918	ppb	6.918	72.85	798264	50000	
Be	9	1	6	0.262	ppb	0.262	115.77	13	2000	
B	11	1	6	299.757	ppb	299.757	4.52	20792	2000	
Na	23	1	45	88451.255	ppb	88451.255	4.40	63472361	2000	>LDR
Na	23	2	45	88507.116	ppb	88507.116	3.49	2408327	400000	
Mg	24	2	45	1810.938	ppb	1810.938	5.06	25438	400000	
Al	27	2	45	11.480	ppb	11.480	47.17	47	400000	
K	39	1	45	2412.452	ppb	2412.452	7.09	4545663	400000	
K	39	2	45	2257.007	ppb	2257.007	8.89	14123	400000	
Ca	40	1	45	8967.652	ppb	8967.652	4.66	12742136	400000	
Ca	44	2	45	7938.178	ppb	7938.178	9.11	2867	400000	
Ti	47	2	45	25.988	ppb	25.988	173.21	3	4000	
V	51	2	72	0.781	ppb	0.781	33.83	197	2000	
Cr	52	2	72	2.374	ppb	2.374	7.91	717	5000	
Mn	55	2	72	209.157	ppb	209.157	5.04	17569	10000	
Fe	57	2	72	1661.284	ppb	1661.284	4.81	8846	400000	
Co	59	2	72	1.784	ppb	1.784	4.29	1130	2000	
Ni	60	2	72	63.871	ppb	63.871	0.98	11884	5000	
Cu	63	2	72	52.443	ppb	52.443	3.54	29906	5000	
Zn	66	2	72	37.601	ppb	37.601	9.76	2000	5000	
As	75	2	72	39.507	ppb	39.507	7.16	1280	2000	
Se	78	1	72	0.073	ppb	0.073	51.00	15	2000	
Sr	88	2	72	23.418	ppb	23.418	6.13	2170	4000	
Zr	90	2	72	90.318	ppb	90.318	29.10	293	1000	
Nb	93	2	72	0.099	ppb	0.099	22.40	183	200	
Mo	95	2	115	10.575	ppb	10.575	16.76	3014	2000	
Pd	105	2	115	0.000	ppb	0.000	#DIV/0!	0	100	
Ag	107	2	115	0.026	ppb	0.026	58.38	30	100	
Cd	111	2	115	0.031	ppb	0.031	173.21	3	2000	
Sn	120	2	115	0.312	ppb	0.312	10.22	173	2000	
Sb	121	2	115	24.180	ppb	24.180	6.76	5628	1000	
Ba	137	2	115	6.503	ppb	6.503	17.82	463	5000	
W	182	2	165	0.186	ppb	0.186	14.11	650	100	
Pt	195	2	165	0.001	ppb	0.001	912.24	53	100	
Tl	205	2	165	0.026	ppb	0.026	45.36	137	2000	
Pb	208	2	165	0.103	ppb	0.103	50.81	3187	5000	
Th	232	2	165	0.203	ppb	0.203	19.72	1240	2000	
U	238	2	165	0.018	ppb	0.018	19.90	150	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	142649	1.66	157155	90.77	60	120	
Sc (IS)	45	1	HMI H2	9848718	2.94	10893281	90.41	60	120	
Sc (IS)	45	2	HMI He	130982	3.47	139602	93.83	60	120	
Sc (IS)	45	3	No Gas	25056637	0.87	25015540	100.16	60	120	
Ge Internal Standard	72	1	HMI H2	5711006	1.50	6327370	90.26	60	120	
Ge Internal Standard	72	2	HMI He	235747	1.68	250449	94.13	60	120	
In Internal Standard	115	2	HMI He	735451	1.84	777454	94.60	60	120	
Ho-165	165	2	HMI He	6747711	2.98	7024583	96.06	60	120	

Sample Table

Sample Name	280-104749-A-1-B
Data File Name	256SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:11:22-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	18813.262	ppb	18813.262	0.76	853923	500000	
Li	7	2	45	20453.794	ppb	20453.794	1.66	45085	500000	
Li	7	3	45	18334.124	ppb	18334.124	1.59	36037596	50000	
Be	9	1	6	0.946	ppb	0.946	33.68	30	2000	
B	11	1	6	16474.689	ppb	16474.689	1.51	703422	2000	>LDR
Na	23	1	45	247774.802	ppb	247774.802	0.81	172547784	2000	>LDR
Na	23	2	45	256213.800	ppb	256213.800	1.54	6313821	400000	
Mg	24	2	45	2117383.856	ppb	2117383.856	1.30	24246928	400000	>LDR
Al	27	2	45	4822.579	ppb	4822.579	5.57	13092	400000	
K	39	1	45	114425.807	ppb	114425.807	0.67	103949288	400000	
K	39	2	45	113289.330	ppb	113289.330	0.84	556496	400000	
Ca	40	1	45	61995.955	ppb	61995.955	1.36	84658295	400000	
Ca	44	2	45	62239.546	ppb	62239.546	0.51	20142	400000	
Ti	47	2	45	1395.323	ppb	1395.323	76.74	163	4000	
V	51	2	72	12.445	ppb	12.445	9.06	2164	2000	
Cr	52	2	72	13.335	ppb	13.335	5.68	3337	5000	
Mn	55	2	72	490.976	ppb	490.976	1.40	36458	10000	
Fe	57	2	72	17912.224	ppb	17912.224	0.31	83471	400000	
Co	59	2	72	2.519	ppb	2.519	3.66	1407	2000	
Ni	60	2	72	33.734	ppb	33.734	7.78	5604	5000	
Cu	63	2	72	219.288	ppb	219.288	1.40	109174	5000	
Zn	66	2	72	862.164	ppb	862.164	2.26	39355	5000	
As	75	2	72	70.687	ppb	70.687	1.60	2029	2000	
Se	78	1	72	1.870	ppb	1.870	15.16	212	2000	
Sr	88	2	72	279.626	ppb	279.626	2.16	22809	4000	
Zr	90	2	72	234.342	ppb	234.342	3.30	653	1000	
Nb	93	2	72	0.296	ppb	0.296	35.57	353	200	
Mo	95	2	115	5.737	ppb	5.737	6.78	1437	2000	
Pd	105	2	115	0.144	ppb	0.144	52.08	67	100	
Ag	107	2	115	0.302	ppb	0.302	14.72	310	100	
Cd	111	2	115	0.707	ppb	0.707	56.11	67	2000	
Sn	120	2	115	7.880	ppb	7.880	18.45	1967	2000	
Sb	121	2	115	2.023	ppb	2.023	27.75	413	1000	
Ba	137	2	115	890.288	ppb	890.288	1.28	54627	5000	
W	182	2	165	2.623	ppb	2.623	1.72	6178	100	
Pt	195	2	165	0.573	ppb	0.573	17.43	1343	100	
Tl	205	2	165	0.115	ppb	0.115	28.63	423	2000	
Pb	208	2	165	8.712	ppb	8.712	2.30	40245	5000	
Th	232	2	165	0.247	ppb	0.247	5.99	1400	2000	
U	238	2	165	1.725	ppb	1.725	8.63	10120	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	87937	0.55	157155	55.96	60	120	IS Failed
Sc (IS)	45	1	HMI H2	9553082	0.90	10893281	87.70	60	120	
Sc (IS)	45	2	HMI He	118595	1.25	139602	84.95	60	120	
Sc (IS)	45	3	No Gas	22738777	1.21	25015540	90.90	60	120	
Ge Internal Standard	72	1	HMI H2	5312000	0.75	6327370	83.95	60	120	
Ge Internal Standard	72	2	HMI He	209028	0.31	250449	83.46	60	120	
In Internal Standard	115	2	HMI He	645125	0.87	777454	82.98	60	120	
Ho-165	165	2	HMI He	6371607	1.03	7024583	90.70	60	120	

Sample Table

Sample Name	280-104842-A-1-A
Data File Name	257SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:15:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	37.409	ppb	37.409	62.84	20465	500000	
Li	7	2	45	113.958	ppb	113.958	52.71	1273	500000	
Li	7	3	45	18.685	ppb	18.685	6.63	773062	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	107.367	ppb	107.367	2.23	7112	2000	
Na	23	1	45	28029.250	ppb	28029.250	1.17	20116961	2000	>LDR
Na	23	2	45	30202.007	ppb	30202.007	3.79	758589	400000	
Mg	24	2	45	7358.735	ppb	7358.735	1.60	88108	400000	
Al	27	2	45	99.954	ppb	99.954	22.63	287	400000	
K	39	1	45	1645.002	ppb	1645.002	2.10	3838730	400000	
K	39	2	45	1475.338	ppb	1475.338	6.24	9133	400000	
Ca	40	1	45	18743.437	ppb	18743.437	1.27	26445087	400000	
Ca	44	2	45	20276.268	ppb	20276.268	6.85	6695	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.100	ppb	0.100	79.19	63	2000	
Cr	52	2	72	3.949	ppb	3.949	19.97	1100	5000	
Mn	55	2	72	36.040	ppb	36.040	9.60	2967	10000	
Fe	57	2	72	46.142	ppb	46.142	12.28	357	400000	
Co	59	2	72	0.190	ppb	0.190	24.15	133	2000	
Ni	60	2	72	9.063	ppb	9.063	8.86	1683	5000	
Cu	63	2	72	8.690	ppb	8.690	1.13	5218	5000	
Zn	66	2	72	359.149	ppb	359.149	7.73	17673	5000	
As	75	2	72	0.120	ppb	0.120	50.94	8	2000	
Se	78	1	72	0.283	ppb	0.283	34.42	40	2000	
Sr	88	2	72	172.313	ppb	172.313	1.70	15134	4000	
Zr	90	2	72	2.740	ppb	2.740	393.34	23	1000	
Nb	93	2	72	-0.002	ppb	-0.002	-2363.24	70	200	
Mo	95	2	115	2.072	ppb	2.072	29.90	573	2000	
Pd	105	2	115	0.007	ppb	0.007	173.21	3	100	
Ag	107	2	115	0.018	ppb	0.018	133.21	20	100	
Cd	111	2	115	1.451	ppb	1.451	76.62	150	2000	
Sn	120	2	115	1.806	ppb	1.806	13.92	563	2000	
Sb	121	2	115	0.147	ppb	0.147	75.36	33	1000	
Ba	137	2	115	25.710	ppb	25.710	2.39	1754	5000	
W	182	2	165	0.065	ppb	0.065	27.62	347	100	
Pt	195	2	165	0.112	ppb	0.112	15.83	307	100	
Tl	205	2	165	0.001	ppb	0.001	719.69	47	2000	
Pb	208	2	165	0.628	ppb	0.628	5.19	5397	5000	
Th	232	2	165	0.020	ppb	0.020	43.95	220	2000	
U	238	2	165	0.474	ppb	0.474	2.05	2864	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	135717	0.90	157155	86.36	60	120	
Sc (IS)	45	1	HMI H2	9831453	0.94	10893281	90.25	60	120	
Sc (IS)	45	2	HMI He	120719	2.98	139602	86.47	60	120	
Sc (IS)	45	3	No Gas	23527350	0.40	25015540	94.05	60	120	
Ge Internal Standard	72	1	HMI H2	5758256	1.28	6327370	91.01	60	120	
Ge Internal Standard	72	2	HMI He	224983	1.50	250449	89.83	60	120	
In Internal Standard	115	2	HMI He	713593	1.49	777454	91.79	60	120	
Ho-165	165	2	HMI He	6509049	1.38	7024583	92.66	60	120	

Sample Table

Sample Name	280-104842-A-1-B MS
Data File Name	258SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:18:57-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	64.543	ppb	64.543	13.93	20759	500000	
Li	7	2	45	26.909	ppb	26.909	262.60	1130	500000	
Li	7	3	45	50.601	ppb	50.601	6.88	827402	50000	
Be	9	1	6	32.029	ppb	32.029	10.11	1527	2000	
B	11	1	6	86.368	ppb	86.368	5.40	5568	2000	
Na	23	1	45	31298.417	ppb	31298.417	0.37	21481741	2000	>LDR
Na	23	2	45	30489.615	ppb	30489.615	2.45	800936	400000	
Mg	24	2	45	7103.015	ppb	7103.015	3.53	88989	400000	
Al	27	2	45	346.408	ppb	346.408	10.37	1013	400000	
K	39	1	45	2137.385	ppb	2137.385	2.07	4102142	400000	
K	39	2	45	1456.962	ppb	1456.962	1.97	9459	400000	
Ca	40	1	45	21235.479	ppb	21235.479	0.58	28637962	400000	
Ca	44	2	45	20797.882	ppb	20797.882	6.26	7178	400000	
Ti	47	2	45	27.206	ppb	27.206	173.21	3	4000	
V	51	2	72	33.171	ppb	33.171	6.09	6295	2000	
Cr	52	2	72	35.009	ppb	35.009	3.18	9586	5000	
Mn	55	2	72	71.090	ppb	71.090	6.50	5915	10000	
Fe	57	2	72	319.506	ppb	319.506	19.39	1770	400000	
Co	59	2	72	32.847	ppb	32.847	4.54	20002	2000	
Ni	60	2	72	41.458	ppb	41.458	1.89	7589	5000	
Cu	63	2	72	40.043	ppb	40.043	2.32	22515	5000	
Zn	66	2	72	395.155	ppb	395.155	1.66	19962	5000	
As	75	2	72	32.683	ppb	32.683	0.83	1039	2000	
Se	78	1	72	36.830	ppb	36.830	5.70	4281	2000	
Sr	88	2	72	204.412	ppb	204.412	2.60	18424	4000	
Zr	90	2	72	3566.233	ppb	3566.233	2.66	10764	1000	
Nb	93	2	72	-0.004	ppb	-0.004	-476.49	70	200	
Mo	95	2	115	33.114	ppb	33.114	0.53	9523	2000	
Pd	105	2	115	0.013	ppb	0.013	173.21	7	100	
Ag	107	2	115	30.822	ppb	30.822	3.66	36323	100	
Cd	111	2	115	33.347	ppb	33.347	4.83	3604	2000	
Sn	120	2	115	34.574	ppb	34.574	2.61	9600	2000	
Sb	121	2	115	31.416	ppb	31.416	3.67	7359	1000	
Ba	137	2	115	61.345	ppb	61.345	8.23	4334	5000	
W	182	2	165	33.131	ppb	33.131	0.38	80715	100	
Pt	195	2	165	0.042	ppb	0.042	39.56	153	100	
Tl	205	2	165	32.277	ppb	32.277	1.09	113546	2000	
Pb	208	2	165	32.744	ppb	32.744	0.47	153481	5000	
Th	232	2	165	30.901	ppb	30.901	0.56	171624	2000	
U	238	2	165	32.400	ppb	32.400	0.54	201762	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	131976	1.75	157155	83.98	60	120	
Sc (IS)	45	1	HMI H2	9402827	0.22	10893281	86.32	60	120	
Sc (IS)	45	2	HMI He	126208	2.28	139602	90.41	60	120	
Sc (IS)	45	3	No Gas	23266491	0.79	25015540	93.01	60	120	
Ge Internal Standard	72	1	HMI H2	5583500	0.58	6327370	88.24	60	120	
Ge Internal Standard	72	2	HMI He	230913	0.69	250449	92.20	60	120	
In Internal Standard	115	2	HMI He	740877	1.27	777454	95.30	60	120	
Ho-165	165	2	HMI He	6783860	0.93	7024583	96.57	60	120	

Sample Table

Sample Name	280-104842-A-1-C MSD
Data File Name	259SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:22:47-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	41.501	ppb	41.501	38.80	21233	500000	
Li	7	2	45	-58.087	ppb	-58.087	-28.31	943	500000	
Li	7	3	45	36.758	ppb	36.758	11.45	832465	50000	
Be	9	1	6	26.970	ppb	26.970	9.85	1350	2000	
B	11	1	6	61.768	ppb	61.768	2.70	4204	2000	
Na	23	1	45	26286.685	ppb	26286.685	6.92	19352261	2000	>LDR
Na	23	2	45	27897.644	ppb	27897.644	1.12	737925	400000	
Mg	24	2	45	6502.514	ppb	6502.514	2.70	82235	400000	
Al	27	2	45	394.007	ppb	394.007	5.04	1157	400000	
K	39	1	45	1782.415	ppb	1782.415	9.60	4069007	400000	
K	39	2	45	1299.937	ppb	1299.937	5.97	8696	400000	
Ca	40	1	45	17568.147	ppb	17568.147	7.17	25430763	400000	
Ca	44	2	45	19570.882	ppb	19570.882	5.22	6805	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	31.650	ppb	31.650	6.69	6075	2000	
Cr	52	2	72	33.756	ppb	33.756	3.90	9349	5000	
Mn	55	2	72	63.513	ppb	63.513	4.64	5354	10000	
Fe	57	2	72	346.858	ppb	346.858	2.28	1934	400000	
Co	59	2	72	31.040	ppb	31.040	2.60	19118	2000	
Ni	60	2	72	38.977	ppb	38.977	3.36	7218	5000	
Cu	63	2	72	37.329	ppb	37.329	2.08	21267	5000	
Zn	66	2	72	353.968	ppb	353.968	1.19	18090	5000	
As	75	2	72	30.897	ppb	30.897	7.96	993	2000	
Se	78	1	72	31.903	ppb	31.903	8.35	3929	2000	
Sr	88	2	72	193.171	ppb	193.171	0.90	17610	4000	
Zr	90	2	72	3537.281	ppb	3537.281	1.41	10797	1000	
Nb	93	2	72	0.008	ppb	0.008	239.60	83	200	
Mo	95	2	115	31.792	ppb	31.792	0.30	9146	2000	
Pd	105	2	115	0.006	ppb	0.006	173.21	3	100	
Ag	107	2	115	30.104	ppb	30.104	3.40	35498	100	
Cd	111	2	115	34.305	ppb	34.305	10.13	3707	2000	
Sn	120	2	115	30.515	ppb	30.515	1.21	8486	2000	
Sb	121	2	115	31.202	ppb	31.202	4.85	7312	1000	
Ba	137	2	115	54.978	ppb	54.978	2.63	3884	5000	
W	182	2	165	27.264	ppb	27.264	1.06	67247	100	
Pt	195	2	165	0.022	ppb	0.022	10.93	107	100	
Tl	205	2	165	30.610	ppb	30.610	1.74	108968	2000	
Pb	208	2	165	30.920	ppb	30.920	2.14	146808	5000	
Th	232	2	165	29.958	ppb	29.958	1.32	168372	2000	
U	238	2	165	31.009	ppb	31.009	0.16	195405	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	138975	3.15	157155	88.43	60	120	
Sc (IS)	45	1	HMI H2	10100609	3.82	10893281	92.72	60	120	
Sc (IS)	45	2	HMI He	127026	1.43	139602	90.99	60	120	
Sc (IS)	45	3	No Gas	24207465	0.50	25015540	96.77	60	120	
Ge Internal Standard	72	1	HMI H2	5921016	3.19	6327370	93.58	60	120	
Ge Internal Standard	72	2	HMI He	233519	0.82	250449	93.24	60	120	
In Internal Standard	115	2	HMI He	741135	1.21	777454	95.33	60	120	
Ho-165	165	2	HMI He	6864610	0.36	7024583	97.72	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	260_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:26:36-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	496.787	ppb	9.625	41374	500	99.4	90	110	
Li	7	2	45	396.159	ppb	18.503	2044	500	79.2	90	110	>+\-10%
Li	7	3	45	525.076	ppb	3.268	1830384	500	105.0	90	110	
Be	9	1	6	51.869	ppb	4.183	2507	50	103.7	90	110	
B	11	1	6	73.605	ppb	11.237	4824	50	147.2	90	110	>+\-10%
Na	23	1	45	5125.016	ppb	2.481	3698355	5000	102.5	90	110	
Na	23	2	45	5002.493	ppb	1.820	137110	5000	100.0	90	110	
Mg	24	2	45	5014.434	ppb	3.585	65548	5000	100.3	90	110	
Al	27	2	45	4801.185	ppb	2.573	14319	5000	96.0	90	110	
K	39	1	45	5096.101	ppb	3.306	6981373	5000	101.9	90	110	
K	39	2	45	5024.442	ppb	2.952	28927	5000	100.5	90	110	
Ca	40	1	45	5157.465	ppb	3.213	7370320	5000	103.1	90	110	
Ca	44	2	45	4927.359	ppb	9.564	1780	5000	98.5	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	52.499	ppb	3.381	10200	50	105.0	90	110	
Cr	52	2	72	49.035	ppb	5.155	13759	50	98.1	90	110	
Mn	55	2	72	50.476	ppb	3.685	4341	50	101.0	90	110	
Fe	57	2	72	5053.920	ppb	2.699	26801	5000	101.1	90	110	
Co	59	2	72	49.768	ppb	4.723	31095	50	99.5	90	110	
Ni	60	2	72	51.745	ppb	1.161	9700	50	103.5	90	110	
Cu	63	2	72	49.601	ppb	2.964	28477	50	99.2	90	110	
Zn	66	2	72	54.026	ppb	13.594	2864	50	108.1	90	110	
As	75	2	72	52.355	ppb	1.442	1705	50	104.7	90	110	
Se	78	1	72	51.096	ppb	2.285	6148	50	102.2	90	110	
Sr	88	2	72	49.286	ppb	12.262	4571	50	98.6	90	110	
Zr	90	2	72	144.550	ppb	19.917	463	50	289.1	90	110	>+\-10%
Nb	93	2	72	98.777	ppb	2.484	108601	100	98.8	90	110	
Mo	95	2	115	48.576	ppb	1.438	14190	50	97.2	90	110	
Pd	105	2	115	52.857	ppb	4.296	28461	50	105.7	90	110	
Ag	107	2	115	49.500	ppb	0.688	59260	50	99.0	90	110	
Cd	111	2	115	52.206	ppb	5.032	5731	50	104.4	90	110	
Sn	120	2	115	48.694	ppb	6.773	13693	50	97.4	90	110	
Sb	121	2	115	52.135	ppb	2.889	12405	50	104.3	90	110	
Ba	137	2	115	53.052	ppb	6.147	3807	50	106.1	90	110	
W	182	2	165	49.918	ppb	1.337	124698	50	99.8	90	110	
Pt	195	2	165	49.316	ppb	1.366	121829	50	98.6	90	110	
Tl	205	2	165	50.987	ppb	1.013	184053	50	102.0	90	110	
Pb	208	2	165	50.609	ppb	0.972	241920	50	101.2	90	110	
Th	232	2	165	48.988	ppb	2.610	279117	50	98.0	90	110	
U	238	2	165	50.076	ppb	3.153	319949	50	100.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	133974	1.14	157155	85.25	60	120	
Sc (IS)	45	1	HMI H2	9814162	1.39	10893281	90.09	60	120	
Sc (IS)	45	2	HMI He	130199	2.44	139602	93.26	60	120	
Sc (IS)	45	3	No Gas	24158454	0.80	25015540	96.57	60	120	
Ge Internal Standard	72	1	HMI H2	5782247	2.17	6327370	91.38	60	120	
Ge Internal Standard	72	2	HMI He	237070	1.26	250449	94.66	60	120	
In Internal Standard	115	2	HMI He	752526	0.98	777454	96.79	60	120	
Ho-165	165	2	HMI He	6962463	1.17	7024583	99.12	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	261_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:30:25-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	4.057	ppb	21.1	759214	10	
Be	9	1	6	0.137	ppb	86.6	7	0.5	
B	11	1	6	19.616	ppb	5.5	1323	0.5	>RL
Na	23	1	45	76.049	ppb	3.7	85472	25	>RL
Na	23	2	45	71.227	ppb	12.1	3744	25	>RL
Mg	24	2	45	82.892	ppb	21.8	3564	25	>RL
Al	27	2	45	2.502	ppb	231.7	20	15	
K	39	1	45	137.766	ppb	15.4	2399468	50	>RL
K	39	2	45	-3.080	ppb	-601.2	1900	50	
Ca	40	1	45	36.078	ppb	8.2	194962	50	
Ca	44	2	45	-1.919	ppb	-1733.3	33	25	
Ti	47	2	45	25.948	ppb	173.2	3	0.5	>RL
V	51	2	72	-0.108	ppb	-96.8	27	1	
Cr	52	2	72	0.128	ppb	81.0	93	1	
Mn	55	2	72	0.056	ppb	1026.5	107	0.5	
Fe	57	2	72	29.794	ppb	82.6	290	25	>RL
Co	59	2	72	0.002	ppb	985.2	23	0.5	
Ni	60	2	72	-0.029	ppb	-427.7	87	1	
Cu	63	2	72	0.359	ppb	32.8	820	1	
Zn	66	2	72	1.726	ppb	109.0	160	5	
As	75	2	72	0.067	ppb	137.4	7	1	
Se	78	1	72	0.017	ppb	337.0	8	1	
Sr	88	2	72	-0.027	ppb	-441.4	17	0.5	
Zr	90	2	72	6.754	ppb	111.6	37	1	>RL
Nb	93	2	72	1.167	ppb	13.9	1363	2	
Mo	95	2	115	0.092	ppb	80.3	27	0.5	
Pd	105	2	115	0.074	ppb	43.7	40	1	
Ag	107	2	115	0.028	ppb	123.3	33	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.289	ppb	74.4	170	1	
Sb	121	2	115	0.153	ppb	29.5	37	0.6	
Ba	137	2	115	0.004	ppb	3813.8	10	0.5	
W	182	2	165	0.068	ppb	54.6	370	1	
Pt	195	2	165	0.034	ppb	18.4	133	1	
Tl	205	2	165	0.026	ppb	74.1	137	0.1	
Pb	208	2	165	0.419	ppb	18.6	4687	0.5	
Th	232	2	165	0.264	ppb	31.7	1590	1	
U	238	2	165	0.028	ppb	34.4	213	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	135041	0.94	157155	85.93	60	120	
Sc (IS)	45	1	HMI H2	9588054	0.57	10893281	88.02	60	120	
Sc (IS)	45	2	HMI He	129451	1.52	139602	92.73	60	120	
Sc (IS)	45	3	No Gas	24011855	0.13	25015540	95.99	60	120	
Ge Internal Standard	72	1	HMI H2	5668128	0.95	6327370	89.58	60	120	
Ge Internal Standard	72	2	HMI He	238319	1.80	250449	95.16	60	120	
In Internal Standard	115	2	HMI He	753126	2.37	777454	96.87	60	120	
Ho-165	165	2	HMI He	6820762	0.50	7024583	97.10	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399323/1-A
Data File Name	262_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:34:12-07:00
Sample Type	Blank
Dilution	1
Comment	399323 200.8 FILTERED
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-1.710	ppb	-925.9720648	18847	0.5
Li	7	2	45	-27.947	ppb	-240.535493	1070	0.5
Li	7	3	45	5.227	ppb	39.83826758	756686	10
Be	9	1	6	0.131	ppb	173.2050808	7	0.5
B	11	1	6	14.138	ppb	9.832072694	1000	0.5
Na	23	1	45	251.632	ppb	1.185860211	215438	25
Na	23	2	45	252.024	ppb	4.795936807	8916	25
Mg	24	2	45	56.895	ppb	40.8293957	3360	25
Al	27	2	45	15.383	ppb	37.67620213	60	15
K	39	1	45	196.354	ppb	15.65082824	2537217	50
K	39	2	45	41.508	ppb	116.0768855	2217	50
Ca	40	1	45	25.973	ppb	13.36897703	187439	50
Ca	44	2	45	49.412	ppb	34.07922688	53	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	0.011	ppb	905.5707407	50	1
Cr	52	2	72	0.080	ppb	160.527745	80	1
Mn	55	2	72	-0.143	ppb	-143.0946895	90	0.5
Fe	57	2	72	-4.512	ppb	-188.9828407	110	25
Co	59	2	72	-0.004	ppb	-447.2843148	20	0.5
Ni	60	2	72	-0.121	ppb	-114.8686094	70	1
Cu	63	2	72	0.768	ppb	20.45721842	1057	1
Zn	66	2	72	5.738	ppb	27.12999718	370	5
As	75	2	72	-0.014	ppb	-405.8593495	4	1
Se	78	1	72	-0.017	ppb	-330.5202529	4	1
Sr	88	2	72	0.008	ppb	2679.374522	20	0.5
Zr	90	2	72	14.085	ppb	39.32170635	60	1
Nb	93	2	72	0.418	ppb	8.37693563	540	2
Mo	95	2	115	0.510	ppb	11.46319296	150	0.5
Pd	105	2	115	0.136	ppb	91.67520958	73	1
Ag	107	2	115	0.008	ppb	173.2050808	10	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.162	ppb	89.39813748	137	1
Sb	121	2	115	0.153	ppb	55.97541131	37	0.6
Ba	137	2	115	0.605	ppb	57.78632646	53	0.5
W	182	2	165	0.041	ppb	77.73580484	310	1
Pt	195	2	165	0.011	ppb	167.8231426	80	1
Tl	205	2	165	0.004	ppb	255.7368989	60	0.1
Pb	208	2	165	-0.210	ppb	-26.43419574	1810	0.5
Th	232	2	165	0.124	ppb	16.69279168	823	1
U	238	2	165	0.009	ppb	132.2475301	90	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	140048	1.11	157155	89.11	60	120	
Sc (IS)	45	1	HMI H2	9922639	0.86	10893281	91.09	60	120	
Sc (IS)	45	2	HMI He	134151	0.96	139602	96.10	60	120	
Sc (IS)	45	3	No Gas	23856927	0.14	25015540	95.37	60	120	
Ge Internal Standard	72	1	HMI H2	5828943	0.63	6327370	92.12	60	120	
Ge Internal Standard	72	2	HMI He	239522	0.87	250449	95.64	60	120	
In Internal Standard	115	2	HMI He	758349	0.97	777454	97.54	60	120	
Ho-165	165	2	HMI He	6936734	1.94	7024583	98.75	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399323/2-A
Data File Name	263_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:38:04-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399323 200.8 FILTERED
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	21.831	21.831	ppb	51.343	19835	400	5.5	80	120	>+/-20%
Li	7	2	45	-33.144	-33.144	ppb	-116.839	1043	400	-8.3	80	120	>+/-20%
Li	7	3	45	29.940	29.940	ppb	16.098	800921	400	7.5	80	120	>+/-20%
Be	9	1	6	30.601	30.601	ppb	3.360	1550	40	76.5	80	120	>+/-20%
Na	23	2	45	137.706	137.706	ppb	13.703	5658	40	344.3	80	120	>+/-20%
Mg	24	2	45	55.555	55.555	ppb	14.049	3304	40	138.9	80	120	>+/-20%
Al	27	2	45	227.094	227.094	ppb	22.129	700	40	567.7	80	120	>+/-20%
K	39	2	45	10.493	10.493	ppb	209.446	2024	40	26.2	80	120	>+/-20%
Ca	44	2	45	115.862	115.862	ppb	18.890	77	40	289.7	80	120	>+/-20%
V	51	2	72	28.265	28.265	ppb	15.026	5604	40	70.7	80	120	>+/-20%
Cr	52	2	72	27.781	27.781	ppb	16.316	7949	40	69.5	80	120	>+/-20%
Mn	55	2	72	28.652	28.652	ppb	6.647	2554	40	71.6	80	120	>+/-20%
Fe	57	2	72	288.147	288.147	ppb	6.538	1683	40	720.4	80	120	>+/-20%
Co	59	2	72	28.180	28.180	ppb	6.418	17940	40	70.5	80	120	>+/-20%
Ni	60	2	72	28.989	28.989	ppb	5.614	5574	40	72.5	80	120	>+/-20%
Cu	63	2	72	28.828	28.828	ppb	9.510	17109	40	72.1	80	120	>+/-20%
Zn	66	2	72	35.784	35.784	ppb	10.362	1954	40	89.5	80	120	
As	75	2	72	26.597	26.597	ppb	6.326	885	40	66.5	80	120	>+/-20%
Se	78	1	72	29.355	29.355	ppb	3.243	3516	40	73.4	80	120	>+/-20%
Nb	93	2	72	0.250	0.250	ppb	23.136	357	40	0.6	80	120	>+/-20%
Mo	95	2	115	29.475	29.475	ppb	8.214	8696	40	73.7	80	120	>+/-20%
Pd	105	2	115	0.164	0.164	ppb	26.241	90	40	0.4	80	120	>+/-20%
Ag	107	2	115	27.046	27.046	ppb	7.782	32709	40	67.6	80	120	>+/-20%
Cd	111	2	115	28.010	28.010	ppb	17.822	3100	40	70.0	80	120	>+/-20%
Sn	120	2	115	27.724	27.724	ppb	4.851	7922	40	69.3	80	120	>+/-20%
Sb	121	2	115	26.446	26.446	ppb	3.953	6365	40	66.1	80	120	>+/-20%
Ba	137	2	115	29.105	29.105	ppb	9.564	2114	40	72.8	80	120	>+/-20%
W	182	2	165	24.627	24.627	ppb	6.599	61571	40	61.6	80	120	>+/-20%
Pt	195	2	165	-0.003	-0.003	ppb	-311.789	47	40	0.0	80	120	>+/-20%
Tl	205	2	165	27.746	27.746	ppb	4.075	100131	40	69.4	80	120	>+/-20%
Pb	208	2	165	27.601	27.601	ppb	5.627	133106	40	69.0	80	120	>+/-20%
Th	232	2	165	27.148	27.148	ppb	7.873	154547	40	67.9	80	120	>+/-20%
U	238	2	165	27.551	27.551	ppb	7.697	175847	40	68.9	80	120	>+/-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	140356	1.02	157155	89.31	60	120	
Sc (IS)	45	1	HMI H2	9872252	0.66	10893281	90.63	60	120	
Sc (IS)	45	2	HMI He	132745	3.94	139602	95.09	60	120	
Sc (IS)	45	3	No Gas	23688519	0.50	25015540	94.70	60	120	
Ge Internal Standard	72	1	HMI H2	5752578	0.71	6327370	90.92	60	120	
Ge Internal Standard	72	2	HMI He	241654	3.11	250449	96.49	60	120	
In Internal Standard	115	2	HMI He	761668	4.00	777454	97.97	60	120	
Ho-165	165	2	HMI He	6965166	3.47	7024583	99.15	60	120	

Sample Report

Sample Table

Sample Name	280-104836-D-1-D
Data File Name	264SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:41:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8 FILTERED
ISTD Ref FileName	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	20894.908	ppb	20894.908	0.32	864308	500000	
Li	7	2	45	22676.269	ppb	22676.269	1.80	46917	500000	
Li	7	3	45	20822.431	ppb	20822.431	0.32	36738051	50000	
Be	9	1	6	0.476	ppb	0.476	115.69	13	2000	
B	11	1	6	17771.948	ppb	17771.948	1.62	672057	2000	>LDR
Na	23	1	45	174465.812	ppb	174465.812	0.18	110968762	2000	>LDR
Na	23	2	45	179774.357	ppb	179774.357	1.97	4167267	400000	
Mg	24	2	45	2376760.322	ppb	2376760.322	0.79	25601161	400000	>LDR
Al	27	2	45	2490.896	ppb	2490.896	1.83	6368	400000	
K	39	1	45	85808.276	ppb	85808.276	0.83	71708021	400000	
K	39	2	45	83222.964	ppb	83222.964	0.86	384964	400000	
Ca	40	1	45	39972.049	ppb	39972.049	0.64	49898386	400000	
Ca	44	2	45	39401.540	ppb	39401.540	5.34	12001	400000	
Ti	47	2	45	970.482	ppb	970.482	60.06	107	4000	
V	51	2	72	4.634	ppb	4.634	6.75	810	2000	
Cr	52	2	72	7.045	ppb	7.045	10.44	1740	5000	
Mn	55	2	72	171.703	ppb	171.703	2.39	12478	10000	
Fe	57	2	72	2372.963	ppb	2372.963	2.70	10870	400000	
Co	59	2	72	1.381	ppb	1.381	15.83	760	2000	
Ni	60	2	72	7.763	ppb	7.763	3.31	1317	5000	
Cu	63	2	72	67.675	ppb	67.675	2.48	33186	5000	
Zn	66	2	72	702.296	ppb	702.296	1.59	31239	5000	
As	75	2	72	75.382	ppb	75.382	4.98	2107	2000	
Se	78	1	72	1.204	ppb	1.204	52.68	133	2000	
Sr	88	2	72	98.002	ppb	98.002	6.88	7795	4000	
Zr	90	2	72	236.718	ppb	236.718	27.35	643	1000	
Nb	93	2	72	0.362	ppb	0.362	11.75	407	200	
Mo	95	2	115	5.752	ppb	5.752	4.60	1413	2000	
Pd	105	2	115	0.258	ppb	0.258	21.78	117	100	
Ag	107	2	115	0.175	ppb	0.175	40.83	177	100	
Cd	111	2	115	0.613	ppb	0.613	10.28	57	2000	
Sn	120	2	115	8.527	ppb	8.527	7.23	2080	2000	
Sb	121	2	115	1.115	ppb	1.115	20.45	223	1000	
Ba	137	2	115	543.590	ppb	543.590	2.29	32733	5000	
W	182	2	165	2.896	ppb	2.896	2.75	6602	100	
Pt	195	2	165	0.135	ppb	0.135	22.89	343	100	
Tl	205	2	165	0.083	ppb	0.083	9.58	307	2000	
Pb	208	2	165	4.982	ppb	4.982	4.31	23398	5000	
Th	232	2	165	0.262	ppb	0.262	16.73	1430	2000	
U	238	2	165	1.419	ppb	1.419	4.39	8086	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	77893	1.67	157155	49.56	60	120	IS Failed
Sc (IS)	45	1	HMI H2	8724225	0.36	10893281	80.09	60	120	
Sc (IS)	45	2	HMI He	111550	0.97	139602	79.91	60	120	
Sc (IS)	45	3	No Gas	20456371	0.45	25015540	81.77	60	120	
Ge Internal Standard	72	1	HMI H2	5104243	0.51	6327370	80.67	60	120	
Ge Internal Standard	72	2	HMI He	203626	0.77	250449	81.30	60	120	
In Internal Standard	115	2	HMI He	633023	0.28	777454	81.42	60	120	
Ho-165	165	2	HMI He	6185589	1.47	7024583	88.06	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV-4905061
Data File Name	265_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:45:40-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	536.630	ppb	4.385	40438	500	107.3	90	110	
Li	7	2	45	500.312	ppb	34.569	2157	500	100.1	90	110	
Li	7	3	45	559.479	ppb	4.275	1741935	500	111.9	90	110	>+\-10%
Be	9	1	6	55.191	ppb	8.322	2447	50	110.4	90	110	>+\-10%
B	11	1	6	153.202	ppb	5.296	9176	50	306.4	90	110	>+\-10%
Na	23	1	45	5344.908	ppb	1.045	3609227	5000	106.9	90	110	
Na	23	2	45	5113.217	ppb	0.147	132128	5000	102.3	90	110	
Mg	24	2	45	5541.425	ppb	1.136	68076	5000	110.8	90	110	>+\-10%
Al	27	2	45	5151.465	ppb	1.526	14480	5000	103.0	90	110	
K	39	1	45	5438.227	ppb	1.671	6827342	5000	108.8	90	110	
K	39	2	45	5215.878	ppb	2.474	28256	5000	104.3	90	110	
Ca	40	1	45	5280.770	ppb	1.677	7061115	5000	105.6	90	110	
Ca	44	2	45	5336.210	ppb	4.681	1817	5000	106.7	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	52.837	ppb	7.272	9943	50	105.7	90	110	
Cr	52	2	72	48.259	ppb	3.068	13119	50	96.5	90	110	
Mn	55	2	72	51.412	ppb	1.297	4281	50	102.8	90	110	
Fe	57	2	72	4994.697	ppb	1.296	25656	5000	99.9	90	110	
Co	59	2	72	50.897	ppb	1.664	30804	50	101.8	90	110	
Ni	60	2	72	52.892	ppb	4.493	9600	50	105.8	90	110	
Cu	63	2	72	51.323	ppb	5.269	28517	50	102.6	90	110	
Zn	66	2	72	53.925	ppb	11.330	2767	50	107.9	90	110	
As	75	2	72	52.084	ppb	2.917	1643	50	104.2	90	110	
Se	78	1	72	53.124	ppb	1.539	6037	50	106.2	90	110	
Sr	88	2	72	51.631	ppb	3.461	4641	50	103.3	90	110	
Zr	90	2	72	109.419	ppb	26.097	343	50	218.8	90	110	>+\-10%
Nb	93	2	72	100.753	ppb	1.728	107297	100	100.8	90	110	
Mo	95	2	115	51.484	ppb	3.899	14513	50	103.0	90	110	
Pd	105	2	115	54.524	ppb	2.262	28341	50	109.0	90	110	
Ag	107	2	115	50.349	ppb	1.441	58179	50	100.7	90	110	
Cd	111	2	115	50.545	ppb	1.315	5358	50	101.1	90	110	
Sn	120	2	115	48.854	ppb	4.163	13259	50	97.7	90	110	
Sb	121	2	115	50.835	ppb	5.099	11674	50	101.7	90	110	
Ba	137	2	115	53.886	ppb	3.035	3731	50	107.8	90	110	
W	182	2	165	50.908	ppb	1.857	120882	50	101.8	90	110	
Pt	195	2	165	49.358	ppb	1.557	115910	50	98.7	90	110	
Tl	205	2	165	51.986	ppb	1.132	178394	50	104.0	90	110	
Pb	208	2	165	51.635	ppb	0.967	234581	50	103.3	90	110	
Th	232	2	165	50.287	ppb	1.290	272384	50	100.6	90	110	
U	238	2	165	51.118	ppb	1.328	310522	50	102.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	122976	1.77	157155	78.25	60	120	
Sc (IS)	45	1	HMI H2	9185319	0.78	10893281	84.32	60	120	
Sc (IS)	45	2	HMI He	122752	0.63	139602	87.93	60	120	
Sc (IS)	45	3	No Gas	22137745	0.52	25015540	88.50	60	120	
Ge Internal Standard	72	1	HMI H2	5460858	0.56	6327370	86.31	60	120	
Ge Internal Standard	72	2	HMI He	229585	0.42	250449	91.67	60	120	
In Internal Standard	115	2	HMI He	726347	1.32	777454	93.43	60	120	
Ho-165	165	2	HMI He	6618375	0.82	7024583	94.22	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB-4905058
Data File Name	266_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-27T03:49:27-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	248CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	6.551	ppb	43.1	714196	10	
Be	9	1	6	0.146	ppb	86.6	7	0.5	
B	11	1	6	52.136	ppb	8.5	3240	0.5	>RL
Na	23	1	45	83.529	ppb	2.6	88456	25	>RL
Na	23	2	45	67.146	ppb	17.9	3634	25	>RL
Mg	24	2	45	122.886	ppb	15.5	4061	25	>RL
Al	27	2	45	9.284	ppb	94.9	40	15	
K	39	1	45	172.982	ppb	18.7	2370657	50	>RL
K	39	2	45	-4.034	ppb	-878.0	1897	50	
Ca	40	1	45	25.611	ppb	3.1	176166	50	
Ca	44	2	45	6.476	ppb	860.6	37	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.012	ppb	389.0	50	1	
Cr	52	2	72	-0.109	ppb	-49.7	27	1	
Mn	55	2	72	-0.413	ppb	-36.1	67	0.5	
Fe	57	2	72	6.240	ppb	83.1	167	25	
Co	59	2	72	0.007	ppb	344.3	27	0.5	
Ni	60	2	72	0.133	ppb	289.2	117	1	
Cu	63	2	72	0.369	ppb	31.5	827	1	
Zn	66	2	72	3.411	ppb	62.6	247	5	
As	75	2	72	-0.114	ppb	-29.9	1	1	
Se	78	1	72	-0.004	ppb	-572.9	5	1	
Sr	88	2	72	0.083	ppb	202.3	27	0.5	
Zr	90	2	72	8.814	ppb	55.6	43	1	>RL
Nb	93	2	72	1.481	ppb	16.0	1710	2	
Mo	95	2	115	0.159	ppb	54.4	47	0.5	
Pd	105	2	115	0.024	ppb	40.1	13	1	
Ag	107	2	115	0.025	ppb	30.8	30	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.162	ppb	85.6	137	1	
Sb	121	2	115	0.182	ppb	37.3	43	0.6	
Ba	137	2	115	0.234	ppb	151.1	27	0.5	
W	182	2	165	0.045	ppb	80.3	313	1	
Pt	195	2	165	0.037	ppb	51.8	143	1	
Tl	205	2	165	0.023	ppb	48.5	127	0.1	
Pb	208	2	165	0.340	ppb	3.9	4344	0.5	
Th	232	2	165	0.314	ppb	15.2	1877	1	
U	238	2	165	0.023	ppb	52.7	180	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	126555	1.21	157155	80.53	60	120	
Sc (IS)	45	1	HMI H2	9350022	0.50	10893281	85.83	60	120	
Sc (IS)	45	2	HMI He	129322	2.73	139602	92.64	60	120	
Sc (IS)	45	3	No Gas	22438341	0.29	25015540	89.70	60	120	
Ge Internal Standard	72	1	HMI H2	5487141	0.44	6327370	86.72	60	120	
Ge Internal Standard	72	2	HMI He	238349	1.75	250449	95.17	60	120	
In Internal Standard	115	2	HMI He	756775	2.86	777454	97.34	60	120	
Ho-165	165	2	HMI He	6855730	2.69	7024583	97.60	60	120	

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICPMS Data Review Checklist

LIMS Batch Number(s): 399968, 399972, 399975	Filename(s): L122617a b c	Instrument ID (circle one): 024 (077) 078
Analyst/1st Reviewer/Date: Lm Tull 12/27/17		Method (circle): (200.8) (6020) (6020A)
		QC Type (circle): Standard DOD Q4
		DoD Q5 QAPP_____ Other_____
Matrix (circle): (Water) Solid Leachate		Circle: (Total) TR PD Dissolved

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune					
1. Tune solution analyzed minimum of 4 times for 6020 or 5 times for 200.8	✓			✓	
2. Tune RSD <5%	✓			✓	
3. Resolution ≤ 0.9 AMU full width at 10% peak height Note: This also satisfies 200.8, 1.0 AMU at 5% peak height	✓			✓	
4. Mass calibration results within ± 0.1 amu of expected value	✓			✓	
B. Calibration/Instrument Run QC					
1. Instrument calibrated per lab SOP?	✓			✓	
2. For multi-point calibrations: r ≥ 0.995 -- |x-intercept| ≤ RL	✓			✓	
3. High Level LDR Check Standard: required by DoD daily if samples analyzed > highest ICAL level -- 90-110% recovery	✓			✓	
4. ICB/CCB: run before samples, 10% frequency, & closing Result < ½ RL (routine), < LOD/2x MDL (DoD or special project)	✓			✓	
5. ICV/CCV: frequency initial, 10%, & closing; 90-110% recovery	✓			✓	
6. ICVL/CCVL: 70-130% recovery (6020A); Not applicable (other)	✓			✓	
7. ICSA/ICSAB: run before samples and every 12 hours ICSA detections for non-spiked <2*RL (<LOD or2x MDL for DoD or special projects) ICSAB for spiked elements 80-120%; *If no, list analytes:*	✓			✓ ✓	☐ Results outside limits due to contamination. ☐ Concentration of affected analyte in sample is less than RL ☐ Concentration of affected analyte in sample is more than 10x analyte signal in ICSA.
8. RL-level check standard: CRI : 50-150% (routine) 80-120% recovery (DoD);	✓			✓	
B. Client Sample and QC Sample Results					
1. Samples with target element concentrations > 90% linear range diluted and reanalyzed (200.8)	✓			✓	Comments:
2. Sample IS response: 30-120% of ICB IS (6020) 70-150% of ICB IS (6020A) 60-125% (200.8)	✓			✓	☐ High IS response. Sample(s) rerun at dilution. ☐ Low IS response. Sample(s) rerun at dilution.
C. Preparation/Matrix QC					
1. Method Blank: one per preparation batch result < ½ RL	✓			✓	☐ No analyte > RL in associated samples ☐ Sample results >10x blank ☐ Insufficient sample for reanalysis
2. LCS :one per preparation batch; 80-120% recovery or historical (routine) 85-115% recovery or historical (200.8); project limits (other)	✓			✓	☐ Insufficient sample for reanalysis ☐ LCS %R > QC limits & samples < RL
3. MS/MSD or MS/Dup frequency: a pair per batch (routine); a pair per 10 samples (200.8);	✓			✓	☐ Insufficient sample
4. MS/MSD recovery & RPD: 75-125% recovery or historical (routine); 70-130% recovery (200.8); 20% RPD;	✓			✓	☐ LCS acceptable – matrix effects ☐ Native analyte > 4x spike level ☐ Matrix effect and native analyte > 4x spike

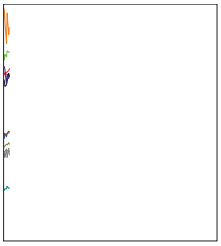
Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
C. Preparation/Matrix QC (continued)					
5. Serial dilution: one per prep batch (6020/6020A) Required if MS/MSD fail (DoD) -- run at 5x dilution of parent sample; ≤ 10% difference.	✓			✓	☐ Sample result < 50 x MDL
6. Post digestion spike: one per 6020/6020A batch Required if MS/MSD fail (DoD) 75-125% recovery	✓			✓	
D. Raw Data & TALS Data Entry					
1. TALS Sample List Tab	✓				
a. LIMS Sample IDs./ Containers are correct	✓			✓	
b. Method and matrix are correct	✓			✓	
c. Date and time are correct	✓			✓	
d. Dilutions are correct	✓			✓	
e. Correct suffix designated; e.g., DU, (where applicable)	✓			✓	
2. TALS Sample Results Tab	✓				
a. All reported analytes are marked Primary or Secondary	✓			✓	
b. All unused data are marked Rejected or Accepted. Unused data are clearly identified with reason not used	✓			✓	
c. Out of control QC is clearly identified	✓			✓	
d. Any data that has a qualifier is reviewed with appropriate action taken (NCM if needed)	✓			✓	
e. The attached data file includes the filename, instrument, and analyst initials	✓			✓	
3. TALS Worksheet Tab is complete and correct	✓			✓	
4. TALS Reagent Tab is complete and correct	✓			✓	
5. TALS QC Links Tab is correct	✓			✓	
6. TALS Batch Information Screen documentation is complete	✓			✓	
7. TALS Status set to appropriate review level	✓			✓	
E. Final Report and NCMs (2nd level review only)					
1. Were all job/project requirements met?				✓	
2. Results for samples and QC correct on final report?				✓	
3. Are all necessary scanned documents in TALS?				✓	
4. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?				✓	
5. Raw Data PDF attached as document				✓	

Comments: ✓

2nd Reviewer: [signature] DB Review Date: 12/28/17

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
7	50000	36450	35750.6	1.27
9	50000	39802	39444.9	1.72
59	1E+05	45723	44779.2	2.32
66	2000	1802	1830.1	6.09
70	5000	2042	2072.9	2.28
75	5000	4280	4198.4	2.20
89	2E+05	75065	75638.6	1.02
105	1000	361	369.4	4.58
118	1000	693	678.1	3.16
137	20000	9195	9078.3	1.37
140	2E+05	81513	80804.5	1.59
205	2E+05	44101	43842.9	2.33
6	5000	16968	17261.0	1.25
70/140	2	2.505 %	2.566 %	3.12
156/140	2	1.405 %	1.406 %	3.91

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas		0.00
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	℃	Plasma Gas		15.0
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas		0.9

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-70	V	Cell Entrance	-40	V	Deflect	16.2	V
Extract 2	-165.0	V	Omega Lens	8.6	V	Cell Exit	-58	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		H2 Flow	0.0	mL/min	OctP Bias	-8.0	V	Energy Discrimination	3.0
He Flow	0.0	mL/min	3rd Gas Flow	0	%	OctP RF	170	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-5.0	V
Mass Offset	123	Axis Offset	-0.07			

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

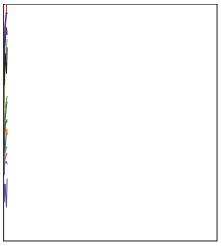
Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	1.67E-4	Pa	Internal Temp	47.2	℃	Forward Power	1554	W
Water RF/WC/IF	1.85	L/min	Reflected Power	8	W			

Current Signal

[HMI H2]



Mass	Range	Count	Avg. Count	RSD [%]
7	500	568	445.3	26.35
9	2000	1704	1476.1	17.94
59	10000	4482	3910.9	21.69
63	500	235	219.5	15.63
70	1000	585	506.8	20.21
78	50	13	10.0	29.44
89	1E+05	36859	33762.0	12.72
115	1E+05	39515	37272.5	8.48
118	500	408	372.3	9.88
137	10000	5108	4869.7	6.75
140	50000	30478	27952.2	10.50
205	50000	25113	24750.2	1.92
238	1E+05	32251	32805.0	1.35
70/140	2	1.920 %	1.798 %	10.76
156/140	1	0.873 %	0.858 %	4.21

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas		0.14
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	℃	Plasma Gas		15.0
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas		0.9

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-90	V	Cell Entrance	-20	V	Deflect	1.4	V
Extract 2	-185.0	V	Omega Lens	9.7	V	Cell Exit	-64	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		H2 Flow	4.0	mL/min	OctP Bias	-18.0	V	Energy Discrimination	3.0
He Flow	0.0	mL/min	3rd Gas Flow	0	%	OctP RF	170	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-15.0	V
Mass Offset	123	Axis Offset	-0.07			

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	6.89E-4	Pa	Internal Temp	47.5	℃	Forward Power	1548	W
Water RF/WC/IF	1.85	L/min	Reflected Power	7	W			

US EPA Tune Check Sample Report

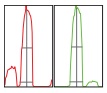
Batch Folder D:\MassHunter Data\Li122817.b
Report Comment
Instrument Name G3281A JP09320047

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	2700	1.40	5.00	
9	9402	0.93	5.00	

Mas	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	2720	2651	2727	2669	2734
9	9488	9499	9307	9381	9336

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	447	6.95	6.9 - 7.1		0.778	0.750	[F]
9	1544	8.95	8.9 - 9.1		0.787	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 60.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.14	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.4	V
Extract 2	-185.0	V	Cell Entrance	-20	V	Plate Bias	-60	V
Omega Bias	-90	V	Cell Exit	-64	V			

 # # Cell Parameters # #

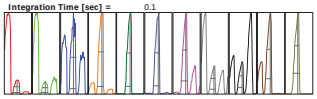
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-18.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
CollP RF	200	V	H2 Flow	4.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2576	2.77	5.00	
25	371	4.19	5.00	
26	470	4.60	5.00	
59	13077	2.31	5.00	
103	37292	0.87	5.00	
115	4695	1.78	5.00	
205	35198	1.40	5.00	
206	12504	1.69	5.00	
207	11510	1.20	5.00	
208	25164	1.11	5.00	
238	59466	0.76	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2494	2680	2604	2532	2572
25	382	345	381	379	372
26	457	467	443	495	488
59	12928	13010	12703	13481	13262
103	37138	37414	36797	37549	37563
115	4575	4646	4737	4730	4785
205	34863	35043	34653	35660	35773
206	12412	12193	12569	12748	12597
207	11393	11424	11443	11565	11727
208	24710	25197	25161	25285	25466
238	58736	59799	59326	59688	59781

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	449	23.950	23.9 - 24.1		0.740	0.750	
25	65	24.950	24.9 - 25.1		0.749	0.750	
26	83	25.950	25.9 - 26.1		0.739	0.750	
59	2454	59.000	58.9 - 59.1		0.698	0.750	
103	7524	103.000	102.9 - 103.1		0.693	0.750	
115	951	115.000	114.9 - 115.1		0.697	0.750	
205	7313	204.950	204.9 - 205.1		0.694	0.750	
206	2493	205.950	205.9 - 206.1		0.669	0.750	
207	2095	206.950	206.9 - 207.1		0.653	0.750	
208	5304	207.950	207.9 - 208.1		0.676	0.750	
238	12712	237.900	237.9 - 238.1		0.675	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 283 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.23	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	2.6	V
Extract 2	-170.0	V	Cell Entrance	-30	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-62	V			

 # # Cell Parameters # #

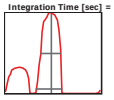
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-18.0	V	He Flow	5.0	mL/min	Energy Discrimination	4.0	V
CollP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	190370	1.49	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	194085	186891	188408	190529	191939

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	32079	7.000	6.9 - 7.1		0.780	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 36.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.00	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	16.2	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-50	V
Omega Bias	-70	V	Cell Exit	-58	V			

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
CollP Bias	-8.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
CollP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	false		3rd Gas Flow	0	%			

Mass	Element Name	Current Value
7	Li	Signal too low
9	Be	0.105309875678074
23	Na	0.114350835269545
24	Mg	0.120417252318872
27	Al	0.124239611411495
39	K	0.126020567253319
45	Sc	0.127129299862875
51	V	0.128444625078982
55	Mn	0.135652818816805
56	Fe	0.126203682442356
59	Co	0.140133311087473
60	Ni	0.14110859083265
63	Cu	0.143487178862303
66	Zn	0.143387586215026
72	Ge	0.141704279169556
75	As	0.140935822905968
77	Se	Signal too low
82	Se	Signal too low
88	Sr	0.143613746822263
89	Y	0.14222531404297
95	Mo	0.141106949012333
100	Ru	0.144346846385376
101	Ru	0.144663035848442
102	Ru	0.145246173564248
104	Ru	0.146102011276401
105	Pd	0.148982722396125

Mass	Element Name	Current Value
106	Pd	0.149569644138825
111	Cd	0.150306048204434
114	Cd	0.151141586910958
115	In	0.151545711024584
118	Sn	0.149550577262086
121	Sb	0.149383570136654
137	Ba	0.148734735598157
175	Lu	0.158194237558448
193	Ir	0.157231891112784
205	Tl	0.159300854589863
208	Pb	0.160030535950006
209	Bi	0.159315487489426
232	Th	0.160341766505007
238	U	0.160490679178252

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	001WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:17:45-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	002WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:21:33-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	003WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:25:22-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	004WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:29:10-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	005WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:32:59-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Calibration Blank Report

Sample Table

Sample Name	icis-4907385
Data File Name	006CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:36:57-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	77237	0.00
Li	7	2	HMI He	4504	0.04
Li	7	3	No Gas	4500271	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	90249	0.00
Na	23	1	HMI H2	249103	0.00
Na	23	2	HMI He	10890	0.00
Mg	24	2	HMI He	2154	0.50
Al	27	2	HMI He	17	207.85
K	39	2	HMI He	3554	0.08
Ca	44	2	HMI He	27	81.19
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	320	2.58
Cr	52	2	HMI He	137	11.14
Mn	55	2	HMI He	147	16.32
Fe	57	2	HMI He	20	250.00
Co	59	2	HMI He	13	649.52
Ni	60	2	HMI He	53	53.70
Cu	63	2	HMI He	1450	0.08
Zn	66	2	HMI He	70	73.58
As	75	2	HMI He	3	1060.44
Se	78	1	HMI H2	27	85.92
Sr	88	2	HMI He	20	433.01
Zr	90	2	HMI He	50	80.00
Nb	93	2	HMI He	100	40.00
Mo	95	2	HMI He	13	324.76
Pd	105	2	HMI He	27	324.76
Ag	107	2	HMI He	30	333.33
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	133	32.96
Sb	121	2	HMI He	3	5196.15
Ba	137	2	HMI He	7	2598.08
W	182	2	HMI He	167	4.16
Pt	195	2	HMI He	343	5.45
Tl	205	2	HMI He	77	85.63
Pb	208	2	HMI He	1010	1.37
Th	232	2	HMI He	253	10.37
U	238	2	HMI He	87	81.34

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	597750	0.69
Sc (IS)	45	1	HMI H2	24111893	0.56
Sc (IS)	45	2	HMI He	272159	2.83
Sc (IS)	45	3	No Gas	76479677	0.63
Ge Internal Standard	72	1	HMI H2	12411690	0.74
Ge Internal Standard	72	2	HMI He	420396	1.06
In Internal Standard	115	2	HMI He	963168	1.34
Ho-165	165	2	HMI He	8055640	2.02

Calibration Blank Report

Sample Table

Sample Name	ic-4907386
Data File Name	007CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:40:48-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	294607	0.00
Li	7	2	HMI He	17505	0.01
Li	7	3	No Gas	17324792	0.00
Be	9	1	HMI H2	19458	0.01
B	11	1	HMI H2	103246	0.00
Na	23	1	HMI H2	23286277	0.00
Na	23	2	HMI He	856151	0.00
Mg	24	2	HMI He	372071	0.00
Al	27	2	HMI He	70322	0.00
K	39	2	HMI He	127935	0.00
Ca	44	2	HMI He	7895	0.05
Ti	47	2	HMI He	3	5196.15
V	51	2	HMI He	48918	0.00
Cr	52	2	HMI He	66390	0.00
Mn	55	2	HMI He	17529	0.02
Fe	57	2	HMI He	116394	0.00
Co	59	2	HMI He	144661	0.00
Ni	60	2	HMI He	43765	0.00
Cu	63	2	HMI He	132456	0.00
Zn	66	2	HMI He	11077	0.02
As	75	2	HMI He	6609	0.02
Se	78	1	HMI H2	28908	0.01
Sr	88	2	HMI He	14183	0.02
Zr	90	2	HMI He	457	2.81
Nb	93	2	HMI He	398165	0.00
Mo	95	2	HMI He	52661	0.01
Pd	105	2	HMI He	97613	0.00
Ag	107	2	HMI He	209370	0.00
Cd	111	2	HMI He	17116	0.00
Sn	120	2	HMI He	38638	0.00
Sb	121	2	HMI He	31814	0.00
Ba	137	2	HMI He	9400	0.06
W	182	2	HMI He	370743	0.00
Pt	195	2	HMI He	391018	0.00
Tl	205	2	HMI He	482871	0.00
Pb	208	2	HMI He	618183	0.00
Th	232	2	HMI He	684531	0.00
U	238	2	HMI He	806297	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	567462	0.55
Sc (IS)	45	1	HMI H2	23370238	1.10
Sc (IS)	45	2	HMI He	269685	0.93
Sc (IS)	45	3	No Gas	76171476	0.08
Ge Internal Standard	72	1	HMI H2	12101137	0.58
Ge Internal Standard	72	2	HMI He	412278	0.67
In Internal Standard	115	2	HMI He	943114	0.79
Ho-165	165	2	HMI He	8012566	1.80

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	icv-4907388
Data File Name	008_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:44:41-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	007CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	592769	0.63	567462	104.46	60	120	
Sc (IS)	45	1	HMI H2	24456100	0.96	23370238	104.65	60	120	
Sc (IS)	45	2	HMI He	275160	0.49	269685	102.03	60	120	
Sc (IS)	45	3	No Gas	76302486	0.76	76171476	100.17	60	120	
Ge Internal Standard	72	1	HMI H2	12566850	1.62	12101137	103.85	60	120	
Ge Internal Standard	72	2	HMI He	419319	0.97	412278	101.71	60	120	
In Internal Standard	115	2	HMI He	962658	1.13	943114	102.07	60	120	
Ho-165	165	2	HMI He	8133670	0.76	8012566	101.51	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4907385
Data File Name	009CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:49:58-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	80966	0.00
Li	7	2	HMI He	4464	0.15
Li	7	3	No Gas	4684057	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	70481	0.00
Na	23	1	HMI H2	219445	0.00
Na	23	2	HMI He	9656	0.03
Mg	24	2	HMI He	1263	0.25
Al	27	2	HMI He	20	866.03
K	39	2	HMI He	3320	0.20
Ca	44	2	HMI He	40	165.36
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	417	7.43
Cr	52	2	HMI He	123	16.54
Mn	55	2	HMI He	93	47.80
Fe	57	2	HMI He	30	111.11
Co	59	2	HMI He	23	424.18
Ni	60	2	HMI He	43	81.35
Cu	63	2	HMI He	1650	0.35
Zn	66	2	HMI He	97	26.93
As	75	2	HMI He	6	981.89
Se	78	1	HMI H2	29	233.98
Sr	88	2	HMI He	23	106.04
Zr	90	2	HMI He	47	95.59
Nb	93	2	HMI He	2877	0.38
Mo	95	2	HMI He	33	51.96
Pd	105	2	HMI He	107	58.52
Ag	107	2	HMI He	43	187.02
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	120	13.89
Sb	121	2	HMI He	47	53.02
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	297	9.25
Pt	195	2	HMI He	243	2.58
Tl	205	2	HMI He	107	35.52
Pb	208	2	HMI He	1107	1.02
Th	232	2	HMI He	1230	0.29
U	238	2	HMI He	83	22.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	608971	0.13
Sc (IS)	45	1	HMI H2	24673136	0.26
Sc (IS)	45	2	HMI He	281864	0.37
Sc (IS)	45	3	No Gas	78056314	0.37
Ge Internal Standard	72	1	HMI H2	12619474	0.65
Ge Internal Standard	72	2	HMI He	434818	1.69
In Internal Standard	115	2	HMI He	1007281	0.58
Ho-165	165	2	HMI He	8283065	0.48

Calibration Standard Report

Sample Table

Sample Name	ic-4907386
Data File Name	010CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:53:49-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	302409	0.00
Li	7	2	HMI He	17475	0.02
Li	7	3	No Gas	17201758	0.00
Be	9	1	HMI H2	19521	0.01
B	11	1	HMI H2	89389	0.00
Na	23	1	HMI H2	23905648	0.00
Na	23	2	HMI He	864942	0.00
Mg	24	2	HMI He	375839	0.00
Al	27	2	HMI He	70610	0.00
K	39	1	HMI H2	29592482	0.00
K	39	2	HMI He	130157	0.00
Ca	40	1	HMI H2	39146643	0.00
Ca	44	2	HMI He	8249	0.02
Ti	47	2	HMI He	3	5196.15
V	51	2	HMI He	49135	0.01
Cr	52	2	HMI He	66580	0.00
Mn	55	2	HMI He	17833	0.02
Fe	57	2	HMI He	121486	0.00
Co	59	2	HMI He	147565	0.00
Ni	60	2	HMI He	44223	0.00
Cu	63	2	HMI He	134077	0.00
Zn	66	2	HMI He	11034	0.03
As	75	2	HMI He	6692	0.03
Se	78	1	HMI H2	29480	0.00
Sr	88	2	HMI He	14777	0.02
Zr	90	2	HMI He	467	1.91
Nb	93	2	HMI He	402178	0.00
Mo	95	2	HMI He	53346	0.00
Pd	105	2	HMI He	100551	0.00
Ag	107	2	HMI He	209464	0.00
Cd	111	2	HMI He	17349	0.02
Sn	120	2	HMI He	40817	0.01
Sb	121	2	HMI He	32265	0.01
Ba	137	2	HMI He	9847	0.02
Nd	146	2	HMI He	45781	0.01
Sm	147	2	HMI He	42251	0.00
Sm	150	2	HMI He	40196	0.01
Gd	156	1	HMI H2	762126	0.00
Gd	157	1	HMI H2	583602	0.00
W	182	2	HMI He	370718	0.00
Pt	195	2	HMI He	392485	0.00
Tl	205	2	HMI He	487405	0.00
Pb	208	2	HMI He	622251	0.00
Th	232	2	HMI He	695505	0.00
U	238	2	HMI He	809682	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	591772	0.36	608971	97.18	60	120	
Sc (IS)	45	1	HMI H2	24597765	0.27	24673136	99.69	60	120	
Sc (IS)	45	2	HMI He	277685	0.60	281864	98.52	60	120	
Sc (IS)	45	3	No Gas	76146807	0.63	78056314	97.55	60	120	
Ge Internal Standard	72	1	HMI H2	12545934	0.81	12619474	99.42	60	120	
Ge Internal Standard	72	2	HMI He	424801	1.73	434818	97.70	60	120	
In Internal Standard	115	2	HMI He	964619	1.87	1007281	95.76	60	120	
Ho-165	165	2	HMI He	8199527	2.44	8283065	98.99	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	icv-4907388
Data File Name	011_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T15:57:37-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	457.656	ppb	2.655	179708	400	114.4	90	110	>+\-10%
Li	7	2	45	462.480	ppb	11.404	10463	400	115.6	90	110	>+\-10%
Li	7	3	45	460.585	ppb	1.369	10530119	400	115.1	90	110	>+\-10%
Be	9	1	6	41.377	ppb	2.165	8085	40	103.4	90	110	
B	11	1	6	3.674	ppb	267.602	69330	40	9.2	90	110	>+\-10%
Na	23	1	45	4098.227	ppb	0.938	9792209	4000	102.5	90	110	>+\-10%
Na	23	2	45	4040.709	ppb	0.674	355702	4000	101.0	90	110	
Mg	24	2	45	4097.639	ppb	0.442	154974	4000	102.4	90	110	
Al	27	2	45	8396.229	ppb	0.961	59381	4000	209.9	90	110	>+\-10%
K	39	1	45	4167.365	ppb	2.735	15319758	4000	104.2	90	110	
K	39	2	45	4026.732	ppb	2.072	54449	4000	100.7	90	110	
Ca	40	1	45	4097.722	ppb	0.310	15872543	4000	102.4	90	110	
Ca	44	2	45	3950.047	ppb	6.491	3287	4000	98.8	90	110	
Ti	47	2	45	99.546	ppb	173.205	3	40	248.9	90	110	>+\-10%
V	51	2	72	41.485	ppb	2.683	20579	40	103.7	90	110	
Cr	52	2	72	39.812	ppb	4.352	26517	40	99.5	90	110	
Mn	55	2	72	42.740	ppb	2.713	7655	40	106.9	90	110	
Fe	57	2	72	8006.348	ppb	1.403	97046	4000	200.2	90	110	>+\-10%
Co	59	2	72	41.165	ppb	1.696	60624	40	102.9	90	110	
Ni	60	2	72	41.327	ppb	3.070	18260	40	103.3	90	110	
Cu	63	2	72	40.946	ppb	1.939	55718	40	102.4	90	110	
Zn	66	2	72	41.781	ppb	2.878	4654	40	104.5	90	110	
As	75	2	72	38.593	ppb	3.823	2580	40	96.5	90	110	
Se	78	1	72	41.013	ppb	2.618	12016	40	102.5	90	110	
Sr	88	2	72	37.940	ppb	6.348	5608	40	94.9	90	110	
Zr	90	2	72	9.021	ppb	39.958	83	40	22.6	90	110	>+\-10%
Nb	93	2	72	76.660	ppb	0.936	155524	80	95.8	90	110	
Mo	95	2	115	39.258	ppb	1.727	21127	40	98.1	90	110	
Pd	105	2	115	38.321	ppb	2.519	38898	40	95.8	90	110	
Ag	107	2	115	38.906	ppb	0.948	82154	40	97.3	90	110	
Cd	111	2	115	41.189	ppb	5.803	7202	40	103.0	90	110	
Sn	120	2	115	39.317	ppb	2.856	16245	40	98.3	90	110	
Sb	121	2	115	42.075	ppb	2.166	13709	40	105.2	90	110	
Ba	137	2	115	38.506	ppb	3.667	3821	40	96.3	90	110	
W	182	2	165	79.898	ppb	0.752	295447	40	199.7	90	110	>+\-10%
Pt	195	2	165	39.043	ppb	0.480	152967	40	97.6	90	110	
Tl	205	2	165	40.639	ppb	0.448	197591	40	101.6	90	110	
Pb	208	2	165	40.970	ppb	0.809	254902	40	102.4	90	110	
Th	232	2	165	40.547	ppb	1.107	281978	40	101.4	90	110	
U	238	2	165	40.503	ppb	0.763	327147	40	101.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	592409	0.31	608971	97.28	60	120	
Sc (IS)	45	1	HMI H2	24265551	0.72	24673136	98.35	60	120	
Sc (IS)	45	2	HMI He	278096	0.72	281864	98.66	60	120	
Sc (IS)	45	3	No Gas	77194109	1.06	78056314	98.90	60	120	
Ge Internal Standard	72	1	HMI H2	12450624	0.56	12619474	98.66	60	120	
Ge Internal Standard	72	2	HMI He	423706	0.15	434818	97.44	60	120	
In Internal Standard	115	2	HMI He	971864	0.92	1007281	96.48	60	120	
Ho-165	165	2	HMI He	8173270	0.81	8283065	98.67	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	icb-4907385
Data File Name	012_ICB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:02:24-07:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	-3.607	ppb	-28.1	4623435	10	
Be	9	1	0.016	ppb	173.2	3	0.5	
B	11	1	-71.531	ppb	-3.4	55557	0.5	
Na	23	1	0.697	ppb	108.6	221729	25	
Na	23	2	11.752	ppb	7.9	10457	25	
Mg	24	2	-1.286	ppb	-142.5	1190	25	
Al	27	2	-0.414	ppb	-390.5	17	15	
K	39	1	19.146	ppb	130.8	5562237	50	
K	39	2	41.243	ppb	89.8	3767	50	
Ca	40	1	0.914	ppb	41.6	86185	50	
Ca	44	2	-23.229	ppb	-107.5	20	25	
Ti	47	2	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	-0.070	ppb	-68.6	370	1	
Cr	52	2	-0.015	ppb	-462.5	110	1	
Mn	55	2	-0.158	ppb	-114.2	63	0.5	
Fe	57	2	3.676	ppb	71.8	73	25	
Co	59	2	-0.016	ppb	0.0	0	0.5	
Ni	60	2	-0.058	ppb	-43.8	17	1	
Cu	63	2	-0.127	ppb	-59.4	1440	1	
Zn	66	2	0.085	ppb	154.2	103	5	
As	75	2	-0.008	ppb	-1142.8	5	1	
Se	78	1	-0.014	ppb	-200.0	25	1	
Sr	88	2	-0.063	ppb	-126.4	13	0.5	
Zr	90	2	-4.514	ppb	-120.6	27	1	
Nb	93	2	0.135	ppb	49.5	3070	2	
Mo	95	2	0.015	ppb	220.6	40	0.5	
Pd	105	2	0.037	ppb	230.1	140	1	
Ag	107	2	-0.010	ppb	-90.4	20	1	
Cd	111	2	0.019	ppb	173.2	3	0.5	
Sn	120	2	0.018	ppb	1032.0	123	1	
Sb	121	2	0.057	ppb	140.6	63	0.6	
Ba	137	2	0.033	ppb	173.2	3	0.5	
W	182	2	0.009	ppb	185.5	323	1	
Pt	195	2	0.036	ppb	56.9	380	1	
Tl	205	2	0.002	ppb	480.6	117	0.1	
Pb	208	2	0.003	ppb	197.6	1107	0.5	
Th	232	2	-0.027	ppb	-116.3	1023	1	
U	238	2	0.005	ppb	187.8	120	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	614004	0.29	608971	100.83	60	120	
Sc (IS)	45	1	HMI H2	24743104	0.34	24673136	100.28	60	120	
Sc (IS)	45	2	HMI He	276065	1.61	281864	97.94	60	120	
Sc (IS)	45	3	No Gas	77822536	0.35	78056314	99.70	60	120	
Ge Internal Standard	72	1	HMI H2	12716056	0.25	12619474	100.77	60	120	
Ge Internal Standard	72	2	HMI He	422852	2.06	434818	97.25	60	120	
In Internal Standard	115	2	HMI He	971630	1.15	1007281	96.46	60	120	
Ho-165	165	2	HMI He	8142835	2.34	8283065	98.31	60	120	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	icvl-4907389
Data File Name	013LICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:06:23-07:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	8.863	ppb	4.818	4793044	50	17.7	70	130	>+/-30%
Be	9	1	6	1.198	ppb	33.186	243	1	119.8	70	130	
Na	23	2	45	52.638	ppb	14.026	14216	50	105.3	70	130	>+/-30%
Mg	24	2	45	52.949	ppb	9.556	3274	50	105.9	70	130	
Al	27	2	45	34.460	ppb	16.722	267	30	114.9	70	130	
K	39	2	45	116.726	ppb	22.473	4821	100	116.7	70	130	
Ca	44	2	45	3.972	ppb	623.046	43	50	7.9	70	130	>+/-30%
V	51	2	72	4.913	ppb	8.391	2837	5	98.3	70	130	
Cr	52	2	72	2.037	ppb	9.072	1493	2	101.8	70	130	
Mn	55	2	72	0.652	ppb	29.243	210	1	65.2	70	130	>+/-30%
Fe	57	2	72	50.136	ppb	10.766	647	50	100.3	70	130	
Co	59	2	72	1.050	ppb	17.083	1593	1	105.0	70	130	
Ni	60	2	72	1.982	ppb	4.205	930	2	99.1	70	130	
Cu	63	2	72	2.320	ppb	5.721	4748	2	116.0	70	130	
Zn	66	2	72	9.427	ppb	20.173	1140	10	94.3	70	130	
As	75	2	72	5.077	ppb	17.291	350	5	101.5	70	130	
Se	78	1	72	4.940	ppb	3.397	1492	5	98.8	70	130	
Sr	88	2	72	0.938	ppb	40.602	163	1	93.8	70	130	
Zr	90	2	72	1.687	ppb	287.420	53	0.5	337.4	70	130	>+/-30%
Nb	93	2	72	0.437	ppb	30.625	3734	2	21.9	70	130	>+/-30%
Mo	95	2	115	1.971	ppb	12.996	1107	2	98.5	70	130	
Pd	105	2	115	-0.004	ppb	-1020.088	100	1	-0.4	70	130	>+/-30%
Ag	107	2	115	4.820	ppb	2.600	10370	5	96.4	70	130	
Cd	111	2	115	0.978	ppb	44.150	173	1	97.8	70	130	
Sn	120	2	115	9.600	ppb	5.325	4114	10	96.0	70	130	
Sb	121	2	115	2.238	ppb	6.342	783	2	111.9	70	130	
Ba	137	2	115	1.027	ppb	25.018	103	1	102.7	70	130	
W	182	2	165	4.790	ppb	1.218	18228	1	479.0	70	130	>+/-30%
Pt	195	2	165	0.065	ppb	22.527	503	1	6.5	70	130	>+/-30%
Tl	205	2	165	1.016	ppb	6.773	5108	1	101.6	70	130	
Pb	208	2	165	0.929	ppb	1.465	6941	1	92.9	70	130	
Th	232	2	165	1.878	ppb	1.492	14407	2	93.9	70	130	
U	238	2	165	1.000	ppb	3.527	8273	1	100.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	615780	0.37	608971	101.12	60	120	
Sc (IS)	45	1	HMI H2	24556542	0.15	24673136	99.53	60	120	
Sc (IS)	45	2	HMI He	281651	0.59	281864	99.92	60	120	
Sc (IS)	45	3	No Gas	77962492	0.52	78056314	99.88	60	120	
Ge Internal Standard	72	1	HMI H2	12613759	0.78	12619474	99.95	60	120	
Ge Internal Standard	72	2	HMI He	430247	0.27	434818	98.95	60	120	
In Internal Standard	115	2	HMI He	986502	0.90	1007281	97.94	60	120	
Ho-165	165	2	HMI He	8282662	1.71	8283065	100.00	60	120	

CRI Report

Sample Table

Sample Name	cri-4907390
Data File Name	014RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:10:12-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	6.020	ppb	63.562	81411	10	60.2	80	120	>+\-20%
Li	7	2	45	27.891	ppb	52.368	4757	10	278.9	80	120	>+\-20%
Li	7	3	45	9.418	ppb	27.720	4754012	10	94.2	80	120	
Be	9	1	6	0.909	ppb	8.732	183	1	90.9	80	120	
B	11	1	6	-100.662	ppb	-1.691	49049	1	-10066.2	80	120	>+\-20%
Na	23	1	45	101.414	ppb	0.868	455424	100	101.4	80	120	
Na	23	2	45	99.913	ppb	2.797	18043	100	99.9	80	120	
Mg	24	2	45	102.107	ppb	1.019	5064	100	102.1	80	120	
Al	27	2	45	110.058	ppb	18.367	797	100	110.1	80	120	
K	39	2	45	120.970	ppb	12.332	4801	100	121.0	80	120	>+\-20%
Ca	40	1	45	100.766	ppb	0.195	472040	100	100.8	80	120	
Ca	44	2	45	40.685	ppb	161.288	73	100	40.7	80	120	>+\-20%
Ti	47	2	45	0.000	ppb	#DIV/0!	0	1	0.0	80	120	>+\-20%
V	51	2	72	0.792	ppb	39.864	797	1	79.2	80	120	>+\-20%
Cr	52	2	72	0.840	ppb	4.145	683	1	84.0	80	120	
Mn	55	2	72	0.770	ppb	61.295	230	1	77.0	80	120	>+\-20%
Fe	57	2	72	99.238	ppb	7.945	1243	100	99.2	80	120	
Co	59	2	72	0.982	ppb	8.831	1483	1	98.2	80	120	
Ni	60	2	72	0.891	ppb	20.365	440	1	89.1	80	120	
Cu	63	2	72	0.670	ppb	23.648	2517	1	67.0	80	120	>+\-20%
Zn	66	2	72	0.801	ppb	33.068	183	1	80.1	80	120	
As	75	2	72	0.808	ppb	22.004	60	1	80.8	80	120	
Se	78	1	72	0.975	ppb	16.677	317	1	97.5	80	120	
Sr	88	2	72	0.676	ppb	58.252	123	1	67.6	80	120	>+\-20%
Zr	90	2	72	-1.392	ppb	-162.070	40	1	-139.2	80	120	>+\-20%
Nb	93	2	72	0.696	ppb	8.364	4234	2	34.8	80	120	>+\-20%
Mo	95	2	115	0.828	ppb	15.614	480	1	82.8	80	120	
Pd	105	2	115	0.827	ppb	10.805	947	1	82.7	80	120	
Ag	107	2	115	1.009	ppb	10.409	2184	1	100.9	80	120	
Cd	111	2	115	1.021	ppb	18.158	180	1	102.1	80	120	
Sn	120	2	115	0.871	ppb	26.485	477	1	87.1	80	120	
Sb	121	2	115	0.911	ppb	38.040	343	1	91.1	80	120	
Ba	137	2	115	1.106	ppb	49.461	110	1	110.6	80	120	
W	182	2	165	0.986	ppb	5.750	3987	1	98.6	80	120	
Pt	195	2	165	1.078	ppb	23.914	4508	1	107.8	80	120	
Tl	205	2	165	1.011	ppb	7.414	5081	1	101.1	80	120	
Pb	208	2	165	0.935	ppb	7.026	6974	1	93.5	80	120	
Th	232	2	165	0.692	ppb	7.861	6081	1	69.2	80	120	>+\-20%
U	238	2	165	0.907	ppb	2.346	7499	1	90.7	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	611608	0.39	608971	100.43	60	120	
Sc (IS)	45	1	HMI H2	24406312	0.50	24673136	98.92	60	120	
Sc (IS)	45	2	HMI He	277372	1.78	281864	98.41	60	120	
Sc (IS)	45	3	No Gas	77209772	0.72	78056314	98.92	60	120	
Ge Internal Standard	72	1	HMI H2	12588502	0.45	12619474	99.75	60	120	
Ge Internal Standard	72	2	HMI He	427822	1.09	434818	98.39	60	120	
In Internal Standard	115	2	HMI He	977959	1.53	1007281	97.09	60	120	
Ho-165	165	2	HMI He	8278561	1.53	8283065	99.95	60	120	

CRI Report

Sample Table

Sample Name	cri-
Data File Name	015RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:16:38-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-8.301	ppb	-77.733	80390	10	-83.0	80	120	>+\-20%
Li	7	2	45	7.919	ppb	74.743	4647	10	79.2	80	120	>+\-20%
Li	7	3	45	-2.439	ppb	-58.309	4649524	10	-24.4	80	120	>+\-20%
Be	9	1	6	0.049	ppb	99.686	10	1	4.9	80	120	>+\-20%
B	11	1	6	-123.408	ppb	-4.935	44765	1	-12340.8	80	120	>+\-20%
Na	23	1	45	3.944	ppb	35.172	232451	100	3.9	80	120	>+\-20%
Na	23	2	45	4.907	ppb	75.547	10253	100	4.9	80	120	>+\-20%
Mg	24	2	45	15.035	ppb	35.076	1867	100	15.0	80	120	>+\-20%
Al	27	2	45	0.415	ppb	760.101	23	100	0.4	80	120	>+\-20%
K	39	2	45	13.830	ppb	189.608	3557	100	13.8	80	120	>+\-20%
Ca	40	1	45	-1.313	ppb	-23.150	78440	100	-1.3	80	120	>+\-20%
Ca	44	2	45	-24.356	ppb	-48.511	20	100	-24.4	80	120	>+\-20%
Ti	47	2	45	0.000	ppb	#DIV/0!	0	1	0.0	80	120	>+\-20%
V	51	2	72	4.115	ppb	9.674	2504	1	411.5	80	120	>+\-20%
Cr	52	2	72	-0.099	ppb	-17.229	57	1	-9.9	80	120	>+\-20%
Mn	55	2	72	1.456	ppb	18.211	363	1	145.6	80	120	>+\-20%
Fe	57	2	72	-0.841	ppb	-248.462	20	100	-0.8	80	120	>+\-20%
Co	59	2	72	-0.007	ppb	-53.845	13	1	-0.7	80	120	>+\-20%
Ni	60	2	72	-0.030	ppb	-71.117	30	1	-3.0	80	120	>+\-20%
Cu	63	2	72	1.687	ppb	8.062	3994	1	168.7	80	120	>+\-20%
Zn	66	2	72	0.222	ppb	125.401	123	1	22.2	80	120	>+\-20%
As	75	2	72	-0.020	ppb	-363.006	5	1	-2.0	80	120	>+\-20%
Se	78	1	72	-0.023	ppb	-221.797	23	1	-2.3	80	120	>+\-20%
Sr	88	2	72	-0.068	ppb	-146.986	13	1	-6.8	80	120	>+\-20%
Zr	90	2	72	4.435	ppb	77.965	67	1	443.5	80	120	>+\-20%
Nb	93	2	72	-1.221	ppb	-3.723	390	2	-61.0	80	120	>+\-20%
Mo	95	2	115	-0.001	ppb	-7434.421	33	1	-0.1	80	120	>+\-20%
Pd	105	2	115	-0.067	ppb	-35.064	37	1	-6.7	80	120	>+\-20%
Ag	107	2	115	-0.011	ppb	-83.507	20	1	-1.1	80	120	>+\-20%
Cd	111	2	115	0.000	ppb	#DIV/0!	0	1	0.0	80	120	>+\-20%
Sn	120	2	115	-0.082	ppb	-31.934	87	1	-8.2	80	120	>+\-20%
Sb	121	2	115	-0.091	ppb	-48.965	17	1	-9.1	80	120	>+\-20%
Ba	137	2	115	0.000	ppb	#DIV/0!	0	1	0.0	80	120	>+\-20%
W	182	2	165	-0.023	ppb	-55.953	217	1	-2.3	80	120	>+\-20%
Pt	195	2	165	0.019	ppb	63.757	327	1	1.9	80	120	>+\-20%
Tl	205	2	165	-0.009	ppb	-48.650	67	1	-0.9	80	120	>+\-20%
Pb	208	2	165	-0.034	ppb	-74.925	923	1	-3.4	80	120	>+\-20%
Th	232	2	165	-0.129	ppb	-1.738	333	1	-12.9	80	120	>+\-20%
U	238	2	165	-0.005	ppb	-78.566	47	1	-0.5	80	120	>+\-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	620382	0.81	608971	101.87	60	120	
Sc (IS)	45	1	HMI H2	25066465	0.99	24673136	101.59	60	120	
Sc (IS)	45	2	HMI He	286629	0.44	281864	101.69	60	120	
Sc (IS)	45	3	No Gas	78005787	0.93	78056314	99.94	60	120	
Ge Internal Standard	72	1	HMI H2	12776460	0.72	12619474	101.24	60	120	
Ge Internal Standard	72	2	HMI He	440894	0.43	434818	101.40	60	120	
In Internal Standard	115	2	HMI He	1028295	1.13	1007281	102.09	60	120	
Ho-165	165	2	HMI He	8534904	0.31	8283065	103.04	60	120	

CRI Report

Sample Table

Sample Name	cri4907391
Data File Name	016_CRI.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:20:32-07:00
Sample Type	AFCRI
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	0.199	ppb	50.763	40	0.2	99.6	80	120	
Na	23	2	45	16.073	ppb	46.677	11054	20	80.4	80	120	
Mg	24	2	45	42.831	ppb	8.638	2894	20	214.2	80	120	AFCRI Main CR1 Failed
Al	27	2	45	15.834	ppb	31.502	133	20	79.2	80	120	AFCRI Main CR1 Failed
K	39	2	45	43.174	ppb	13.027	3877	20	215.9	80	120	AFCRI Main CR1 Failed
Ca	44	2	45	36.459	ppb	176.678	70	20	182.3	80	120	AFCRI Main CR1 Failed
V	51	2	72	0.129	ppb	20.344	477	0.2	64.5	80	120	AFCRI Main CR1 Failed
Cr	52	2	72	0.248	ppb	24.305	290	0.2	124.1	80	120	AFCRI Main CR1 Failed
(Cr)	53	2	72	-0.382	ppb	-39.040	157	0.2	-191.0	80	120	AFCRI Main CR1 Failed
Mn	55	2	72	0.038	ppb	148.551	100	0.2	19.2	80	120	AFCRI Main CR1 Failed
Fe	57	2	72	26.782	ppb	44.937	360	20	133.9	80	120	AFCRI Main CR1 Failed
Co	59	2	72	0.153	ppb	37.107	253	0.2	76.7	80	120	AFCRI Main CR1 Failed
Ni	60	2	72	0.060	ppb	65.271	70	0.2	30.1	80	120	AFCRI Main CR1 Failed
Cu	63	2	72	-0.143	ppb	-95.128	1447	0.2	-71.3	80	120	AFCRI Main CR1 Failed
Zn	66	2	72	-0.114	ppb	-116.843	83	0.2	-57.1	80	120	AFCRI Main CR1 Failed
As	75	2	72	0.126	ppb	35.838	14	0.2	63.0	80	120	AFCRI Main CR1 Failed
Se	78	1	72	0.215	ppb	33.353	92	0.2	107.6	80	120	
(Se)	82	1	72	-16.645	ppb	-13.915	6662	0.2	-8322.4	80	120	AFCRI Main CR1 Failed
Nb	93	2	72	-0.873	ppb	-6.306	1087	0.4	-218.3	80	120	AFCRI Main CR1 Failed
Mo	95	2	115	0.258	ppb	42.331	177	0.2	129.2	80	120	AFCRI Main CR1 Failed
Pd	105	2	115	0.102	ppb	112.618	213	0.2	51.2	80	120	AFCRI Main CR1 Failed
Ag	107	2	115	0.173	ppb	9.788	420	0.2	86.3	80	120	
Cd	111	2	115	0.148	ppb	86.603	27	0.2	73.8	80	120	AFCRI Main CR1 Failed
(Cd)	114	2	115	0.194	ppb	55.996	100	0.2	97.1	80	120	
Sn	120	2	115	0.276	ppb	40.018	237	0.2	138.1	80	120	AFCRI Main CR1 Failed
Sb	121	2	115	0.179	ppb	67.144	107	0.2	89.5	80	120	
Ba	137	2	115	0.390	ppb	25.236	40	0.2	195.1	80	120	AFCRI Main CR1 Failed
W	182	2	165	0.222	ppb	21.605	1127	0.2	110.8	80	120	
Pt	195	2	165	0.227	ppb	7.105	1140	0.2	113.3	80	120	
Tl	205	2	165	0.198	ppb	14.547	1080	0.2	98.8	80	120	
(Pb)	206	2	165	0.136	ppb	18.109	507	0.2	68.0	80	120	AFCRI Main CR1 Failed
(Pb)	207	2	165	0.184	ppb	7.074	510	0.2	92.2	80	120	
Pb	208	2	165	0.150	ppb	13.957	2043	0.2	74.9	80	120	AFCRI Main CR1 Failed
Th	232	2	165	0.015	ppb	110.546	1337	0.2	7.6	80	120	AFCRI Main CR1 Failed
U	238	2	165	0.198	ppb	3.738	1700	0.2	98.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	610376	0.86	608971	100.23	60	120	
Sc (IS)	45	1	HMI H2	24303295	1.15	24673136	98.50	60	120	
Sc (IS)	45	2	HMI He	281897	1.60	281864	100.01	60	120	
Sc (IS)	45	3	No Gas	76770464	0.38	78056314	98.35	60	120	
Ge Internal Standard	72	1	HMI H2	12481402	0.36	12619474	98.91	60	120	
Ge Internal Standard	72	2	HMI He	431610	0.51	434818	99.26	60	120	
In Internal Standard	115	2	HMI He	1004607	0.26	1007281	99.73	60	120	
Ho-165	165	2	HMI He	8274905	1.56	8283065	99.90	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA-4905066
Data File Name	017ICSA.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:24:20-07:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-10.969	ppb	-2.2	4361686	1	
Be	9	1	6	0.035	ppb	173.2	7	1	
B	11	1	6	-129.157	ppb	-2.7	40017	1	
Na	23	1	45	97420.824	ppb	0.2	220746517	100000	
K	39	1	45	99269.265	ppb	0.7	233960497	100000	
Ca	40	1	45	98884.407	ppb	0.6	369255741	100000	
Ti	47	2	45	472150.537	ppb	4.9	15280	1	>RL or LOD
V	51	2	72	-0.397	ppb	-26.7	203	1	
Cr	52	2	72	1.075	ppb	15.8	800	1	>RL or LOD
Mn	55	2	72	0.696	ppb	9.3	207	1	
Co	59	2	72	0.015	ppb	27.2	43	1	
Ni	60	2	72	0.046	ppb	95.2	60	1	
Cu	63	2	72	0.038	ppb	65.7	1597	1	
Zn	66	2	72	1.011	ppb	16.5	197	1	>RL or LOD
As	75	2	72	0.067	ppb	4.8	10	1	
Se	78	1	72	0.075	ppb	119.5	48	1	
Sr	88	2	72	1.072	ppb	17.6	173	1	>RL or LOD
Zr	90	2	72	-5.778	ppb	-116.1	20	1	
Nb	93	2	72	-1.227	ppb	-2.7	350	1	
Mo	95	2	115	1941.363	ppb	3.3	994997	2000	
Pd	105	2	115	-0.067	ppb	-44.8	33	1	
Ag	107	2	115	0.018	ppb	31.4	77	1	
Cd	111	2	115	0.142	ppb	89.8	23	1	
Sn	120	2	115	0.043	ppb	245.9	127	1	
Sb	121	2	115	0.000	ppb	45746.7	43	1	
Ba	137	2	115	0.036	ppb	173.2	3	1	
W	182	2	165	0.159	ppb	41.9	870	1	
Pt	195	2	165	0.037	ppb	49.4	383	1	
Tl	205	2	165	0.000	ppb	-9151.3	103	1	
Pb	208	2	165	0.091	ppb	10.4	1643	1	
Th	232	2	165	-0.088	ppb	-17.2	600	1	
U	238	2	165	0.005	ppb	147.2	120	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	570657	1.43	608971	93.71	60	120	
Sc (IS)	45	1	HMI H2	23507933	0.58	24673136	95.28	60	120	
Sc (IS)	45	2	HMI He	270530	1.76	281864	95.98	60	120	
Sc (IS)	45	3	No Gas	74957344	0.49	78056314	96.03	60	120	
Ge Internal Standard	72	1	HMI H2	11807245	0.90	12619474	93.56	60	120	
Ge Internal Standard	72	2	HMI He	407673	2.12	434818	93.76	60	120	
In Internal Standard	115	2	HMI He	927539	2.76	1007281	92.08	60	120	
Ho-165	165	2	HMI He	8112907	1.36	8283065	97.95	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB-4905067
Data File Name	018ICSB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:28:08-07:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	920.302	ppb	1.226	270404	100	920.3	80	120	
Li	7	2	45	922.361	ppb	5.098	15717	100	922.4	80	120	
Li	7	3	45	920.618	ppb	0.135	15873132	100	920.6	80	120	
Be	9	1	6	103.677	ppb	1.020	18774	100	103.7	80	120	
B	11	1	6	-54.084	ppb	-9.940	53047	100	-54.1	80	120	>+\-20%
Na	23	1	45	102817.096	ppb	1.026	231482143	100	102817.1	80	120	>+\-20%
K	39	1	45	106122.338	ppb	0.635	248173203	100	106122.3	80	120	>+\-20%
Ca	40	1	45	104473.453	ppb	1.304	387645221	100	104473.5	80	120	>+\-20%
V	51	2	72	97.249	ppb	1.535	45215	100	97.2	80	120	
Cr	52	2	72	96.367	ppb	0.337	60680	100	96.4	80	120	
Mn	55	2	72	96.159	ppb	1.534	16218	100	96.2	80	120	
Co	59	2	72	97.019	ppb	2.084	135401	100	97.0	80	120	
Ni	60	2	72	94.881	ppb	0.327	39688	100	94.9	80	120	
Cu	63	2	72	94.438	ppb	2.544	119842	100	94.4	80	120	
Zn	66	2	72	93.723	ppb	6.756	9786	100	93.7	80	120	
As	75	2	72	97.732	ppb	2.678	6186	100	97.7	80	120	
Se	78	1	72	98.872	ppb	1.560	27309	100	98.9	80	120	
Sr	88	2	72	99.736	ppb	3.152	13939	100	99.7	80	120	
Zr	90	2	72	6.728	ppb	96.738	70	100	6.7	80	120	>+\-20%
Nb	93	2	72	152.424	ppb	2.152	290515	100	152.4	80	120	>+\-20%
Mo	95	2	115	2028.020	ppb	0.281	1018262	100	2028.0	80	120	
Pd	105	2	115	91.254	ppb	1.469	86424	100	91.3	80	120	
Ag	107	2	115	95.363	ppb	0.960	188122	100	95.4	80	120	
Cd	111	2	115	99.360	ppb	6.226	16238	100	99.4	80	120	
Sn	120	2	115	94.284	ppb	1.948	36249	100	94.3	80	120	
Sb	121	2	115	105.201	ppb	1.493	31964	100	105.2	80	120	
Ba	137	2	115	93.346	ppb	4.454	8653	100	93.3	80	120	
W	182	2	165	94.919	ppb	1.670	344051	100	94.9	80	120	
Pt	195	2	165	91.787	ppb	2.232	352216	100	91.8	80	120	
Tl	205	2	165	94.144	ppb	2.443	448584	100	94.1	80	120	
Pb	208	2	165	92.795	ppb	1.721	564698	100	92.8	80	120	
Th	232	2	165	95.856	ppb	1.513	651957	100	95.9	80	120	
U	238	2	165	95.729	ppb	1.307	757975	100	95.7	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	548991	1.34	608971	90.15	60	120	
Sc (IS)	45	1	HMI H2	23359233	0.37	24673136	94.67	60	120	
Sc (IS)	45	2	HMI He	265122	0.72	281864	94.06	60	120	
Sc (IS)	45	3	No Gas	74614537	0.36	78056314	95.59	60	120	
Ge Internal Standard	72	1	HMI H2	11754790	0.60	12619474	93.15	60	120	
Ge Internal Standard	72	2	HMI He	401645	0.91	434818	92.37	60	120	
In Internal Standard	115	2	HMI He	908128	0.43	1007281	90.16	60	120	
Ho-165	165	2	HMI He	8013809	1.29	8283065	96.75	60	120	

Sample Table

Sample Name	rinse
Data File Name	019SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:31:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	0.851	ppb	0.851	873.77	79808	500000	
Li	7	2	45	10.279	ppb	10.279	117.79	4621	500000	
Li	7	3	45	-5.868	ppb	-5.868	-62.66	4689366	50000	
Be	9	1	6	0.033	ppb	0.033	173.21	7	2000	
B	11	1	6	-162.903	ppb	-162.903	-4.58	35438	2000	
Na	23	1	45	35.921	ppb	35.921	11.83	299717	2000	
Na	23	2	45	26.952	ppb	26.952	31.02	12044	400000	
Mg	24	2	45	3.426	ppb	3.426	91.77	1400	400000	
Al	27	2	45	11.120	ppb	11.120	13.41	100	400000	
K	39	1	45	78.925	ppb	78.925	32.04	5596838	400000	
K	39	2	45	64.959	ppb	64.959	36.77	4177	400000	
Ca	40	1	45	21.351	ppb	21.351	13.52	163239	400000	
Ca	44	2	45	-23.835	ppb	-23.835	-101.62	20	400000	
Ti	47	2	45	293.204	ppb	293.204	99.00	10	4000	
V	51	2	72	-0.159	ppb	-0.159	-49.39	333	2000	
Cr	52	2	72	0.002	ppb	0.002	2091.32	123	5000	
Mn	55	2	72	-0.202	ppb	-0.202	-56.81	57	10000	
Fe	57	2	72	17.337	ppb	17.337	25.75	243	400000	
Co	59	2	72	0.002	ppb	0.002	886.13	27	2000	
Ni	60	2	72	0.068	ppb	0.068	164.93	73	5000	
Cu	63	2	72	0.632	ppb	0.632	37.39	2484	5000	
Zn	66	2	72	0.309	ppb	0.309	145.72	130	5000	
As	75	2	72	0.069	ppb	0.069	170.02	10	2000	
Se	78	1	72	0.005	ppb	0.005	547.69	31	2000	
Sr	88	2	72	0.001	ppb	0.001	12684.40	23	4000	
Zr	90	2	72	-8.468	ppb	-8.468	-47.68	10	1000	
Nb	93	2	72	0.175	ppb	0.175	90.17	3207	200	
Mo	95	2	115	0.541	ppb	0.541	2.81	330	2000	
Pd	105	2	115	-0.018	ppb	-0.018	-110.32	87	100	
Ag	107	2	115	-0.011	ppb	-0.011	-87.59	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.092	ppb	0.092	110.26	157	2000	
Sb	121	2	115	-0.089	ppb	-0.089	-70.08	17	1000	
Ba	137	2	115	0.098	ppb	0.098	100.27	10	5000	
W	182	2	165	0.006	ppb	0.006	430.84	317	100	
Pt	195	2	165	0.019	ppb	0.019	56.59	317	100	
Tl	205	2	165	-0.001	ppb	-0.001	-154.47	100	2000	
Pb	208	2	165	0.000	ppb	0.000	-47119.97	1103	5000	
Th	232	2	165	0.012	ppb	0.012	362.13	1313	2000	
U	238	2	165	0.005	ppb	0.005	114.67	123	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	608724	0.47	608971	99.96	60	120	
Sc (IS)	45	1	HMI H2	24265637	0.92	24673136	98.35	60	120	
Sc (IS)	45	2	HMI He	283143	1.54	281864	100.45	60	120	
Sc (IS)	45	3	No Gas	79437989	1.43	78056314	101.77	60	120	
Ge Internal Standard	72	1	HMI H2	12571498	0.72	12619474	99.62	60	120	
Ge Internal Standard	72	2	HMI He	430682	0.59	434818	99.05	60	120	
In Internal Standard	115	2	HMI He	994136	0.54	1007281	98.69	60	120	
Ho-165	165	2	HMI He	8263333	0.09	8283065	99.76	60	120	

Linear Range Sample (LRS) Report

Sample Table

Sample Name	LRA-4861752
Data File Name	020_LR.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:35:44-07:00
Sample Type	LR
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	2068.693	ppb	0.883	404151	2000	103.4	90	110	
V	51	2	72	2009.242	ppb	1.046	952000	2000	100.5	90	110	
Cr	52	2	72	5027.924	ppb	2.622	3246714	5000	100.6	90	110	
(Cr)	53	2	72	5156.982	ppb	0.955	404355	5000	103.1	90	110	
Mn	55	2	72	10823.638	ppb	1.961	1865615	10000	108.2	90	110	
Co	59	2	72	2118.529	ppb	0.045	3037418	2000	105.9	90	110	
Ni	60	2	72	5248.926	ppb	1.061	2253528	5000	105.0	90	110	
Cu	63	2	72	5005.448	ppb	1.083	6443464	5000	100.1	90	110	
Zn	66	2	72	5050.080	ppb	0.947	536863	5000	101.0	90	110	
As	75	2	72	1896.097	ppb	1.398	123183	2000	94.8	90	110	
Se	78	1	72	2037.216	ppb	0.599	583103	2000	101.9	90	110	
(Se)	82	1	72	1924.140	ppb	0.290	269679	2000	96.2	90	110	
Mo	95	2	115	1988.604	ppb	2.107	1040111	2000	99.4	90	110	
Cd	111	2	115	2057.675	ppb	1.519	350284	2000	102.9	90	110	
(Cd)	114	2	115	2041.876	ppb	1.813	925256	2000	102.1	90	110	
Sn	120	2	115	1919.658	ppb	1.188	766786	2000	96.0	90	110	
Sb	121	2	115	1029.967	ppb	1.479	325651	1000	103.0	90	110	
Ba	137	2	115	4728.060	ppb	1.741	456602	5000	94.6	90	110	
Tl	205	2	165	1066.984	ppb	2.103	5037098	2000	53.3	90	110	LRS Main CR1 Failed
(Pb)	206	2	165	5233.257	ppb	0.979	7540395	5000	104.7	90	110	
(Pb)	207	2	165	5200.735	ppb	0.401	6869835	5000	104.0	90	110	
Pb	208	2	165	5166.935	ppb	0.541	31097910	5000	103.3	90	110	
Th	232	2	165	1036.512	ppb	1.373	6973702	2000	51.8	90	110	LRS Main CR1 Failed
U	238	2	165	2107.241	ppb	1.569	16531005	2000	105.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	592266	0.39	608971	97.26	60	120	
Sc (IS)	45	1	HMI H2	23585459	0.63	24673136	95.59	60	120	
Sc (IS)	45	2	HMI He	264034	1.53	281864	93.67	60	120	
Sc (IS)	45	3	No Gas	73434309	1.12	78056314	94.08	60	120	
Ge Internal Standard	72	1	HMI H2	12192217	0.66	12619474	96.61	60	120	
Ge Internal Standard	72	2	HMI He	412658	0.31	434818	94.90	60	120	
In Internal Standard	115	2	HMI He	946278	2.19	1007281	93.94	60	120	
Ho-165	165	2	HMI He	7940232	0.27	8283065	95.86	60	120	

Sample Table

Sample Name	rinse
Data File Name	021SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:39:30-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.946	ppb	-5.946	-64.46	75932	500000	
Li	7	2	45	12.786	ppb	12.786	72.32	4394	500000	
Li	7	3	45	-5.325	ppb	-5.325	-52.42	4411771	50000	
Be	9	1	6	1.387	ppb	1.387	16.01	273	2000	
B	11	1	6	-176.987	ppb	-176.987	-3.13	31802	2000	
Na	23	1	45	1.687	ppb	1.687	66.71	213038	2000	
Na	23	2	45	3.487	ppb	3.487	124.36	9439	400000	
Mg	24	2	45	-8.084	ppb	-8.084	-22.97	907	400000	
Al	27	2	45	0.647	ppb	0.647	345.38	23	400000	
K	39	1	45	26.904	ppb	26.904	48.98	5306029	400000	
K	39	2	45	35.340	ppb	35.340	71.83	3577	400000	
Ca	40	1	45	4.245	ppb	4.245	14.59	94365	400000	
Ca	44	2	45	-5.675	ppb	-5.675	-348.18	33	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.272	ppb	-0.272	-18.84	263	2000	
Cr	52	2	72	0.554	ppb	0.554	21.86	470	5000	
Mn	55	2	72	0.581	ppb	0.581	78.45	187	10000	
Fe	57	2	72	1.008	ppb	1.008	90.06	40	400000	
Co	59	2	72	0.234	ppb	0.234	43.52	353	2000	
Ni	60	2	72	0.672	ppb	0.672	3.72	327	5000	
Cu	63	2	72	0.695	ppb	0.695	44.27	2437	5000	
Zn	66	2	72	0.216	ppb	0.216	141.77	113	5000	
As	75	2	72	0.260	ppb	0.260	61.78	22	2000	
Se	78	1	72	0.277	ppb	0.277	36.60	108	2000	
Sr	88	2	72	-0.061	ppb	-0.061	-172.11	13	4000	
Zr	90	2	72	-2.582	ppb	-2.582	-55.90	33	1000	
Nb	93	2	72	-1.135	ppb	-1.135	-4.55	527	200	
Mo	95	2	115	0.531	ppb	0.531	22.20	307	2000	
Pd	105	2	115	-0.064	ppb	-0.064	-8.83	37	100	
Ag	107	2	115	-0.015	ppb	-0.015	-33.03	10	100	
Cd	111	2	115	0.217	ppb	0.217	32.35	37	2000	
Sn	120	2	115	1.751	ppb	1.751	8.87	807	2000	
Sb	121	2	115	2.345	ppb	2.345	5.34	780	1000	
Ba	137	2	115	0.348	ppb	0.348	18.16	33	5000	
W	182	2	165	-0.020	ppb	-0.020	-80.61	210	100	
Pt	195	2	165	0.042	ppb	0.042	101.17	390	100	
Tl	205	2	165	0.117	ppb	0.117	13.59	650	2000	
Pb	208	2	165	0.549	ppb	0.549	24.47	4324	5000	
Th	232	2	165	0.874	ppb	0.874	13.21	6992	2000	
U	238	2	165	0.225	ppb	0.225	21.58	1830	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	597246	0.58	608971	98.07	60	120	
Sc (IS)	45	1	HMI H2	23524070	0.93	24673136	95.34	60	120	
Sc (IS)	45	2	HMI He	267204	0.92	281864	94.80	60	120	
Sc (IS)	45	3	No Gas	74618841	0.44	78056314	95.60	60	120	
Ge Internal Standard	72	1	HMI H2	12234199	0.51	12619474	96.95	60	120	
Ge Internal Standard	72	2	HMI He	409029	1.57	434818	94.07	60	120	
In Internal Standard	115	2	HMI He	940245	1.31	1007281	93.34	60	120	
Ho-165	165	2	HMI He	7871714	1.05	8283065	95.03	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	022_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:43:19-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	526.836	ppb	1.348	188236	500	105.4	90	110	
Li	7	2	45	525.360	ppb	8.514	10870	500	105.1	90	110	
Li	7	3	45	506.097	ppb	1.577	10916983	500	101.2	90	110	
Be	9	1	6	53.983	ppb	4.340	10370	50	108.0	90	110	
B	11	1	6	-129.635	ppb	-1.382	40749	50	-259.3	90	110	>+\-10%
Na	23	1	45	5197.545	ppb	0.730	11941421	5000	104.0	90	110	
Na	23	2	45	5194.974	ppb	0.510	438004	5000	103.9	90	110	
Mg	24	2	45	5185.627	ppb	0.481	188648	5000	103.7	90	110	
Al	27	2	45	5183.358	ppb	2.166	35325	5000	103.7	90	110	
K	39	1	45	5342.557	ppb	0.278	17501095	5000	106.9	90	110	
K	39	2	45	5121.413	ppb	2.193	65850	5000	102.4	90	110	
Ca	40	1	45	5216.299	ppb	0.558	19498117	5000	104.3	90	110	
Ca	44	2	45	5091.693	ppb	3.797	4071	5000	101.8	90	110	
Ti	47	2	45	209.601	ppb	86.603	7	50	419.2	90	110	>+\-10%
V	51	2	72	50.858	ppb	2.972	24511	50	101.7	90	110	
Cr	52	2	72	52.407	ppb	0.594	33993	50	104.8	90	110	
Mn	55	2	72	53.430	ppb	3.963	9309	50	106.9	90	110	
Fe	57	2	72	5012.571	ppb	2.170	59242	5000	100.3	90	110	
Co	59	2	72	50.915	ppb	2.373	73090	50	101.8	90	110	
Ni	60	2	72	52.834	ppb	3.817	22745	50	105.7	90	110	
Cu	63	2	72	50.821	ppb	1.517	67040	50	101.6	90	110	
Zn	66	2	72	54.039	ppb	4.483	5841	50	108.1	90	110	
As	75	2	72	52.003	ppb	1.988	3387	50	104.0	90	110	
Se	78	1	72	52.198	ppb	3.162	14864	50	104.4	90	110	
Sr	88	2	72	49.032	ppb	5.975	7058	50	98.1	90	110	
Zr	90	2	72	47.761	ppb	0.793	240	50	95.5	90	110	
Nb	93	2	72	98.044	ppb	1.849	193162	100	98.0	90	110	
Mo	95	2	115	49.546	ppb	4.290	25757	50	99.1	90	110	
Pd	105	2	115	52.467	ppb	1.056	51438	50	104.9	90	110	
Ag	107	2	115	50.971	ppb	0.806	104028	50	101.9	90	110	
Cd	111	2	115	51.652	ppb	5.190	8729	50	103.3	90	110	
Sn	120	2	115	49.238	ppb	2.244	19635	50	98.5	90	110	
Sb	121	2	115	51.895	ppb	2.378	16335	50	103.8	90	110	
Ba	137	2	115	49.008	ppb	7.154	4701	50	98.0	90	110	
W	182	2	165	50.067	ppb	2.160	180532	50	100.1	90	110	
Pt	195	2	165	50.511	ppb	2.350	192784	50	101.0	90	110	
Tl	205	2	165	51.309	ppb	1.949	243086	50	102.6	90	110	
Pb	208	2	165	51.006	ppb	2.198	308997	50	102.0	90	110	
Th	232	2	165	50.631	ppb	2.479	342827	50	101.3	90	110	
U	238	2	165	51.087	ppb	0.913	402166	50	102.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	582415	0.40	608971	95.64	60	120	
Sc (IS)	45	1	HMI H2	23441973	0.12	24673136	95.01	60	120	
Sc (IS)	45	2	HMI He	267958	1.45	281864	95.07	60	120	
Sc (IS)	45	3	No Gas	75833201	0.87	78056314	97.15	60	120	
Ge Internal Standard	72	1	HMI H2	12109707	1.07	12619474	95.96	60	120	
Ge Internal Standard	72	2	HMI He	413095	0.65	434818	95.00	60	120	
In Internal Standard	115	2	HMI He	939374	0.92	1007281	93.26	60	120	
Ho-165	165	2	HMI He	7966970	1.86	8283065	96.18	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	023_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:47:06-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-5.644	ppb	-74.6	4553711	10	
Be	9	1	6	0.285	ppb	37.4	57	0.5	
B	11	1	6	-190.998	ppb	-0.2	29167	0.5	
Na	23	1	45	-8.875	ppb	-6.3	193546	25	
Na	23	2	45	-5.470	ppb	-27.7	8796	25	
Mg	24	2	45	-0.167	ppb	-1975.0	1203	25	
Al	27	2	45	-1.315	ppb	-112.7	10	15	
K	39	1	45	-52.883	ppb	-18.5	5242010	50	
K	39	2	45	36.675	ppb	35.9	3634	50	
Ca	40	1	45	-1.885	ppb	-11.6	73148	50	
Ca	44	2	45	-39.619	ppb	-36.5	7	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.126	ppb	-132.3	337	1	
Cr	52	2	72	0.065	ppb	49.9	160	1	
Mn	55	2	72	-0.095	ppb	-171.9	73	0.5	
Fe	57	2	72	2.364	ppb	84.0	57	25	
Co	59	2	72	0.021	ppb	51.2	53	0.5	
Ni	60	2	72	0.066	ppb	58.6	70	1	
Cu	63	2	72	-0.088	ppb	-107.4	1463	1	
Zn	66	2	72	-0.114	ppb	-148.2	80	5	
As	75	2	72	0.015	ppb	652.4	7	1	
Se	78	1	72	0.029	ppb	191.4	37	1	
Sr	88	2	72	-0.131	ppb	-30.0	3	0.5	
Zr	90	2	72	-1.152	ppb	-621.1	40	1	
Nb	93	2	72	-0.054	ppb	-205.5	2644	2	
Mo	95	2	115	0.053	ppb	104.7	60	0.5	
Pd	105	2	115	-0.038	ppb	-85.9	63	1	
Ag	107	2	115	-0.002	ppb	-325.6	37	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.213	ppb	29.6	200	1	
Sb	121	2	115	0.466	ppb	7.5	193	0.6	
Ba	137	2	115	0.034	ppb	173.2	3	0.5	
W	182	2	165	0.001	ppb	1467.7	287	1	
Pt	195	2	165	0.011	ppb	76.3	273	1	
Tl	205	2	165	0.041	ppb	48.0	293	0.1	
Pb	208	2	165	0.116	ppb	44.3	1757	0.5	
Th	232	2	165	0.006	ppb	688.2	1213	1	
U	238	2	165	0.024	ppb	24.3	270	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	603846	0.91	608971	99.16	60	120	
Sc (IS)	45	1	HMI H2	24074115	0.19	24673136	97.57	60	120	
Sc (IS)	45	2	HMI He	270055	1.67	281864	95.81	60	120	
Sc (IS)	45	3	No Gas	77094157	1.43	78056314	98.77	60	120	
Ge Internal Standard	72	1	HMI H2	12422831	1.13	12619474	98.44	60	120	
Ge Internal Standard	72	2	HMI He	415348	1.26	434818	95.52	60	120	
In Internal Standard	115	2	HMI He	956356	0.69	1007281	94.94	60	120	
Ho-165	165	2	HMI He	7924719	0.53	8283065	95.67	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	024LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:50:57-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	3.942	ppb	116.973	4661373	50	7.9	70	130	>+/-30%
Be	9	1	6	1.146	ppb	15.421	230	1	114.6	70	130	
Na	23	2	45	51.271	ppb	6.846	13712	50	102.5	70	130	
Mg	24	2	45	49.368	ppb	14.064	3054	50	98.7	70	130	
Al	27	2	45	28.799	ppb	7.844	220	30	96.0	70	130	
K	39	2	45	124.782	ppb	22.912	4791	100	124.8	70	130	
Ca	44	2	45	22.114	ppb	118.946	57	50	44.2	70	130	>+/-30%
V	51	2	72	4.537	ppb	9.610	2597	5	90.7	70	130	
Cr	52	2	72	2.058	ppb	12.275	1477	2	102.9	70	130	
Mn	55	2	72	0.809	ppb	63.885	233	1	80.9	70	130	
Fe	57	2	72	50.939	ppb	24.973	643	50	101.9	70	130	
Co	59	2	72	1.175	ppb	5.220	1743	1	117.5	70	130	
Ni	60	2	72	1.790	ppb	11.159	827	2	89.5	70	130	
Cu	63	2	72	2.366	ppb	5.311	4711	2	118.3	70	130	
Zn	66	2	72	10.893	ppb	16.528	1277	10	108.9	70	130	
As	75	2	72	4.505	ppb	11.000	305	5	90.1	70	130	
Se	78	1	72	4.952	ppb	7.051	1468	5	99.0	70	130	
Sr	88	2	72	0.710	ppb	19.587	127	1	71.0	70	130	
Zr	90	2	72	-2.013	ppb	-300.805	37	0.5	-402.5	70	130	>+/-30%
Nb	93	2	72	-0.056	ppb	-249.565	2680	2	-2.8	70	130	>+/-30%
Mo	95	2	115	1.717	ppb	5.419	943	2	85.8	70	130	
Pd	105	2	115	-0.002	ppb	-3950.466	100	1	-0.2	70	130	>+/-30%
Ag	107	2	115	5.029	ppb	1.586	10530	5	100.6	70	130	
Cd	111	2	115	0.906	ppb	15.543	157	1	90.6	70	130	
Sn	120	2	115	8.972	ppb	11.822	3754	10	89.7	70	130	
Sb	121	2	115	2.626	ppb	14.675	887	2	131.3	70	130	>+/-30%
Ba	137	2	115	1.156	ppb	22.334	113	1	115.6	70	130	
W	182	2	165	4.785	ppb	3.298	17684	1	478.5	70	130	>+/-30%
Pt	195	2	165	0.061	ppb	27.177	473	1	6.1	70	130	>+/-30%
Tl	205	2	165	1.010	ppb	3.841	4931	1	101.0	70	130	
Pb	208	2	165	1.054	ppb	1.900	7498	1	105.4	70	130	
Th	232	2	165	1.928	ppb	4.573	14334	2	96.4	70	130	
U	238	2	165	0.989	ppb	5.549	7932	1	98.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	608416	0.33	608971	99.91	60	120	
Sc (IS)	45	1	HMI H2	24026776	0.18	24673136	97.38	60	120	
Sc (IS)	45	2	HMI He	273951	0.76	281864	97.19	60	120	
Sc (IS)	45	3	No Gas	76850607	1.56	78056314	98.46	60	120	
Ge Internal Standard	72	1	HMI H2	12384029	0.56	12619474	98.13	60	120	
Ge Internal Standard	72	2	HMI He	421455	0.44	434818	96.93	60	120	
In Internal Standard	115	2	HMI He	960428	0.85	1007281	95.35	60	120	
Ho-165	165	2	HMI He	8041453	1.37	8283065	97.08	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399323/1-A
Data File Name	025_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:54:46-07:00
Sample Type	Blank
Dilution	1
Comment	399323 200.8 FILTERED
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-2.045	ppb	-152.1585534	79212	0.5
Li	7	2	45	13.259	ppb	202.4726392	4507	0.5
Li	7	3	45	-1.779	ppb	-197.3756646	4626322	10
Be	9	1	6	0.215	ppb	13.34115107	43	0.5
B	11	1	6	-153.762	ppb	-0.806802624	37472	0.5
Na	23	1	45	1385.339	ppb	1.077980692	3454310	25
Na	23	2	45	1350.263	ppb	0.621096073	123307	25
Mg	24	2	45	19.443	ppb	31.71482743	1947	25
Al	27	2	45	35.993	ppb	3.069287892	270	15
K	39	1	45	640.009	ppb	1.626134249	6934349	50
K	39	2	45	368.460	ppb	8.467708581	7835	50
Ca	40	1	45	94.263	ppb	0.872813461	444435	50
Ca	44	2	45	58.883	ppb	98.344385	87	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	-0.108	ppb	-89.41013504	350	1
Cr	52	2	72	0.279	ppb	63.13942743	303	1
Mn	55	2	72	-0.044	ppb	-570.0910002	83	0.5
Fe	57	2	72	14.183	ppb	30.20465481	200	25
Co	59	2	72	0.021	ppb	83.68314271	53	0.5
Ni	60	2	72	0.049	ppb	52.71807075	63	1
Cu	63	2	72	0.649	ppb	15.85524419	2450	1
Zn	66	2	72	143.151	ppb	7.594983772	15607	5
As	75	2	72	0.072	ppb	63.44664302	10	1
Se	78	1	72	-0.017	ppb	-157.7967693	24	1
Sr	88	2	72	1.804	ppb	23.47841714	287	0.5
Zr	90	2	72	82.687	ppb	8.687301802	390	1
Nb	93	2	72	-1.262	ppb	-1.417802171	290	2
Mo	95	2	115	0.308	ppb	40.13554962	197	0.5
Pd	105	2	115	-0.042	ppb	-95.07149618	60	1
Ag	107	2	115	-0.009	ppb	-31.14636478	23	1
Cd	111	2	115	0.057	ppb	173.2050808	10	0.5
Sn	120	2	115	0.241	ppb	32.00551376	213	1
Sb	121	2	115	0.202	ppb	46.66364849	110	0.6
Ba	137	2	115	315.908	ppb	0.958702268	31140	0.5
W	182	2	165	-0.009	ppb	-25.57022749	257	1
Pt	195	2	165	0.046	ppb	36.96800182	417	1
Tl	205	2	165	0.018	ppb	70.08578194	190	0.1
Pb	208	2	165	0.146	ppb	13.24786412	1977	0.5
Th	232	2	165	-0.089	ppb	-24.95127813	593	1
U	238	2	165	0.011	ppb	52.84926347	173	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	609802	0.22	608971	100.14	60	120	
Sc (IS)	45	1	HMI H2	24275094	0.07	24673136	98.39	60	120	
Sc (IS)	45	2	HMI He	273885	0.92	281864	97.17	60	120	
Sc (IS)	45	3	No Gas	77479836	0.96	78056314	99.26	60	120	
Ge Internal Standard	72	1	HMI H2	12531424	0.13	12619474	99.30	60	120	
Ge Internal Standard	72	2	HMI He	420695	1.22	434818	96.75	60	120	
In Internal Standard	115	2	HMI He	965605	0.43	1007281	95.86	60	120	
Ho-165	165	2	HMI He	8087675	2.01	8283065	97.64	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399323/2-A
Data File Name	026_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T16:58:34-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399323 200.8 FILTERED
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	28.418	28.418	ppb	29.903	86682	400	7.1	80	120	>+/-20%
Li	7	2	45	49.390	49.390	ppb	7.905	5008	400	12.3	80	120	>+/-20%
Li	7	3	45	25.483	25.483	ppb	11.403	4985674	400	6.4	80	120	>+/-20%
Be	9	1	6	30.436	30.436	ppb	2.098	6198	40	76.1	80	120	>+/-20%
Na	23	2	45	1286.642	1286.642	ppb	2.316	118684	40	3216.6	80	120	>+/-20%
Mg	24	2	45	24.092	24.092	ppb	20.216	2130	40	60.2	80	120	>+/-20%
Al	27	2	45	334.837	334.837	ppb	8.101	2367	40	837.1	80	120	>+/-20%
K	39	2	45	365.728	365.728	ppb	4.933	7852	40	914.3	80	120	>+/-20%
Ca	44	2	45	209.695	209.695	ppb	25.458	210	40	524.2	80	120	>+/-20%
V	51	2	72	30.440	30.440	ppb	1.344	15124	40	76.1	80	120	>+/-20%
Cr	52	2	72	30.181	30.181	ppb	2.104	20022	40	75.5	80	120	>+/-20%
Mn	55	2	72	30.519	30.519	ppb	5.446	5461	40	76.3	80	120	>+/-20%
Fe	57	2	72	318.715	318.715	ppb	4.235	3871	40	796.8	80	120	>+/-20%
Co	59	2	72	30.179	30.179	ppb	2.069	44202	40	75.4	80	120	>+/-20%
Ni	60	2	72	30.736	30.736	ppb	1.048	13516	40	76.8	80	120	>+/-20%
Cu	63	2	72	30.463	30.463	ppb	4.325	41623	40	76.2	80	120	>+/-20%
Zn	66	2	72	170.332	170.332	ppb	2.137	18584	40	425.8	80	120	>+/-20%
As	75	2	72	28.532	28.532	ppb	3.619	1898	40	71.3	80	120	>+/-20%
Se	78	1	72	30.963	30.963	ppb	3.514	9149	40	77.4	80	120	>+/-20%
Nb	93	2	72	-1.249	-1.249	ppb	-2.613	317	40	-3.1	80	120	>+/-20%
Mo	95	2	115	30.617	30.617	ppb	3.387	16302	40	76.5	80	120	>+/-20%
Pd	105	2	115	-0.018	-0.018	ppb	-172.701	83	40	0.0	80	120	>+/-20%
Ag	107	2	115	30.566	30.566	ppb	1.967	63823	40	76.4	80	120	>+/-20%
Cd	111	2	115	29.579	29.579	ppb	10.029	5111	40	73.9	80	120	>+/-20%
Sn	120	2	115	28.776	28.776	ppb	2.327	11788	40	71.9	80	120	>+/-20%
Sb	121	2	115	30.623	30.623	ppb	2.880	9880	40	76.6	80	120	>+/-20%
Ba	137	2	115	331.004	331.004	ppb	1.853	32469	40	827.5	80	120	>+/-20%
W	182	2	165	26.492	26.492	ppb	1.213	96708	40	66.2	80	120	>+/-20%
Pt	195	2	165	0.061	0.061	ppb	36.591	470	40	0.2	80	120	>+/-20%
Tl	205	2	165	30.487	30.487	ppb	2.120	146064	40	76.2	80	120	>+/-20%
Pb	208	2	165	30.727	30.727	ppb	1.595	188614	40	76.8	80	120	>+/-20%
Th	232	2	165	29.182	29.182	ppb	2.324	200272	40	73.0	80	120	>+/-20%
U	238	2	165	30.142	30.142	ppb	1.858	239885	40	75.4	80	120	>+/-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	617402	0.78	608971	101.38	60	120	
Sc (IS)	45	1	HMI H2	24505168	0.71	24673136	99.32	60	120	
Sc (IS)	45	2	HMI He	275650	1.13	281864	97.80	60	120	
Sc (IS)	45	3	No Gas	77615151	0.26	78056314	99.43	60	120	
Ge Internal Standard	72	1	HMI H2	12547654	0.75	12619474	99.43	60	120	
Ge Internal Standard	72	2	HMI He	421374	1.07	434818	96.91	60	120	
In Internal Standard	115	2	HMI He	961001	1.21	1007281	95.41	60	120	
Ho-165	165	2	HMI He	8052342	0.15	8283065	97.21	60	120	

Sample Table

Sample Name	280-104726-A-1-A
Data File Name	027SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:02:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	0.648	ppb	0.648	1940.11	77927	500000	
Li	7	2	45	22.904	ppb	22.904	122.35	4611	500000	
Li	7	3	45	2.800	ppb	2.800	73.99	4583393	50000	
Be	9	1	6	0.068	ppb	0.068	86.62	13	2000	
B	11	1	6	207.668	ppb	207.668	1.55	112311	2000	
Na	23	1	45	92855.136	ppb	92855.136	2.93	212139204	2000	>LDR
Na	23	2	45	90413.055	ppb	90413.055	2.12	7605516	400000	
Mg	24	2	45	1887.887	ppb	1887.887	2.02	70683	400000	
Al	27	2	45	10.162	ppb	10.162	35.77	90	400000	
K	39	1	45	2555.819	ppb	2555.819	3.20	11220880	400000	
K	39	2	45	2372.237	ppb	2372.237	3.15	32777	400000	
Ca	40	1	45	9417.643	ppb	9417.643	2.24	35527749	400000	
Ca	44	2	45	8815.680	ppb	8815.680	2.81	7152	400000	
Ti	47	2	45	405.470	ppb	405.470	86.64	13	4000	
V	51	2	72	0.339	ppb	0.339	77.27	553	2000	
Cr	52	2	72	2.600	ppb	2.600	18.70	1790	5000	
Mn	55	2	72	222.594	ppb	222.594	1.96	38325	10000	
Fe	57	2	72	1816.587	ppb	1816.587	4.77	21397	400000	
Co	59	2	72	1.788	ppb	1.788	2.08	2577	2000	
Ni	60	2	72	65.763	ppb	65.763	2.24	28180	5000	
Cu	63	2	72	54.392	ppb	54.392	0.65	71327	5000	
Zn	66	2	72	43.799	ppb	43.799	2.36	4731	5000	
As	75	2	72	39.107	ppb	39.107	7.56	2538	2000	
Se	78	1	72	0.156	ppb	0.156	47.81	72	2000	
Sr	88	2	72	22.358	ppb	22.358	4.59	3217	4000	
Zr	90	2	72	108.536	ppb	108.536	19.36	487	1000	
Nb	93	2	72	-1.231	ppb	-1.231	-2.87	343	200	
Mo	95	2	115	10.983	ppb	10.983	9.71	5765	2000	
Pd	105	2	115	-0.061	ppb	-0.061	-29.67	40	100	
Ag	107	2	115	-0.005	ppb	-0.005	-343.65	30	100	
Cd	111	2	115	0.058	ppb	0.058	173.21	10	2000	
Sn	120	2	115	0.068	ppb	0.068	127.46	140	2000	
Sb	121	2	115	26.883	ppb	26.883	3.30	8529	1000	
Ba	137	2	115	4.742	ppb	4.742	19.67	457	5000	
W	182	2	165	0.126	ppb	0.126	1.83	747	100	
Pt	195	2	165	0.034	ppb	0.034	28.02	370	100	
Tl	205	2	165	0.042	ppb	0.042	18.96	303	2000	
Pb	208	2	165	0.210	ppb	0.210	11.35	2357	5000	
Th	232	2	165	0.116	ppb	0.116	11.17	1984	2000	
U	238	2	165	0.011	ppb	0.011	19.87	167	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	594053	1.18	608971	97.55	60	120	
Sc (IS)	45	1	HMI H2	23702236	0.70	24673136	96.06	60	120	
Sc (IS)	45	2	HMI He	272803	2.08	281864	96.79	60	120	
Sc (IS)	45	3	No Gas	75792051	0.26	78056314	97.10	60	120	
Ge Internal Standard	72	1	HMI H2	12015399	0.33	12619474	95.21	60	120	
Ge Internal Standard	72	2	HMI He	411259	0.49	434818	94.58	60	120	
In Internal Standard	115	2	HMI He	944852	1.15	1007281	93.80	60	120	
Ho-165	165	2	HMI He	8054247	2.28	8283065	97.24	60	120	

Sample Table

Sample Name	280-104842-A-1-A
Data File Name	028SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:06:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.333	ppb	5.333	74.25	75245	500000	
Li	7	2	45	46.594	ppb	46.594	34.88	4544	500000	
Li	7	3	45	-1.276	ppb	-1.276	-173.45	4163372	50000	
Be	9	1	6	0.106	ppb	0.106	132.08	20	2000	
B	11	1	6	-181.773	ppb	-181.773	-0.23	29404	2000	
Na	23	1	45	31703.285	ppb	31703.285	0.69	69197271	2000	>LDR
Na	23	2	45	32741.587	ppb	32741.587	0.41	2550046	400000	
Mg	24	2	45	7547.157	ppb	7547.157	0.61	257664	400000	
Al	27	2	45	80.997	ppb	80.997	14.35	537	400000	
K	39	1	45	1650.639	ppb	1650.639	4.76	8693231	400000	
K	39	2	45	1498.592	ppb	1498.592	3.41	20222	400000	
Ca	40	1	45	21075.591	ppb	21075.591	0.87	75718697	400000	
Ca	44	2	45	19993.486	ppb	19993.486	1.23	14930	400000	
Ti	47	2	45	110.619	ppb	110.619	173.21	3	4000	
V	51	2	72	-0.421	ppb	-0.421	-8.41	187	2000	
Cr	52	2	72	5.319	ppb	5.319	10.46	3397	5000	
Mn	55	2	72	36.978	ppb	36.978	8.16	6181	10000	
Fe	57	2	72	45.376	ppb	45.376	28.86	540	400000	
Co	59	2	72	0.160	ppb	0.160	12.75	240	2000	
Ni	60	2	72	9.754	ppb	9.754	4.54	4044	5000	
Cu	63	2	72	7.571	ppb	7.571	3.07	10817	5000	
Zn	66	2	72	375.173	ppb	375.173	0.32	38222	5000	
As	75	2	72	0.178	ppb	0.178	58.29	16	2000	
Se	78	1	72	0.274	ppb	0.274	31.00	103	2000	
Sr	88	2	72	175.137	ppb	175.137	2.51	24038	4000	
Zr	90	2	72	40.244	ppb	40.244	38.98	200	1000	
Nb	93	2	72	-1.267	ppb	-1.267	-2.92	263	200	
Mo	95	2	115	2.688	ppb	2.688	9.73	1393	2000	
Pd	105	2	115	-0.070	ppb	-0.070	-40.09	30	100	
Ag	107	2	115	-0.008	ppb	-0.008	-35.14	23	100	
Cd	111	2	115	1.475	ppb	1.475	16.94	243	2000	
Sn	120	2	115	1.699	ppb	1.699	13.04	767	2000	
Sb	121	2	115	0.177	ppb	0.177	84.22	97	1000	
Ba	137	2	115	25.331	ppb	25.331	8.86	2370	5000	
W	182	2	165	0.076	ppb	0.076	34.09	550	100	
Pt	195	2	165	0.050	ppb	0.050	67.60	420	100	
Tl	205	2	165	0.058	ppb	0.058	15.39	373	2000	
Pb	208	2	165	0.768	ppb	0.768	3.76	5621	5000	
Th	232	2	165	0.010	ppb	0.010	332.50	1237	2000	
U	238	2	165	0.513	ppb	0.513	11.63	4061	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	570300	0.65	608971	93.65	60	120	
Sc (IS)	45	1	HMI H2	22601123	1.46	24673136	91.60	60	120	
Sc (IS)	45	2	HMI He	251960	0.14	281864	89.39	60	120	
Sc (IS)	45	3	No Gas	69627712	0.99	78056314	89.20	60	120	
Ge Internal Standard	72	1	HMI H2	11735991	1.12	12619474	93.00	60	120	
Ge Internal Standard	72	2	HMI He	394625	0.70	434818	90.76	60	120	
In Internal Standard	115	2	HMI He	916974	0.71	1007281	91.03	60	120	
Ho-165	165	2	HMI He	7855041	0.99	8283065	94.83	60	120	

Sample Table

Sample Name	280-104842-A-1-B MS
Data File Name	029SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:10:34-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	42.977	ppb	42.977	5.47	80742	500000	
Li	7	2	45	81.102	ppb	81.102	34.84	4888	500000	
Li	7	3	45	32.043	ppb	32.043	21.56	4483619	50000	
Be	9	1	6	35.803	ppb	35.803	8.22	6558	2000	
B	11	1	6	-155.748	ppb	-155.748	-1.85	33735	2000	
Na	23	1	45	33897.366	ppb	33897.366	0.86	72027986	2000	>LDR
Na	23	2	45	34942.979	ppb	34942.979	2.17	2681676	400000	
Mg	24	2	45	8098.861	ppb	8098.861	2.10	272438	400000	
Al	27	2	45	438.625	ppb	438.625	4.26	2787	400000	
K	39	1	45	1804.862	ppb	1804.862	1.54	8798723	400000	
K	39	2	45	1607.127	ppb	1607.127	1.34	21170	400000	
Ca	40	1	45	22652.242	ppb	22652.242	0.56	79241434	400000	
Ca	44	2	45	22522.546	ppb	22522.546	4.01	16568	400000	
Ti	47	2	45	114.544	ppb	114.544	173.21	3	4000	
V	51	2	72	34.589	ppb	34.589	7.98	15781	2000	
Cr	52	2	72	39.629	ppb	39.629	1.97	24184	5000	
Mn	55	2	72	72.699	ppb	72.699	1.45	11871	10000	
Fe	57	2	72	416.267	ppb	416.267	4.63	4647	400000	
Co	59	2	72	35.845	ppb	35.845	3.20	48360	2000	
Ni	60	2	72	45.933	ppb	45.933	3.61	18590	5000	
Cu	63	2	72	43.490	ppb	43.490	0.48	54127	5000	
Zn	66	2	72	442.881	ppb	442.881	1.69	44370	5000	
As	75	2	72	33.085	ppb	33.085	3.67	2027	2000	
Se	78	1	72	39.068	ppb	39.068	3.97	10589	2000	
Sr	88	2	72	219.433	ppb	219.433	1.01	29616	4000	
Zr	90	2	72	5516.688	ppb	5516.688	3.72	21290	1000	>LDR
Nb	93	2	72	-1.257	ppb	-1.257	-3.86	277	200	
Mo	95	2	115	36.072	ppb	36.072	1.00	18177	2000	
Pd	105	2	115	-0.080	ppb	-0.080	-0.24	20	100	
Ag	107	2	115	34.392	ppb	34.392	1.10	67995	100	
Cd	111	2	115	37.067	ppb	37.067	2.73	6068	2000	
Sn	120	2	115	35.906	ppb	35.906	0.50	13900	2000	
Sb	121	2	115	36.438	ppb	36.438	1.53	11121	1000	
Ba	137	2	115	58.003	ppb	58.003	2.67	5388	5000	
W	182	2	165	36.767	ppb	36.767	1.58	129852	100	
Pt	195	2	165	0.037	ppb	0.037	42.99	367	100	
Tl	205	2	165	34.996	ppb	34.996	1.49	162312	2000	
Pb	208	2	165	35.696	ppb	35.696	0.48	212002	5000	
Th	232	2	165	34.656	ppb	34.656	2.06	230050	2000	
U	238	2	165	35.662	ppb	35.662	0.85	274781	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	555346	0.32	608971	91.19	60	120	
Sc (IS)	45	1	HMI H2	22006908	0.71	24673136	89.19	60	120	
Sc (IS)	45	2	HMI He	248391	1.86	281864	88.12	60	120	
Sc (IS)	45	3	No Gas	68635244	0.90	78056314	87.93	60	120	
Ge Internal Standard	72	1	HMI H2	11517214	0.40	12619474	91.27	60	120	
Ge Internal Standard	72	2	HMI He	388186	0.57	434818	89.28	60	120	
In Internal Standard	115	2	HMI He	909887	0.91	1007281	90.33	60	120	
Ho-165	165	2	HMI He	7796957	1.36	8283065	94.13	60	120	

Sample Table

Sample Name	280-104842-A-1-C MSD
Data File Name	030SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:14:23-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	34.386	ppb	34.386	21.38	80212	500000	
Li	7	2	45	55.207	ppb	55.207	41.31	4607	500000	
Li	7	3	45	31.246	ppb	31.246	7.50	4493210	50000	
Be	9	1	6	30.643	ppb	30.643	2.90	5608	2000	
B	11	1	6	-164.353	ppb	-164.353	-3.57	32035	2000	
Na	23	1	45	30136.223	ppb	30136.223	0.43	65023617	2000	>LDR
Na	23	2	45	31586.854	ppb	31586.854	0.80	2438600	400000	
Mg	24	2	45	7223.331	ppb	7223.331	2.56	244429	400000	
Al	27	2	45	436.527	ppb	436.527	5.94	2790	400000	
K	39	1	45	1600.762	ppb	1600.762	6.11	8482369	400000	
K	39	2	45	1472.434	ppb	1472.434	1.98	19741	400000	
Ca	40	1	45	19952.260	ppb	19952.260	0.80	70853752	400000	
Ca	44	2	45	20591.567	ppb	20591.567	3.55	15237	400000	
Ti	47	2	45	111.757	ppb	111.757	173.21	3	4000	
V	51	2	72	31.944	ppb	31.944	1.70	14773	2000	
Cr	52	2	72	36.571	ppb	36.571	1.67	22585	5000	
Mn	55	2	72	67.132	ppb	67.132	2.34	11097	10000	
Fe	57	2	72	383.708	ppb	383.708	6.52	4337	400000	
Co	59	2	72	32.559	ppb	32.559	3.33	44446	2000	
Ni	60	2	72	42.006	ppb	42.006	1.13	17202	5000	
Cu	63	2	72	40.465	ppb	40.465	2.58	51051	5000	
Zn	66	2	72	396.260	ppb	396.260	2.13	40173	5000	
As	75	2	72	30.719	ppb	30.719	4.96	1905	2000	
Se	78	1	72	35.499	ppb	35.499	2.41	9752	2000	
Sr	88	2	72	199.281	ppb	199.281	3.73	27216	4000	
Zr	90	2	72	5010.426	ppb	5010.426	1.11	19565	1000	>LDR
Nb	93	2	72	-1.292	ppb	-1.292	-1.33	217	200	
Mo	95	2	115	33.661	ppb	33.661	1.62	17179	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-11.40	10	100	
Ag	107	2	115	32.394	ppb	32.394	1.29	64863	100	
Cd	111	2	115	35.733	ppb	35.733	7.61	5921	2000	
Sn	120	2	115	34.294	ppb	34.294	3.21	13446	2000	
Sb	121	2	115	35.562	ppb	35.562	4.07	10991	1000	
Ba	137	2	115	56.349	ppb	56.349	3.52	5301	5000	
W	182	2	165	29.090	ppb	29.090	1.31	104510	100	
Pt	195	2	165	0.047	ppb	0.047	33.78	410	100	
Tl	205	2	165	31.968	ppb	31.968	1.02	150781	2000	
Pb	208	2	165	32.870	ppb	32.870	1.69	198552	5000	
Th	232	2	165	31.910	ppb	31.910	2.30	215485	2000	
U	238	2	165	32.591	ppb	32.591	2.16	255324	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	554926	1.45	608971	91.13	60	120	
Sc (IS)	45	1	HMI H2	22338961	1.77	24673136	90.54	60	120	
Sc (IS)	45	2	HMI He	249750	1.82	281864	88.61	60	120	
Sc (IS)	45	3	No Gas	68921691	0.78	78056314	88.30	60	120	
Ge Internal Standard	72	1	HMI H2	11671964	1.28	12619474	92.49	60	120	
Ge Internal Standard	72	2	HMI He	392719	0.42	434818	90.32	60	120	
In Internal Standard	115	2	HMI He	921378	0.95	1007281	91.47	60	120	
Ho-165	165	2	HMI He	7927391	0.70	8283065	95.71	60	120	

Blank Report

Sample Table

Sample Name	MB 280-397837/1-A
Data File Name	031_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:18:11-07:00
Sample Type	Blank
Dilution	1
Comment	397837 6020a dod5
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-5.252	ppb	-9.379042975	73549	0.5
Li	7	2	45	-0.996	ppb	-1323.871672	4077	0.5
Li	7	3	45	-10.826	ppb	-39.94559476	4275684	10
Be	9	1	6	0.163	ppb	88.85784524	30	0.5
B	11	1	6	-221.931	ppb	-1.377951908	20999	0.5
Na	23	1	45	16.362	ppb	6.600666803	238091	25
Na	23	2	45	8.437	ppb	72.73324836	9516	25
Mg	24	2	45	8.297	ppb	50.72630561	1447	25
Al	27	2	45	6.343	ppb	82.68885806	60	15
K	39	1	45	-1032.259	ppb	-0.997557858	2768743	50
K	39	2	45	19.180	ppb	113.8944867	3267	50
Ca	40	1	45	10.995	ppb	1.604781199	115617	50
Ca	44	2	45	-39.263	ppb	-19.20424232	7	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	-0.616	ppb	-15.25751203	100	1
Cr	52	2	72	0.217	ppb	43.63930766	250	1
Mn	55	2	72	0.200	ppb	60.31273174	120	0.5
Fe	57	2	72	5.137	ppb	9.69252521	87	25
Co	59	2	72	0.016	ppb	96.76084554	43	0.5
Ni	60	2	72	0.200	ppb	110.8963339	123	1
Cu	63	2	72	-0.314	ppb	-23.35807841	1130	1
Zn	66	2	72	1.202	ppb	24.45968094	213	5
As	75	2	72	-0.013	ppb	-354.7806474	5	1
Se	78	1	72	-0.046	ppb	-47.69621437	15	1
Sr	88	2	72	0.132	ppb	194.6341109	40	0.5
Zr	90	2	72	60.453	ppb	23.20262365	283	1
Nb	93	2	72	-1.280	ppb	-4.153672631	243	2
Mo	95	2	115	0.043	ppb	227.5629022	53	0.5
Pd	105	2	115	-0.095	ppb	-6.211076177	7	1
Ag	107	2	115	0.005	ppb	271.0188967	50	1
Cd	111	2	115	0.020	ppb	173.2050808	3	0.5
Sn	120	2	115	0.114	ppb	83.60296446	157	1
Sb	121	2	115	0.020	ppb	404.3063807	50	0.6
Ba	137	2	115	0.035	ppb	173.2050808	3	0.5
W	182	2	165	0.011	ppb	310.6536873	327	1
Pt	195	2	165	0.015	ppb	183.7026261	293	1
Tl	205	2	165	0.040	ppb	19.55652952	297	0.1
Pb	208	2	165	0.197	ppb	19.18691111	2270	0.5
Th	232	2	165	0.136	ppb	6.041316355	2117	1
U	238	2	165	0.013	ppb	31.1869263	187	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	561702	0.72	608971	92.24	60	120	
Sc (IS)	45	1	HMI H2	22741045	0.31	24673136	92.17	60	120	
Sc (IS)	45	2	HMI He	258159	0.71	281864	91.59	60	120	
Sc (IS)	45	3	No Gas	73446474	1.05	78056314	94.09	60	120	
Ge Internal Standard	72	1	HMI H2	11851192	0.42	12619474	93.91	60	120	
Ge Internal Standard	72	2	HMI He	400943	0.28	434818	92.21	60	120	
In Internal Standard	115	2	HMI He	934293	1.80	1007281	92.75	60	120	
Ho-165	165	2	HMI He	8035043	0.95	8283065	97.01	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-397837/2-A
Data File Name	032_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:22:01-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	397837 6020a dod5
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	29.909	29.909	ppb	18.599	82493	400	7.5	80	120	>+/-20%
Li	7	2	45	35.996	35.996	ppb	47.725	4607	400	9.0	80	120	>+/-20%
Li	7	3	45	33.845	33.845	ppb	14.561	4908728	400	8.5	80	120	>+/-20%
Be	9	1	6	39.534	39.534	ppb	2.713	7522	40	98.8	80	120	
Na	23	2	45	63.407	63.407	ppb	6.385	14139	40	158.5	80	120	>+/-20%
Mg	24	2	45	9.548	9.548	ppb	20.858	1517	40	23.9	80	120	>+/-20%
Al	27	2	45	422.264	422.264	ppb	2.712	2840	40	1055.7	80	120	>+/-20%
K	39	2	45	2.888	2.888	ppb	317.951	3130	40	7.2	80	120	>+/-20%
Ca	44	2	45	179.607	179.607	ppb	22.856	177	40	449.0	80	120	>+/-20%
V	51	2	72	39.018	39.018	ppb	5.013	18660	40	97.5	80	120	
Cr	52	2	72	42.959	42.959	ppb	0.863	27549	40	107.4	80	120	
Mn	55	2	72	44.458	44.458	ppb	1.929	7665	40	111.1	80	120	
Fe	57	2	72	402.112	402.112	ppb	4.129	4721	40	1005.3	80	120	>+/-20%
Co	59	2	72	40.822	40.822	ppb	3.127	57911	40	102.1	80	120	
Ni	60	2	72	41.809	41.809	ppb	2.887	17790	40	104.5	80	120	
Cu	63	2	72	40.260	40.260	ppb	0.829	52789	40	100.7	80	120	
Zn	66	2	72	42.433	42.433	ppb	8.787	4551	40	106.1	80	120	
As	75	2	72	38.120	38.120	ppb	4.410	2455	40	95.3	80	120	
Se	78	1	72	39.372	39.372	ppb	2.489	11185	40	98.4	80	120	
Nb	93	2	72	-1.298	-1.298	ppb	-1.005	213	40	-3.2	80	120	>+/-20%
Mo	95	2	115	39.542	39.542	ppb	4.443	20867	40	98.9	80	120	
Pd	105	2	115	-0.088	-0.088	ppb	-6.335	13	40	-0.2	80	120	>+/-20%
Ag	107	2	115	40.597	40.597	ppb	0.824	84097	40	101.5	80	120	
Cd	111	2	115	40.381	40.381	ppb	3.664	6925	40	101.0	80	120	
Sn	120	2	115	39.137	39.137	ppb	0.699	15865	40	97.8	80	120	
Sb	121	2	115	39.563	39.563	ppb	4.544	12649	40	98.9	80	120	
Ba	137	2	115	37.881	37.881	ppb	3.858	3687	40	94.7	80	120	
W	182	2	165	39.544	39.544	ppb	1.836	145508	40	98.9	80	120	
Pt	195	2	165	0.011	0.011	ppb	104.545	280	40	0.0	80	120	>+/-20%
Tl	205	2	165	40.595	40.595	ppb	0.993	196208	40	101.5	80	120	
Pb	208	2	165	41.245	41.245	ppb	0.766	255090	40	103.1	80	120	
Th	232	2	165	39.037	39.037	ppb	1.602	269907	40	97.6	80	120	
U	238	2	165	40.212	40.212	ppb	0.989	322875	40	100.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	576832	0.52	608971	94.72	60	120	
Sc (IS)	45	1	HMI H2	23231440	0.50	24673136	94.16	60	120	
Sc (IS)	45	2	HMI He	262816	0.94	281864	93.24	60	120	
Sc (IS)	45	3	No Gas	74800562	0.60	78056314	95.83	60	120	
Ge Internal Standard	72	1	HMI H2	12072184	0.50	12619474	95.66	60	120	
Ge Internal Standard	72	2	HMI He	408088	0.83	434818	93.85	60	120	
In Internal Standard	115	2	HMI He	953451	1.58	1007281	94.66	60	120	
Ho-165	165	2	HMI He	8125463	1.38	8283065	98.10	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	033_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:25:50-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	523.922	ppb	2.011	187688	500	104.8	90	110	
Li	7	2	45	552.494	ppb	7.112	11064	500	110.5	90	110	>+\-10%
Li	7	3	45	522.549	ppb	1.820	11118110	500	104.5	90	110	
Be	9	1	6	51.611	ppb	4.832	10030	50	103.2	90	110	
B	11	1	6	-189.231	ppb	-2.660	28836	50	-378.5	90	110	>+\-10%
Na	23	1	45	5105.893	ppb	1.318	11740834	5000	102.1	90	110	
Na	23	2	45	5225.664	ppb	3.054	434328	5000	104.5	90	110	
Mg	24	2	45	5246.793	ppb	3.372	188164	5000	104.9	90	110	
Al	27	2	45	5279.312	ppb	2.283	35479	5000	105.6	90	110	
K	39	1	45	5043.439	ppb	4.105	16815400	5000	100.9	90	110	
K	39	2	45	5242.285	ppb	4.961	66379	5000	104.8	90	110	
Ca	40	1	45	5132.603	ppb	0.828	19194696	5000	102.7	90	110	
Ca	44	2	45	5092.989	ppb	9.529	4021	5000	101.9	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	52.549	ppb	1.740	24968	50	105.1	90	110	
Cr	52	2	72	51.117	ppb	2.480	32711	50	102.2	90	110	
Mn	55	2	72	53.407	ppb	3.634	9176	50	106.8	90	110	
Fe	57	2	72	5064.083	ppb	1.693	59045	5000	101.3	90	110	
Co	59	2	72	50.952	ppb	2.790	72150	50	101.9	90	110	
Ni	60	2	72	53.401	ppb	5.332	22672	50	106.8	90	110	
Cu	63	2	72	51.422	ppb	3.640	66887	50	102.8	90	110	
Zn	66	2	72	53.337	ppb	3.768	5688	50	106.7	90	110	
As	75	2	72	52.852	ppb	3.037	3397	50	105.7	90	110	
Se	78	1	72	49.847	ppb	3.349	14289	50	99.7	90	110	
Sr	88	2	72	50.262	ppb	8.897	7132	50	100.5	90	110	
Zr	90	2	72	125.424	ppb	12.558	550	50	250.8	90	110	>+\-10%
Nb	93	2	72	99.870	ppb	2.708	194022	100	99.9	90	110	
Mo	95	2	115	49.684	ppb	1.531	26150	50	99.4	90	110	
Pd	105	2	115	51.126	ppb	2.442	50736	50	102.3	90	110	
Ag	107	2	115	51.023	ppb	2.489	105390	50	102.0	90	110	
Cd	111	2	115	51.383	ppb	6.478	8786	50	102.8	90	110	
Sn	120	2	115	50.209	ppb	1.488	20273	50	100.4	90	110	
Sb	121	2	115	51.935	ppb	2.045	16545	50	103.9	90	110	
Ba	137	2	115	49.873	ppb	1.279	4841	50	99.7	90	110	
W	182	2	165	51.948	ppb	4.444	188008	50	103.9	90	110	
Pt	195	2	165	51.543	ppb	3.959	197481	50	103.1	90	110	
Tl	205	2	165	51.513	ppb	4.527	244960	50	103.0	90	110	
Pb	208	2	165	51.678	ppb	4.002	314273	50	103.4	90	110	
Th	232	2	165	51.018	ppb	3.774	346800	50	102.0	90	110	
U	238	2	165	51.797	ppb	2.981	409347	50	103.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	589510	2.03	608971	96.80	60	120	
Sc (IS)	45	1	HMI H2	23451449	1.64	24673136	95.05	60	120	
Sc (IS)	45	2	HMI He	264299	2.39	281864	93.77	60	120	
Sc (IS)	45	3	No Gas	75791199	0.73	78056314	97.10	60	120	
Ge Internal Standard	72	1	HMI H2	12189129	1.32	12619474	96.59	60	120	
Ge Internal Standard	72	2	HMI He	407594	2.08	434818	93.74	60	120	
In Internal Standard	115	2	HMI He	951053	2.26	1007281	94.42	60	120	
Ho-165	165	2	HMI He	8001915	2.97	8283065	96.61	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	034_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:29:38-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	0.432	ppb	699.5	4663614	10	
Be	9	1	6	0.083	ppb	125.2	17	0.5	
B	11	1	6	-243.248	ppb	-0.9	18203	0.5	
Na	23	1	45	-7.123	ppb	-8.7	196054	25	
Na	23	2	45	-10.585	ppb	-90.3	8509	25	
Mg	24	2	45	5.027	ppb	50.5	1417	25	
Al	27	2	45	-0.866	ppb	-191.3	13	15	
K	39	1	45	-57.657	ppb	-26.9	5189561	50	
K	39	2	45	29.570	ppb	140.1	3604	50	
Ca	40	1	45	-1.305	ppb	-31.6	74781	50	
Ca	44	2	45	-35.655	ppb	-34.4	10	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.222	ppb	-32.1	297	1	
Cr	52	2	72	-0.024	ppb	-590.9	103	1	
Mn	55	2	72	-0.386	ppb	-30.3	23	0.5	
Fe	57	2	72	-0.754	ppb	-222.2	20	25	
Co	59	2	72	0.007	ppb	224.3	33	0.5	
Ni	60	2	72	-0.035	ppb	-35.3	27	1	
Cu	63	2	72	-0.404	ppb	-14.0	1073	1	
Zn	66	2	72	-0.315	ppb	-75.2	60	5	
As	75	2	72	0.052	ppb	164.2	9	1	
Se	78	1	72	-0.007	ppb	-469.2	27	1	
Sr	88	2	72	-0.064	ppb	-159.1	13	0.5	
Zr	90	2	72	2.636	ppb	269.1	57	1	>RL
Nb	93	2	72	0.025	ppb	765.0	2850	2	
Mo	95	2	115	0.013	ppb	593.8	40	0.5	
Pd	105	2	115	-0.053	ppb	-31.8	50	1	
Ag	107	2	115	-0.003	ppb	-674.7	37	1	
Cd	111	2	115	0.037	ppb	173.2	7	0.5	
Sn	120	2	115	0.055	ppb	197.0	140	1	
Sb	121	2	115	0.298	ppb	26.5	143	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.021	ppb	120.5	373	1	
Pt	195	2	165	0.017	ppb	62.1	310	1	
Tl	205	2	165	0.023	ppb	54.3	217	0.1	
Pb	208	2	165	0.004	ppb	626.4	1130	0.5	
Th	232	2	165	0.005	ppb	698.1	1263	1	
U	238	2	165	0.009	ppb	62.4	157	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	609793	0.54	608971	100.13	60	120	
Sc (IS)	45	1	HMI H2	23885285	0.55	24673136	96.81	60	120	
Sc (IS)	45	2	HMI He	274587	0.56	281864	97.42	60	120	
Sc (IS)	45	3	No Gas	77622861	0.00	78056314	99.44	60	120	
Ge Internal Standard	72	1	HMI H2	12400778	0.49	12619474	98.27	60	120	
Ge Internal Standard	72	2	HMI He	423242	1.32	434818	97.34	60	120	
In Internal Standard	115	2	HMI He	983396	0.75	1007281	97.63	60	120	
Ho-165	165	2	HMI He	8254173	2.24	8283065	99.65	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	035LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:33:28-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	9.514	ppb	65.451	4785413	50	19.0	70	130	>+/-30%
Be	9	1	6	1.080	ppb	13.444	220	1	108.0	70	130	
Na	23	2	45	48.118	ppb	9.989	13242	50	96.2	70	130	
Mg	24	2	45	65.067	ppb	5.330	3577	50	130.1	70	130	>+/-30%
Al	27	2	45	28.814	ppb	12.789	217	30	96.0	70	130	
K	39	2	45	120.059	ppb	18.784	4658	100	120.1	70	130	
Ca	44	2	45	39.785	ppb	62.819	70	50	79.6	70	130	
V	51	2	72	4.523	ppb	7.475	2564	5	90.5	70	130	
Cr	52	2	72	1.912	ppb	11.332	1367	2	95.6	70	130	
Mn	55	2	72	0.765	ppb	14.655	223	1	76.5	70	130	
Fe	57	2	72	57.142	ppb	13.492	710	50	114.3	70	130	
Co	59	2	72	1.067	ppb	11.940	1570	1	106.7	70	130	
Ni	60	2	72	2.056	ppb	3.062	933	2	102.8	70	130	
Cu	63	2	72	2.052	ppb	5.918	4254	2	102.6	70	130	
Zn	66	2	72	9.221	ppb	3.484	1083	10	92.2	70	130	
As	75	2	72	4.743	ppb	11.199	317	5	94.9	70	130	
Se	78	1	72	4.941	ppb	5.108	1476	5	98.8	70	130	
Sr	88	2	72	1.225	ppb	14.471	200	1	122.5	70	130	
Zr	90	2	72	19.855	ppb	50.185	127	0.5	3971.0	70	130	>+/-30%
Nb	93	2	72	-0.033	ppb	-214.445	2697	2	-1.7	70	130	>+/-30%
Mo	95	2	115	2.011	ppb	15.756	1100	2	100.5	70	130	
Pd	105	2	115	-0.075	ppb	-15.459	27	1	-7.5	70	130	>+/-30%
Ag	107	2	115	5.155	ppb	0.793	10800	5	103.1	70	130	
Cd	111	2	115	0.983	ppb	17.845	170	1	98.3	70	130	
Sn	120	2	115	9.909	ppb	5.082	4134	10	99.1	70	130	
Sb	121	2	115	2.457	ppb	16.189	833	2	122.8	70	130	
Ba	137	2	115	0.849	ppb	27.261	83	1	84.9	70	130	
W	182	2	165	4.888	ppb	1.010	18174	1	488.8	70	130	>+/-30%
Pt	195	2	165	0.045	ppb	32.197	413	1	4.5	70	130	>+/-30%
Tl	205	2	165	1.080	ppb	6.691	5304	1	108.0	70	130	
Pb	208	2	165	1.066	ppb	3.808	7621	1	106.6	70	130	
Th	232	2	165	1.905	ppb	2.490	14267	2	95.2	70	130	
U	238	2	165	0.987	ppb	1.540	7972	1	98.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	617241	0.86	608971	101.36	60	120	
Sc (IS)	45	1	HMI H2	24165568	0.80	24673136	97.94	60	120	
Sc (IS)	45	2	HMI He	269786	0.49	281864	95.72	60	120	
Sc (IS)	45	3	No Gas	77707724	0.70	78056314	99.55	60	120	
Ge Internal Standard	72	1	HMI H2	12475584	0.65	12619474	98.86	60	120	
Ge Internal Standard	72	2	HMI He	417091	0.75	434818	95.92	60	120	
In Internal Standard	115	2	HMI He	960923	0.44	1007281	95.40	60	120	
Ho-165	165	2	HMI He	8095810	0.44	8283065	97.74	60	120	

Sample Report

Sample Table

Sample Name	280-104749-A-1-B
Data File Name	036SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:37:17-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8 FILTERED As
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	20381.905	ppb	20381.905	0.45	4374103	500000	
Li	7	2	45	19280.092	ppb	19280.092	1.53	262518	500000	
Li	7	3	45	19959.249	ppb	19959.249	0.36	267354056	50000	
Be	9	1	6	0.815	ppb	0.815	32.15	93	2000	
B	11	1	6	26220.225	ppb	26220.225	2.47	3240884	2000	>LDR
Na	23	1	45	278654.850	ppb	278654.850	0.22	627946844	2000	>LDR
Na	23	2	45	272116.099	ppb	272116.099	0.46	23829258	400000	
Mg	24	2	45	2265741.910	ppb	2265741.910	1.53	86845685	400000	>LDR
Al	27	2	45	5523.467	ppb	5523.467	2.00	39914	400000	
K	39	1	45	130743.679	ppb	130743.679	0.69	304989582	400000	
K	39	2	45	130355.829	ppb	130355.829	1.15	1695810	400000	
Ca	40	1	45	69510.882	ppb	69510.882	0.82	258316603	400000	
Ca	44	2	45	65609.371	ppb	65609.371	2.98	55179	400000	
Ti	47	2	45	10351.138	ppb	10351.138	47.49	353	4000	
V	51	2	72	12.743	ppb	12.743	11.22	6812	2000	
Cr	52	2	72	15.578	ppb	15.578	3.71	10764	5000	
Mn	55	2	72	516.751	ppb	516.751	0.74	94355	10000	
Fe	57	2	72	18045.668	ppb	18045.668	1.10	225367	400000	
Co	59	2	72	2.848	ppb	2.848	5.29	4344	2000	
Ni	60	2	72	35.461	ppb	35.461	1.65	16151	5000	
Cu	63	2	72	230.392	ppb	230.392	0.79	315432	5000	
Zn	66	2	72	1242.577	ppb	1242.577	1.17	139874	5000	
As	75	2	72	70.957	ppb	70.957	3.56	4885	2000	
Se	78	1	72	1.873	ppb	1.873	10.03	539	2000	
Sr	88	2	72	285.007	ppb	285.007	2.12	43258	4000	
Zr	90	2	72	544.041	ppb	544.041	0.93	2404	1000	
Nb	93	2	72	-0.955	ppb	-0.955	-3.88	933	200	
Mo	95	2	115	5.208	ppb	5.208	13.56	2780	2000	
Pd	105	2	115	0.621	ppb	0.621	6.88	720	100	
Ag	107	2	115	0.302	ppb	0.302	25.71	667	100	
Cd	111	2	115	0.678	ppb	0.678	18.19	117	2000	
Sn	120	2	115	7.554	ppb	7.554	2.86	3164	2000	
Sb	121	2	115	2.848	ppb	2.848	13.18	953	1000	
Ba	137	2	115	1530.039	ppb	1530.039	1.20	149402	5000	
W	182	2	165	2.469	ppb	2.469	5.03	9497	100	
Pt	195	2	165	0.805	ppb	0.805	3.58	3417	100	
Tl	205	2	165	0.141	ppb	0.141	4.88	797	2000	
Pb	208	2	165	8.916	ppb	8.916	1.25	56812	5000	
Th	232	2	165	0.073	ppb	0.073	51.34	1734	2000	
U	238	2	165	1.732	ppb	1.732	5.79	14184	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	345911	2.99	608971	56.80	60	120	IS Failed
Sc (IS)	45	1	HMI H2	23394236	1.50	24673136	94.82	60	120	
Sc (IS)	45	2	HMI He	284154	1.69	281864	100.81	60	120	
Sc (IS)	45	3	No Gas	79306634	0.67	78056314	101.60	60	120	
Ge Internal Standard	72	1	HMI H2	11634158	1.29	12619474	92.19	60	120	
Ge Internal Standard	72	2	HMI He	436673	1.88	434818	100.43	60	120	
In Internal Standard	115	2	HMI He	956393	2.20	1007281	94.95	60	120	
Ho-165	165	2	HMI He	8244232	1.39	8283065	99.53	60	120	

Sample Report

Sample Table

Sample Name	280-104836-D-1-D
Data File Name	037SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:41:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399323 200.8 FILTERED As
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	20178.679	ppb	20178.679	0.90	4535556	500000	
Li	7	2	45	19773.453	ppb	19773.453	4.04	265243	500000	
Li	7	3	45	19604.202	ppb	19604.202	0.58	241490003	50000	
Be	9	1	6	0.177	ppb	0.177	86.62	20	2000	
B	11	1	6	26134.717	ppb	26134.717	1.42	3210497	2000	>LDR
Na	23	1	45	177156.901	ppb	177156.901	0.88	418122527	2000	>LDR
Na	23	2	45	176071.928	ppb	176071.928	2.97	15201248	400000	
Mg	24	2	45	2382620.449	ppb	2382620.449	3.78	90009405	400000	>LDR
Al	27	2	45	2632.760	ppb	2632.760	5.34	18770	400000	
K	39	1	45	90704.054	ppb	90704.054	1.18	223238603	400000	
K	39	2	45	86251.699	ppb	86251.699	2.08	1107330	400000	
Ca	40	1	45	41213.758	ppb	41213.758	0.89	160420491	400000	
Ca	44	2	45	39439.923	ppb	39439.923	4.28	32694	400000	
Ti	47	2	45	7027.696	ppb	7027.696	27.80	237	4000	
V	51	2	72	4.839	ppb	4.839	9.71	2807	2000	
Cr	52	2	72	7.171	ppb	7.171	2.55	4964	5000	
Mn	55	2	72	163.790	ppb	163.790	1.36	29612	10000	
Fe	57	2	72	2335.010	ppb	2335.010	3.27	28831	400000	
Co	59	2	72	1.275	ppb	1.275	12.62	1934	2000	
Ni	60	2	72	7.373	ppb	7.373	6.34	3354	5000	
Cu	63	2	72	67.991	ppb	67.991	1.36	93113	5000	
Zn	66	2	72	607.036	ppb	607.036	0.23	67556	5000	
As	75	2	72	76.338	ppb	76.338	3.18	5192	2000	
Se	78	1	72	1.374	ppb	1.374	12.71	427	2000	
Sr	88	2	72	86.711	ppb	86.711	1.18	13022	4000	
Zr	90	2	72	221.946	ppb	221.946	12.45	997	1000	
Nb	93	2	72	-1.152	ppb	-1.152	-4.02	520	200	
Mo	95	2	115	6.360	ppb	6.360	4.59	3304	2000	
Pd	105	2	115	-0.008	ppb	-0.008	-648.66	90	100	
Ag	107	2	115	0.133	ppb	0.133	17.68	310	100	
Cd	111	2	115	0.478	ppb	0.478	23.10	80	2000	
Sn	120	2	115	6.811	ppb	6.811	4.21	2787	2000	
Sb	121	2	115	1.611	ppb	1.611	19.10	543	1000	
Ba	137	2	115	265.493	ppb	265.493	2.05	25230	5000	
W	182	2	165	2.606	ppb	2.606	0.56	9687	100	
Pt	195	2	165	0.332	ppb	0.332	18.73	1500	100	
Tl	205	2	165	0.059	ppb	0.059	17.99	383	2000	
Pb	208	2	165	4.781	ppb	4.781	2.93	29989	5000	
Th	232	2	165	-0.089	ppb	-0.089	-7.14	580	2000	
U	238	2	165	1.503	ppb	1.503	1.37	11932	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	343652	1.25	608971	56.43	60	120	IS Failed
Sc (IS)	45	1	HMI H2	24497675	0.74	24673136	99.29	60	120	
Sc (IS)	45	2	HMI He	280250	3.17	281864	99.43	60	120	
Sc (IS)	45	3	No Gas	72909841	0.77	78056314	93.41	60	120	
Ge Internal Standard	72	1	HMI H2	12339037	0.32	12619474	97.78	60	120	
Ge Internal Standard	72	2	HMI He	431438	1.56	434818	99.22	60	120	
In Internal Standard	115	2	HMI He	931113	1.49	1007281	92.44	60	120	
Ho-165	165	2	HMI He	7982457	1.22	8283065	96.37	60	120	

Sample Table

Sample Name	280-104412-a-66-d@50
Data File Name	038SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:44:57-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5 Pb
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	31.542	ppb	31.542	13.99	88004	500000	
Li	7	2	45	55.685	ppb	55.685	56.32	5214	500000	
Li	7	3	45	-11.458	ppb	-11.458	-26.04	4306410	50000	
Be	9	1	6	0.126	ppb	0.126	138.37	23	2000	
B	11	1	6	-71.814	ppb	-71.814	-9.27	51299	2000	
Na	23	1	45	125.284	ppb	125.284	5.02	517229	2000	
Na	23	2	45	102.763	ppb	102.763	5.55	18620	400000	
Mg	24	2	45	4613.371	ppb	4613.371	2.18	177064	400000	
Al	27	2	45	2424.207	ppb	2424.207	4.44	17425	400000	
K	39	1	45	879.813	ppb	879.813	2.00	7630142	400000	
K	39	2	45	714.340	ppb	714.340	4.31	12548	400000	
Ca	40	1	45	50355.766	ppb	50355.766	0.98	197453144	400000	
Ca	44	2	45	47086.612	ppb	47086.612	2.00	39367	400000	
Ti	47	2	45	14098.872	ppb	14098.872	3.06	477	4000	
V	51	2	72	4.869	ppb	4.869	15.10	2800	2000	
Cr	52	2	72	12.034	ppb	12.034	5.29	8179	5000	
Mn	55	2	72	61.511	ppb	61.511	3.34	11087	10000	
Fe	57	2	72	2323.810	ppb	2323.810	1.74	28470	400000	
Co	59	2	72	1.155	ppb	1.155	3.59	1740	2000	
Ni	60	2	72	3.463	ppb	3.463	19.18	1583	5000	
Cu	63	2	72	162.335	ppb	162.335	2.05	218273	5000	
Zn	66	2	72	30.775	ppb	30.775	3.87	3487	5000	
As	75	2	72	1.612	ppb	1.612	10.55	114	2000	
Se	78	1	72	0.077	ppb	0.077	30.27	52	2000	
Sr	88	2	72	121.228	ppb	121.228	3.87	18047	4000	
Zr	90	2	72	227.134	ppb	227.134	5.02	1010	1000	
Nb	93	2	72	-1.223	ppb	-1.223	-1.90	373	200	
Mo	95	2	115	0.656	ppb	0.656	29.75	380	2000	
Pd	105	2	115	-0.071	ppb	-0.071	-27.93	30	100	
Ag	107	2	115	0.034	ppb	0.034	7.71	113	100	
Cd	111	2	115	0.251	ppb	0.251	48.10	43	2000	
Sn	120	2	115	0.195	ppb	0.195	51.04	193	2000	
Sb	121	2	115	0.880	ppb	0.880	32.67	327	1000	
Ba	137	2	115	24.547	ppb	24.547	7.67	2407	5000	
W	182	2	165	-0.008	ppb	-0.008	-232.01	253	100	
Pt	195	2	165	0.169	ppb	0.169	14.89	867	100	
Tl	205	2	165	0.032	ppb	0.032	25.64	253	2000	
Pb	208	2	165	1047.112	ppb	1047.112	2.14	6246239	5000	
Th	232	2	165	0.739	ppb	0.739	9.74	6095	2000	
U	238	2	165	0.314	ppb	0.314	6.18	2517	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	567662	1.10	608971	93.22	60	120	
Sc (IS)	45	1	HMI H2	24680615	0.47	24673136	100.03	60	120	
Sc (IS)	45	2	HMI He	282463	0.60	281864	100.21	60	120	
Sc (IS)	45	3	No Gas	74111007	0.13	78056314	94.95	60	120	
Ge Internal Standard	72	1	HMI H2	12624306	0.11	12619474	100.04	60	120	
Ge Internal Standard	72	2	HMI He	427936	0.49	434818	98.42	60	120	
In Internal Standard	115	2	HMI He	960301	0.60	1007281	95.34	60	120	
Ho-165	165	2	HMI He	7870140	1.37	8283065	95.01	60	120	

Sample Table

Sample Name	280-104412-a-66-dSD@250
Data File Name	039SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:48:46-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	13.354	ppb	13.354	18.69	81954	500000	
Li	7	2	45	27.650	ppb	27.650	80.25	4864	500000	
Li	7	3	45	-10.009	ppb	-10.009	-8.14	4250455	50000	
Be	9	1	6	0.108	ppb	0.108	100.44	20	2000	
B	11	1	6	-148.548	ppb	-148.548	-1.88	35735	2000	
Na	23	1	45	33.893	ppb	33.893	2.84	292899	2000	
Na	23	2	45	25.004	ppb	25.004	21.30	11918	400000	
Mg	24	2	45	988.561	ppb	988.561	3.95	39129	400000	
Al	27	2	45	474.505	ppb	474.505	10.56	3440	400000	
K	39	1	45	239.072	ppb	239.072	8.92	5934956	400000	
K	39	2	45	204.600	ppb	204.600	13.67	5998	400000	
Ca	40	1	45	10118.008	ppb	10118.008	0.33	38791278	400000	
Ca	44	2	45	8921.728	ppb	8921.728	3.59	7529	400000	
Ti	47	2	45	2464.918	ppb	2464.918	52.06	83	4000	
V	51	2	72	0.893	ppb	0.893	34.70	850	2000	
Cr	52	2	72	2.491	ppb	2.491	13.70	1790	5000	
Mn	55	2	72	10.179	ppb	10.179	13.41	1914	10000	
Fe	57	2	72	469.385	ppb	469.385	10.99	5778	400000	
Co	59	2	72	0.164	ppb	0.164	27.47	267	2000	
Ni	60	2	72	0.562	ppb	0.562	15.26	293	5000	
Cu	63	2	72	31.692	ppb	31.692	3.17	43982	5000	
Zn	66	2	72	6.356	ppb	6.356	8.10	797	5000	
As	75	2	72	0.302	ppb	0.302	24.99	26	2000	
Se	78	1	72	-0.053	ppb	-0.053	-65.23	13	2000	
Sr	88	2	72	21.567	ppb	21.567	4.34	3234	4000	
Zr	90	2	72	50.354	ppb	50.354	8.44	260	1000	
Nb	93	2	72	-1.364	ppb	-1.364	-1.96	90	200	
Mo	95	2	115	0.138	ppb	0.138	21.69	107	2000	
Pd	105	2	115	-0.088	ppb	-0.088	-17.26	13	100	
Ag	107	2	115	-0.002	ppb	-0.002	-606.36	37	100	
Cd	111	2	115	0.095	ppb	0.095	91.14	17	2000	
Sn	120	2	115	0.035	ppb	0.035	314.05	130	2000	
Sb	121	2	115	0.189	ppb	0.189	73.23	107	1000	
Ba	137	2	115	5.966	ppb	5.966	10.15	593	5000	
W	182	2	165	-0.029	ppb	-0.029	-44.25	180	100	
Pt	195	2	165	0.072	ppb	0.072	46.06	513	100	
Tl	205	2	165	-0.007	ppb	-0.007	-51.20	70	2000	
Pb	208	2	165	201.653	ppb	201.653	3.69	1221864	5000	
Th	232	2	165	0.048	ppb	0.048	44.42	1513	2000	
U	238	2	165	0.065	ppb	0.065	17.75	590	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	564647	0.88	608971	92.72	60	120	
Sc (IS)	45	1	HMI H2	24090871	0.39	24673136	97.64	60	120	
Sc (IS)	45	2	HMI He	284062	2.75	281864	100.78	60	120	
Sc (IS)	45	3	No Gas	72846617	0.88	78056314	93.33	60	120	
Ge Internal Standard	72	1	HMI H2	12453553	0.55	12619474	98.69	60	120	
Ge Internal Standard	72	2	HMI He	428616	1.35	434818	98.57	60	120	
In Internal Standard	115	2	HMI He	973773	1.14	1007281	96.67	60	120	
Ho-165	165	2	HMI He	7990576	1.84	8283065	96.47	60	120	

Sample Table

Sample Name	280-104412-a-66-e ms@50
Data File Name	040SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:52:35-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	10.755	ppb	10.755	51.87	79988	500000	
Li	7	2	45	29.802	ppb	29.802	118.33	4724	500000	
Li	7	3	45	-9.184	ppb	-9.184	-52.09	4253128	50000	
Be	9	1	6	3.780	ppb	3.780	12.63	693	2000	
B	11	1	6	-163.567	ppb	-163.567	-1.77	32252	2000	
Na	23	1	45	54.928	ppb	54.928	1.42	335822	2000	
Na	23	2	45	46.318	ppb	46.318	6.93	13299	400000	
Mg	24	2	45	4533.162	ppb	4533.162	1.21	168797	400000	
Al	27	2	45	2705.774	ppb	2705.774	4.87	18867	400000	
K	39	1	45	768.439	ppb	768.439	2.64	7061646	400000	
K	39	2	45	732.736	ppb	732.736	7.23	12401	400000	
Ca	40	1	45	51500.975	ppb	51500.975	0.35	193733950	400000	
Ca	44	2	45	48690.814	ppb	48690.814	2.02	39484	400000	
Ti	47	2	45	16148.785	ppb	16148.785	15.46	530	4000	
V	51	2	72	8.908	ppb	8.908	3.38	4678	2000	
Cr	52	2	72	16.530	ppb	16.530	4.11	10941	5000	
Mn	55	2	72	69.735	ppb	69.735	0.40	12275	10000	
Fe	57	2	72	2480.967	ppb	2480.967	2.32	29706	400000	
Co	59	2	72	4.736	ppb	4.736	3.70	6905	2000	
Ni	60	2	72	7.566	ppb	7.566	4.41	3334	5000	
Cu	63	2	72	57.470	ppb	57.470	1.99	76569	5000	
Zn	66	2	72	22.625	ppb	22.625	3.80	2530	5000	
As	75	2	72	4.997	ppb	4.997	4.18	335	2000	
Se	78	1	72	3.189	ppb	3.189	10.72	937	2000	
Sr	88	2	72	120.867	ppb	120.867	2.04	17590	4000	
Zr	90	2	72	700.045	ppb	700.045	2.43	2950	1000	
Nb	93	2	72	-1.244	ppb	-1.244	-3.60	323	200	
Mo	95	2	115	3.556	ppb	3.556	7.54	1894	2000	
Pd	105	2	115	-0.071	ppb	-0.071	-25.16	30	100	
Ag	107	2	115	1.883	ppb	1.883	7.63	3914	100	
Cd	111	2	115	3.537	ppb	3.537	11.90	603	2000	
Sn	120	2	115	1.695	ppb	1.695	19.89	790	2000	
Sb	121	2	115	1.062	ppb	1.062	7.86	380	1000	
Ba	137	2	115	35.116	ppb	35.116	5.64	3397	5000	
W	182	2	165	1.114	ppb	1.114	4.56	4244	100	
Pt	195	2	165	0.038	ppb	0.038	36.20	373	100	
Tl	205	2	165	3.672	ppb	3.672	4.60	17280	2000	
Pb	208	2	165	1003.042	ppb	1003.042	1.24	5983091	5000	
Th	232	2	165	4.173	ppb	4.173	2.27	28985	2000	
U	238	2	165	4.043	ppb	4.043	2.59	31513	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	556222	0.38	608971	91.34	60	120	
Sc (IS)	45	1	HMI H2	23676925	0.44	24673136	95.96	60	120	
Sc (IS)	45	2	HMI He	274025	0.84	281864	97.22	60	120	
Sc (IS)	45	3	No Gas	72725222	0.81	78056314	93.17	60	120	
Ge Internal Standard	72	1	HMI H2	12145847	0.52	12619474	96.25	60	120	
Ge Internal Standard	72	2	HMI He	418314	0.90	434818	96.20	60	120	
In Internal Standard	115	2	HMI He	947430	0.79	1007281	94.06	60	120	
Ho-165	165	2	HMI He	7868240	0.33	8283065	94.99	60	120	

Sample Table

Sample Name	280-104412-a-66-f msd@50
Data File Name	041SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T17:56:24-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	2.398	ppb	2.398	371.93	78214	500000	
Li	7	2	45	57.266	ppb	57.266	47.71	4991	500000	
Li	7	3	45	-11.602	ppb	-11.602	-50.96	4199420	50000	
Be	9	1	6	4.138	ppb	4.138	4.26	760	2000	
B	11	1	6	-178.528	ppb	-178.528	-1.50	29347	2000	
Na	23	1	45	49.777	ppb	49.777	1.96	324097	2000	
Na	23	2	45	48.017	ppb	48.017	11.47	13205	400000	
Mg	24	2	45	4791.184	ppb	4791.184	5.24	175063	400000	
Al	27	2	45	2805.871	ppb	2805.871	6.65	19201	400000	
K	39	1	45	725.602	ppb	725.602	1.36	6962409	400000	
K	39	2	45	769.484	ppb	769.484	4.91	12628	400000	
Ca	40	1	45	53469.689	ppb	53469.689	0.73	201145317	400000	
Ca	44	2	45	50825.768	ppb	50825.768	4.75	40460	400000	
Ti	47	2	45	16387.971	ppb	16387.971	18.89	527	4000	
V	51	2	72	8.800	ppb	8.800	4.90	4577	2000	
Cr	52	2	72	17.138	ppb	17.138	8.39	11207	5000	
Mn	55	2	72	68.625	ppb	68.625	6.96	11944	10000	
Fe	57	2	72	2521.260	ppb	2521.260	4.89	29859	400000	
Co	59	2	72	4.820	ppb	4.820	9.46	6945	2000	
Ni	60	2	72	7.547	ppb	7.547	12.15	3290	5000	
Cu	63	2	72	62.639	ppb	62.639	3.65	82395	5000	
Zn	66	2	72	22.011	ppb	22.011	6.60	2437	5000	
As	75	2	72	4.783	ppb	4.783	7.51	317	2000	
Se	78	1	72	3.105	ppb	3.105	6.09	913	2000	
Sr	88	2	72	128.817	ppb	128.817	6.45	18534	4000	
Zr	90	2	72	698.746	ppb	698.746	1.14	2914	1000	
Nb	93	2	72	-1.291	ppb	-1.291	-1.68	230	200	
Mo	95	2	115	3.928	ppb	3.928	5.10	2070	2000	
Pd	105	2	115	-0.095	ppb	-0.095	-6.30	7	100	
Ag	107	2	115	2.563	ppb	2.563	4.55	5268	100	
Cd	111	2	115	4.156	ppb	4.156	10.56	703	2000	
Sn	120	2	115	1.856	ppb	1.856	14.55	847	2000	
Sb	121	2	115	1.212	ppb	1.212	20.60	423	1000	
Ba	137	2	115	32.542	ppb	32.542	8.88	3120	5000	
W	182	2	165	1.183	ppb	1.183	2.32	4437	100	
Pt	195	2	165	0.035	ppb	0.035	62.95	360	100	
Tl	205	2	165	3.681	ppb	3.681	5.51	17100	2000	
Pb	208	2	165	1082.019	ppb	1082.019	5.11	6372166	5000	
Th	232	2	165	4.431	ppb	4.431	9.17	30297	2000	
U	238	2	165	4.145	ppb	4.145	5.22	31894	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	556832	0.38	608971	91.44	60	120	
Sc (IS)	45	1	HMI H2	23678090	0.23	24673136	95.97	60	120	
Sc (IS)	45	2	HMI He	269181	2.44	281864	95.50	60	120	
Sc (IS)	45	3	No Gas	72299987	0.71	78056314	92.63	60	120	
Ge Internal Standard	72	1	HMI H2	12140306	0.77	12619474	96.20	60	120	
Ge Internal Standard	72	2	HMI He	413898	1.95	434818	95.19	60	120	
In Internal Standard	115	2	HMI He	939896	2.93	1007281	93.31	60	120	
Ho-165	165	2	HMI He	7775982	2.90	8283065	93.88	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-66-d PDS@50
Data File Name	042SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:00:12-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399821 SOIL 6020A DOD5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-1.659	ppb	-1.659	-396.60	77036	500000	
Li	7	2	45	-0.887	ppb	-0.887	-3724.48	4221	500000	
Li	7	3	45	-15.385	ppb	-15.385	-13.27	4106065	50000	
Be	9	1	6	211.580	ppb	211.580	1.24	38775	2000	
B	11	1	6	-195.433	ppb	-195.433	-0.86	25966	2000	
Na	23	1	45	51.061	ppb	51.061	2.36	325726	2000	
Na	23	2	45	45.290	ppb	45.290	5.83	12885	400000	
Mg	24	2	45	4182.551	ppb	4182.551	0.60	151987	400000	
Al	27	2	45	4595.244	ppb	4595.244	3.31	31231	400000	
K	39	1	45	616.202	ppb	616.202	3.92	6681707	400000	
K	39	2	45	670.821	ppb	670.821	5.98	11337	400000	
Ca	40	1	45	48779.923	ppb	48779.923	0.94	182775544	400000	
Ca	44	2	45	45695.873	ppb	45695.873	1.17	36144	400000	
Ti	47	2	45	16579.895	ppb	16579.895	7.94	530	4000	
V	51	2	72	213.338	ppb	213.338	0.19	101010	2000	
Cr	52	2	72	221.882	ppb	221.882	0.28	142793	5000	
Mn	55	2	72	266.849	ppb	266.849	0.92	45890	10000	
Fe	57	2	72	4275.016	ppb	4275.016	4.34	50272	400000	
Co	59	2	72	207.657	ppb	207.657	0.37	296500	2000	
Ni	60	2	72	209.550	ppb	209.550	0.66	89628	5000	
Cu	63	2	72	360.846	ppb	360.846	0.66	464027	5000	
Zn	66	2	72	238.742	ppb	238.742	2.66	25362	5000	
As	75	2	72	198.775	ppb	198.775	0.69	12865	2000	
Se	78	1	72	205.939	ppb	205.939	3.10	58734	2000	
Sr	88	2	72	113.552	ppb	113.552	1.61	16235	4000	
Zr	90	2	72	31473.947	ppb	31473.947	0.86	128367	1000	>LDR
Nb	93	2	72	-0.544	ppb	-0.544	-13.70	1670	200	
Mo	95	2	115	203.762	ppb	203.762	0.30	105534	2000	
Pd	105	2	115	-0.074	ppb	-0.074	-31.81	27	100	
Ag	107	2	115	52.498	ppb	52.498	2.54	106808	100	
Cd	111	2	115	215.404	ppb	215.404	2.13	36296	2000	
Sn	120	2	115	198.465	ppb	198.465	0.52	78568	2000	
Sb	121	2	115	218.915	ppb	218.915	1.67	68543	1000	
Ba	137	2	115	227.762	ppb	227.762	2.88	21772	5000	
W	182	2	165	205.850	ppb	205.850	0.93	727668	100	
Pt	195	2	165	0.064	ppb	0.064	33.48	470	100	
Tl	205	2	165	208.362	ppb	208.362	1.76	968525	2000	
Pb	208	2	165	1258.532	ppb	1258.532	1.00	7458723	5000	
Th	232	2	165	1.463	ppb	1.463	5.08	10851	2000	
U	238	2	165	224.353	ppb	224.353	1.74	1732885	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	555589	0.70	608971	91.23	60	120	
Sc (IS)	45	1	HMI H2	23584251	0.80	24673136	95.59	60	120	
Sc (IS)	45	2	HMI He	267241	1.28	281864	94.81	60	120	
Sc (IS)	45	3	No Gas	71462586	0.52	78056314	91.55	60	120	
Ge Internal Standard	72	1	HMI H2	12143839	0.56	12619474	96.23	60	120	
Ge Internal Standard	72	2	HMI He	410927	0.24	434818	94.51	60	120	
In Internal Standard	115	2	HMI He	936506	0.62	1007281	92.97	60	120	
Ho-165	165	2	HMI He	7818486	1.32	8283065	94.39	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	043_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:04:00-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	494.083	ppb	2.378	181610	500	98.8	90	110	
Li	7	2	45	510.666	ppb	2.511	10944	500	102.1	90	110	
Li	7	3	45	473.040	ppb	0.589	10142828	500	94.6	90	110	
Be	9	1	6	51.737	ppb	4.466	9319	50	103.5	90	110	
B	11	1	6	-158.626	ppb	-3.980	32623	50	-317.3	90	110	>+\-10%
Na	23	1	45	5023.692	ppb	0.500	11568050	5000	100.5	90	110	
Na	23	2	45	4955.683	ppb	1.051	428204	5000	99.1	90	110	
Mg	24	2	45	5032.711	ppb	1.257	187479	5000	100.7	90	110	
Al	27	2	45	5170.329	ppb	2.511	36080	5000	103.4	90	110	
K	39	1	45	5336.312	ppb	1.482	17515331	5000	106.7	90	110	
K	39	2	45	5043.191	ppb	1.123	66449	5000	100.9	90	110	
Ca	40	1	45	5132.249	ppb	0.708	19216833	5000	102.6	90	110	
Ca	44	2	45	5068.809	ppb	5.806	4151	5000	101.4	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	50.662	ppb	5.265	24548	50	101.3	90	110	
Cr	52	2	72	49.809	ppb	5.950	32490	50	99.6	90	110	
Mn	55	2	72	50.881	ppb	3.315	8919	50	101.8	90	110	
Fe	57	2	72	4907.345	ppb	3.894	58323	5000	98.1	90	110	
Co	59	2	72	49.176	ppb	3.378	70995	50	98.4	90	110	
Ni	60	2	72	49.739	ppb	5.926	21534	50	99.5	90	110	
Cu	63	2	72	48.854	ppb	1.864	64872	50	97.7	90	110	
Zn	66	2	72	49.337	ppb	6.404	5371	50	98.7	90	110	
As	75	2	72	50.430	ppb	2.151	3304	50	100.9	90	110	
Se	78	1	72	51.059	ppb	1.479	14559	50	102.1	90	110	
Sr	88	2	72	49.814	ppb	2.609	7212	50	99.6	90	110	
Zr	90	2	72	133.085	ppb	12.529	593	50	266.2	90	110	>+\-10%
Nb	93	2	72	92.544	ppb	2.468	183496	100	92.5	90	110	
Mo	95	2	115	48.146	ppb	1.827	25413	50	96.3	90	110	
Pd	105	2	115	49.687	ppb	1.843	49452	50	99.4	90	110	
Ag	107	2	115	49.112	ppb	2.660	101734	50	98.2	90	110	
Cd	111	2	115	49.120	ppb	4.518	8429	50	98.2	90	110	
Sn	120	2	115	47.587	ppb	1.996	19268	50	95.2	90	110	
Sb	121	2	115	50.909	ppb	1.543	16265	50	101.8	90	110	
Ba	137	2	115	47.854	ppb	6.027	4658	50	95.7	90	110	
W	182	2	165	49.875	ppb	2.971	179292	50	99.7	90	110	
Pt	195	2	165	49.239	ppb	3.318	187369	50	98.5	90	110	
Tl	205	2	165	49.922	ppb	3.139	235790	50	99.8	90	110	
Pb	208	2	165	49.715	ppb	2.327	300309	50	99.4	90	110	
Th	232	2	165	47.963	ppb	3.164	323844	50	95.9	90	110	
U	238	2	165	50.068	ppb	2.526	392909	50	100.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	546221	0.95	608971	89.70	60	120	
Sc (IS)	45	1	HMI H2	23480951	0.41	24673136	95.17	60	120	
Sc (IS)	45	2	HMI He	274325	0.38	281864	97.33	60	120	
Sc (IS)	45	3	No Gas	73241786	0.02	78056314	93.83	60	120	
Ge Internal Standard	72	1	HMI H2	12122565	0.70	12619474	96.06	60	120	
Ge Internal Standard	72	2	HMI He	415444	0.73	434818	95.54	60	120	
In Internal Standard	115	2	HMI He	953660	1.35	1007281	94.68	60	120	
Ho-165	165	2	HMI He	7942904	1.37	8283065	95.89	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	044_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:07:46-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-9.881	ppb	-32.3	4313304	10	
Be	9	1	6	0.158	ppb	145.2	30	0.5	
B	11	1	6	-218.056	ppb	-2.5	22384	0.5	
Na	23	1	45	-10.328	ppb	-6.1	189126	25	
Na	23	2	45	-6.318	ppb	-109.0	8836	25	
Mg	24	2	45	50.436	ppb	13.6	3087	25	>RL
Al	27	2	45	-0.854	ppb	-259.2	13	15	
K	39	1	45	-9.717	ppb	-157.2	5314262	50	
K	39	2	45	38.408	ppb	29.4	3701	50	
Ca	40	1	45	0.678	ppb	46.4	82488	50	
Ca	44	2	45	-31.498	ppb	-22.4	13	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.102	ppb	-46.6	350	1	
Cr	52	2	72	0.017	ppb	657.0	130	1	
Mn	55	2	72	-0.287	ppb	-34.4	40	0.5	
Fe	57	2	72	1.762	ppb	170.8	50	25	
Co	59	2	72	0.019	ppb	108.7	50	0.5	
Ni	60	2	72	-0.050	ppb	-80.6	20	1	
Cu	63	2	72	-0.441	ppb	-12.4	1010	1	
Zn	66	2	72	0.097	ppb	284.4	103	5	
As	75	2	72	0.024	ppb	439.3	7	1	
Se	78	1	72	-0.053	ppb	-65.3	13	1	
Sr	88	2	72	-0.085	ppb	-139.5	10	0.5	
Zr	90	2	72	20.648	ppb	21.3	130	1	>RL
Nb	93	2	72	0.421	ppb	17.4	3587	2	
Mo	95	2	115	0.022	ppb	101.3	43	0.5	
Pd	105	2	115	-0.062	ppb	-42.2	40	1	
Ag	107	2	115	-0.020	ppb	0.0	0	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.153	ppb	21.2	177	1	
Sb	121	2	115	0.131	ppb	122.9	87	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.001	ppb	945.7	287	1	
Pt	195	2	165	0.038	ppb	75.6	377	1	
Tl	205	2	165	0.032	ppb	17.3	250	0.1	
Pb	208	2	165	0.056	ppb	22.7	1390	0.5	
Th	232	2	165	0.181	ppb	32.1	2380	1	
U	238	2	165	0.025	ppb	29.4	277	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	577707	0.43	608971	94.87	60	120	
Sc (IS)	45	1	HMI H2	23941201	0.33	24673136	97.03	60	120	
Sc (IS)	45	2	HMI He	273449	0.57	281864	97.01	60	120	
Sc (IS)	45	3	No Gas	73896799	0.80	78056314	94.67	60	120	
Ge Internal Standard	72	1	HMI H2	12358191	0.34	12619474	97.93	60	120	
Ge Internal Standard	72	2	HMI He	416975	1.00	434818	95.90	60	120	
In Internal Standard	115	2	HMI He	962972	0.89	1007281	95.60	60	120	
Ho-165	165	2	HMI He	7898721	0.43	8283065	95.36	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	045LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:11:34-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	2.607	ppb	76.237	4462480	50	5.2	70	130	>+/-30%
Be	9	1	6	0.949	ppb	9.523	180	1	94.9	70	130	
Na	23	2	45	42.079	ppb	14.887	12745	50	84.2	70	130	
Mg	24	2	45	112.011	ppb	3.384	5288	50	224.0	70	130	>+/-30%
Al	27	2	45	27.844	ppb	10.122	210	30	92.8	70	130	
K	39	2	45	150.789	ppb	16.614	5041	100	150.8	70	130	>+/-30%
Ca	44	2	45	60.951	ppb	62.081	87	50	121.9	70	130	
V	51	2	72	4.878	ppb	5.462	2737	5	97.6	70	130	
Cr	52	2	72	1.946	ppb	7.480	1390	2	97.3	70	130	
Mn	55	2	72	0.630	ppb	47.823	200	1	63.0	70	130	>+/-30%
Fe	57	2	72	50.913	ppb	18.391	637	50	101.8	70	130	
Co	59	2	72	0.970	ppb	8.035	1430	1	97.0	70	130	
Ni	60	2	72	2.015	ppb	7.916	917	2	100.7	70	130	
Cu	63	2	72	1.780	ppb	7.197	3904	2	89.0	70	130	
Zn	66	2	72	9.585	ppb	20.233	1123	10	95.8	70	130	
As	75	2	72	4.717	ppb	3.609	316	5	94.3	70	130	
Se	78	1	72	4.799	ppb	5.784	1415	5	96.0	70	130	
Sr	88	2	72	0.742	ppb	18.348	130	1	74.2	70	130	
Zr	90	2	72	40.704	ppb	49.517	213	0.5	8140.8	70	130	>+/-30%
Nb	93	2	72	0.137	ppb	151.369	3034	2	6.8	70	130	>+/-30%
Mo	95	2	115	2.144	ppb	19.505	1160	2	107.2	70	130	
Pd	105	2	115	-0.048	ppb	-85.096	53	1	-4.8	70	130	>+/-30%
Ag	107	2	115	4.975	ppb	1.051	10334	5	99.5	70	130	
Cd	111	2	115	0.857	ppb	28.450	147	1	85.7	70	130	
Sn	120	2	115	9.219	ppb	1.380	3821	10	92.2	70	130	
Sb	121	2	115	2.343	ppb	13.511	790	2	117.2	70	130	
Ba	137	2	115	1.165	ppb	20.003	113	1	116.5	70	130	
W	182	2	165	4.754	ppb	3.403	17337	1	475.4	70	130	>+/-30%
Pt	195	2	165	0.084	ppb	10.814	553	1	8.4	70	130	>+/-30%
Tl	205	2	165	1.038	ppb	3.597	5004	1	103.8	70	130	
Pb	208	2	165	1.031	ppb	0.994	7261	1	103.1	70	130	
Th	232	2	165	1.945	ppb	5.018	14254	2	97.3	70	130	
U	238	2	165	1.078	ppb	8.876	8526	1	107.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	575200	0.55	608971	94.45	60	120	
Sc (IS)	45	1	HMI H2	23864550	0.46	24673136	96.72	60	120	
Sc (IS)	45	2	HMI He	269920	1.32	281864	95.76	60	120	
Sc (IS)	45	3	No Gas	73833466	0.65	78056314	94.59	60	120	
Ge Internal Standard	72	1	HMI H2	12306043	0.39	12619474	97.52	60	120	
Ge Internal Standard	72	2	HMI He	417582	0.33	434818	96.04	60	120	
In Internal Standard	115	2	HMI He	952669	0.87	1007281	94.58	60	120	
Ho-165	165	2	HMI He	7937855	1.46	8283065	95.83	60	120	

Sample Table

Sample Name	280-104320-V-9-D
Data File Name	046SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:15:24-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5 Ni, Ba, Pb V
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	2.839	ppb	2.839	436.17	75969	500000	
Li	7	2	45	32.224	ppb	32.224	90.27	4561	500000	
Li	7	3	45	-6.053	ppb	-6.053	-39.98	4125621	50000	
Be	9	1	6	0.038	ppb	0.038	86.61	7	2000	
B	11	1	6	-161.145	ppb	-161.145	-1.05	31417	2000	
Na	23	1	45	11331.308	ppb	11331.308	0.78	25268908	2000	>LDR
Na	23	2	45	11434.697	ppb	11434.697	1.05	934570	400000	
Mg	24	2	45	29116.361	ppb	29116.361	0.97	1033251	400000	
Al	27	2	45	65.085	ppb	65.085	21.79	453	400000	
K	39	1	45	1240.136	ppb	1240.136	2.91	7912529	400000	
K	39	2	45	2233.904	ppb	2233.904	2.80	29916	400000	
Ca	40	1	45	95333.978	ppb	95333.978	0.97	347858675	400000	
Ca	44	2	45	89905.671	ppb	89905.671	4.32	69881	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.471	ppb	-0.471	-11.78	167	2000	
Cr	52	2	72	0.361	ppb	0.361	13.69	340	5000	
Mn	55	2	72	284.027	ppb	284.027	1.44	47594	10000	
Fe	57	2	72	654.835	ppb	654.835	5.67	7525	400000	
Co	59	2	72	1.862	ppb	1.862	4.53	2614	2000	
Ni	60	2	72	11.901	ppb	11.901	3.75	4998	5000	
Cu	63	2	72	-0.321	ppb	-0.321	-20.24	1120	5000	
Zn	66	2	72	1.821	ppb	1.821	59.36	277	5000	
As	75	2	72	47.673	ppb	47.673	5.28	3010	2000	
Se	78	1	72	-0.036	ppb	-0.036	-46.31	17	2000	
Sr	88	2	72	268.196	ppb	268.196	1.64	37338	4000	
Zr	90	2	72	23.681	ppb	23.681	53.55	137	1000	
Nb	93	2	72	-1.073	ppb	-1.073	-6.42	633	200	
Mo	95	2	115	2.520	ppb	2.520	5.49	1313	2000	
Pd	105	2	115	-0.080	ppb	-0.080	-26.18	20	100	
Ag	107	2	115	-0.010	ppb	-0.010	-87.58	20	100	
Cd	111	2	115	0.080	ppb	0.080	86.60	13	2000	
Sn	120	2	115	0.138	ppb	0.138	54.26	163	2000	
Sb	121	2	115	2.278	ppb	2.278	7.05	743	1000	
Ba	137	2	115	54.564	ppb	54.564	8.31	5131	5000	
W	182	2	165	0.121	ppb	0.121	10.40	700	100	
Pt	195	2	165	0.046	ppb	0.046	53.63	397	100	
Tl	205	2	165	-0.007	ppb	-0.007	-60.99	67	2000	
Pb	208	2	165	0.194	ppb	0.194	10.09	2173	5000	
Th	232	2	165	0.085	ppb	0.085	30.59	1714	2000	
U	238	2	165	3.587	ppb	3.587	0.99	27549	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	533920	1.08	608971	87.68	60	120	
Sc (IS)	45	1	HMI H2	22970085	0.27	24673136	93.10	60	120	
Sc (IS)	45	2	HMI He	262752	0.14	281864	93.22	60	120	
Sc (IS)	45	3	No Gas	69922166	0.69	78056314	89.58	60	120	
Ge Internal Standard	72	1	HMI H2	11776513	0.05	12619474	93.32	60	120	
Ge Internal Standard	72	2	HMI He	400483	1.03	434818	92.10	60	120	
In Internal Standard	115	2	HMI He	921114	1.03	1007281	91.45	60	120	
Ho-165	165	2	HMI He	7752360	1.32	8283065	93.59	60	120	

Sample Table

Sample Name	280-104320-V-9-Dsd@5
Data File Name	047SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:19:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.211	ppb	3.211	155.06	76655	500000	
Li	7	2	45	35.810	ppb	35.810	81.45	4581	500000	
Li	7	3	45	-4.325	ppb	-4.325	-48.25	4229657	50000	
Be	9	1	6	0.054	ppb	0.054	100.33	10	2000	
B	11	1	6	-223.104	ppb	-223.104	-0.93	20759	2000	
Na	23	1	45	2294.016	ppb	2294.016	1.29	5321171	2000	
Na	23	2	45	2300.953	ppb	2300.953	1.16	194124	400000	
Mg	24	2	45	5997.288	ppb	5997.288	1.21	212524	400000	
Al	27	2	45	12.738	ppb	12.738	66.44	103	400000	
K	39	1	45	180.681	ppb	180.681	10.70	5572222	400000	
K	39	2	45	442.892	ppb	442.892	4.65	8366	400000	
Ca	40	1	45	19181.066	ppb	19181.066	0.90	70616492	400000	
Ca	44	2	45	18130.343	ppb	18130.343	5.53	14043	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.192	ppb	-0.192	-20.46	300	2000	
Cr	52	2	72	0.002	ppb	0.002	4101.86	117	5000	
Mn	55	2	72	53.523	ppb	53.523	8.25	9203	10000	
Fe	57	2	72	127.652	ppb	127.652	8.17	1517	400000	
Co	59	2	72	0.380	ppb	0.380	21.21	560	2000	
Ni	60	2	72	2.585	ppb	2.585	7.93	1137	5000	
Cu	63	2	72	-0.337	ppb	-0.337	-21.53	1120	5000	
Zn	66	2	72	-0.102	ppb	-0.102	-336.05	80	5000	
As	75	2	72	8.592	ppb	8.592	6.00	557	2000	
Se	78	1	72	-0.052	ppb	-0.052	-113.12	13	2000	
Sr	88	2	72	53.795	ppb	53.795	3.18	7642	4000	
Zr	90	2	72	1.548	ppb	1.548	420.58	50	1000	
Nb	93	2	72	-1.277	ppb	-1.277	-1.35	253	200	
Mo	95	2	115	0.861	ppb	0.861	16.14	473	2000	
Pd	105	2	115	-0.070	ppb	-0.070	-43.82	30	100	
Ag	107	2	115	-0.008	ppb	-0.008	-91.42	23	100	
Cd	111	2	115	0.040	ppb	0.040	86.60	7	2000	
Sn	120	2	115	-0.027	ppb	-0.027	-243.69	100	2000	
Sb	121	2	115	0.441	ppb	0.441	47.99	180	1000	
Ba	137	2	115	12.371	ppb	12.371	4.07	1173	5000	
W	182	2	165	-0.022	ppb	-0.022	-37.41	203	100	
Pt	195	2	165	0.016	ppb	0.016	57.05	293	100	
Tl	205	2	165	-0.010	ppb	-0.010	-12.17	57	2000	
Pb	208	2	165	0.048	ppb	0.048	108.65	1343	5000	
Th	232	2	165	-0.111	ppb	-0.111	-19.82	430	2000	
U	238	2	165	0.728	ppb	0.728	7.43	5758	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	561535	0.53	608971	92.21	60	120	
Sc (IS)	45	1	HMI H2	23157258	0.89	24673136	93.86	60	120	
Sc (IS)	45	2	HMI He	261245	0.80	281864	92.68	60	120	
Sc (IS)	45	3	No Gas	71334891	0.79	78056314	91.39	60	120	
Ge Internal Standard	72	1	HMI H2	12069156	0.60	12619474	95.64	60	120	
Ge Internal Standard	72	2	HMI He	407674	0.35	434818	93.76	60	120	
In Internal Standard	115	2	HMI He	929232	0.31	1007281	92.25	60	120	
Ho-165	165	2	HMI He	7891685	0.55	8283065	95.27	60	120	

Sample Report

Sample Table

Sample Name	280-104320-V-9-E MS
Data File Name	048SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:23:01-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	38.453	ppb	38.453	25.32	81746	500000	
Li	7	2	45	85.121	ppb	85.121	7.84	5131	500000	
Li	7	3	45	31.011	ppb	31.011	5.29	4581884	50000	
Be	9	1	6	42.601	ppb	42.601	2.97	7505	2000	
B	11	1	6	-139.065	ppb	-139.065	-2.30	35582	2000	
Na	23	1	45	11315.516	ppb	11315.516	0.47	24753745	2000	>LDR
Na	23	2	45	11294.050	ppb	11294.050	1.45	908089	400000	
Mg	24	2	45	28881.467	ppb	28881.467	1.30	1008191	400000	
Al	27	2	45	486.255	ppb	486.255	8.14	3214	400000	
K	39	1	45	1193.343	ppb	1193.343	2.47	7658716	400000	
K	39	2	45	2209.143	ppb	2209.143	1.66	29134	400000	
Ca	40	1	45	95113.267	ppb	95113.267	0.88	340441075	400000	
Ca	44	2	45	90462.515	ppb	90462.515	0.52	69170	400000	
Ti	47	2	45	432.198	ppb	432.198	86.61	13	4000	
V	51	2	72	40.749	ppb	40.749	3.68	18937	2000	
Cr	52	2	72	40.796	ppb	40.796	3.71	25449	5000	
Mn	55	2	72	321.611	ppb	321.611	2.80	53394	10000	
Fe	57	2	72	1076.380	ppb	1076.380	4.97	12245	400000	
Co	59	2	72	42.276	ppb	42.276	0.87	58306	2000	
Ni	60	2	72	52.240	ppb	52.240	2.25	21607	5000	
Cu	63	2	72	38.903	ppb	38.903	2.34	49657	5000	
Zn	66	2	72	42.322	ppb	42.322	2.20	4414	5000	
As	75	2	72	85.774	ppb	85.774	4.62	5364	2000	
Se	78	1	72	39.726	ppb	39.726	1.46	10797	2000	
Sr	88	2	72	312.453	ppb	312.453	3.24	43097	4000	
Zr	90	2	72	5791.532	ppb	5791.532	3.30	22846	1000	>LDR
Nb	93	2	72	-1.182	ppb	-1.182	-4.96	423	200	
Mo	95	2	115	43.604	ppb	43.604	3.92	21784	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.25	3	100	
Ag	107	2	115	40.702	ppb	40.702	1.32	79806	100	
Cd	111	2	115	39.625	ppb	39.625	3.00	6435	2000	
Sn	120	2	115	39.825	ppb	39.825	1.88	15277	2000	
Sb	121	2	115	42.919	ppb	42.919	5.75	12989	1000	
Ba	137	2	115	91.574	ppb	91.574	4.28	8436	5000	
W	182	2	165	40.762	ppb	40.762	0.75	142488	100	
Pt	195	2	165	0.021	ppb	0.021	151.60	303	100	
Tl	205	2	165	40.556	ppb	40.556	0.34	186220	2000	
Pb	208	2	165	41.035	ppb	41.035	0.52	241112	5000	
Th	232	2	165	39.763	ppb	39.763	0.98	261172	2000	
U	238	2	165	45.157	ppb	45.157	0.85	344452	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	533995	1.02	608971	87.69	60	120	
Sc (IS)	45	1	HMI H2	22533686	0.67	24673136	91.33	60	120	
Sc (IS)	45	2	HMI He	258475	0.93	281864	91.70	60	120	
Sc (IS)	45	3	No Gas	70324466	0.19	78056314	90.09	60	120	
Ge Internal Standard	72	1	HMI H2	11548879	0.29	12619474	91.52	60	120	
Ge Internal Standard	72	2	HMI He	396827	0.52	434818	91.26	60	120	
In Internal Standard	115	2	HMI He	902481	0.90	1007281	89.60	60	120	
Ho-165	165	2	HMI He	7718772	0.15	8283065	93.19	60	120	

Sample Table

Sample Name	280-104320-V-9-F MSD
Data File Name	049SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:26:50-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	37.574	ppb	37.574	16.73	82098	500000	
Li	7	2	45	31.133	ppb	31.133	60.73	4487	500000	
Li	7	3	45	38.016	ppb	38.016	7.25	4552795	50000	
Be	9	1	6	41.795	ppb	41.795	2.91	7308	2000	
B	11	1	6	-146.257	ppb	-146.257	-3.70	33982	2000	
Na	23	1	45	10846.113	ppb	10846.113	1.30	23888507	2000	>LDR
Na	23	2	45	10933.811	ppb	10933.811	0.38	882012	400000	
Mg	24	2	45	27744.149	ppb	27744.149	0.99	971365	400000	
Al	27	2	45	444.231	ppb	444.231	9.11	2947	400000	
K	39	1	45	1073.332	ppb	1073.332	5.98	7441078	400000	
K	39	2	45	2137.648	ppb	2137.648	1.48	28373	400000	
Ca	40	1	45	91564.437	ppb	91564.437	0.96	329863622	400000	
Ca	44	2	45	87074.129	ppb	87074.129	2.74	66781	400000	
Ti	47	2	45	643.181	ppb	643.181	86.61	20	4000	
V	51	2	72	39.639	ppb	39.639	2.47	18370	2000	
Cr	52	2	72	40.138	ppb	40.138	3.18	24948	5000	
Mn	55	2	72	314.048	ppb	314.048	3.37	51953	10000	
Fe	57	2	72	1008.463	ppb	1008.463	4.87	11434	400000	
Co	59	2	72	41.005	ppb	41.005	0.84	56367	2000	
Ni	60	2	72	48.723	ppb	48.723	2.09	20085	5000	
Cu	63	2	72	38.567	ppb	38.567	2.14	49069	5000	
Zn	66	2	72	40.189	ppb	40.189	6.80	4181	5000	
As	75	2	72	84.772	ppb	84.772	1.68	5283	2000	
Se	78	1	72	39.407	ppb	39.407	3.98	10817	2000	
Sr	88	2	72	304.627	ppb	304.627	2.60	41881	4000	
Zr	90	2	72	5917.823	ppb	5917.823	2.00	23263	1000	>LDR
Nb	93	2	72	-1.230	ppb	-1.230	-1.04	333	200	
Mo	95	2	115	42.902	ppb	42.902	1.42	21638	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-11.68	10	100	
Ag	107	2	115	40.668	ppb	40.668	2.23	80489	100	
Cd	111	2	115	41.466	ppb	41.466	7.80	6795	2000	
Sn	120	2	115	38.791	ppb	38.791	2.34	15024	2000	
Sb	121	2	115	42.053	ppb	42.053	4.19	12842	1000	
Ba	137	2	115	92.036	ppb	92.036	1.66	8559	5000	
W	182	2	165	40.216	ppb	40.216	1.04	140983	100	
Pt	195	2	165	0.015	ppb	0.015	53.36	283	100	
Tl	205	2	165	39.934	ppb	39.934	1.30	183894	2000	
Pb	208	2	165	39.632	ppb	39.632	1.99	233557	5000	
Th	232	2	165	38.835	ppb	38.835	2.76	255812	2000	
U	238	2	165	44.267	ppb	44.267	0.79	338635	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	530109	0.61	608971	87.05	60	120	
Sc (IS)	45	1	HMI H2	22680045	1.02	24673136	91.92	60	120	
Sc (IS)	45	2	HMI He	259223	0.72	281864	91.97	60	120	
Sc (IS)	45	3	No Gas	68652944	0.24	78056314	87.95	60	120	
Ge Internal Standard	72	1	HMI H2	11662980	0.62	12619474	92.42	60	120	
Ge Internal Standard	72	2	HMI He	395491	0.92	434818	90.96	60	120	
In Internal Standard	115	2	HMI He	910977	0.67	1007281	90.44	60	120	
Ho-165	165	2	HMI He	7741269	0.84	8283065	93.46	60	120	

Sample Table

Sample Name	280-104320-V-9-D pds
Data File Name	050SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:30:39-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.011	ppb	3.011	232.88	75072	500000	
Li	7	2	45	52.920	ppb	52.920	59.55	4661	500000	
Li	7	3	45	-3.514	ppb	-3.514	-9.96	4125642	50000	
Be	9	1	6	207.696	ppb	207.696	1.32	36233	2000	
B	11	1	6	-180.106	ppb	-180.106	-1.87	27578	2000	
Na	23	1	45	11180.814	ppb	11180.814	0.53	24629207	2000	>LDR
Na	23	2	45	11429.963	ppb	11429.963	3.45	904562	400000	
Mg	24	2	45	29135.876	ppb	29135.876	4.16	1001027	400000	
Al	27	2	45	2271.019	ppb	2271.019	4.54	14713	400000	
K	39	1	45	1127.405	ppb	1127.405	4.09	7564368	400000	
K	39	2	45	2267.120	ppb	2267.120	3.65	29361	400000	
Ca	40	1	45	94445.117	ppb	94445.117	0.25	340379328	400000	
Ca	44	2	45	91935.918	ppb	91935.918	3.92	69190	400000	
Ti	47	2	45	1312.271	ppb	1312.271	24.34	40	4000	
V	51	2	72	206.228	ppb	206.228	2.13	94089	2000	
Cr	52	2	72	203.510	ppb	203.510	4.31	126153	5000	
Mn	55	2	72	482.495	ppb	482.495	2.67	79872	10000	
Fe	57	2	72	2672.950	ppb	2672.950	5.01	30280	400000	
Co	59	2	72	202.251	ppb	202.251	3.86	278163	2000	
Ni	60	2	72	210.322	ppb	210.322	5.78	86625	5000	
Cu	63	2	72	195.874	ppb	195.874	3.30	243323	5000	
Zn	66	2	72	213.302	ppb	213.302	0.97	21848	5000	
As	75	2	72	240.191	ppb	240.191	3.04	14976	2000	
Se	78	1	72	196.715	ppb	196.715	1.05	53621	2000	
Sr	88	2	72	270.028	ppb	270.028	3.85	37157	4000	
Zr	90	2	72	31717.218	ppb	31717.218	4.19	124594	1000	>LDR
Nb	93	2	72	-0.433	ppb	-0.433	-20.00	1820	200	
Mo	95	2	115	204.838	ppb	204.838	3.40	102733	2000	
Pd	105	2	115	-0.074	ppb	-0.074	-35.47	27	100	
Ag	107	2	115	50.558	ppb	50.558	0.71	99666	100	
Cd	111	2	115	206.553	ppb	206.553	3.05	33707	2000	
Sn	120	2	115	200.495	ppb	200.495	4.74	76848	2000	
Sb	121	2	115	217.320	ppb	217.320	3.66	65902	1000	
Ba	137	2	115	256.456	ppb	256.456	3.48	23741	5000	
W	182	2	165	209.134	ppb	209.134	4.12	727178	100	
Pt	195	2	165	0.088	ppb	0.088	47.45	553	100	
Tl	205	2	165	204.415	ppb	204.415	3.54	934795	2000	
Pb	208	2	165	200.044	ppb	200.044	3.13	1167254	5000	
Th	232	2	165	1.082	ppb	1.082	25.08	8169	2000	
U	238	2	165	226.145	ppb	226.145	4.63	1718116	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	528899	0.82	608971	86.85	60	120	
Sc (IS)	45	1	HMI H2	22688215	0.76	24673136	91.96	60	120	
Sc (IS)	45	2	HMI He	254553	2.37	281864	90.31	60	120	
Sc (IS)	45	3	No Gas	69425039	0.07	78056314	88.94	60	120	
Ge Internal Standard	72	1	HMI H2	11606081	0.60	12619474	91.97	60	120	
Ge Internal Standard	72	2	HMI He	396044	2.29	434818	91.08	60	120	
In Internal Standard	115	2	HMI He	907437	2.75	1007281	90.09	60	120	
Ho-165	165	2	HMI He	7695471	2.61	8283065	92.91	60	120	

Sample Table

Sample Name	280-104320-C-2-B
Data File Name	051SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:34:27-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5 Ni, Ba, Pb V
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-7.392	ppb	-7.392	-170.88	73994	500000	
Li	7	2	45	1.254	ppb	1.254	1238.06	4167	500000	
Li	7	3	45	-15.241	ppb	-15.241	-16.49	4075139	50000	
Be	9	1	6	0.074	ppb	0.074	114.95	13	2000	
B	11	1	6	-227.813	ppb	-227.813	-1.94	19097	2000	
Na	23	1	45	3516.832	ppb	3516.832	1.04	7997366	2000	
Na	23	2	45	3532.917	ppb	3532.917	1.29	294184	400000	
Mg	24	2	45	14587.151	ppb	14587.151	1.72	516855	400000	
Al	27	2	45	27.232	ppb	27.232	28.93	200	400000	
K	39	1	45	-338.511	ppb	-338.511	-9.18	4366268	400000	
K	39	2	45	788.798	ppb	788.798	4.38	12532	400000	
Ca	40	1	45	63970.335	ppb	63970.335	1.01	233847183	400000	
Ca	44	2	45	60263.248	ppb	60263.248	2.93	46725	400000	
Ti	47	2	45	214.123	ppb	214.123	173.21	7	4000	
V	51	2	72	-0.183	ppb	-0.183	-106.86	303	2000	
Cr	52	2	72	0.291	ppb	0.291	37.70	300	5000	
Mn	55	2	72	1764.751	ppb	1764.751	1.30	299387	10000	
Fe	57	2	72	25.717	ppb	25.717	15.29	327	400000	
Co	59	2	72	0.086	ppb	0.086	25.84	143	2000	
Ni	60	2	72	2.477	ppb	2.477	10.46	1087	5000	
Cu	63	2	72	-0.125	ppb	-0.125	-100.48	1383	5000	
Zn	66	2	72	1.753	ppb	1.753	37.36	273	5000	
As	75	2	72	0.139	ppb	0.139	108.02	14	2000	
Se	78	1	72	0.127	ppb	0.127	57.41	63	2000	
Sr	88	2	72	76.743	ppb	76.743	4.38	10847	4000	
Zr	90	2	72	86.032	ppb	86.032	5.72	390	1000	
Nb	93	2	72	-1.325	ppb	-1.325	-1.19	160	200	
Mo	95	2	115	0.174	ppb	0.174	58.84	120	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.14	3	100	
Ag	107	2	115	0.002	ppb	0.002	605.87	43	100	
Cd	111	2	115	0.200	ppb	0.200	69.18	33	2000	
Sn	120	2	115	0.503	ppb	0.503	37.96	307	2000	
Sb	121	2	115	0.142	ppb	0.142	92.66	87	1000	
Ba	137	2	115	5.504	ppb	5.504	5.11	520	5000	
W	182	2	165	0.393	ppb	0.393	10.20	1644	100	
Pt	195	2	165	0.023	ppb	0.023	32.04	310	100	
Tl	205	2	165	0.040	ppb	0.040	2.32	283	2000	
Pb	208	2	165	0.164	ppb	0.164	1.30	1987	5000	
Th	232	2	165	-0.067	ppb	-0.067	-21.34	703	2000	
U	238	2	165	1.503	ppb	1.503	3.38	11511	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	540962	1.92	608971	88.83	60	120	
Sc (IS)	45	1	HMI H2	23011595	0.86	24673136	93.27	60	120	
Sc (IS)	45	2	HMI He	262067	0.78	281864	92.98	60	120	
Sc (IS)	45	3	No Gas	70897122	0.43	78056314	90.83	60	120	
Ge Internal Standard	72	1	HMI H2	11862674	1.38	12619474	94.00	60	120	
Ge Internal Standard	72	2	HMI He	406053	0.64	434818	93.38	60	120	
In Internal Standard	115	2	HMI He	925522	0.42	1007281	91.88	60	120	
Ho-165	165	2	HMI He	7703046	0.65	8283065	93.00	60	120	

Sample Table

Sample Name	280-104320-J-3-B
Data File Name	052SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:38:15-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.520	ppb	3.520	152.61	74529	500000	
Li	7	2	45	21.856	ppb	21.856	49.57	4317	500000	
Li	7	3	45	-5.475	ppb	-5.475	-49.33	4105286	50000	
Be	9	1	6	0.038	ppb	0.038	86.60	7	2000	
B	11	1	6	-131.352	ppb	-131.352	-4.94	37198	2000	
Na	23	1	45	9545.305	ppb	9545.305	0.12	20877020	2000	
Na	23	2	45	9585.966	ppb	9585.966	1.22	764426	400000	
Mg	24	2	45	22741.722	ppb	22741.722	0.11	786250	400000	
Al	27	2	45	6.350	ppb	6.350	172.01	60	400000	
K	39	1	45	1043.286	ppb	1043.286	2.02	7314898	400000	
K	39	2	45	2097.968	ppb	2097.968	2.78	27552	400000	
Ca	40	1	45	85722.494	ppb	85722.494	1.09	306312515	400000	
Ca	44	2	45	80558.741	ppb	80558.741	0.85	60994	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.313	ppb	-0.313	-65.18	237	2000	
Cr	52	2	72	0.189	ppb	0.189	47.24	230	5000	
Mn	55	2	72	343.617	ppb	343.617	1.86	57015	10000	
Fe	57	2	72	817.105	ppb	817.105	6.93	9296	400000	
Co	59	2	72	5.733	ppb	5.733	1.13	7922	2000	
Ni	60	2	72	5.114	ppb	5.114	5.69	2150	5000	
Cu	63	2	72	-0.334	ppb	-0.334	-36.51	1093	5000	
Zn	66	2	72	1.029	ppb	1.029	44.95	193	5000	
As	75	2	72	46.831	ppb	46.831	1.91	2930	2000	
Se	78	1	72	-0.035	ppb	-0.035	-104.86	17	2000	
Sr	88	2	72	196.545	ppb	196.545	0.49	27109	4000	
Zr	90	2	72	51.879	ppb	51.879	7.39	247	1000	
Nb	93	2	72	-1.341	ppb	-1.341	-2.05	127	200	
Mo	95	2	115	0.632	ppb	0.632	17.46	350	2000	
Pd	105	2	115	-0.101	ppb	-0.101	0.00	0	100	
Ag	107	2	115	-0.010	ppb	-0.010	-103.48	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.356	ppb	0.356	22.72	247	2000	
Sb	121	2	115	0.613	ppb	0.613	37.78	230	1000	
Ba	137	2	115	73.016	ppb	73.016	1.46	6822	5000	
W	182	2	165	0.105	ppb	0.105	18.47	643	100	
Pt	195	2	165	0.023	ppb	0.023	146.89	313	100	
Tl	205	2	165	0.005	ppb	0.005	89.57	123	2000	
Pb	208	2	165	0.145	ppb	0.145	28.88	1880	5000	
Th	232	2	165	-0.092	ppb	-0.092	-10.27	547	2000	
U	238	2	165	0.430	ppb	0.430	2.49	3361	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	536326	0.29	608971	88.07	60	120	
Sc (IS)	45	1	HMI H2	22494877	0.33	24673136	91.17	60	120	
Sc (IS)	45	2	HMI He	255904	1.29	281864	90.79	60	120	
Sc (IS)	45	3	No Gas	69465226	0.70	78056314	88.99	60	120	
Ge Internal Standard	72	1	HMI H2	11612444	0.19	12619474	92.02	60	120	
Ge Internal Standard	72	2	HMI He	396654	0.13	434818	91.22	60	120	
In Internal Standard	115	2	HMI He	915187	0.52	1007281	90.86	60	120	
Ho-165	165	2	HMI He	7721278	0.56	8283065	93.22	60	120	

Sample Table

Sample Name	280-104320-A-4-B
Data File Name	053SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:42:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	27.017	ppb	27.017	7.56	78274	500000	
Li	7	2	45	40.719	ppb	40.719	68.43	4504	500000	
Li	7	3	45	24.136	ppb	24.136	6.06	4387334	50000	
Be	9	1	6	0.114	ppb	0.114	0.95	20	2000	
B	11	1	6	-211.872	ppb	-211.872	-2.14	21697	2000	
Na	23	1	45	20936.912	ppb	20936.912	1.20	44961891	2000	>LDR
Na	23	2	45	21643.893	ppb	21643.893	2.19	1699479	400000	
Mg	24	2	45	42698.529	ppb	42698.529	3.13	1461719	400000	
Al	27	2	45	665.912	ppb	665.912	2.69	4311	400000	
K	39	1	45	1297.289	ppb	1297.289	4.83	7772361	400000	
K	39	2	45	2364.728	ppb	2364.728	7.62	30380	400000	
Ca	40	1	45	102678.572	ppb	102678.572	1.33	362127955	400000	
Ca	44	2	45	97513.681	ppb	97513.681	1.64	73155	400000	
Ti	47	2	45	2528.977	ppb	2528.977	28.02	77	4000	
V	51	2	72	0.655	ppb	0.655	55.68	663	2000	
Cr	52	2	72	1.175	ppb	1.175	25.41	823	5000	
Mn	55	2	72	233.521	ppb	233.521	3.32	37938	10000	
Fe	57	2	72	2986.632	ppb	2986.632	3.49	33175	400000	
Co	59	2	72	1.577	ppb	1.577	21.07	2147	2000	
Ni	60	2	72	2.406	ppb	2.406	10.11	1010	5000	
Cu	63	2	72	1.212	ppb	1.212	16.10	2940	5000	
Zn	66	2	72	8.935	ppb	8.935	8.60	980	5000	
As	75	2	72	21.196	ppb	21.196	2.95	1301	2000	
Se	78	1	72	-0.009	ppb	-0.009	-931.17	24	2000	
Sr	88	2	72	292.672	ppb	292.672	5.96	39483	4000	
Zr	90	2	72	65.389	ppb	65.389	32.51	293	1000	
Nb	93	2	72	-1.323	ppb	-1.323	-0.24	157	200	
Mo	95	2	115	1.068	ppb	1.068	8.51	557	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.32	3	100	
Ag	107	2	115	-0.006	ppb	-0.006	-173.44	27	100	
Cd	111	2	115	0.062	ppb	0.062	99.92	10	2000	
Sn	120	2	115	0.186	ppb	0.186	55.38	177	2000	
Sb	121	2	115	0.096	ppb	0.096	92.88	70	1000	
Ba	137	2	115	32.812	ppb	32.812	11.53	2987	5000	
W	182	2	165	0.025	ppb	0.025	61.12	357	100	
Pt	195	2	165	0.021	ppb	0.021	37.25	300	100	
Tl	205	2	165	0.157	ppb	0.157	9.70	807	2000	
Pb	208	2	165	2.051	ppb	2.051	2.42	12779	5000	
Th	232	2	165	0.122	ppb	0.122	29.31	1907	2000	
U	238	2	165	3.787	ppb	3.787	1.19	28390	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	529948	0.94	608971	87.02	60	120	
Sc (IS)	45	1	HMI H2	22205166	1.32	24673136	90.00	60	120	
Sc (IS)	45	2	HMI He	253618	1.06	281864	89.98	60	120	
Sc (IS)	45	3	No Gas	68539131	0.50	78056314	87.81	60	120	
Ge Internal Standard	72	1	HMI H2	11438317	1.41	12619474	90.64	60	120	
Ge Internal Standard	72	2	HMI He	388160	0.90	434818	89.27	60	120	
In Internal Standard	115	2	HMI He	892520	1.06	1007281	88.61	60	120	
Ho-165	165	2	HMI He	7568920	1.01	8283065	91.38	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	054_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:45:54-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	501.329	ppb	2.273	182635	500	100.3	90	110	
Li	7	2	45	545.179	ppb	5.345	10870	500	109.0	90	110	
Li	7	3	45	494.817	ppb	0.749	10318946	500	99.0	90	110	
Be	9	1	6	50.113	ppb	1.662	9349	50	100.2	90	110	
B	11	1	6	-213.776	ppb	-2.779	22768	50	-427.6	90	110	>+\-10%
Na	23	1	45	5060.147	ppb	0.619	11618498	5000	101.2	90	110	
Na	23	2	45	5042.094	ppb	0.984	415662	5000	100.8	90	110	
Mg	24	2	45	5087.528	ppb	1.135	180871	5000	101.8	90	110	
Al	27	2	45	5153.404	ppb	1.556	34320	5000	103.1	90	110	
K	39	1	45	4999.700	ppb	2.614	16693606	5000	100.0	90	110	
K	39	2	45	5191.507	ppb	2.291	65195	5000	103.8	90	110	
Ca	40	1	45	5091.283	ppb	0.598	19011487	5000	101.8	90	110	
Ca	44	2	45	4844.408	ppb	3.803	3787	5000	96.9	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	48.774	ppb	3.110	22929	50	97.5	90	110	
Cr	52	2	72	50.122	ppb	2.191	31706	50	100.2	90	110	
Mn	55	2	72	50.649	ppb	3.508	8606	50	101.3	90	110	
Fe	57	2	72	4977.700	ppb	2.461	57360	5000	99.6	90	110	
Co	59	2	72	50.572	ppb	1.462	70781	50	101.1	90	110	
Ni	60	2	72	51.301	ppb	1.602	21534	50	102.6	90	110	
Cu	63	2	72	50.188	ppb	1.053	64571	50	100.4	90	110	
Zn	66	2	72	49.773	ppb	5.564	5254	50	99.5	90	110	
As	75	2	72	49.952	ppb	2.854	3172	50	99.9	90	110	
Se	78	1	72	50.206	ppb	1.255	14209	50	100.4	90	110	
Sr	88	2	72	48.802	ppb	3.127	6852	50	97.6	90	110	
Zr	90	2	72	89.378	ppb	16.369	400	50	178.8	90	110	>+\-10%
Nb	93	2	72	92.358	ppb	1.512	177542	100	92.4	90	110	
Mo	95	2	115	49.967	ppb	0.457	25630	50	99.9	90	110	
Pd	105	2	115	50.568	ppb	0.706	48907	50	101.1	90	110	
Ag	107	2	115	50.135	ppb	0.704	100935	50	100.3	90	110	
Cd	111	2	115	52.529	ppb	2.803	8759	50	105.1	90	110	
Sn	120	2	115	49.698	ppb	2.356	19552	50	99.4	90	110	
Sb	121	2	115	50.316	ppb	3.540	15621	50	100.6	90	110	
Ba	137	2	115	49.064	ppb	4.684	4641	50	98.1	90	110	
W	182	2	165	50.700	ppb	1.436	178125	50	101.4	90	110	
Pt	195	2	165	49.914	ppb	1.655	185634	50	99.8	90	110	
Tl	205	2	165	50.629	ppb	1.280	233723	50	101.3	90	110	
Pb	208	2	165	50.662	ppb	1.645	299050	50	101.3	90	110	
Th	232	2	165	49.284	ppb	1.652	325240	50	98.6	90	110	
U	238	2	165	51.438	ppb	0.217	394534	50	102.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	565566	0.38	608971	92.87	60	120	
Sc (IS)	45	1	HMI H2	23416454	0.86	24673136	94.91	60	120	
Sc (IS)	45	2	HMI He	261843	1.37	281864	92.90	60	120	
Sc (IS)	45	3	No Gas	72619319	0.13	78056314	93.03	60	120	
Ge Internal Standard	72	1	HMI H2	12032484	0.80	12619474	95.35	60	120	
Ge Internal Standard	72	2	HMI He	402742	0.81	434818	92.62	60	120	
In Internal Standard	115	2	HMI He	926635	0.74	1007281	91.99	60	120	
Ho-165	165	2	HMI He	7761737	1.27	8283065	93.71	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	055_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:49:43-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-5.215	ppb	-26.5	4320456	10	
Be	9	1	6	0.052	ppb	173.2	10	0.5	
B	11	1	6	-263.606	ppb	-1.2	13128	0.5	
Na	23	1	45	-11.137	ppb	-3.0	181164	25	
Na	23	2	45	-15.116	ppb	-16.7	7822	25	
Mg	24	2	45	28.617	ppb	28.7	2200	25	>RL
Al	27	2	45	1.697	ppb	89.1	30	15	
K	39	1	45	-25.384	ppb	-99.3	5105492	50	
K	39	2	45	39.795	ppb	34.5	3591	50	
Ca	40	1	45	2.827	ppb	14.3	87708	50	
Ca	44	2	45	-26.717	ppb	-26.5	17	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.200	ppb	-163.0	297	1	
Cr	52	2	72	-0.056	ppb	-71.6	80	1	
Mn	55	2	72	-0.301	ppb	-41.5	37	0.5	
Fe	57	2	72	0.989	ppb	226.9	40	25	
Co	59	2	72	-0.004	ppb	-551.7	17	0.5	
Ni	60	2	72	-0.049	ppb	-84.2	20	1	
Cu	63	2	72	-0.411	ppb	-22.3	1027	1	
Zn	66	2	72	-0.201	ppb	-214.9	70	5	
As	75	2	72	0.026	ppb	561.9	7	1	
Se	78	1	72	-0.047	ppb	-16.2	15	1	
Sr	88	2	72	-0.131	ppb	-30.9	3	0.5	
Zr	90	2	72	3.163	ppb	159.1	57	1	>RL
Nb	93	2	72	0.481	ppb	23.3	3627	2	
Mo	95	2	115	0.037	ppb	1.9	50	0.5	
Pd	105	2	115	-0.040	ppb	-136.4	60	1	
Ag	107	2	115	-0.002	ppb	-155.6	37	1	
Cd	111	2	115	0.039	ppb	173.2	7	0.5	
Sn	120	2	115	0.206	ppb	50.9	193	1	
Sb	121	2	115	0.202	ppb	40.8	107	0.6	
Ba	137	2	115	0.139	ppb	173.2	13	0.5	
W	182	2	165	0.014	ppb	39.0	330	1	
Pt	195	2	165	0.010	ppb	302.6	267	1	
Tl	205	2	165	-0.001	ppb	-1267.5	97	0.1	
Pb	208	2	165	0.026	ppb	194.7	1197	0.5	
Th	232	2	165	0.260	ppb	30.9	2880	1	
U	238	2	165	0.009	ppb	90.1	150	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	579052	0.97	608971	95.09	60	120	
Sc (IS)	45	1	HMI H2	23161802	0.95	24673136	93.87	60	120	
Sc (IS)	45	2	HMI He	264151	2.05	281864	93.72	60	120	
Sc (IS)	45	3	No Gas	73050331	0.88	78056314	93.59	60	120	
Ge Internal Standard	72	1	HMI H2	12087286	1.14	12619474	95.78	60	120	
Ge Internal Standard	72	2	HMI He	408368	1.03	434818	93.92	60	120	
In Internal Standard	115	2	HMI He	938236	0.73	1007281	93.15	60	120	
Ho-165	165	2	HMI He	7826160	2.38	8283065	94.48	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	056LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:53:32-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	6.617	ppb	19.488	4432377	50	13.2	70	130	>+/-30%
Be	9	1	6	0.926	ppb	19.944	177	1	92.6	70	130	
Na	23	2	45	44.179	ppb	9.542	12648	50	88.4	70	130	
Mg	24	2	45	88.533	ppb	3.237	4341	50	177.1	70	130	>+/-30%
Al	27	2	45	41.851	ppb	8.063	300	30	139.5	70	130	>+/-30%
K	39	2	45	119.990	ppb	16.120	4561	100	120.0	70	130	
Ca	44	2	45	24.609	ppb	32.353	57	50	49.2	70	130	>+/-30%
V	51	2	72	5.107	ppb	16.780	2794	5	102.1	70	130	
Cr	52	2	72	1.857	ppb	16.877	1307	2	92.8	70	130	
Mn	55	2	72	0.730	ppb	36.523	213	1	73.0	70	130	
Fe	57	2	72	48.210	ppb	10.415	593	50	96.4	70	130	
Co	59	2	72	1.007	ppb	10.198	1457	1	100.7	70	130	
Ni	60	2	72	1.670	ppb	10.862	753	2	83.5	70	130	
Cu	63	2	72	1.774	ppb	11.564	3824	2	88.7	70	130	
Zn	66	2	72	10.118	ppb	13.863	1160	10	101.2	70	130	
As	75	2	72	4.611	ppb	11.553	303	5	92.2	70	130	
Se	78	1	72	4.901	ppb	11.223	1419	5	98.0	70	130	
Sr	88	2	72	0.992	ppb	15.634	163	1	99.2	70	130	
Zr	90	2	72	31.863	ppb	46.004	173	0.5	6372.6	70	130	>+/-30%
Nb	93	2	72	0.166	ppb	146.639	3034	2	8.3	70	130	>+/-30%
Mo	95	2	115	2.063	ppb	15.653	1103	2	103.2	70	130	
Pd	105	2	115	-0.057	ppb	-39.878	43	1	-5.7	70	130	>+/-30%
Ag	107	2	115	5.008	ppb	5.018	10267	5	100.2	70	130	
Cd	111	2	115	0.924	ppb	30.958	157	1	92.4	70	130	
Sn	120	2	115	9.735	ppb	5.232	3977	10	97.4	70	130	
Sb	121	2	115	2.024	ppb	12.430	680	2	101.2	70	130	
Ba	137	2	115	0.801	ppb	40.705	77	1	80.1	70	130	
W	182	2	165	4.703	ppb	2.056	17133	1	470.3	70	130	>+/-30%
Pt	195	2	165	0.061	ppb	23.312	463	1	6.1	70	130	>+/-30%
Tl	205	2	165	0.976	ppb	3.065	4701	1	97.6	70	130	
Pb	208	2	165	0.988	ppb	6.802	6998	1	98.8	70	130	
Th	232	2	165	1.997	ppb	3.344	14587	2	99.9	70	130	
U	238	2	165	1.093	ppb	0.551	8639	1	109.3	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	578500	0.07	608971	95.00	60	120	
Sc (IS)	45	1	HMI H2	23685807	1.51	24673136	96.00	60	120	
Sc (IS)	45	2	HMI He	264238	1.37	281864	93.75	60	120	
Sc (IS)	45	3	No Gas	72535119	0.57	78056314	92.93	60	120	
Ge Internal Standard	72	1	HMI H2	12093086	0.58	12619474	95.83	60	120	
Ge Internal Standard	72	2	HMI He	409959	0.64	434818	94.28	60	120	
In Internal Standard	115	2	HMI He	940208	1.23	1007281	93.34	60	120	
Ho-165	165	2	HMI He	7927148	0.63	8283065	95.70	60	120	

Sample Table

Sample Name	280-104320-J-6-B
Data File Name	057SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T18:57:22-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	7.916	ppb	7.916	100.47	76240	500000	
Li	7	2	45	26.435	ppb	26.435	77.56	4377	500000	
Li	7	3	45	-0.846	ppb	-0.846	-494.04	4153959	50000	
Be	9	1	6	0.037	ppb	0.037	173.21	7	2000	
B	11	1	6	-229.971	ppb	-229.971	-1.08	18687	2000	
Na	23	1	45	14086.496	ppb	14086.496	0.46	31044748	2000	>LDR
Na	23	2	45	14787.879	ppb	14787.879	1.58	1175855	400000	
Mg	24	2	45	29916.439	ppb	29916.439	0.24	1035093	400000	
Al	27	2	45	5.922	ppb	5.922	98.18	57	400000	
K	39	1	45	1153.206	ppb	1153.206	3.38	7638262	400000	
K	39	2	45	2161.659	ppb	2161.659	1.91	28323	400000	
Ca	40	1	45	97371.378	ppb	97371.378	0.94	351675781	400000	
Ca	44	2	45	93695.416	ppb	93695.416	1.62	71007	400000	
Ti	47	2	45	217.074	ppb	217.074	173.21	7	4000	
V	51	2	72	-0.414	ppb	-0.414	-9.11	190	2000	
Cr	52	2	72	0.250	ppb	0.250	11.26	267	5000	
Mn	55	2	72	88.530	ppb	88.530	5.69	14697	10000	
Fe	57	2	72	563.470	ppb	563.470	1.85	6398	400000	
Co	59	2	72	2.028	ppb	2.028	9.12	2807	2000	
Ni	60	2	72	6.083	ppb	6.083	4.82	2540	5000	
Cu	63	2	72	-0.404	ppb	-0.404	-33.03	1003	5000	
Zn	66	2	72	1.953	ppb	1.953	31.25	287	5000	
As	75	2	72	13.598	ppb	13.598	2.27	852	2000	
Se	78	1	72	-0.074	ppb	-0.074	-23.01	7	2000	
Sr	88	2	72	287.555	ppb	287.555	2.64	39509	4000	
Zr	90	2	72	4.598	ppb	4.598	257.35	60	1000	
Nb	93	2	72	-1.073	ppb	-1.073	-3.72	623	200	
Mo	95	2	115	1.040	ppb	1.040	27.07	557	2000	
Pd	105	2	115	-0.094	ppb	-0.094	-13.06	7	100	
Ag	107	2	115	-0.002	ppb	-0.002	-1394.16	37	100	
Cd	111	2	115	0.041	ppb	0.041	173.21	7	2000	
Sn	120	2	115	0.269	ppb	0.269	54.56	213	2000	
Sb	121	2	115	0.572	ppb	0.572	32.49	217	1000	
Ba	137	2	115	35.688	ppb	35.688	3.30	3327	5000	
W	182	2	165	0.014	ppb	0.014	79.53	323	100	
Pt	195	2	165	0.024	ppb	0.024	30.08	313	100	
Tl	205	2	165	0.025	ppb	0.025	76.18	213	2000	
Pb	208	2	165	0.100	ppb	0.100	35.20	1603	5000	
Th	232	2	165	0.089	ppb	0.089	64.17	1714	2000	
U	238	2	165	0.130	ppb	0.130	2.98	1060	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	541101	1.41	608971	88.85	60	120	
Sc (IS)	45	1	HMI H2	22736813	0.61	24673136	92.15	60	120	
Sc (IS)	45	2	HMI He	256188	0.15	281864	90.89	60	120	
Sc (IS)	45	3	No Gas	69384721	0.40	78056314	88.89	60	120	
Ge Internal Standard	72	1	HMI H2	11625447	0.51	12619474	92.12	60	120	
Ge Internal Standard	72	2	HMI He	395319	1.26	434818	90.92	60	120	
In Internal Standard	115	2	HMI He	913504	1.79	1007281	90.69	60	120	
Ho-165	165	2	HMI He	7661401	1.87	8283065	92.49	60	120	

Sample Table

Sample Name	280-104320-J-7-B
Data File Name	058SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:01:12-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.152	ppb	-5.152	-88.01	74476	500000	
Li	7	2	45	22.063	ppb	22.063	148.07	4384	500000	
Li	7	3	45	-1.722	ppb	-1.722	-169.58	4195650	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-232.780	ppb	-232.780	-1.99	18063	2000	
Na	23	1	45	13891.193	ppb	13891.193	0.56	30999946	2000	>LDR
Na	23	2	45	14818.212	ppb	14818.212	2.89	1194300	400000	
Mg	24	2	45	29973.785	ppb	29973.785	2.87	1051160	400000	
Al	27	2	45	7.836	ppb	7.836	106.93	70	400000	
K	39	1	45	1104.686	ppb	1104.686	3.14	7624656	400000	
K	39	2	45	2258.474	ppb	2258.474	2.75	29859	400000	
Ca	40	1	45	97555.493	ppb	97555.493	0.96	356751088	400000	
Ca	44	2	45	94086.189	ppb	94086.189	3.21	72269	400000	
Ti	47	2	45	106.620	ppb	106.620	173.21	3	4000	
V	51	2	72	-0.254	ppb	-0.254	-83.97	267	2000	
Cr	52	2	72	0.155	ppb	0.155	69.06	210	5000	
Mn	55	2	72	88.575	ppb	88.575	2.85	14890	10000	
Fe	57	2	72	572.557	ppb	572.557	5.89	6578	400000	
Co	59	2	72	2.128	ppb	2.128	6.56	2977	2000	
Ni	60	2	72	6.832	ppb	6.832	1.10	2884	5000	
Cu	63	2	72	-0.345	ppb	-0.345	-69.59	1090	5000	
Zn	66	2	72	1.146	ppb	1.146	30.20	207	5000	
As	75	2	72	12.825	ppb	12.825	7.31	812	2000	
Se	78	1	72	-0.041	ppb	-0.041	-62.17	16	2000	
Sr	88	2	72	284.257	ppb	284.257	2.80	39522	4000	
Zr	90	2	72	10.244	ppb	10.244	64.80	83	1000	
Nb	93	2	72	-1.138	ppb	-1.138	-2.20	510	200	
Mo	95	2	115	0.887	ppb	0.887	14.42	483	2000	
Pd	105	2	115	-0.074	ppb	-0.074	-35.27	27	100	
Ag	107	2	115	-0.018	ppb	-0.018	-15.60	3	100	
Cd	111	2	115	0.040	ppb	0.040	173.21	7	2000	
Sn	120	2	115	0.316	ppb	0.316	58.17	233	2000	
Sb	121	2	115	0.641	ppb	0.641	52.56	240	1000	
Ba	137	2	115	36.200	ppb	36.200	2.91	3407	5000	
W	182	2	165	0.057	ppb	0.057	42.54	480	100	
Pt	195	2	165	0.004	ppb	0.004	272.31	243	100	
Tl	205	2	165	0.039	ppb	0.039	43.94	280	2000	
Pb	208	2	165	0.160	ppb	0.160	11.72	1980	5000	
Th	232	2	165	-0.014	ppb	-0.014	-102.19	1063	2000	
U	238	2	165	0.122	ppb	0.122	10.95	1017	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	538659	1.56	608971	88.45	60	120	
Sc (IS)	45	1	HMI H2	23021776	0.62	24673136	93.31	60	120	
Sc (IS)	45	2	HMI He	259766	1.99	281864	92.16	60	120	
Sc (IS)	45	3	No Gas	70251791	0.03	78056314	90.00	60	120	
Ge Internal Standard	72	1	HMI H2	11741985	0.90	12619474	93.05	60	120	
Ge Internal Standard	72	2	HMI He	400087	1.91	434818	92.01	60	120	
In Internal Standard	115	2	HMI He	921699	2.51	1007281	91.50	60	120	
Ho-165	165	2	HMI He	7768619	0.61	8283065	93.79	60	120	

Sample Table

Sample Name	280-104320-J-8-B
Data File Name	059SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:05:03-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	0.792	ppb	0.792	374.00	74740	500000	
Li	7	2	45	-0.439	ppb	-0.439	-3851.87	4091	500000	
Li	7	3	45	-4.669	ppb	-4.669	-99.29	4151928	50000	
Be	9	1	6	0.019	ppb	0.019	173.21	3	2000	
B	11	1	6	-234.893	ppb	-234.893	-0.56	17709	2000	
Na	23	1	45	11381.395	ppb	11381.395	0.51	25110456	2000	>LDR
Na	23	2	45	11504.070	ppb	11504.070	2.55	925400	400000	
Mg	24	2	45	22980.028	ppb	22980.028	2.60	802939	400000	
Al	27	2	45	2.808	ppb	2.808	34.86	37	400000	
K	39	1	45	929.592	ppb	929.592	3.84	7137007	400000	
K	39	2	45	2016.285	ppb	2016.285	0.61	26881	400000	
Ca	40	1	45	78364.184	ppb	78364.184	0.78	282920636	400000	
Ca	44	2	45	73154.554	ppb	73154.554	2.45	55978	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.357	ppb	-0.357	-51.33	220	2000	
Cr	52	2	72	0.078	ppb	0.078	29.21	163	5000	
Mn	55	2	72	487.293	ppb	487.293	0.41	81850	10000	
Fe	57	2	72	1364.162	ppb	1364.162	4.76	15701	400000	
Co	59	2	72	0.199	ppb	0.199	25.88	300	2000	
Ni	60	2	72	0.414	ppb	0.414	26.86	213	5000	
Cu	63	2	72	-0.199	ppb	-0.199	-20.59	1277	5000	
Zn	66	2	72	1.714	ppb	1.714	28.84	267	5000	
As	75	2	72	7.252	ppb	7.252	5.57	464	2000	
Se	78	1	72	-0.065	ppb	-0.065	-13.00	9	2000	
Sr	88	2	72	195.806	ppb	195.806	1.64	27349	4000	
Zr	90	2	72	6.741	ppb	6.741	96.80	70	1000	
Nb	93	2	72	-1.190	ppb	-1.190	-4.96	413	200	
Mo	95	2	115	0.798	ppb	0.798	36.74	437	2000	
Pd	105	2	115	-0.094	ppb	-0.094	-12.81	7	100	
Ag	107	2	115	-0.008	ppb	-0.008	-70.26	23	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.067	ppb	-0.067	-159.92	83	2000	
Sb	121	2	115	-0.020	ppb	-0.020	-406.98	37	1000	
Ba	137	2	115	87.485	ppb	87.485	8.03	8222	5000	
W	182	2	165	0.057	ppb	0.057	10.40	477	100	
Pt	195	2	165	0.006	ppb	0.006	373.74	250	100	
Tl	205	2	165	-0.002	ppb	-0.002	-522.43	90	2000	
Pb	208	2	165	0.192	ppb	0.192	25.02	2157	5000	
Th	232	2	165	-0.057	ppb	-0.057	-41.56	773	2000	
U	238	2	165	0.356	ppb	0.356	5.97	2797	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	539876	0.98	608971	88.65	60	120	
Sc (IS)	45	1	HMI H2	22726260	0.60	24673136	92.11	60	120	
Sc (IS)	45	2	HMI He	258707	2.09	281864	91.78	60	120	
Sc (IS)	45	3	No Gas	70095694	0.38	78056314	89.80	60	120	
Ge Internal Standard	72	1	HMI H2	11661836	0.39	12619474	92.41	60	120	
Ge Internal Standard	72	2	HMI He	401706	0.54	434818	92.38	60	120	
In Internal Standard	115	2	HMI He	920731	0.66	1007281	91.41	60	120	
Ho-165	165	2	HMI He	7725901	1.43	8283065	93.27	60	120	

Sample Table

Sample Name	280-104320-A-12-B
Data File Name	060SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:08:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-12.574	ppb	-12.574	-45.66	73565	500000	
Li	7	2	45	5.198	ppb	5.198	264.25	4284	500000	
Li	7	3	45	-16.833	ppb	-16.833	-8.08	4065488	50000	
Be	9	1	6	0.073	ppb	0.073	114.29	13	2000	
B	11	1	6	-206.674	ppb	-206.674	-1.75	23599	2000	
Na	23	1	45	8812.447	ppb	8812.447	0.78	19912681	2000	
Na	23	2	45	8788.001	ppb	8788.001	2.50	730149	400000	
Mg	24	2	45	33699.796	ppb	33699.796	3.55	1211936	400000	
Al	27	2	45	9.038	ppb	9.038	28.67	80	400000	
K	39	1	45	22.602	ppb	22.602	159.81	5227825	400000	
K	39	2	45	1117.792	ppb	1117.792	3.77	16742	400000	
Ca	40	1	45	73877.343	ppb	73877.343	1.40	272518223	400000	
Ca	44	2	45	69770.010	ppb	69770.010	3.77	54975	400000	
Ti	47	2	45	105.396	ppb	105.396	173.21	3	4000	
V	51	2	72	-0.390	ppb	-0.390	-54.46	207	2000	
Cr	52	2	72	0.369	ppb	0.369	7.79	350	5000	
Mn	55	2	72	0.093	ppb	0.093	37.96	103	10000	
Fe	57	2	72	17.668	ppb	17.668	18.74	233	400000	
Co	59	2	72	0.008	ppb	0.008	51.53	33	2000	
Ni	60	2	72	0.346	ppb	0.346	27.88	187	5000	
Cu	63	2	72	0.024	ppb	0.024	521.48	1573	5000	
Zn	66	2	72	0.952	ppb	0.952	34.58	190	5000	
As	75	2	72	0.507	ppb	0.507	33.17	38	2000	
Se	78	1	72	0.595	ppb	0.595	15.50	193	2000	
Sr	88	2	72	199.866	ppb	199.866	2.11	28234	4000	
Zr	90	2	72	5.744	ppb	5.744	132.40	67	1000	
Nb	93	2	72	-1.234	ppb	-1.234	-2.98	333	200	
Mo	95	2	115	1.092	ppb	1.092	10.55	593	2000	
Pd	105	2	115	-0.084	ppb	-0.084	-18.65	17	100	
Ag	107	2	115	-0.013	ppb	-0.013	-43.10	13	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.600	ppb	0.600	31.82	347	2000	
Sb	121	2	115	2.946	ppb	2.946	10.79	960	1000	
Ba	137	2	115	34.314	ppb	34.314	6.44	3264	5000	
W	182	2	165	0.027	ppb	0.027	68.79	373	100	
Pt	195	2	165	0.029	ppb	0.029	80.06	337	100	
Tl	205	2	165	-0.002	ppb	-0.002	-974.91	93	2000	
Pb	208	2	165	101.456	ppb	101.456	0.28	602065	5000	
Th	232	2	165	-0.094	ppb	-0.094	-6.37	540	2000	
U	238	2	165	1.760	ppb	1.760	2.05	13670	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	551799	0.46	608971	90.61	60	120	
Sc (IS)	45	1	HMI H2	23222886	1.18	24673136	94.12	60	120	
Sc (IS)	45	2	HMI He	266371	0.98	281864	94.50	60	120	
Sc (IS)	45	3	No Gas	71053841	0.82	78056314	91.03	60	120	
Ge Internal Standard	72	1	HMI H2	11880406	1.83	12619474	94.14	60	120	
Ge Internal Standard	72	2	HMI He	406275	0.29	434818	93.44	60	120	
In Internal Standard	115	2	HMI He	931712	0.35	1007281	92.50	60	120	
Ho-165	165	2	HMI He	7815545	0.93	8283065	94.36	60	120	

Sample Table

Sample Name	280-104320-A-13-B
Data File Name	061SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:12:40-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-7.034	ppb	-7.034	-79.78	73904	500000	
Li	7	2	45	-5.748	ppb	-5.748	-507.18	4077	500000	
Li	7	3	45	-11.597	ppb	-11.597	-19.34	4159405	50000	
Be	9	1	6	0.037	ppb	0.037	173.21	7	2000	
B	11	1	6	-230.642	ppb	-230.642	-0.64	18893	2000	
Na	23	1	45	8808.504	ppb	8808.504	0.36	19683176	2000	
Na	23	2	45	8917.010	ppb	8917.010	2.82	728631	400000	
Mg	24	2	45	14953.407	ppb	14953.407	3.69	529566	400000	
Al	27	2	45	24.307	ppb	24.307	18.92	180	400000	
K	39	1	45	546.018	ppb	546.018	6.38	6348185	400000	
K	39	2	45	1617.533	ppb	1617.533	8.43	22428	400000	
Ca	40	1	45	59666.170	ppb	59666.170	0.76	217684557	400000	
Ca	44	2	45	56714.740	ppb	56714.740	3.85	43958	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.500	ppb	-0.500	-20.91	153	2000	
Cr	52	2	72	0.379	ppb	0.379	28.44	353	5000	
Mn	55	2	72	169.905	ppb	169.905	3.12	28640	10000	
Fe	57	2	72	744.594	ppb	744.594	6.53	8592	400000	
Co	59	2	72	0.115	ppb	0.115	34.39	183	2000	
Ni	60	2	72	0.261	ppb	0.261	57.41	150	5000	
Cu	63	2	72	-0.407	ppb	-0.407	-15.80	1017	5000	
Zn	66	2	72	1.747	ppb	1.747	35.86	270	5000	
As	75	2	72	12.563	ppb	12.563	8.34	802	2000	
Se	78	1	72	-0.065	ppb	-0.065	-33.89	9	2000	
Sr	88	2	72	219.862	ppb	219.862	1.80	30762	4000	
Zr	90	2	72	15.734	ppb	15.734	98.62	107	1000	
Nb	93	2	72	-1.300	ppb	-1.300	-0.85	207	200	
Mo	95	2	115	1.317	ppb	1.317	17.85	700	2000	
Pd	105	2	115	-0.094	ppb	-0.094	-6.38	7	100	
Ag	107	2	115	-0.015	ppb	-0.015	-33.14	10	100	
Cd	111	2	115	0.040	ppb	0.040	173.21	7	2000	
Sn	120	2	115	0.087	ppb	0.087	138.94	143	2000	
Sb	121	2	115	0.035	ppb	0.035	329.77	53	1000	
Ba	137	2	115	104.247	ppb	104.247	5.74	9787	5000	
W	182	2	165	0.011	ppb	0.011	199.24	317	100	
Pt	195	2	165	0.010	ppb	0.010	162.31	263	100	
Tl	205	2	165	-0.001	ppb	-0.001	-1219.45	97	2000	
Pb	208	2	165	0.248	ppb	0.248	8.57	2487	5000	
Th	232	2	165	-0.106	ppb	-0.106	-12.86	453	2000	
U	238	2	165	0.180	ppb	0.180	13.50	1457	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	550794	0.93	608971	90.45	60	120	
Sc (IS)	45	1	HMI H2	22964349	0.34	24673136	93.07	60	120	
Sc (IS)	45	2	HMI He	262126	3.16	281864	93.00	60	120	
Sc (IS)	45	3	No Gas	71609489	0.78	78056314	91.74	60	120	
Ge Internal Standard	72	1	HMI H2	11822421	0.17	12619474	93.68	60	120	
Ge Internal Standard	72	2	HMI He	402468	1.78	434818	92.56	60	120	
In Internal Standard	115	2	HMI He	920214	1.60	1007281	91.36	60	120	
Ho-165	165	2	HMI He	7732410	0.56	8283065	93.35	60	120	

Sample Table

Sample Name	280-104320-E-14-B
Data File Name	062SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:16:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.288	ppb	-5.288	-76.06	74128	500000	
Li	7	2	45	15.746	ppb	15.746	254.15	4337	500000	
Li	7	3	45	-12.894	ppb	-12.894	-30.67	4097569	50000	
Be	9	1	6	0.073	ppb	0.073	115.32	13	2000	
B	11	1	6	-268.475	ppb	-268.475	-1.40	11584	2000	
Na	23	1	45	3992.627	ppb	3992.627	0.45	9016118	2000	
Na	23	2	45	3957.496	ppb	3957.496	0.85	327957	400000	
Mg	24	2	45	10182.383	ppb	10182.383	1.37	360597	400000	
Al	27	2	45	7.224	ppb	7.224	58.99	67	400000	
K	39	1	45	-413.653	ppb	-413.653	-4.12	4179955	400000	
K	39	2	45	719.993	ppb	719.993	1.57	11691	400000	
Ca	40	1	45	31359.186	ppb	31359.186	0.49	114227245	400000	
Ca	44	2	45	29500.080	ppb	29500.080	1.35	22859	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.477	ppb	-0.477	-34.08	163	2000	
Cr	52	2	72	0.209	ppb	0.209	25.79	243	5000	
Mn	55	2	72	283.095	ppb	283.095	1.20	47230	10000	
Fe	57	2	72	4033.649	ppb	4033.649	2.22	46017	400000	
Co	59	2	72	0.466	ppb	0.466	9.04	667	2000	
Ni	60	2	72	2.466	ppb	2.466	6.73	1063	5000	
Cu	63	2	72	-0.063	ppb	-0.063	-168.48	1437	5000	
Zn	66	2	72	1.185	ppb	1.185	39.96	210	5000	
As	75	2	72	1.404	ppb	1.404	5.70	93	2000	
Se	78	1	72	-0.056	ppb	-0.056	-52.15	12	2000	
Sr	88	2	72	40.350	ppb	40.350	7.70	5608	4000	
Zr	90	2	72	-3.198	ppb	-3.198	-81.90	30	1000	
Nb	93	2	72	-1.309	ppb	-1.309	-2.43	187	200	
Mo	95	2	115	0.099	ppb	0.099	128.56	80	2000	
Pd	105	2	115	-0.101	ppb	-0.101	0.00	0	100	
Ag	107	2	115	-0.015	ppb	-0.015	-32.54	10	100	
Cd	111	2	115	0.021	ppb	0.021	173.21	3	2000	
Sn	120	2	115	0.085	ppb	0.085	36.13	143	2000	
Sb	121	2	115	0.088	ppb	0.088	99.06	70	1000	
Ba	137	2	115	17.219	ppb	17.219	5.25	1623	5000	
W	182	2	165	0.021	ppb	0.021	75.22	350	100	
Pt	195	2	165	-0.006	ppb	-0.006	-154.86	203	100	
Tl	205	2	165	-0.001	ppb	-0.001	-480.84	97	2000	
Pb	208	2	165	0.216	ppb	0.216	7.19	2303	5000	
Th	232	2	165	-0.115	ppb	-0.115	-11.75	397	2000	
U	238	2	165	0.004	ppb	0.004	51.23	107	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	553224	1.10	608971	90.85	60	120	
Sc (IS)	45	1	HMI H2	22920421	1.38	24673136	92.90	60	120	
Sc (IS)	45	2	HMI He	261657	0.70	281864	92.83	60	120	
Sc (IS)	45	3	No Gas	70810246	0.98	78056314	90.72	60	120	
Ge Internal Standard	72	1	HMI H2	11863146	0.63	12619474	94.01	60	120	
Ge Internal Standard	72	2	HMI He	398737	1.40	434818	91.70	60	120	
In Internal Standard	115	2	HMI He	924313	2.58	1007281	91.76	60	120	
Ho-165	165	2	HMI He	7740135	0.91	8283065	93.45	60	120	

Sample Table

Sample Name	280-104320-E-15-B
Data File Name	063SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:20:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-0.594	ppb	-0.594	-958.77	75032	500000	
Li	7	2	45	19.063	ppb	19.063	213.05	4361	500000	
Li	7	3	45	-12.129	ppb	-12.129	-9.33	4157970	50000	
Be	9	1	6	0.091	ppb	0.091	91.22	17	2000	
B	11	1	6	-245.682	ppb	-245.682	-0.37	16164	2000	
Na	23	1	45	4799.472	ppb	4799.472	0.76	10789047	2000	
Na	23	2	45	4753.421	ppb	4753.421	2.12	390748	400000	
Mg	24	2	45	17187.988	ppb	17187.988	1.63	605782	400000	
Al	27	2	45	12.340	ppb	12.340	34.17	100	400000	
K	39	1	45	295.935	ppb	295.935	6.68	5770074	400000	
K	39	2	45	1382.650	ppb	1382.650	0.62	19548	400000	
Ca	40	1	45	69414.205	ppb	69414.205	0.86	252561183	400000	
Ca	44	2	45	65256.746	ppb	65256.746	2.06	50361	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.471	ppb	-0.471	-32.10	167	2000	
Cr	52	2	72	0.367	ppb	0.367	41.57	343	5000	
Mn	55	2	72	462.518	ppb	462.518	0.71	77431	10000	
Fe	57	2	72	2392.636	ppb	2392.636	1.57	27425	400000	
Co	59	2	72	0.265	ppb	0.265	31.22	390	2000	
Ni	60	2	72	0.312	ppb	0.312	26.85	170	5000	
Cu	63	2	72	0.120	ppb	0.120	208.54	1670	5000	
Zn	66	2	72	1.399	ppb	1.399	52.58	233	5000	
As	75	2	72	16.441	ppb	16.441	8.17	1042	2000	
Se	78	1	72	-0.051	ppb	-0.051	-87.60	13	2000	
Sr	88	2	72	138.474	ppb	138.474	0.90	19285	4000	
Zr	90	2	72	48.826	ppb	48.826	26.65	237	1000	
Nb	93	2	72	-1.320	ppb	-1.320	-2.84	167	200	
Mo	95	2	115	0.459	ppb	0.459	34.06	267	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.09	3	100	
Ag	107	2	115	-0.020	ppb	-0.020	0.00	0	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.151	ppb	0.151	16.21	170	2000	
Sb	121	2	115	0.055	ppb	0.055	312.36	60	1000	
Ba	137	2	115	53.656	ppb	53.656	5.79	5094	5000	
W	182	2	165	0.021	ppb	0.021	161.47	347	100	
Pt	195	2	165	0.013	ppb	0.013	123.15	273	100	
Tl	205	2	165	-0.008	ppb	-0.008	-86.90	63	2000	
Pb	208	2	165	0.917	ppb	0.917	3.07	6364	5000	
Th	232	2	165	-0.116	ppb	-0.116	-6.98	387	2000	
U	238	2	165	0.158	ppb	0.158	15.71	1280	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	557467	0.99	608971	91.54	60	120	
Sc (IS)	45	1	HMI H2	22904208	0.90	24673136	92.83	60	120	
Sc (IS)	45	2	HMI He	260780	1.31	281864	92.52	60	120	
Sc (IS)	45	3	No Gas	71693189	0.20	78056314	91.85	60	120	
Ge Internal Standard	72	1	HMI H2	11759736	0.25	12619474	93.19	60	120	
Ge Internal Standard	72	2	HMI He	400367	0.70	434818	92.08	60	120	
In Internal Standard	115	2	HMI He	930116	0.28	1007281	92.34	60	120	
Ho-165	165	2	HMI He	7681113	0.94	8283065	92.73	60	120	

Sample Table

Sample Name	280-104320-E-16-B
Data File Name	064SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:24:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	10.226	ppb	10.226	63.32	75389	500000	
Li	7	2	45	23.480	ppb	23.480	98.36	4351	500000	
Li	7	3	45	4.927	ppb	4.927	83.45	4269228	50000	
Be	9	1	6	0.187	ppb	0.187	16.23	33	2000	
B	11	1	6	-217.458	ppb	-217.458	-1.92	20979	2000	
Na	23	1	45	4163.344	ppb	4163.344	0.95	9157977	2000	
Na	23	2	45	4128.330	ppb	4128.330	1.29	335153	400000	
Mg	24	2	45	37830.274	ppb	37830.274	2.32	1310702	400000	
Al	27	2	45	2454.934	ppb	2454.934	3.04	16038	400000	
K	39	1	45	646.279	ppb	646.279	7.92	6397068	400000	
K	39	2	45	1704.017	ppb	1704.017	5.44	23009	400000	
Ca	40	1	45	82072.231	ppb	82072.231	0.37	291358896	400000	
Ca	44	2	45	78809.684	ppb	78809.684	0.54	59836	400000	
Ti	47	2	45	5425.797	ppb	5425.797	58.02	167	4000	
V	51	2	72	3.187	ppb	3.187	9.83	1820	2000	
Cr	52	2	72	4.347	ppb	4.347	6.66	2797	5000	
Mn	55	2	72	123.625	ppb	123.625	1.80	20459	10000	
Fe	57	2	72	5020.708	ppb	5020.708	2.42	56677	400000	
Co	59	2	72	2.108	ppb	2.108	7.97	2910	2000	
Ni	60	2	72	5.262	ppb	5.262	7.78	2200	5000	
Cu	63	2	72	3.880	ppb	3.880	7.92	6271	5000	
Zn	66	2	72	14.524	ppb	14.524	6.29	1563	5000	
As	75	2	72	1.744	ppb	1.744	18.39	114	2000	
Se	78	1	72	0.558	ppb	0.558	19.01	177	2000	
Sr	88	2	72	191.608	ppb	191.608	2.73	26287	4000	
Zr	90	2	72	115.309	ppb	115.309	29.78	493	1000	
Nb	93	2	72	-1.274	ppb	-1.274	-3.68	250	200	
Mo	95	2	115	0.582	ppb	0.582	32.60	323	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.24	3	100	
Ag	107	2	115	0.002	ppb	0.002	125.16	43	100	
Cd	111	2	115	0.021	ppb	0.021	173.21	3	2000	
Sn	120	2	115	-0.021	ppb	-0.021	-320.80	100	2000	
Sb	121	2	115	-0.051	ppb	-0.051	-74.93	27	1000	
Ba	137	2	115	38.256	ppb	38.256	8.97	3547	5000	
W	182	2	165	0.021	ppb	0.021	148.05	350	100	
Pt	195	2	165	0.023	ppb	0.023	57.20	313	100	
Tl	205	2	165	0.024	ppb	0.024	64.82	210	2000	
Pb	208	2	165	2.459	ppb	2.459	3.97	15420	5000	
Th	232	2	165	0.674	ppb	0.674	6.73	5555	2000	
U	238	2	165	1.168	ppb	1.168	6.75	8980	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	538609	1.11	608971	88.45	60	120	
Sc (IS)	45	1	HMI H2	22347432	0.49	24673136	90.57	60	120	
Sc (IS)	45	2	HMI He	256634	0.91	281864	91.05	60	120	
Sc (IS)	45	3	No Gas	70188229	0.17	78056314	89.92	60	120	
Ge Internal Standard	72	1	HMI H2	11510058	0.44	12619474	91.21	60	120	
Ge Internal Standard	72	2	HMI He	394595	0.89	434818	90.75	60	120	
In Internal Standard	115	2	HMI He	908624	1.54	1007281	90.21	60	120	
Ho-165	165	2	HMI He	7720739	1.27	8283065	93.21	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	065_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:27:57-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	507.877	ppb	3.024	184965	500	101.6	90	110	
Li	7	2	45	534.568	ppb	8.364	10657	500	106.9	90	110	
Li	7	3	45	496.823	ppb	0.993	10490137	500	99.4	90	110	
Be	9	1	6	49.816	ppb	0.628	9376	50	99.6	90	110	
B	11	1	6	-236.194	ppb	-1.608	18453	50	-472.4	90	110	>+\-10%
Na	23	1	45	5084.752	ppb	0.826	11734080	5000	101.7	90	110	
Na	23	2	45	5139.040	ppb	1.339	420232	5000	102.8	90	110	
Mg	24	2	45	5189.904	ppb	1.126	183076	5000	103.8	90	110	
Al	27	2	45	5309.320	ppb	1.436	35091	5000	106.2	90	110	
K	39	1	45	5101.639	ppb	1.143	17015886	5000	102.0	90	110	
K	39	2	45	5272.328	ppb	1.802	65653	5000	105.4	90	110	
Ca	40	1	45	5195.985	ppb	0.416	19501158	5000	103.9	90	110	
Ca	44	2	45	5421.206	ppb	13.829	4201	5000	108.4	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	51.653	ppb	1.801	24434	50	103.3	90	110	
Cr	52	2	72	50.292	ppb	2.661	32036	50	100.6	90	110	
Mn	55	2	72	49.943	ppb	3.893	8549	50	99.9	90	110	
Fe	57	2	72	5033.169	ppb	2.572	58413	5000	100.7	90	110	
Co	59	2	72	50.250	ppb	1.590	70837	50	100.5	90	110	
Ni	60	2	72	49.722	ppb	1.533	21023	50	99.4	90	110	
Cu	63	2	72	49.852	ppb	2.389	64605	50	99.7	90	110	
Zn	66	2	72	52.108	ppb	9.613	5534	50	104.2	90	110	
As	75	2	72	50.513	ppb	2.374	3231	50	101.0	90	110	
Se	78	1	72	50.594	ppb	1.876	14451	50	101.2	90	110	
Sr	88	2	72	50.426	ppb	4.897	7128	50	100.9	90	110	
Zr	90	2	72	34.761	ppb	10.993	183	50	69.5	90	110	>+\-10%
Nb	93	2	72	94.848	ppb	1.327	183570	100	94.8	90	110	
Mo	95	2	115	50.941	ppb	1.898	26288	50	101.9	90	110	
Pd	105	2	115	51.103	ppb	2.318	49713	50	102.2	90	110	
Ag	107	2	115	49.056	ppb	1.337	99343	50	98.1	90	110	
Cd	111	2	115	49.934	ppb	0.455	8376	50	99.9	90	110	
Sn	120	2	115	50.166	ppb	1.707	19849	50	100.3	90	110	
Sb	121	2	115	53.005	ppb	3.108	16555	50	106.0	90	110	
Ba	137	2	115	44.583	ppb	6.144	4241	50	89.2	90	110	>+\-10%
W	182	2	165	50.414	ppb	0.523	179122	50	100.8	90	110	
Pt	195	2	165	49.215	ppb	0.750	185101	50	98.4	90	110	
Tl	205	2	165	50.037	ppb	0.599	233597	50	100.1	90	110	
Pb	208	2	165	50.531	ppb	0.609	301655	50	101.1	90	110	
Th	232	2	165	49.248	ppb	0.693	328634	50	98.5	90	110	
U	238	2	165	51.164	ppb	0.514	396824	50	102.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	570591	0.53	608971	93.70	60	120	
Sc (IS)	45	1	HMI H2	23537400	0.72	24673136	95.40	60	120	
Sc (IS)	45	2	HMI He	259831	0.71	281864	92.18	60	120	
Sc (IS)	45	3	No Gas	73650356	0.69	78056314	94.36	60	120	
Ge Internal Standard	72	1	HMI H2	12143707	0.42	12619474	96.23	60	120	
Ge Internal Standard	72	2	HMI He	405612	0.06	434818	93.28	60	120	
In Internal Standard	115	2	HMI He	932176	1.04	1007281	92.54	60	120	
Ho-165	165	2	HMI He	7848678	0.49	8283065	94.76	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	066_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:31:46-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-9.163	ppb	-47.2	4343856	10	
Be	9	1	6	0.086	ppb	91.4	17	0.5	
B	11	1	6	-283.678	ppb	-0.5	9076	0.5	
Na	23	1	45	-15.259	ppb	-6.0	173162	25	
Na	23	2	45	-19.495	ppb	-7.7	7482	25	
Mg	24	2	45	39.548	ppb	21.9	2600	25	>RL
Al	27	2	45	2.195	ppb	219.7	33	15	
K	39	1	45	-32.038	ppb	-83.9	5125748	50	
K	39	2	45	36.742	ppb	15.9	3564	50	
Ca	40	1	45	6.619	ppb	5.0	102357	50	
Ca	44	2	45	-39.429	ppb	-37.5	7	25	
Ti	47	2	45	105.937	ppb	173.2	3	0.5	>RL
V	51	2	72	-0.225	ppb	-22.7	287	1	
Cr	52	2	72	0.000	ppb	14162.8	117	1	
Mn	55	2	72	-0.072	ppb	-359.7	77	0.5	
Fe	57	2	72	4.687	ppb	83.3	83	25	
Co	59	2	72	0.001	ppb	1964.6	23	0.5	
Ni	60	2	72	-0.041	ppb	-89.0	23	1	
Cu	63	2	72	-0.319	ppb	-32.3	1153	1	
Zn	66	2	72	-0.076	ppb	-515.1	83	5	
As	75	2	72	0.006	ppb	949.4	6	1	
Se	78	1	72	-0.043	ppb	-87.0	16	1	
Sr	88	2	72	-0.060	ppb	-180.2	13	0.5	
Zr	90	2	72	5.554	ppb	243.6	67	1	>RL
Nb	93	2	72	0.541	ppb	25.3	3764	2	
Mo	95	2	115	0.030	ppb	164.3	47	0.5	
Pd	105	2	115	-0.027	ppb	-192.3	73	1	
Ag	107	2	115	-0.013	ppb	-56.6	13	1	
Cd	111	2	115	0.020	ppb	173.2	3	0.5	
Sn	120	2	115	0.060	ppb	77.5	137	1	
Sb	121	2	115	0.104	ppb	127.0	77	0.6	
Ba	137	2	115	0.035	ppb	173.2	3	0.5	
W	182	2	165	-0.002	ppb	-655.7	273	1	
Pt	195	2	165	0.018	ppb	25.0	297	1	
Tl	205	2	165	0.008	ppb	44.8	137	0.1	
Pb	208	2	165	0.026	ppb	159.8	1203	0.5	
Th	232	2	165	0.210	ppb	9.4	2564	1	
U	238	2	165	0.011	ppb	52.6	163	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	582690	0.89	608971	95.68	60	120	
Sc (IS)	45	1	HMI H2	23322853	0.87	24673136	94.53	60	120	
Sc (IS)	45	2	HMI He	264772	0.90	281864	93.94	60	120	
Sc (IS)	45	3	No Gas	74266226	0.75	78056314	95.14	60	120	
Ge Internal Standard	72	1	HMI H2	12149588	0.13	12619474	96.28	60	120	
Ge Internal Standard	72	2	HMI He	410858	1.16	434818	94.49	60	120	
In Internal Standard	115	2	HMI He	944111	1.55	1007281	93.73	60	120	
Ho-165	165	2	HMI He	7858081	0.80	8283065	94.87	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	067LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:35:35-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	0.848	ppb	658.974	4434324	50	1.7	70	130	>+/-30%
Be	9	1	6	1.215	ppb	15.501	233	1	121.5	70	130	
Na	23	2	45	42.860	ppb	20.243	12568	50	85.7	70	130	
Mg	24	2	45	101.175	ppb	5.674	4801	50	202.3	70	130	>+/-30%
Al	27	2	45	40.743	ppb	28.404	293	30	135.8	70	130	>+/-30%
K	39	2	45	132.965	ppb	10.132	4727	100	133.0	70	130	>+/-30%
Ca	44	2	45	-1.114	ppb	-2874.275	37	50	-2.2	70	130	>+/-30%
V	51	2	72	4.648	ppb	5.757	2584	5	93.0	70	130	
Cr	52	2	72	2.195	ppb	2.321	1527	2	109.8	70	130	
Mn	55	2	72	1.078	ppb	38.399	273	1	107.8	70	130	
Fe	57	2	72	50.685	ppb	15.932	623	50	101.4	70	130	
Co	59	2	72	1.028	ppb	10.426	1490	1	102.8	70	130	
Ni	60	2	72	1.887	ppb	9.107	847	2	94.3	70	130	
Cu	63	2	72	1.975	ppb	3.890	4087	2	98.7	70	130	
Zn	66	2	72	9.188	ppb	11.904	1063	10	91.9	70	130	
As	75	2	72	5.143	ppb	5.785	338	5	102.9	70	130	
Se	78	1	72	5.012	ppb	7.072	1452	5	100.2	70	130	
Sr	88	2	72	0.734	ppb	20.123	127	1	73.4	70	130	
Zr	90	2	72	23.577	ppb	58.349	140	0.5	4715.3	70	130	>+/-30%
Nb	93	2	72	0.216	ppb	49.494	3137	2	10.8	70	130	>+/-30%
Mo	95	2	115	1.811	ppb	15.142	980	2	90.6	70	130	
Pd	105	2	115	-0.085	ppb	-13.493	17	1	-8.5	70	130	>+/-30%
Ag	107	2	115	4.911	ppb	4.373	10130	5	98.2	70	130	
Cd	111	2	115	1.153	ppb	15.027	197	1	115.3	70	130	
Sn	120	2	115	9.850	ppb	7.883	4051	10	98.5	70	130	
Sb	121	2	115	1.896	ppb	11.648	643	2	94.8	70	130	
Ba	137	2	115	0.760	ppb	21.130	73	1	76.0	70	130	
W	182	2	165	4.840	ppb	3.968	17517	1	484.0	70	130	>+/-30%
Pt	195	2	165	0.036	ppb	36.313	367	1	3.6	70	130	>+/-30%
Tl	205	2	165	1.048	ppb	13.045	5008	1	104.8	70	130	
Pb	208	2	165	1.029	ppb	4.181	7198	1	102.9	70	130	
Th	232	2	165	2.127	ppb	4.039	15368	2	106.3	70	130	
U	238	2	165	1.008	ppb	4.579	7926	1	100.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	581911	1.04	608971	95.56	60	120	
Sc (IS)	45	1	HMI H2	23483091	0.85	24673136	95.18	60	120	
Sc (IS)	45	2	HMI He	264710	0.93	281864	93.91	60	120	
Sc (IS)	45	3	No Gas	73727151	0.74	78056314	94.45	60	120	
Ge Internal Standard	72	1	HMI H2	12105565	0.80	12619474	95.93	60	120	
Ge Internal Standard	72	2	HMI He	410562	1.02	434818	94.42	60	120	
In Internal Standard	115	2	HMI He	946383	1.52	1007281	93.95	60	120	
Ho-165	165	2	HMI He	7880558	1.19	8283065	95.14	60	120	

Sample Table

Sample Name	280-104320-E-17-B
Data File Name	068SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:39:26-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	7.859	ppb	7.859	74.79	77167	500000	
Li	7	2	45	41.618	ppb	41.618	45.53	4664	500000	
Li	7	3	45	-2.099	ppb	-2.099	-197.75	4288720	50000	
Be	9	1	6	0.036	ppb	0.036	173.21	7	2000	
B	11	1	6	-264.763	ppb	-264.763	-2.00	12305	2000	
Na	23	1	45	4693.693	ppb	4693.693	0.55	10608845	2000	
Na	23	2	45	4703.354	ppb	4703.354	0.17	388761	400000	
Mg	24	2	45	29436.766	ppb	29436.766	0.29	1042036	400000	
Al	27	2	45	33.220	ppb	33.220	40.00	240	400000	
K	39	1	45	317.117	ppb	317.117	8.72	5846913	400000	
K	39	2	45	1399.139	ppb	1399.139	1.29	19845	400000	
Ca	40	1	45	93534.658	ppb	93534.658	0.02	342009515	400000	
Ca	44	2	45	88214.506	ppb	88214.506	3.00	68390	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.509	ppb	-0.509	-25.74	150	2000	
Cr	52	2	72	0.316	ppb	0.316	25.09	313	5000	
Mn	55	2	72	187.806	ppb	187.806	2.10	31696	10000	
Fe	57	2	72	60.593	ppb	60.593	27.77	727	400000	
Co	59	2	72	0.118	ppb	0.118	35.33	187	2000	
Ni	60	2	72	0.652	ppb	0.652	17.28	313	5000	
Cu	63	2	72	0.167	ppb	0.167	48.40	1740	5000	
Zn	66	2	72	1.739	ppb	1.739	27.94	270	5000	
As	75	2	72	0.244	ppb	0.244	93.79	21	2000	
Se	78	1	72	-0.026	ppb	-0.026	-145.04	20	2000	
Sr	88	2	72	118.465	ppb	118.465	1.66	16605	4000	
Zr	90	2	72	7.535	ppb	7.535	49.61	73	1000	
Nb	93	2	72	-1.001	ppb	-1.001	-4.02	773	200	
Mo	95	2	115	0.381	ppb	0.381	15.93	227	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-11.49	10	100	
Ag	107	2	115	-0.012	ppb	-0.012	-65.12	17	100	
Cd	111	2	115	0.040	ppb	0.040	173.21	7	2000	
Sn	120	2	115	0.084	ppb	0.084	92.75	143	2000	
Sb	121	2	115	-0.032	ppb	-0.032	-53.99	33	1000	
Ba	137	2	115	16.944	ppb	16.944	4.41	1607	5000	
W	182	2	165	0.010	ppb	0.010	185.19	313	100	
Pt	195	2	165	0.039	ppb	0.039	100.78	373	100	
Tl	205	2	165	0.019	ppb	0.019	32.89	190	2000	
Pb	208	2	165	0.149	ppb	0.149	45.86	1923	5000	
Th	232	2	165	0.067	ppb	0.067	24.91	1600	2000	
U	238	2	165	1.925	ppb	1.925	0.91	14914	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	553095	1.03	608971	90.82	60	120	
Sc (IS)	45	1	HMI H2	23018606	0.06	24673136	93.29	60	120	
Sc (IS)	45	2	HMI He	262109	1.02	281864	92.99	60	120	
Sc (IS)	45	3	No Gas	71892417	1.32	78056314	92.10	60	120	
Ge Internal Standard	72	1	HMI H2	11763221	0.51	12619474	93.21	60	120	
Ge Internal Standard	72	2	HMI He	402917	0.47	434818	92.66	60	120	
In Internal Standard	115	2	HMI He	929350	1.39	1007281	92.26	60	120	
Ho-165	165	2	HMI He	7801446	0.35	8283065	94.19	60	120	

Sample Table

Sample Name	280-104320-E-18-B
Data File Name	069SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:43:16-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-2.386	ppb	-2.386	-244.59	74767	500000	
Li	7	2	45	23.751	ppb	23.751	43.14	4477	500000	
Li	7	3	45	-4.519	ppb	-4.519	-28.18	4231002	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-198.492	ppb	-198.492	-2.21	24827	2000	
Na	23	1	45	5167.682	ppb	5167.682	0.50	11617034	2000	
Na	23	2	45	5108.844	ppb	5108.844	1.79	424583	400000	
Mg	24	2	45	21881.189	ppb	21881.189	2.08	780535	400000	
Al	27	2	45	197.714	ppb	197.714	8.19	1347	400000	
K	39	1	45	-157.886	ppb	-157.886	-29.20	4757302	400000	
K	39	2	45	910.182	ppb	910.182	5.91	14089	400000	
Ca	40	1	45	67474.801	ppb	67474.801	0.83	245848503	400000	
Ca	44	2	45	63692.182	ppb	63692.182	4.18	49750	400000	
Ti	47	2	45	733.088	ppb	733.088	107.06	23	4000	
V	51	2	72	-0.014	ppb	-0.014	-1577.41	383	2000	
Cr	52	2	72	0.484	ppb	0.484	19.46	423	5000	
Mn	55	2	72	871.245	ppb	871.245	2.66	148265	10000	
Fe	57	2	72	381.974	ppb	381.974	8.66	4477	400000	
Co	59	2	72	3.249	ppb	3.249	6.74	4621	2000	
Ni	60	2	72	1.342	ppb	1.342	23.33	610	5000	
Cu	63	2	72	0.902	ppb	0.902	15.76	2694	5000	
Zn	66	2	72	2.599	ppb	2.599	26.49	363	5000	
As	75	2	72	0.526	ppb	0.526	21.50	39	2000	
Se	78	1	72	0.056	ppb	0.056	29.47	43	2000	
Sr	88	2	72	95.391	ppb	95.391	4.56	13516	4000	
Zr	90	2	72	704.569	ppb	704.569	1.17	2890	1000	
Nb	93	2	72	-1.143	ppb	-1.143	-5.54	510	200	
Mo	95	2	115	1.739	ppb	1.739	10.65	927	2000	
Pd	105	2	115	-0.101	ppb	-0.101	0.00	0	100	
Ag	107	2	115	-0.015	ppb	-0.015	-56.14	10	100	
Cd	111	2	115	0.080	ppb	0.080	86.61	13	2000	
Sn	120	2	115	0.065	ppb	0.065	75.25	137	2000	
Sb	121	2	115	0.001	ppb	0.001	7845.60	43	1000	
Ba	137	2	115	23.941	ppb	23.941	1.81	2280	5000	
W	182	2	165	-0.002	ppb	-0.002	-1241.85	270	100	
Pt	195	2	165	0.035	ppb	0.035	100.60	357	100	
Tl	205	2	165	0.019	ppb	0.019	29.87	187	2000	
Pb	208	2	165	0.642	ppb	0.642	2.37	4811	5000	
Th	232	2	165	0.007	ppb	0.007	63.72	1200	2000	
U	238	2	165	0.628	ppb	0.628	6.21	4894	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	543814	0.93	608971	89.30	60	120	
Sc (IS)	45	1	HMI H2	22934236	0.72	24673136	92.95	60	120	
Sc (IS)	45	2	HMI He	264058	1.17	281864	93.68	60	120	
Sc (IS)	45	3	No Gas	71398336	0.26	78056314	91.47	60	120	
Ge Internal Standard	72	1	HMI H2	11767629	0.44	12619474	93.25	60	120	
Ge Internal Standard	72	2	HMI He	407239	0.91	434818	93.66	60	120	
In Internal Standard	115	2	HMI He	932905	1.52	1007281	92.62	60	120	
Ho-165	165	2	HMI He	7760163	1.23	8283065	93.69	60	120	

Sample Table

Sample Name	280-104320-E-20-B
Data File Name	070SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:47:06-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	13.885	ppb	13.885	47.84	76414	500000	
Li	7	2	45	34.175	ppb	34.175	75.11	4424	500000	
Li	7	3	45	4.128	ppb	4.128	33.00	4177158	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-215.875	ppb	-215.875	-1.05	20976	2000	
Na	23	1	45	10456.743	ppb	10456.743	0.85	22786043	2000	>LDR
Na	23	2	45	10632.095	ppb	10632.095	1.71	838571	400000	
Mg	24	2	45	29823.669	ppb	29823.669	1.99	1020503	400000	
Al	27	2	45	7.511	ppb	7.511	84.31	67	400000	
K	39	1	45	2387.501	ppb	2387.501	0.11	10249332	400000	
K	39	2	45	3371.166	ppb	3371.166	2.32	42020	400000	
Ca	40	1	45	108234.481	ppb	108234.481	0.80	385638954	400000	
Ca	44	2	45	102999.623	ppb	102999.623	2.90	77202	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.428	ppb	-0.428	-3.59	183	2000	
Cr	52	2	72	0.148	ppb	0.148	43.63	203	5000	
Mn	55	2	72	100.467	ppb	100.467	3.27	16632	10000	
Fe	57	2	72	911.436	ppb	911.436	9.94	10300	400000	
Co	59	2	72	0.041	ppb	0.041	73.65	77	2000	
Ni	60	2	72	0.075	ppb	0.075	149.88	70	5000	
Cu	63	2	72	-0.354	ppb	-0.354	-29.17	1063	5000	
Zn	66	2	72	0.551	ppb	0.551	137.25	143	5000	
As	75	2	72	1.630	ppb	1.630	2.20	107	2000	
Se	78	1	72	-0.040	ppb	-0.040	-36.44	16	2000	
Sr	88	2	72	339.560	ppb	339.560	0.70	46547	4000	
Zr	90	2	72	42.003	ppb	42.003	19.08	207	1000	
Nb	93	2	72	-1.227	ppb	-1.227	-2.08	337	200	
Mo	95	2	115	0.815	ppb	0.815	16.10	440	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.30	3	100	
Ag	107	2	115	-0.018	ppb	-0.018	-16.30	3	100	
Cd	111	2	115	0.020	ppb	0.020	173.21	3	2000	
Sn	120	2	115	0.108	ppb	0.108	42.03	150	2000	
Sb	121	2	115	-0.073	ppb	-0.073	-1.16	20	1000	
Ba	137	2	115	20.090	ppb	20.090	4.05	1867	5000	
W	182	2	165	0.027	ppb	0.027	35.83	363	100	
Pt	195	2	165	0.034	ppb	0.034	103.92	343	100	
Tl	205	2	165	-0.017	ppb	-0.017	-33.18	23	2000	
Pb	208	2	165	0.121	ppb	0.121	6.29	1710	5000	
Th	232	2	165	-0.093	ppb	-0.093	-9.03	530	2000	
U	238	2	165	0.071	ppb	0.071	6.39	610	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	530849	1.07	608971	87.17	60	120	
Sc (IS)	45	1	HMI H2	22430642	0.06	24673136	90.91	60	120	
Sc (IS)	45	2	HMI He	253418	1.85	281864	89.91	60	120	
Sc (IS)	45	3	No Gas	68824562	0.67	78056314	88.17	60	120	
Ge Internal Standard	72	1	HMI H2	11544454	0.65	12619474	91.48	60	120	
Ge Internal Standard	72	2	HMI He	394335	0.89	434818	90.69	60	120	
In Internal Standard	115	2	HMI He	910346	1.29	1007281	90.38	60	120	
Ho-165	165	2	HMI He	7589948	1.61	8283065	91.63	60	120	

Sample Table

Sample Name	280-104320-G-21-B
Data File Name	071SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:50:55-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-1.306	ppb	-1.306	-225.58	73766	500000	
Li	7	2	45	22.409	ppb	22.409	84.02	4327	500000	
Li	7	3	45	-3.971	ppb	-3.971	-75.02	4173943	50000	
Be	9	1	6	0.076	ppb	0.076	42.79	13	2000	
B	11	1	6	-259.212	ppb	-259.212	-1.56	12858	2000	
Na	23	1	45	11247.523	ppb	11247.523	1.08	24636392	2000	>LDR
Na	23	2	45	11159.283	ppb	11159.283	1.34	889351	400000	
Mg	24	2	45	31225.420	ppb	31225.420	0.98	1080176	400000	
Al	27	2	45	6.940	ppb	6.940	33.23	63	400000	
K	39	1	45	853.656	ppb	853.656	4.13	6916757	400000	
K	39	2	45	1988.760	ppb	1988.760	2.58	26297	400000	
Ca	40	1	45	86864.704	ppb	86864.704	0.53	311310969	400000	
Ca	44	2	45	80926.715	ppb	80926.715	1.34	61325	400000	
Ti	47	2	45	108.195	ppb	108.195	173.21	3	4000	
V	51	2	72	-0.510	ppb	-0.510	-29.80	147	2000	
Cr	52	2	72	0.179	ppb	0.179	43.82	223	5000	
Mn	55	2	72	240.929	ppb	240.929	4.20	39956	10000	
Fe	57	2	72	1750.967	ppb	1750.967	1.16	19868	400000	
Co	59	2	72	0.350	ppb	0.350	7.39	503	2000	
Ni	60	2	72	0.123	ppb	0.123	104.44	90	5000	
Cu	63	2	72	-0.442	ppb	-0.442	-24.81	960	5000	
Zn	66	2	72	1.419	ppb	1.419	30.29	233	5000	
As	75	2	72	11.228	ppb	11.228	6.01	705	2000	
Se	78	1	72	-0.074	ppb	-0.074	-41.14	7	2000	
Sr	88	2	72	141.762	ppb	141.762	3.07	19542	4000	
Zr	90	2	72	9.419	ppb	9.419	131.70	80	1000	
Nb	93	2	72	-1.252	ppb	-1.252	-2.19	293	200	
Mo	95	2	115	0.683	ppb	0.683	25.00	373	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.23	3	100	
Ag	107	2	115	-0.011	ppb	-0.011	-67.12	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.030	ppb	0.030	312.79	120	2000	
Sb	121	2	115	0.015	ppb	0.015	836.32	47	1000	
Ba	137	2	115	46.154	ppb	46.154	9.13	4287	5000	
W	182	2	165	0.003	ppb	0.003	669.02	283	100	
Pt	195	2	165	0.026	ppb	0.026	115.68	320	100	
Tl	205	2	165	-0.010	ppb	-0.010	-70.92	53	2000	
Pb	208	2	165	0.122	ppb	0.122	9.88	1723	5000	
Th	232	2	165	-0.094	ppb	-0.094	-12.44	523	2000	
U	238	2	165	0.879	ppb	0.879	6.91	6705	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	531089	0.58	608971	87.21	60	120	
Sc (IS)	45	1	HMI H2	22561246	0.89	24673136	91.44	60	120	
Sc (IS)	45	2	HMI He	256152	0.44	281864	90.88	60	120	
Sc (IS)	45	3	No Gas	70329457	0.57	78056314	90.10	60	120	
Ge Internal Standard	72	1	HMI H2	11607300	0.78	12619474	91.98	60	120	
Ge Internal Standard	72	2	HMI He	396217	1.63	434818	91.12	60	120	
In Internal Standard	115	2	HMI He	910141	0.60	1007281	90.36	60	120	
Ho-165	165	2	HMI He	7631940	0.84	8283065	92.14	60	120	

Sample Table

Sample Name	280-104320-A-22-B
Data File Name	072SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:54:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-23.722	ppb	-23.722	-6.45	71377	500000	
Li	7	2	45	-16.760	ppb	-16.760	-185.76	3967	500000	
Li	7	3	45	-23.886	ppb	-23.886	-13.44	3925722	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-222.219	ppb	-222.219	-1.31	20649	2000	
Na	23	1	45	3860.350	ppb	3860.350	0.22	8856427	2000	
Na	23	2	45	3829.966	ppb	3829.966	1.15	320080	400000	
Mg	24	2	45	8833.753	ppb	8833.753	1.12	315345	400000	
Al	27	2	45	6.190	ppb	6.190	128.05	60	400000	
K	39	1	45	18.774	ppb	18.774	21.12	5229715	400000	
K	39	2	45	1135.550	ppb	1135.550	2.24	16785	400000	
Ca	40	1	45	59330.083	ppb	59330.083	0.29	219316097	400000	
Ca	44	2	45	56122.488	ppb	56122.488	0.79	43781	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	0.359	ppb	0.359	64.45	553	2000	
Cr	52	2	72	0.318	ppb	0.318	19.12	317	5000	
Mn	55	2	72	8.260	ppb	8.260	8.09	1483	10000	
Fe	57	2	72	58.334	ppb	58.334	4.34	703	400000	
Co	59	2	72	0.136	ppb	0.136	38.51	213	2000	
Ni	60	2	72	0.372	ppb	0.372	44.15	197	5000	
Cu	63	2	72	0.171	ppb	0.171	88.31	1753	5000	
Zn	66	2	72	1.024	ppb	1.024	70.28	197	5000	
As	75	2	72	0.151	ppb	0.151	93.33	15	2000	
Se	78	1	72	1.010	ppb	1.010	8.66	312	2000	
Sr	88	2	72	151.512	ppb	151.512	1.89	21330	4000	
Zr	90	2	72	13.236	ppb	13.236	45.88	97	1000	
Nb	93	2	72	-1.309	ppb	-1.309	-2.47	190	200	
Mo	95	2	115	0.030	ppb	0.030	132.58	47	2000	
Pd	105	2	115	-0.101	ppb	-0.101	0.00	0	100	
Ag	107	2	115	-0.013	ppb	-0.013	-42.70	13	100	
Cd	111	2	115	0.079	ppb	0.079	173.21	13	2000	
Sn	120	2	115	0.316	ppb	0.316	52.30	237	2000	
Sb	121	2	115	-0.128	ppb	-0.128	-14.52	3	1000	
Ba	137	2	115	17.017	ppb	17.017	14.79	1627	5000	
W	182	2	165	0.042	ppb	0.042	53.40	423	100	
Pt	195	2	165	0.004	ppb	0.004	157.58	240	100	
Tl	205	2	165	-0.011	ppb	-0.011	-52.82	50	2000	
Pb	208	2	165	0.358	ppb	0.358	10.28	3127	5000	
Th	232	2	165	-0.111	ppb	-0.111	-2.17	423	2000	
U	238	2	165	0.623	ppb	0.623	5.24	4834	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	553921	1.39	608971	90.96	60	120	
Sc (IS)	45	1	HMI H2	23267374	0.63	24673136	94.30	60	120	
Sc (IS)	45	2	HMI He	263620	0.64	281864	93.53	60	120	
Sc (IS)	45	3	No Gas	70045902	0.40	78056314	89.74	60	120	
Ge Internal Standard	72	1	HMI H2	11979316	0.74	12619474	94.93	60	120	
Ge Internal Standard	72	2	HMI He	404779	0.92	434818	93.09	60	120	
In Internal Standard	115	2	HMI He	937182	0.75	1007281	93.04	60	120	
Ho-165	165	2	HMI He	7723846	1.02	8283065	93.25	60	120	

Sample Table

Sample Name	280-104320-A-23-B
Data File Name	073SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T19:58:32-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-14.509	ppb	-14.509	-30.17	72140	500000	
Li	7	2	45	-27.353	ppb	-27.353	-40.05	3821	500000	
Li	7	3	45	-20.379	ppb	-20.379	-33.23	4005452	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-273.158	ppb	-273.158	-0.09	10347	2000	
Na	23	1	45	47932.939	ppb	47932.939	0.43	105888645	2000	>LDR
Na	23	2	45	47365.169	ppb	47365.169	0.91	3840385	400000	
Mg	24	2	45	19553.649	ppb	19553.649	0.47	693795	400000	
Al	27	2	45	33.707	ppb	33.707	30.12	243	400000	
K	39	1	45	314.386	ppb	314.386	4.39	5809754	400000	
K	39	2	45	1396.472	ppb	1396.472	4.81	19845	400000	
Ca	40	1	45	65437.162	ppb	65437.162	0.79	238022816	400000	
Ca	44	2	45	60550.573	ppb	60550.573	1.71	47045	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.330	ppb	-0.330	-36.16	233	2000	
Cr	52	2	72	0.251	ppb	0.251	63.58	273	5000	
Mn	55	2	72	123.501	ppb	123.501	3.21	20886	10000	
Fe	57	2	72	3820.283	ppb	3820.283	2.69	44072	400000	
Co	59	2	72	0.789	ppb	0.789	18.78	1127	2000	
Ni	60	2	72	0.994	ppb	0.994	16.18	457	5000	
Cu	63	2	72	0.131	ppb	0.131	93.73	1697	5000	
Zn	66	2	72	1.577	ppb	1.577	31.08	253	5000	
As	75	2	72	3.458	ppb	3.458	11.80	225	2000	
Se	78	1	72	0.780	ppb	0.780	9.63	243	2000	
Sr	88	2	72	84.048	ppb	84.048	1.03	11795	4000	
Zr	90	2	72	12.512	ppb	12.512	40.46	93	1000	
Nb	93	2	72	-1.282	ppb	-1.282	-3.22	240	200	
Mo	95	2	115	0.018	ppb	0.018	282.79	40	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-19.61	10	100	
Ag	107	2	115	0.008	ppb	0.008	123.01	57	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.094	ppb	-0.094	-138.41	73	2000	
Sb	121	2	115	-0.042	ppb	-0.042	-131.91	30	1000	
Ba	137	2	115	8.459	ppb	8.459	16.19	800	5000	
W	182	2	165	0.032	ppb	0.032	55.76	390	100	
Pt	195	2	165	0.019	ppb	0.019	90.06	297	100	
Tl	205	2	165	-0.005	ppb	-0.005	-132.06	77	2000	
Pb	208	2	165	0.254	ppb	0.254	25.21	2524	5000	
Th	232	2	165	-0.106	ppb	-0.106	-7.94	453	2000	
U	238	2	165	0.594	ppb	0.594	10.63	4624	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	536288	0.84	608971	88.06	60	120	
Sc (IS)	45	1	HMI H2	22896541	0.22	24673136	92.80	60	120	
Sc (IS)	45	2	HMI He	262569	0.67	281864	93.15	60	120	
Sc (IS)	45	3	No Gas	70743134	1.17	78056314	90.63	60	120	
Ge Internal Standard	72	1	HMI H2	11759967	0.55	12619474	93.19	60	120	
Ge Internal Standard	72	2	HMI He	403153	0.82	434818	92.72	60	120	
In Internal Standard	115	2	HMI He	926205	0.76	1007281	91.95	60	120	
Ho-165	165	2	HMI He	7742704	0.83	8283065	93.48	60	120	

Sample Table

Sample Name	280-104320-A-24-B
Data File Name	074SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:02:19-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.202	ppb	5.202	31.76	78003	500000	
Li	7	2	45	26.316	ppb	26.316	43.25	4604	500000	
Li	7	3	45	-8.207	ppb	-8.207	-6.89	4241613	50000	
Be	9	1	6	0.037	ppb	0.037	173.21	7	2000	
B	11	1	6	30.548	ppb	30.548	28.42	69902	2000	
Na	23	1	45	10873.023	ppb	10873.023	0.53	24746020	2000	>LDR
Na	23	2	45	10919.962	ppb	10919.962	1.49	915668	400000	
Mg	24	2	45	12164.617	ppb	12164.617	1.68	443382	400000	
Al	27	2	45	11.355	ppb	11.355	21.53	97	400000	
K	39	1	45	3925.835	ppb	3925.835	2.25	14241081	400000	
K	39	2	45	4958.058	ppb	4958.058	1.44	64238	400000	
Ca	40	1	45	29807.855	ppb	29807.855	0.30	111019515	400000	
Ca	44	2	45	30673.854	ppb	30673.854	1.87	24481	400000	
Ti	47	2	45	205.238	ppb	205.238	173.21	7	4000	
V	51	2	72	-0.401	ppb	-0.401	-28.57	203	2000	
Cr	52	2	72	0.218	ppb	0.218	2.38	257	5000	
Mn	55	2	72	0.551	ppb	0.551	20.17	183	10000	
Fe	57	2	72	26.514	ppb	26.514	12.18	340	400000	
Co	59	2	72	0.010	ppb	0.010	173.71	37	2000	
Ni	60	2	72	0.966	ppb	0.966	37.46	453	5000	
Cu	63	2	72	-0.102	ppb	-0.102	-41.55	1430	5000	
Zn	66	2	72	5.583	ppb	5.583	11.63	683	5000	
As	75	2	72	0.035	ppb	0.035	81.94	8	2000	
Se	78	1	72	0.378	ppb	0.378	40.45	133	2000	
Sr	88	2	72	520.660	ppb	520.660	3.19	74359	4000	
Zr	90	2	72	10.373	ppb	10.373	73.29	87	1000	
Nb	93	2	72	-1.342	ppb	-1.342	-3.02	130	200	
Mo	95	2	115	0.067	ppb	0.067	89.91	67	2000	
Pd	105	2	115	-0.095	ppb	-0.095	-6.16	7	100	
Ag	107	2	115	-0.015	ppb	-0.015	-31.33	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.083	ppb	-0.083	-157.13	80	2000	
Sb	121	2	115	-0.097	ppb	-0.097	-49.16	13	1000	
Ba	137	2	115	233.946	ppb	233.946	1.64	22876	5000	
W	182	2	165	-0.005	ppb	-0.005	-709.96	263	100	
Pt	195	2	165	0.010	ppb	0.010	264.60	267	100	
Tl	205	2	165	-0.007	ppb	-0.007	-60.15	67	2000	
Pb	208	2	165	0.142	ppb	0.142	16.55	1897	5000	
Th	232	2	165	-0.122	ppb	-0.122	-7.89	357	2000	
U	238	2	165	0.073	ppb	0.073	12.47	643	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	552556	1.11	608971	90.74	60	120	
Sc (IS)	45	1	HMI H2	23435608	0.76	24673136	94.98	60	120	
Sc (IS)	45	2	HMI He	269488	1.73	281864	95.61	60	120	
Sc (IS)	45	3	No Gas	72323941	0.43	78056314	92.66	60	120	
Ge Internal Standard	72	1	HMI H2	11911917	0.57	12619474	94.39	60	120	
Ge Internal Standard	72	2	HMI He	411073	1.74	434818	94.54	60	120	
In Internal Standard	115	2	HMI He	958090	1.70	1007281	95.12	60	120	
Ho-165	165	2	HMI He	7852934	0.24	8283065	94.81	60	120	

Sample Table

Sample Name	280-104320-C-25-B
Data File Name	075SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:06:09-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-0.427	ppb	-0.427	-1424.14	76367	500000	
Li	7	2	45	-9.734	ppb	-9.734	-170.60	4094	500000	
Li	7	3	45	-17.836	ppb	-17.836	-31.32	4149202	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	-252.556	ppb	-252.556	-1.14	14623	2000	
Na	23	1	45	8105.050	ppb	8105.050	0.17	18388945	2000	
Na	23	2	45	8013.060	ppb	8013.060	1.06	666208	400000	
Mg	24	2	45	16759.933	ppb	16759.933	0.85	603046	400000	
Al	27	2	45	22.806	ppb	22.806	38.37	173	400000	
K	39	1	45	-311.356	ppb	-311.356	-11.49	4481527	400000	
K	39	2	45	792.713	ppb	792.713	3.09	12778	400000	
Ca	40	1	45	61144.792	ppb	61144.792	0.51	226299863	400000	
Ca	44	2	45	57329.150	ppb	57329.150	1.25	45158	400000	
Ti	47	2	45	0.000	ppb	0.000	#DIV/0!	0	4000	
V	51	2	72	-0.402	ppb	-0.402	-19.20	203	2000	
Cr	52	2	72	0.203	ppb	0.203	58.64	247	5000	
Mn	55	2	72	0.473	ppb	0.473	23.57	170	10000	
Fe	57	2	72	35.308	ppb	35.308	7.87	443	400000	
Co	59	2	72	0.017	ppb	0.017	62.54	47	2000	
Ni	60	2	72	0.099	ppb	0.099	82.28	83	5000	
Cu	63	2	72	-0.250	ppb	-0.250	-30.90	1240	5000	
Zn	66	2	72	0.365	ppb	0.365	77.11	130	5000	
As	75	2	72	0.026	ppb	0.026	274.54	7	2000	
Se	78	1	72	0.223	ppb	0.223	31.62	91	2000	
Sr	88	2	72	85.122	ppb	85.122	2.73	12178	4000	
Zr	90	2	72	11.255	ppb	11.255	36.55	90	1000	
Nb	93	2	72	-1.338	ppb	-1.338	-1.26	137	200	
Mo	95	2	115	-0.041	ppb	-0.041	-81.40	10	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-5.88	3	100	
Ag	107	2	115	-0.009	ppb	-0.009	-117.58	23	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.041	ppb	0.041	313.77	130	2000	
Sb	121	2	115	-0.087	ppb	-0.087	-74.73	17	1000	
Ba	137	2	115	2.062	ppb	2.062	27.08	200	5000	
W	182	2	165	-0.007	ppb	-0.007	-158.52	257	100	
Pt	195	2	165	0.024	ppb	0.024	206.27	323	100	
Tl	205	2	165	-0.015	ppb	-0.015	-22.35	33	2000	
Pb	208	2	165	0.097	ppb	0.097	42.16	1637	5000	
Th	232	2	165	-0.139	ppb	-0.139	-2.63	243	2000	
U	238	2	165	0.445	ppb	0.445	8.85	3554	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	550365	1.18	608971	90.38	60	120	
Sc (IS)	45	1	HMI H2	23295547	1.47	24673136	94.42	60	120	
Sc (IS)	45	2	HMI He	266200	0.95	281864	94.44	60	120	
Sc (IS)	45	3	No Gas	72736209	1.17	78056314	93.18	60	120	
Ge Internal Standard	72	1	HMI H2	11996963	0.90	12619474	95.07	60	120	
Ge Internal Standard	72	2	HMI He	410998	0.69	434818	94.52	60	120	
In Internal Standard	115	2	HMI He	951125	0.86	1007281	94.42	60	120	
Ho-165	165	2	HMI He	7897913	0.30	8283065	95.35	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	076_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:09:58-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	481.996	ppb	5.404	181138	500	96.4	90	110	
Li	7	2	45	489.245	ppb	2.573	10440	500	97.8	90	110	
Li	7	3	45	478.930	ppb	2.133	10134829	500	95.8	90	110	
Be	9	1	6	49.773	ppb	4.316	9339	50	99.5	90	110	
B	11	1	6	-246.554	ppb	-2.538	16314	50	-493.1	90	110	>+\-10%
Na	23	1	45	4997.898	ppb	3.293	11642786	5000	100.0	90	110	
Na	23	2	45	4909.312	ppb	1.944	415234	5000	98.2	90	110	
Mg	24	2	45	5004.122	ppb	3.186	182433	5000	100.1	90	110	
Al	27	2	45	5011.295	ppb	5.889	34220	5000	100.2	90	110	
K	39	1	45	5067.580	ppb	3.930	17093011	5000	101.4	90	110	
K	39	2	45	5025.971	ppb	1.801	64820	5000	100.5	90	110	
Ca	40	1	45	5090.442	ppb	3.446	19280353	5000	101.8	90	110	
Ca	44	2	45	5349.952	ppb	6.156	4284	5000	107.0	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	49.287	ppb	3.465	23686	50	98.6	90	110	
Cr	52	2	72	49.810	ppb	2.741	32223	50	99.6	90	110	
Mn	55	2	72	50.748	ppb	6.091	8816	50	101.5	90	110	
Fe	57	2	72	5012.006	ppb	2.387	59059	5000	100.2	90	110	
Co	59	2	72	49.170	ppb	1.389	70380	50	98.3	90	110	
Ni	60	2	72	49.919	ppb	2.568	21430	50	99.8	90	110	
Cu	63	2	72	48.612	ppb	0.832	64003	50	97.2	90	110	
Zn	66	2	72	51.398	ppb	2.516	5544	50	102.8	90	110	
As	75	2	72	49.953	ppb	1.271	3244	50	99.9	90	110	
Se	78	1	72	50.266	ppb	3.391	14402	50	100.5	90	110	
Sr	88	2	72	48.375	ppb	1.573	6945	50	96.7	90	110	
Zr	90	2	72	38.160	ppb	23.452	200	50	76.3	90	110	>+\-10%
Nb	93	2	72	94.074	ppb	1.946	184900	100	94.1	90	110	
Mo	95	2	115	47.736	ppb	4.890	25112	50	95.5	90	110	
Pd	105	2	115	49.086	ppb	2.424	48680	50	98.2	90	110	
Ag	107	2	115	49.140	ppb	1.213	101433	50	98.3	90	110	
Cd	111	2	115	51.833	ppb	5.236	8863	50	103.7	90	110	
Sn	120	2	115	48.166	ppb	1.901	19432	50	96.3	90	110	
Sb	121	2	115	51.713	ppb	2.313	16462	50	103.4	90	110	
Ba	137	2	115	47.686	ppb	7.754	4624	50	95.4	90	110	
W	182	2	165	49.955	ppb	0.433	178628	50	99.9	90	110	
Pt	195	2	165	48.755	ppb	0.937	184540	50	97.5	90	110	
Tl	205	2	165	49.638	ppb	1.154	233214	50	99.3	90	110	
Pb	208	2	165	49.718	ppb	1.315	298705	50	99.4	90	110	
Th	232	2	165	48.941	ppb	0.735	328694	50	97.9	90	110	
U	238	2	165	50.447	ppb	0.454	393761	50	100.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	569000	1.01	608971	93.44	60	120	
Sc (IS)	45	1	HMI H2	23760936	1.88	24673136	96.30	60	120	
Sc (IS)	45	2	HMI He	268486	0.58	281864	95.25	60	120	
Sc (IS)	45	3	No Gas	72675949	1.02	78056314	93.11	60	120	
Ge Internal Standard	72	1	HMI H2	12186171	2.24	12619474	96.57	60	120	
Ge Internal Standard	72	2	HMI He	411848	0.89	434818	94.72	60	120	
In Internal Standard	115	2	HMI He	950136	0.61	1007281	94.33	60	120	
Ho-165	165	2	HMI He	7898737	0.71	8283065	95.36	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	077_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:13:46-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-16.602	ppb	-29.7	4237101	10	
Be	9	1	6	0.052	ppb	100.0	10	0.5	
B	11	1	6	-288.622	ppb	-0.5	8012	0.5	
Na	23	1	45	-11.278	ppb	-6.6	184500	25	
Na	23	2	45	-12.492	ppb	-21.9	8115	25	
Mg	24	2	45	82.755	ppb	11.9	4174	25	>RL
Al	27	2	45	-2.289	ppb	-37.2	3	15	
K	39	1	45	-33.630	ppb	-10.7	5189766	50	
K	39	2	45	57.258	ppb	22.9	3841	50	>RL
Ca	40	1	45	28.853	ppb	2.4	187160	50	
Ca	44	2	45	2.588	ppb	1958.9	40	25	
Ti	47	2	45	208.707	ppb	173.2	7	0.5	>RL
V	51	2	72	-0.261	ppb	-84.6	273	1	
Cr	52	2	72	-0.074	ppb	-22.4	70	1	
Mn	55	2	72	-0.133	ppb	-86.7	67	0.5	
Fe	57	2	72	1.789	ppb	48.3	50	25	
Co	59	2	72	0.019	ppb	132.5	50	0.5	
Ni	60	2	72	0.081	ppb	70.1	77	1	
Cu	63	2	72	-0.359	ppb	-4.9	1113	1	
Zn	66	2	72	1.010	ppb	66.1	200	5	
As	75	2	72	-0.016	ppb	-225.9	5	1	
Se	78	1	72	-0.043	ppb	-32.3	16	1	
Sr	88	2	72	-0.131	ppb	-30.8	3	0.5	
Zr	90	2	72	2.092	ppb	365.0	53	1	>RL
Nb	93	2	72	0.471	ppb	27.6	3674	2	
Mo	95	2	115	0.028	ppb	195.1	47	0.5	
Pd	105	2	115	-0.058	ppb	-70.1	43	1	
Ag	107	2	115	-0.013	ppb	-54.9	13	1	
Cd	111	2	115	0.019	ppb	173.2	3	0.5	
Sn	120	2	115	0.046	ppb	58.6	133	1	
Sb	121	2	115	0.142	ppb	60.0	90	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	-0.002	ppb	-497.0	273	1	
Pt	195	2	165	0.016	ppb	86.4	290	1	
Tl	205	2	165	0.008	ppb	205.2	137	0.1	
Pb	208	2	165	0.287	ppb	4.3	2737	0.5	
Th	232	2	165	0.239	ppb	2.6	2730	1	
U	238	2	165	0.002	ppb	396.7	97	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	579225	0.19	608971	95.12	60	120	
Sc (IS)	45	1	HMI H2	23629625	0.53	24673136	95.77	60	120	
Sc (IS)	45	2	HMI He	266810	0.85	281864	94.66	60	120	
Sc (IS)	45	3	No Gas	74006802	0.69	78056314	94.81	60	120	
Ge Internal Standard	72	1	HMI H2	12191608	0.36	12619474	96.61	60	120	
Ge Internal Standard	72	2	HMI He	415513	1.06	434818	95.56	60	120	
In Internal Standard	115	2	HMI He	961514	1.27	1007281	95.46	60	120	
Ho-165	165	2	HMI He	7786042	0.99	8283065	94.00	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	078LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:17:36-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-6.510	ppb	-15.684	4299766	50	-13.0	70	130	>+/-30%
Be	9	1	6	0.876	ppb	15.235	167	1	87.6	70	130	
Na	23	2	45	45.343	ppb	11.160	12888	50	90.7	70	130	
Mg	24	2	45	157.278	ppb	5.332	6868	50	314.6	70	130	>+/-30%
Al	27	2	45	32.555	ppb	44.674	240	30	108.5	70	130	
K	39	2	45	126.303	ppb	19.647	4691	100	126.3	70	130	
Ca	44	2	45	19.566	ppb	149.978	53	50	39.1	70	130	>+/-30%
V	51	2	72	4.621	ppb	3.870	2577	5	92.4	70	130	
Cr	52	2	72	1.971	ppb	4.925	1387	2	98.5	70	130	
Mn	55	2	72	0.939	ppb	35.505	250	1	93.9	70	130	
Fe	57	2	72	43.433	ppb	11.638	540	50	86.9	70	130	
Co	59	2	72	1.017	ppb	5.504	1477	1	101.7	70	130	
Ni	60	2	72	2.052	ppb	7.672	920	2	102.6	70	130	
Cu	63	2	72	2.004	ppb	5.329	4137	2	100.2	70	130	
Zn	66	2	72	10.924	ppb	7.338	1250	10	109.2	70	130	
As	75	2	72	4.777	ppb	10.474	315	5	95.5	70	130	
Se	78	1	72	5.193	ppb	8.653	1525	5	103.9	70	130	
Sr	88	2	72	0.779	ppb	26.720	133	1	77.9	70	130	
Zr	90	2	72	1.389	ppb	798.773	50	0.5	277.7	70	130	>+/-30%
Nb	93	2	72	0.440	ppb	63.909	3577	2	22.0	70	130	>+/-30%
Mo	95	2	115	1.802	ppb	2.727	987	2	90.1	70	130	
Pd	105	2	115	-0.068	ppb	-51.506	33	1	-6.8	70	130	>+/-30%
Ag	107	2	115	4.754	ppb	5.166	9943	5	95.1	70	130	
Cd	111	2	115	1.198	ppb	3.222	207	1	119.8	70	130	
Sn	120	2	115	9.868	ppb	4.795	4107	10	98.7	70	130	
Sb	121	2	115	2.089	ppb	14.365	713	2	104.4	70	130	
Ba	137	2	115	1.022	ppb	17.033	100	1	102.2	70	130	
W	182	2	165	4.832	ppb	1.229	17380	1	483.2	70	130	>+/-30%
Pt	195	2	165	0.465	ppb	158.222	1973	1	46.5	70	130	>+/-30%
Tl	205	2	165	1.028	ppb	7.615	4888	1	102.8	70	130	
Pb	208	2	165	1.019	ppb	7.924	7091	1	101.9	70	130	
Th	232	2	165	2.142	ppb	3.708	15368	2	107.1	70	130	
U	238	2	165	1.050	ppb	4.347	8206	1	105.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	576727	0.21	608971	94.71	60	120	
Sc (IS)	45	1	HMI H2	23712475	0.33	24673136	96.11	60	120	
Sc (IS)	45	2	HMI He	267198	0.60	281864	94.80	60	120	
Sc (IS)	45	3	No Gas	72965376	0.22	78056314	93.48	60	120	
Ge Internal Standard	72	1	HMI H2	12276876	0.33	12619474	97.29	60	120	
Ge Internal Standard	72	2	HMI He	411727	0.77	434818	94.69	60	120	
In Internal Standard	115	2	HMI He	958686	0.98	1007281	95.18	60	120	
Ho-165	165	2	HMI He	7830317	1.32	8283065	94.53	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399634/1-A
Data File Name	079_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:21:26-07:00
Sample Type	Blank
Dilution	1
Comment	399634 6020a
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	23.799	ppb	32.88475214	82452	0.5
Li	7	2	45	33.345	ppb	26.51838217	4741	0.5
Li	7	3	45	17.438	ppb	11.46747474	4570668	10
Be	9	1	6	39.926	ppb	3.125882908	7462	0.5
B	11	1	6	-258.039	ppb	-1.227971412	13956	0.5
Na	23	1	45	-8.668	ppb	-11.41236424	190087	25
Na	23	2	45	-11.841	ppb	-11.91383253	8336	25
Mg	24	2	45	98.474	ppb	3.387851128	4838	25
Al	27	2	45	408.999	ppb	4.68518959	2850	15
K	39	1	45	-1024.991	ppb	-2.264627094	2888269	50
K	39	2	45	31.047	ppb	18.72385076	3594	50
Ca	40	1	45	24.955	ppb	1.166315555	172206	50
Ca	44	2	45	204.677	ppb	18.80426138	203	25
Ti	47	2	45	613.369	ppb	132.4063595	20	0.5
V	51	2	72	40.448	ppb	1.967799299	19775	1
Cr	52	2	72	40.429	ppb	4.331079283	26527	1
Mn	55	2	72	42.756	ppb	2.874343917	7545	0.5
Fe	57	2	72	403.876	ppb	8.177527338	4851	25
Co	59	2	72	40.659	ppb	1.144245365	58988	0.5
Ni	60	2	72	39.649	ppb	1.421626525	17259	1
Cu	63	2	72	42.398	ppb	2.572902918	56772	1
Zn	66	2	72	43.665	ppb	6.053895999	4788	5
As	75	2	72	38.766	ppb	3.387700356	2553	1
Se	78	1	72	38.799	ppb	3.573829239	11209	1
Sr	88	2	72	40.500	ppb	7.955798946	5895	0.5
Zr	90	2	72	6108.123	ppb	1.917917836	25339	1
Nb	93	2	72	-1.096	ppb	-3.518656411	613	2
Mo	95	2	115	40.248	ppb	1.998632112	21491	0.5
Pd	105	2	115	-0.085	ppb	-18.003124	17	1
Ag	107	2	115	40.457	ppb	0.475887212	84773	1
Cd	111	2	115	39.904	ppb	4.477563014	6925	0.5
Sn	120	2	115	39.825	ppb	3.815551289	16328	1
Sb	121	2	115	40.068	ppb	2.902972597	12956	0.6
Ba	137	2	115	37.924	ppb	5.023489526	3734	0.5
W	182	2	165	44.152	ppb	1.751756408	158741	1
Pt	195	2	165	0.011	ppb	181.5942058	277	1
Tl	205	2	165	40.545	ppb	0.6109785	191510	0.1
Pb	208	2	165	40.558	ppb	2.254991534	245144	0.5
Th	232	2	165	40.574	ppb	1.934430303	274125	1
U	238	2	165	41.241	ppb	1.284124308	323614	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	566528	0.50	608971	93.03	60	120	
Sc (IS)	45	1	HMI H2	23586663	0.75	24673136	95.60	60	120	
Sc (IS)	45	2	HMI He	272283	0.35	281864	96.60	60	120	
Sc (IS)	45	3	No Gas	72661267	1.48	78056314	93.09	60	120	
Ge Internal Standard	72	1	HMI H2	12274297	0.70	12619474	97.26	60	120	
Ge Internal Standard	72	2	HMI He	417396	0.77	434818	95.99	60	120	
In Internal Standard	115	2	HMI He	964369	0.43	1007281	95.74	60	120	
Ho-165	165	2	HMI He	7940599	0.98	8283065	95.87	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399634/2-A
Data File Name	080_LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:25:15-07:00
Sample Type	LCS
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399634 6020a
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	-16.368	-16.368	ppb	-18.671	74335	400	-4.1	80	120	>+/-20%
Li	7	2	45	-9.546	-9.546	ppb	-285.899	4174	400	-2.4	80	120	>+/-20%
Li	7	3	45	-22.698	-22.698	ppb	-6.785	4147466	400	-5.7	80	120	>+/-20%
Be	9	1	6	0.000	0.000	ppb	#DIV/0!	0	40	0.0	80	120	>+/-20%
Na	23	2	45	11.127	11.127	ppb	27.020	10220	40	27.8	80	120	>+/-20%
Mg	24	2	45	95.320	95.320	ppb	10.134	4704	40	238.3	80	120	>+/-20%
Al	27	2	45	39.325	39.325	ppb	21.454	290	40	98.3	80	120	
K	39	2	45	57.265	57.265	ppb	38.186	3904	40	143.2	80	120	>+/-20%
Ca	44	2	45	1.917	1.917	ppb	25.888	40	40	4.8	80	120	>+/-20%
V	51	2	72	-0.522	-0.522	ppb	-4.243	150	40	-1.3	80	120	>+/-20%
Cr	52	2	72	0.001	0.001	ppb	2733.755	120	40	0.0	80	120	>+/-20%
Mn	55	2	72	-0.117	-0.117	ppb	-177.713	70	40	-0.3	80	120	>+/-20%
Fe	57	2	72	8.702	8.702	ppb	31.462	133	40	21.8	80	120	>+/-20%
Co	59	2	72	0.016	0.016	ppb	64.567	47	40	0.0	80	120	>+/-20%
Ni	60	2	72	-0.012	-0.012	ppb	-401.670	37	40	0.0	80	120	>+/-20%
Cu	63	2	72	-0.020	-0.020	ppb	-872.535	1567	40	-0.1	80	120	>+/-20%
Zn	66	2	72	1.603	1.603	ppb	41.254	267	40	4.0	80	120	>+/-20%
As	75	2	72	-0.016	-0.016	ppb	-210.193	5	40	0.0	80	120	>+/-20%
Se	78	1	72	-0.085	-0.085	ppb	-28.244	4	40	-0.2	80	120	>+/-20%
Nb	93	2	72	-1.213	-1.213	ppb	-3.900	387	40	-3.0	80	120	>+/-20%
Mo	95	2	115	0.021	0.021	ppb	397.756	43	40	0.1	80	120	>+/-20%
Pd	105	2	115	-0.088	-0.088	ppb	-17.065	13	40	-0.2	80	120	>+/-20%
Ag	107	2	115	-0.006	-0.006	ppb	-144.985	30	40	0.0	80	120	>+/-20%
Cd	111	2	115	0.038	0.038	ppb	173.205	7	40	0.1	80	120	>+/-20%
Sn	120	2	115	0.092	0.092	ppb	105.061	153	40	0.2	80	120	>+/-20%
Sb	121	2	115	0.139	0.139	ppb	1.484	90	40	0.3	80	120	>+/-20%
Ba	137	2	115	0.271	0.271	ppb	108.873	27	40	0.7	80	120	>+/-20%
W	182	2	165	0.031	0.031	ppb	72.737	393	40	0.1	80	120	>+/-20%
Pt	195	2	165	0.036	0.036	ppb	26.609	370	40	0.1	80	120	>+/-20%
Tl	205	2	165	0.015	0.015	ppb	84.856	173	40	0.0	80	120	>+/-20%
Pb	208	2	165	0.106	0.106	ppb	21.388	1693	40	0.3	80	120	>+/-20%
Th	232	2	165	0.291	0.291	ppb	11.173	3124	40	0.7	80	120	>+/-20%
U	238	2	165	0.006	0.006	ppb	48.958	123	40	0.0	80	120	>+/-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	569671	0.17	608971	93.55	60	120	
Sc (IS)	45	1	HMI H2	23718919	0.15	24673136	96.13	60	120	
Sc (IS)	45	2	HMI He	271209	0.99	281864	96.22	60	120	
Sc (IS)	45	3	No Gas	73743674	1.01	78056314	94.47	60	120	
Ge Internal Standard	72	1	HMI H2	12272247	0.28	12619474	97.25	60	120	
Ge Internal Standard	72	2	HMI He	419490	0.47	434818	96.47	60	120	
In Internal Standard	115	2	HMI He	970078	0.74	1007281	96.31	60	120	
Ho-165	165	2	HMI He	7913773	0.57	8283065	95.54	60	120	

Sample Table

Sample Name	280-104588-H-1-B
Data File Name	081SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:29:06-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	26.790	ppb	26.790	7.62	78392	500000	
Li	7	2	45	25.879	ppb	25.879	90.69	4557	500000	
Li	7	3	45	16.129	ppb	16.129	14.87	4390592	50000	
Be	9	1	6	0.186	ppb	0.186	66.82	30	2000	
B	11	1	6	436.121	ppb	436.121	1.80	131937	2000	
Na	23	1	45	421713.388	ppb	421713.388	2.12	903709987	2000	>LDR
Na	23	2	45	398098.519	ppb	398098.519	3.20	32769079	400000	
Mg	24	2	45	69754.876	ppb	69754.876	3.70	2514838	400000	
Al	27	2	45	60.484	ppb	60.484	15.13	430	400000	
K	39	1	45	13090.943	ppb	13090.943	1.81	33508388	400000	
K	39	2	45	13566.257	ppb	13566.257	3.47	168733	400000	
Ca	40	1	45	188441.427	ppb	188441.427	2.13	665914070	400000	
Ca	44	2	45	182669.420	ppb	182669.420	3.45	144309	400000	
Ti	47	2	45	419.075	ppb	419.075	173.21	13	4000	
V	51	2	72	1.945	ppb	1.945	14.69	1270	2000	
Cr	52	2	72	0.669	ppb	0.669	8.13	530	5000	
Mn	55	2	72	4551.134	ppb	4551.134	4.69	756629	10000	
Fe	57	2	72	13370.114	ppb	13370.114	3.47	152212	400000	
Co	59	2	72	1.455	ppb	1.455	8.12	2034	2000	
Ni	60	2	72	12.587	ppb	12.587	5.43	5251	5000	
Cu	63	2	72	-0.369	ppb	-0.369	-31.01	1053	5000	
Zn	66	2	72	1.735	ppb	1.735	19.67	267	5000	
As	75	2	72	55.639	ppb	55.639	4.64	3491	2000	
Se	78	1	72	0.179	ppb	0.179	88.94	72	2000	
Sr	88	2	72	3166.970	ppb	3166.970	3.77	437962	4000	
Zr	90	2	72	140.375	ppb	140.375	14.27	597	1000	
Nb	93	2	72	-1.039	ppb	-1.039	-5.58	693	200	
Mo	95	2	115	3.618	ppb	3.618	19.28	1857	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-0.17	10	100	
Ag	107	2	115	-0.011	ppb	-0.011	-26.31	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	1.036	ppb	1.036	26.24	510	2000	
Sb	121	2	115	0.256	ppb	0.256	102.69	120	1000	
Ba	137	2	115	1979.511	ppb	1979.511	4.03	184786	5000	
W	182	2	165	2.746	ppb	2.746	2.54	9757	100	
Pt	195	2	165	0.051	ppb	0.051	26.66	410	100	
Tl	205	2	165	-0.004	ppb	-0.004	-148.43	80	2000	
Pb	208	2	165	0.128	ppb	0.128	25.84	1763	5000	
Th	232	2	165	0.098	ppb	0.098	14.04	1770	2000	
U	238	2	165	0.746	ppb	0.746	7.80	5708	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	489164	0.37	608971	80.33	60	120	
Sc (IS)	45	1	HMI H2	22251979	1.04	24673136	90.19	60	120	
Sc (IS)	45	2	HMI He	267184	1.08	281864	94.79	60	120	
Sc (IS)	45	3	No Gas	70043546	0.44	78056314	89.73	60	120	
Ge Internal Standard	72	1	HMI H2	11067497	0.98	12619474	87.70	60	120	
Ge Internal Standard	72	2	HMI He	398105	1.16	434818	91.56	60	120	
In Internal Standard	115	2	HMI He	914785	1.53	1007281	90.82	60	120	
Ho-165	165	2	HMI He	7642145	1.09	8283065	92.26	60	120	

Sample Table

Sample Name	280-104751-S-1-B
Data File Name	082SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:32:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	392.917	ppb	392.917	0.65	143903	500000	
Li	7	2	45	399.470	ppb	399.470	5.88	8369	500000	
Li	7	3	45	401.885	ppb	401.885	0.79	8187580	50000	
Be	9	1	6	0.272	ppb	0.272	66.19	40	2000	
B	11	1	6	2448.465	ppb	2448.465	1.38	437706	2000	
Na	23	1	45	2168971.267	ppb	2168971.267	1.33	4405263081	2000	>LDR
Na	23	2	45	2171450.684	ppb	2171450.684	2.03	161529431	400000	>LDR
Mg	24	2	45	21246.769	ppb	21246.769	2.05	693178	400000	
Al	27	2	45	96.102	ppb	96.102	12.23	607	400000	
K	39	1	45	115841.761	ppb	115841.761	1.74	244162136	400000	
K	39	2	45	120442.823	ppb	120442.823	2.57	1331617	400000	
Ca	40	1	45	186118.535	ppb	186118.535	1.16	623471017	400000	
Ca	44	2	45	184238.231	ppb	184238.231	1.75	131569	400000	
Ti	47	2	45	3915.792	ppb	3915.792	19.28	113	4000	
V	51	2	72	1017.020	ppb	1017.020	1.73	428716	2000	
Cr	52	2	72	512.376	ppb	512.376	3.02	294296	5000	
Mn	55	2	72	166.321	ppb	166.321	3.35	25569	10000	
Fe	57	2	72	6923.999	ppb	6923.999	3.11	72682	400000	
Co	59	2	72	17.634	ppb	17.634	4.89	22495	2000	
Ni	60	2	72	981.364	ppb	981.364	1.25	374765	5000	
Cu	63	2	72	397.297	ppb	397.297	1.91	456124	5000	
Zn	66	2	72	118.644	ppb	118.644	3.59	11294	5000	
As	75	2	72	55.772	ppb	55.772	4.60	3226	2000	
Se	78	1	72	25.744	ppb	25.744	2.91	6284	2000	
Sr	88	2	72	1171.711	ppb	1171.711	1.72	149433	4000	
Zr	90	2	72	622.515	ppb	622.515	13.05	2304	1000	
Nb	93	2	72	-0.837	ppb	-0.837	-4.81	987	200	
Mo	95	2	115	5566.527	ppb	5566.527	1.56	2489484	2000	
Pd	105	2	115	0.179	ppb	0.179	24.41	237	100	
Ag	107	2	115	0.113	ppb	0.113	8.78	233	100	
Cd	111	2	115	0.370	ppb	0.370	71.68	53	2000	
Sn	120	2	115	1.770	ppb	1.770	9.02	700	2000	
Sb	121	2	115	27.891	ppb	27.891	5.64	7572	1000	
Ba	137	2	115	31.220	ppb	31.220	13.52	2574	5000	
W	182	2	165	191.210	ppb	191.210	1.97	597087	100	
Pt	195	2	165	0.237	ppb	0.237	18.16	987	100	
Tl	205	2	165	0.041	ppb	0.041	46.33	257	2000	
Pb	208	2	165	18.544	ppb	18.544	1.35	98002	5000	
Th	232	2	165	0.013	ppb	0.013	52.02	1100	2000	
U	238	2	165	1.092	ppb	1.092	2.77	7522	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	446535	0.12	608971	73.33	60	120	
Sc (IS)	45	1	HMI H2	21091678	0.68	24673136	85.48	60	120	
Sc (IS)	45	2	HMI He	241523	2.07	281864	85.69	60	120	
Sc (IS)	45	3	No Gas	64632052	0.40	78056314	82.80	60	120	
Ge Internal Standard	72	1	HMI H2	10358820	0.39	12619474	82.09	60	120	
Ge Internal Standard	72	2	HMI He	367067	2.00	434818	84.42	60	120	
In Internal Standard	115	2	HMI He	809040	2.06	1007281	80.32	60	120	
Ho-165	165	2	HMI He	6907718	2.04	8283065	83.40	60	120	

Sample Table

Sample Name	280-104751-S-1-Bsd@5
Data File Name	083SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:36:48-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	50.193	ppb	50.193	12.49	78927	500000	
Li	7	2	45	45.697	ppb	45.697	46.17	4454	500000	
Li	7	3	45	50.408	ppb	50.408	10.81	4441282	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	252.265	ppb	252.265	6.08	97377	2000	
Na	23	1	45	427135.663	ppb	427135.663	0.53	869675640	2000	>LDR
Na	23	2	45	416697.653	ppb	416697.653	1.35	31802355	400000	
Mg	24	2	45	4167.053	ppb	4167.053	3.44	140305	400000	
Al	27	2	45	20.485	ppb	20.485	37.67	147	400000	
K	39	1	45	22828.849	ppb	22828.849	1.01	52010866	400000	
K	39	2	45	22289.034	ppb	22289.034	0.45	255192	400000	
Ca	40	1	45	36221.660	ppb	36221.660	0.42	121673612	400000	
Ca	44	2	45	33771.908	ppb	33771.908	4.03	24781	400000	
Ti	47	2	45	1226.315	ppb	1226.315	87.40	37	4000	
V	51	2	72	185.454	ppb	185.454	1.49	81998	2000	
Cr	52	2	72	94.360	ppb	94.360	1.33	56731	5000	
Mn	55	2	72	29.971	ppb	29.971	6.10	4884	10000	
Fe	57	2	72	1324.404	ppb	1324.404	1.62	14550	400000	
Co	59	2	72	3.280	ppb	3.280	4.87	4391	2000	
Ni	60	2	72	190.188	ppb	190.188	1.03	75912	5000	
Cu	63	2	72	78.295	ppb	78.295	0.87	95094	5000	
Zn	66	2	72	22.832	ppb	22.832	13.94	2340	5000	
As	75	2	72	9.871	ppb	9.871	5.95	601	2000	
Se	78	1	72	4.144	ppb	4.144	9.15	1092	2000	
Sr	88	2	72	217.019	ppb	217.019	2.73	28932	4000	
Zr	90	2	72	117.694	ppb	117.694	42.22	490	1000	
Nb	93	2	72	-1.245	ppb	-1.245	-3.45	297	200	
Mo	95	2	115	1023.370	ppb	1023.370	0.56	485991	2000	
Pd	105	2	115	-0.023	ppb	-0.023	-96.20	70	100	
Ag	107	2	115	0.002	ppb	0.002	565.91	40	100	
Cd	111	2	115	0.282	ppb	0.282	67.09	43	2000	
Sn	120	2	115	0.305	ppb	0.305	40.51	213	2000	
Sb	121	2	115	4.960	ppb	4.960	5.47	1463	1000	
Ba	137	2	115	7.082	ppb	7.082	16.10	620	5000	
W	182	2	165	36.998	ppb	36.998	1.54	123059	100	
Pt	195	2	165	0.041	ppb	0.041	61.11	360	100	
Tl	205	2	165	-0.010	ppb	-0.010	-60.67	50	2000	
Pb	208	2	165	3.737	ppb	3.737	3.29	21780	5000	
Th	232	2	165	-0.099	ppb	-0.099	-19.03	473	2000	
U	238	2	165	0.213	ppb	0.213	16.16	1620	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	475537	0.94	608971	78.09	60	120	
Sc (IS)	45	1	HMI H2	21139366	0.66	24673136	85.68	60	120	
Sc (IS)	45	2	HMI He	247709	1.79	281864	87.88	60	120	
Sc (IS)	45	3	No Gas	64960261	0.60	78056314	83.22	60	120	
Ge Internal Standard	72	1	HMI H2	10963193	0.46	12619474	86.88	60	120	
Ge Internal Standard	72	2	HMI He	383477	0.92	434818	88.19	60	120	
In Internal Standard	115	2	HMI He	858930	1.52	1007281	85.27	60	120	
Ho-165	165	2	HMI He	7344115	1.30	8283065	88.66	60	120	

Sample Report

Sample Table

Sample Name	280-104751-S-1-C MS
Data File Name	084SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:40:36-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	445.607	ppb	445.607	2.41	145334	500000	
Li	7	2	45	414.568	ppb	414.568	5.42	8439	500000	
Li	7	3	45	458.943	ppb	458.943	0.64	8574407	50000	
Be	9	1	6	43.624	ppb	43.624	2.97	5995	2000	
B	11	1	6	2712.529	ppb	2712.529	0.27	447158	2000	
Na	23	1	45	OR	ppb	OR	#VALUE!	OR	2000	>LDR
Na	23	2	45	2258069.693	ppb	2258069.693	0.09	166001561	400000	>LDR
Mg	24	2	45	22225.594	ppb	22225.594	0.46	716528	400000	
Al	27	2	45	464.701	ppb	464.701	6.31	2837	400000	
K	39	1	45	125182.107	ppb	125182.107	0.91	248787330	400000	
K	39	2	45	126395.590	ppb	126395.590	0.55	1380999	400000	
Ca	40	1	45	201887.061	ppb	201887.061	0.93	638589550	400000	
Ca	44	2	45	191018.462	ppb	191018.462	0.44	134799	400000	
Ti	47	2	45	4089.749	ppb	4089.749	47.25	117	4000	
V	51	2	72	1115.378	ppb	1115.378	0.82	456149	2000	
Cr	52	2	72	593.189	ppb	593.189	1.28	330558	5000	
Mn	55	2	72	215.123	ppb	215.123	2.22	32070	10000	
Fe	57	2	72	7781.630	ppb	7781.630	0.87	79263	400000	
Co	59	2	72	57.223	ppb	57.223	1.16	70807	2000	
Ni	60	2	72	1101.703	ppb	1101.703	0.62	408109	5000	
Cu	63	2	72	472.559	ppb	472.559	0.43	526104	5000	
Zn	66	2	72	162.262	ppb	162.262	2.87	14957	5000	
As	75	2	72	99.483	ppb	99.483	5.19	5581	2000	
Se	78	1	72	72.906	ppb	72.906	3.83	16930	2000	
Sr	88	2	72	1312.682	ppb	1312.682	0.72	162410	4000	
Zr	90	2	72	6135.443	ppb	6135.443	3.67	21718	1000	>LDR
Nb	93	2	72	-0.937	ppb	-0.937	-10.37	790	200	
Mo	95	2	115	6151.569	ppb	6151.569	1.72	2744681	2000	
Pd	105	2	115	0.192	ppb	0.192	21.33	247	100	
Ag	107	2	115	33.477	ppb	33.477	1.99	58711	100	
Cd	111	2	115	38.137	ppb	38.137	3.65	5538	2000	
Sn	120	2	115	38.281	ppb	38.281	1.86	13139	2000	
Sb	121	2	115	76.403	ppb	76.403	1.42	20640	1000	
Ba	137	2	115	71.281	ppb	71.281	5.15	5875	5000	
W	182	2	165	247.373	ppb	247.373	0.43	760446	100	
Pt	195	2	165	0.265	ppb	0.265	10.88	1063	100	
Tl	205	2	165	38.196	ppb	38.196	1.65	154485	2000	
Pb	208	2	165	57.703	ppb	57.703	0.39	298282	5000	
Th	232	2	165	35.034	ppb	35.034	0.81	202814	2000	
U	238	2	165	42.467	ppb	42.467	0.92	285339	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	416555	0.50	608971	68.40	60	120	
Sc (IS)	45	1	HMI H2	19915199	0.23	24673136	80.72	60	120	
Sc (IS)	45	2	HMI He	238621	1.01	281864	84.66	60	120	
Sc (IS)	45	3	No Gas	62979554	0.12	78056314	80.68	60	120	
Ge Internal Standard	72	1	HMI H2	9880700	0.98	12619474	78.30	60	120	
Ge Internal Standard	72	2	HMI He	356038	1.11	434818	81.88	60	120	
In Internal Standard	115	2	HMI He	807050	1.78	1007281	80.12	60	120	
Ho-165	165	2	HMI He	6799093	0.42	8283065	82.08	60	120	

Sample Table

Sample Name	280-104751-S-1-D MSD
Data File Name	085SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:44:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	428.654	ppb	428.654	1.99	139937	500000	
Li	7	2	45	442.050	ppb	442.050	2.15	8546	500000	
Li	7	3	45	427.496	ppb	427.496	1.91	7780636	50000	
Be	9	1	6	43.962	ppb	43.962	5.31	5851	2000	
B	11	1	6	2706.089	ppb	2706.089	1.25	432221	2000	
Na	23	1	45	2286495.110	ppb	2286495.110	0.64	4312569429	2000	>LDR
Na	23	2	45	2237290.481	ppb	2237290.481	2.10	160637594	400000	>LDR
Mg	24	2	45	21803.673	ppb	21803.673	1.37	686643	400000	
Al	27	2	45	496.053	ppb	496.053	11.76	2960	400000	
K	39	1	45	123766.728	ppb	123766.728	0.40	241955976	400000	
K	39	2	45	125274.216	ppb	125274.216	1.05	1337111	400000	
Ca	40	1	45	198486.737	ppb	198486.737	0.17	617453404	400000	
Ca	44	2	45	191177.914	ppb	191177.914	1.56	131801	400000	
Ti	47	2	45	3962.890	ppb	3962.890	35.07	110	4000	
V	51	2	72	1100.168	ppb	1100.168	0.79	439394	2000	
Cr	52	2	72	582.528	ppb	582.528	1.05	317062	5000	
Mn	55	2	72	214.125	ppb	214.125	3.49	31168	10000	
Fe	57	2	72	7685.161	ppb	7685.161	4.29	76417	400000	
Co	59	2	72	57.129	ppb	57.129	2.03	69024	2000	
Ni	60	2	72	1095.538	ppb	1095.538	1.50	396328	5000	
Cu	63	2	72	476.714	ppb	476.714	1.20	518272	5000	
Zn	66	2	72	155.257	ppb	155.257	1.24	13983	5000	
As	75	2	72	99.304	ppb	99.304	4.24	5443	2000	
Se	78	1	72	72.044	ppb	72.044	1.32	16508	2000	
Sr	88	2	72	1309.114	ppb	1309.114	1.91	158156	4000	
Zr	90	2	72	6045.636	ppb	6045.636	2.55	20890	1000	>LDR
Nb	93	2	72	-0.913	ppb	-0.913	-6.45	810	200	
Mo	95	2	115	6121.790	ppb	6121.790	2.84	2639918	2000	
Pd	105	2	115	0.200	ppb	0.200	50.48	247	100	
Ag	107	2	115	33.501	ppb	33.501	2.22	56788	100	
Cd	111	2	115	36.490	ppb	36.490	6.52	5124	2000	
Sn	120	2	115	35.754	ppb	35.754	5.18	11861	2000	
Sb	121	2	115	75.054	ppb	75.054	0.63	19605	1000	
Ba	137	2	115	73.362	ppb	73.362	7.35	5838	5000	
W	182	2	165	244.357	ppb	244.357	2.07	732694	100	
Pt	195	2	165	0.233	ppb	0.233	12.83	937	100	
Tl	205	2	165	36.470	ppb	36.470	2.21	143884	2000	
Pb	208	2	165	57.290	ppb	57.290	1.08	288908	5000	
Th	232	2	165	34.476	ppb	34.476	2.61	194672	2000	
U	238	2	165	41.640	ppb	41.640	1.80	272919	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	403519	0.86	608971	66.26	60	120	
Sc (IS)	45	1	HMI H2	19585634	0.10	24673136	79.38	60	120	
Sc (IS)	45	2	HMI He	233133	2.33	281864	82.71	60	120	
Sc (IS)	45	3	No Gas	59429806	1.00	78056314	76.14	60	120	
Ge Internal Standard	72	1	HMI H2	9747144	0.28	12619474	77.24	60	120	
Ge Internal Standard	72	2	HMI He	347758	2.19	434818	79.98	60	120	
In Internal Standard	115	2	HMI He	780338	2.65	1007281	77.47	60	120	
Ho-165	165	2	HMI He	6633771	2.18	8283065	80.09	60	120	

Sample Report

Sample Table

Sample Name	280-104751-S-1-B pds
Data File Name	086SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:48:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	358.937	ppb	358.937	1.49	121392	500000	
Li	7	2	45	323.968	ppb	323.968	7.36	7015	500000	
Li	7	3	45	361.697	ppb	361.697	0.77	6652716	50000	
Be	9	1	6	227.908	ppb	227.908	1.51	28389	2000	
B	11	1	6	2548.228	ppb	2548.228	0.48	383480	2000	
Na	23	1	45	2164879.210	ppb	2164879.210	0.81	3883552795	2000	>LDR
Na	23	2	45	2120788.767	ppb	2120788.767	0.95	147341208	400000	>LDR
Mg	24	2	45	20768.881	ppb	20768.881	0.73	632870	400000	
Al	27	2	45	2173.603	ppb	2173.603	4.37	12478	400000	
K	39	1	45	116743.004	ppb	116743.004	0.73	217302003	400000	
K	39	2	45	117074.971	ppb	117074.971	2.82	1209116	400000	
Ca	40	1	45	187826.186	ppb	187826.186	0.53	555730618	400000	
Ca	44	2	45	181503.243	ppb	181503.243	1.64	121060	400000	
Ti	47	2	45	4930.531	ppb	4930.531	29.48	133	4000	
V	51	2	72	1226.142	ppb	1226.142	0.76	479067	2000	
Cr	52	2	72	708.482	ppb	708.482	0.62	377214	5000	
Mn	55	2	72	379.830	ppb	379.830	0.49	54042	10000	
Fe	57	2	72	8678.833	ppb	8678.833	0.48	84457	400000	
Co	59	2	72	217.258	ppb	217.258	1.08	256820	2000	
Ni	60	2	72	1187.319	ppb	1187.319	0.17	420240	5000	
Cu	63	2	72	596.413	ppb	596.413	0.43	634032	5000	
Zn	66	2	72	327.726	ppb	327.726	2.50	28791	5000	
As	75	2	72	261.212	ppb	261.212	2.42	13991	2000	
Se	78	1	72	249.540	ppb	249.540	1.04	54567	2000	
Sr	88	2	72	1215.622	ppb	1215.622	1.06	143711	4000	
Zr	90	2	72	32837.531	ppb	32837.531	0.44	110871	1000	>LDR
Nb	93	2	72	-0.325	ppb	-0.325	-9.59	1733	200	
Mo	95	2	115	5694.489	ppb	5694.489	1.33	2406019	2000	
Pd	105	2	115	0.175	ppb	0.175	49.12	220	100	
Ag	107	2	115	44.379	ppb	44.379	0.42	73688	100	
Cd	111	2	115	205.100	ppb	205.100	2.13	28194	2000	
Sn	120	2	115	204.068	ppb	204.068	1.28	65933	2000	
Sb	121	2	115	252.450	ppb	252.450	2.78	64480	1000	
Ba	137	2	115	240.879	ppb	240.879	0.06	18791	5000	
W	182	2	165	390.679	ppb	390.679	0.43	1165283	100	
Pt	195	2	165	0.277	ppb	0.277	19.01	1067	100	
Tl	205	2	165	192.456	ppb	192.456	0.70	755067	2000	
Pb	208	2	165	207.746	ppb	207.746	0.69	1039766	5000	
Th	232	2	165	0.870	ppb	0.870	10.91	5841	2000	
U	238	2	165	210.339	ppb	210.339	1.38	1371072	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	377646	0.49	608971	62.01	60	120	
Sc (IS)	45	1	HMI H2	18628575	0.63	24673136	75.50	60	120	
Sc (IS)	45	2	HMI He	225518	0.95	281864	80.01	60	120	
Sc (IS)	45	3	No Gas	55433339	0.29	78056314	71.02	60	120	
Ge Internal Standard	72	1	HMI H2	9311611	0.76	12619474	73.79	60	120	
Ge Internal Standard	72	2	HMI He	340175	1.37	434818	78.23	60	120	
In Internal Standard	115	2	HMI He	764208	2.20	1007281	75.87	60	120	
Ho-165	165	2	HMI He	6597748	1.17	8283065	79.65	60	120	

Sample Table

Sample Name	280-104895-G-1-A
Data File Name	087SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:52:11-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399634 6020a
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	219.538	ppb	219.538	8.57	93990	500000	
Li	7	2	45	207.960	ppb	207.960	16.51	5594	500000	
Li	7	3	45	210.229	ppb	210.229	3.20	5014466	50000	
Be	9	1	6	0.143	ppb	0.143	69.29	17	2000	
B	11	1	6	11556.438	ppb	11556.438	0.92	1487127	2000	>LDR
Na	23	1	45	2312052.219	ppb	2312052.219	0.38	3978585007	2000	>LDR
Na	23	2	45	2246253.516	ppb	2246253.516	1.97	151096271	400000	>LDR
Mg	24	2	45	344586.788	ppb	344586.788	1.92	10150897	400000	
Al	27	2	45	24.846	ppb	24.846	4.80	153	400000	
K	39	1	45	63651.308	ppb	63651.308	0.32	115463282	400000	
K	39	2	45	60711.050	ppb	60711.050	0.86	608413	400000	
Ca	40	1	45	279337.132	ppb	279337.132	0.26	792783828	400000	
Ca	44	2	45	349543.650	ppb	349543.650	0.65	225723	400000	
Ti	47	2	45	4474.057	ppb	4474.057	27.74	117	4000	
V	51	2	72	80.383	ppb	80.383	2.28	29993	2000	
Cr	52	2	72	22.778	ppb	22.778	2.66	11561	5000	
Mn	55	2	72	3389.876	ppb	3389.876	1.24	455661	10000	
Fe	57	2	72	52593.533	ppb	52593.533	0.72	484023	400000	
Co	59	2	72	11.031	ppb	11.031	4.67	12345	2000	
Ni	60	2	72	299.098	ppb	299.098	3.43	100133	5000	
Cu	63	2	72	0.833	ppb	0.833	29.97	2057	5000	
Zn	66	2	72	13.760	ppb	13.760	10.85	1213	5000	
As	75	2	72	480.898	ppb	480.898	0.95	24366	2000	
Se	78	1	72	1.890	ppb	1.890	7.50	409	2000	
Sr	88	2	72	20433.713	ppb	20433.713	1.16	2284458	4000	>LDR
Zr	90	2	72	918.083	ppb	918.083	10.64	2967	1000	
Nb	93	2	72	-0.708	ppb	-0.708	-11.26	1060	200	
Mo	95	2	115	13.412	ppb	13.412	4.48	5511	2000	
Pd	105	2	115	0.024	ppb	0.024	163.04	97	100	
Ag	107	2	115	-0.001	ppb	-0.001	-828.31	30	100	
Cd	111	2	115	0.050	ppb	0.050	173.21	7	2000	
Sn	120	2	115	1.234	ppb	1.234	14.94	473	2000	
Sb	121	2	115	1.146	ppb	1.146	48.22	317	1000	
Ba	137	2	115	11716.605	ppb	11716.605	0.19	885289	5000	
W	182	2	165	6.632	ppb	6.632	5.41	19032	100	
Pt	195	2	165	0.024	ppb	0.024	68.45	257	100	
Tl	205	2	165	0.017	ppb	0.017	79.55	143	2000	
Pb	208	2	165	0.091	ppb	0.091	14.53	1273	5000	
Th	232	2	165	-0.074	ppb	-0.074	-35.80	537	2000	
U	238	2	165	0.093	ppb	0.093	23.95	637	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	354411	0.45	608971	58.20	60	120	IS Failed
Sc (IS)	45	1	HMI H2	17869194	0.37	24673136	72.42	60	120	
Sc (IS)	45	2	HMI He	218397	2.02	281864	77.48	60	120	
Sc (IS)	45	3	No Gas	52850096	0.65	78056314	67.71	60	120	
Ge Internal Standard	72	1	HMI H2	8764443	0.83	12619474	69.45	60	120	
Ge Internal Standard	72	2	HMI He	321806	1.68	434818	74.01	60	120	
In Internal Standard	115	2	HMI He	740171	1.28	1007281	73.48	60	120	
Ho-165	165	2	HMI He	6274824	0.33	8283065	75.75	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	088_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:56:03-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	398.702	ppb	3.799	131361	500	79.7	90	110	>+\-10%
Li	7	2	45	420.140	ppb	13.880	8292	500	84.0	90	110	>+\-10%
Li	7	3	45	374.608	ppb	1.020	6617132	500	74.9	90	110	>+\-10%
Be	9	1	6	52.671	ppb	2.682	7078	50	105.3	90	110	
B	11	1	6	-149.692	ppb	-3.857	25622	50	-299.4	90	110	>+\-10%
Na	23	1	45	6580.804	ppb	1.155	12278799	5000	131.6	90	110	>+\-10%
Na	23	2	45	6291.559	ppb	1.352	459169	5000	125.8	90	110	>+\-10%
Mg	24	2	45	4930.922	ppb	1.200	155898	5000	98.6	90	110	
Al	27	2	45	5185.411	ppb	4.231	30700	5000	103.7	90	110	
K	39	1	45	5298.430	ppb	0.906	14182304	5000	106.0	90	110	
K	39	2	45	5203.359	ppb	1.249	58094	5000	104.1	90	110	
Ca	40	1	45	5218.483	ppb	0.526	15899609	5000	104.4	90	110	
Ca	44	2	45	5090.865	ppb	5.595	3537	5000	101.8	90	110	
Ti	47	2	45	237.550	ppb	173.205	7	50	475.1	90	110	>+\-10%
V	51	2	72	49.106	ppb	3.060	20869	50	98.2	90	110	
Cr	52	2	72	49.228	ppb	1.438	28150	50	98.5	90	110	
Mn	55	2	72	50.455	ppb	3.196	7752	50	100.9	90	110	
Fe	57	2	72	4875.034	ppb	2.692	50783	5000	97.5	90	110	
Co	59	2	72	49.663	ppb	1.269	62841	50	99.3	90	110	
Ni	60	2	72	48.106	ppb	3.980	18260	50	96.2	90	110	
Cu	63	2	72	48.133	ppb	1.113	56039	50	96.3	90	110	
Zn	66	2	72	52.105	ppb	4.113	4968	50	104.2	90	110	
As	75	2	72	51.551	ppb	4.572	2960	50	103.1	90	110	
Se	78	1	72	50.617	ppb	1.550	12038	50	101.2	90	110	
Sr	88	2	72	53.710	ppb	5.299	6815	50	107.4	90	110	
Zr	90	2	72	71.378	ppb	45.238	297	50	142.8	90	110	>+\-10%
Nb	93	2	72	95.644	ppb	1.652	166140	100	95.6	90	110	
Mo	95	2	115	48.441	ppb	3.418	23079	50	96.9	90	110	
Pd	105	2	115	49.915	ppb	1.949	44850	50	99.8	90	110	
Ag	107	2	115	47.840	ppb	2.478	89466	50	95.7	90	110	
Cd	111	2	115	47.835	ppb	2.190	7409	50	95.7	90	110	
Sn	120	2	115	48.287	ppb	2.912	17646	50	96.6	90	110	
Sb	121	2	115	51.330	ppb	2.374	14804	50	102.7	90	110	
Ba	137	2	115	50.586	ppb	6.894	4444	50	101.2	90	110	
W	182	2	165	48.281	ppb	0.739	152733	50	96.6	90	110	
Pt	195	2	165	47.409	ppb	1.254	158747	50	94.8	90	110	
Tl	205	2	165	49.174	ppb	1.541	204370	50	98.3	90	110	
Pb	208	2	165	49.355	ppb	0.718	262341	50	98.7	90	110	
Th	232	2	165	50.346	ppb	0.950	299075	50	100.7	90	110	
U	238	2	165	50.532	ppb	0.468	348928	50	101.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	407386	0.56	608971	66.90	60	120	
Sc (IS)	45	1	HMI H2	19107496	0.25	24673136	77.44	60	120	
Sc (IS)	45	2	HMI He	232799	0.69	281864	82.59	60	120	
Sc (IS)	45	3	No Gas	54170274	0.39	78056314	69.40	60	120	
Ge Internal Standard	72	1	HMI H2	10111380	0.65	12619474	80.13	60	120	
Ge Internal Standard	72	2	HMI He	364089	0.42	434818	83.73	60	120	
In Internal Standard	115	2	HMI He	860765	0.39	1007281	85.45	60	120	
Ho-165	165	2	HMI He	6987633	0.83	8283065	84.36	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	089_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T20:59:52-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-53.380	ppb	-7.3	2812791	10	
Be	9	1	6	0.141	ppb	86.4	20	0.5	
B	11	1	6	-247.831	ppb	-1.4	12108	0.5	
Na	23	1	45	1070.659	ppb	2.0	2201719	25	>RL
Na	23	2	45	1127.610	ppb	3.9	90847	25	>RL
Mg	24	2	45	87.833	ppb	8.6	3887	25	>RL
Al	27	2	45	-1.675	ppb	-57.1	7	15	
K	39	1	45	127.353	ppb	4.9	4627853	50	>RL
K	39	2	45	121.622	ppb	18.9	4127	50	>RL
Ca	40	1	45	59.742	ppb	2.6	252139	50	>RL
Ca	44	2	45	41.935	ppb	50.1	63	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.471	ppb	-14.4	157	1	
Cr	52	2	72	0.068	ppb	41.2	147	1	
Mn	55	2	72	0.396	ppb	40.8	143	0.5	
Fe	57	2	72	3.485	ppb	112.9	63	25	
Co	59	2	72	0.035	ppb	65.7	67	0.5	
Ni	60	2	72	0.006	ppb	690.0	40	1	
Cu	63	2	72	-0.219	ppb	-120.9	1170	1	
Zn	66	2	72	1.341	ppb	36.2	213	5	
As	75	2	72	0.113	ppb	145.8	12	1	
Se	78	1	72	0.470	ppb	12.1	139	1	
Sr	88	2	72	0.611	ppb	45.1	100	0.5	>RL
Zr	90	2	72	17.757	ppb	45.5	107	1	>RL
Nb	93	2	72	0.250	ppb	16.8	2934	2	
Mo	95	2	115	0.552	ppb	26.3	303	0.5	>RL
Pd	105	2	115	-0.091	ppb	-11.9	10	1	
Ag	107	2	115	0.008	ppb	196.0	53	1	
Cd	111	2	115	0.041	ppb	173.2	7	0.5	
Sn	120	2	115	0.149	ppb	96.1	163	1	
Sb	121	2	115	0.006	ppb	297.7	43	0.6	
Ba	137	2	115	0.439	ppb	66.8	40	0.5	
W	182	2	165	0.037	ppb	107.3	377	1	
Pt	195	2	165	0.047	ppb	54.1	373	1	
Tl	205	2	165	0.010	ppb	79.1	133	0.1	
Pb	208	2	165	0.294	ppb	8.3	2560	0.5	
Th	232	2	165	0.119	ppb	18.4	1790	1	
U	238	2	165	0.023	ppb	46.9	233	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	428852	0.48	608971	70.42	60	120	
Sc (IS)	45	1	HMI H2	19658766	0.17	24673136	79.68	60	120	
Sc (IS)	45	2	HMI He	238072	1.54	281864	84.46	60	120	
Sc (IS)	45	3	No Gas	54989864	0.54	78056314	70.45	60	120	
Ge Internal Standard	72	1	HMI H2	10379485	0.63	12619474	82.25	60	120	
Ge Internal Standard	72	2	HMI He	376196	0.89	434818	86.52	60	120	
In Internal Standard	115	2	HMI He	895454	1.09	1007281	88.90	60	120	
Ho-165	165	2	HMI He	7187667	1.02	8283065	86.78	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	090LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:03:41-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-39.093	ppb	-9.586	2953086	50	-78.2	70	130	>+/-30%
Be	9	1	6	1.164	ppb	3.901	167	1	116.4	70	130	
Na	23	2	45	932.857	ppb	1.185	77992	50	1865.7	70	130	>+/-30%
Mg	24	2	45	128.680	ppb	5.539	5298	50	257.4	70	130	>+/-30%
Al	27	2	45	43.755	ppb	18.226	287	30	145.8	70	130	>+/-30%
K	39	2	45	209.314	ppb	24.669	5174	100	209.3	70	130	>+/-30%
Ca	44	2	45	3.193	ppb	908.760	37	50	6.4	70	130	>+/-30%
V	51	2	72	4.085	ppb	15.109	2144	5	81.7	70	130	
Cr	52	2	72	2.069	ppb	20.036	1337	2	103.5	70	130	
Mn	55	2	72	1.103	ppb	4.339	257	1	110.3	70	130	
Fe	57	2	72	61.489	ppb	12.083	693	50	123.0	70	130	
Co	59	2	72	0.930	ppb	5.040	1247	1	93.0	70	130	
Ni	60	2	72	2.192	ppb	19.662	903	2	109.6	70	130	
Cu	63	2	72	1.915	ppb	4.341	3707	2	95.7	70	130	
Zn	66	2	72	9.880	ppb	6.631	1050	10	98.8	70	130	
As	75	2	72	5.006	ppb	9.960	304	5	100.1	70	130	
Se	78	1	72	5.099	ppb	6.031	1268	5	102.0	70	130	
Sr	88	2	72	1.084	ppb	28.643	163	1	108.4	70	130	
Zr	90	2	72	28.985	ppb	47.474	150	0.5	5797.0	70	130	>+/-30%
Nb	93	2	72	0.165	ppb	51.501	2807	2	8.2	70	130	>+/-30%
Mo	95	2	115	2.020	ppb	13.854	1040	2	101.0	70	130	
Pd	105	2	115	-0.084	ppb	-7.446	17	1	-8.4	70	130	>+/-30%
Ag	107	2	115	4.771	ppb	2.640	9406	5	95.4	70	130	
Cd	111	2	115	1.312	ppb	11.131	213	1	131.2	70	130	>+/-30%
Sn	120	2	115	9.519	ppb	0.709	3741	10	95.2	70	130	
Sb	121	2	115	1.892	ppb	28.409	613	2	94.6	70	130	
Ba	137	2	115	1.411	ppb	34.044	130	1	141.1	70	130	>+/-30%
W	182	2	165	4.480	ppb	0.593	15011	1	448.0	70	130	>+/-30%
Pt	195	2	165	0.029	ppb	64.078	317	1	2.9	70	130	>+/-30%
Tl	205	2	165	0.992	ppb	5.198	4391	1	99.2	70	130	
Pb	208	2	165	1.116	ppb	3.731	7134	1	111.6	70	130	
Th	232	2	165	1.972	ppb	5.539	13253	2	98.6	70	130	
U	238	2	165	1.107	ppb	8.194	8039	1	110.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	434048	0.63	608971	71.28	60	120	
Sc (IS)	45	1	HMI H2	19798494	0.47	24673136	80.24	60	120	
Sc (IS)	45	2	HMI He	242489	0.73	281864	86.03	60	120	
Sc (IS)	45	3	No Gas	55171201	0.67	78056314	70.68	60	120	
Ge Internal Standard	72	1	HMI H2	10390934	0.60	12619474	82.34	60	120	
Ge Internal Standard	72	2	HMI He	379415	1.10	434818	87.26	60	120	
In Internal Standard	115	2	HMI He	904114	0.73	1007281	89.76	60	120	
Ho-165	165	2	HMI He	7284083	0.88	8283065	87.94	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399898/1-A
Data File Name	091_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:07:29-07:00
Sample Type	Blank
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-58.335	ppb	-5.353673581	53504	0.5
Li	7	2	45	-47.038	ppb	-25.60047318	3230	0.5
Li	7	3	45	-56.780	ppb	-7.993676784	2668599	10
Be	9	1	6	0.048	ppb	173.2050808	7	0.5
B	11	1	6	-240.161	ppb	-2.235895425	12855	0.5
Na	23	1	45	817.328	ppb	0.680240278	1700828	25
Na	23	2	45	922.500	ppb	2.044544409	75502	25
Mg	24	2	45	85.732	ppb	10.96048367	3804	25
Al	27	2	45	6.061	ppb	67.92151576	53	15
K	39	1	45	-874.702	ppb	-0.96877941	2663743	50
K	39	2	45	116.382	ppb	10.89908458	4054	50
Ca	40	1	45	142.701	ppb	0.287307625	504829	50
Ca	44	2	45	80.069	ppb	51.58438016	90	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	-0.498	ppb	-33.44185672	143	1
Cr	52	2	72	0.375	ppb	28.69905218	323	1
Mn	55	2	72	0.325	ppb	63.34678984	130	0.5
Fe	57	2	72	11.410	ppb	30.52615709	147	25
Co	59	2	72	0.000	ppb	-285.4748309	20	0.5
Ni	60	2	72	0.304	ppb	59.33991552	153	1
Cu	63	2	72	-0.019	ppb	-732.6706072	1387	1
Zn	66	2	72	1.442	ppb	36.0125603	220	5
As	75	2	72	0.027	ppb	198.6725856	7	1
Se	78	1	72	0.436	ppb	41.33741876	128	1
Sr	88	2	72	0.467	ppb	2.026697805	80	0.5
Zr	90	2	72	22.014	ppb	83.63869615	120	1
Nb	93	2	72	-1.082	ppb	-0.96561708	570	2
Mo	95	2	115	0.223	ppb	30.9184841	140	0.5
Pd	105	2	115	-0.087	ppb	-6.795177865	13	1
Ag	107	2	115	-0.004	ppb	-191.9392197	30	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	6.137	ppb	16.90354014	2417	1
Sb	121	2	115	-0.060	ppb	-84.44341115	23	0.6
Ba	137	2	115	0.515	ppb	50.38425867	47	0.5
W	182	2	165	0.132	ppb	30.45438194	680	1
Pt	195	2	165	0.045	ppb	97.7884043	363	1
Tl	205	2	165	0.008	ppb	30.6424051	127	0.1
Pb	208	2	165	2.061	ppb	2.504893187	12069	0.5
Th	232	2	165	0.067	ppb	43.54758472	1460	1
U	238	2	165	0.007	ppb	18.40793587	120	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	415391	0.57	608971	68.21	60	120	
Sc (IS)	45	1	HMI H2	19415866	0.21	24673136	78.69	60	120	
Sc (IS)	45	2	HMI He	237099	1.39	281864	84.12	60	120	
Sc (IS)	45	3	No Gas	52751983	0.67	78056314	67.58	60	120	
Ge Internal Standard	72	1	HMI H2	10160188	1.29	12619474	80.51	60	120	
Ge Internal Standard	72	2	HMI He	370527	1.51	434818	85.21	60	120	
In Internal Standard	115	2	HMI He	893341	2.02	1007281	88.69	60	120	
Ho-165	165	2	HMI He	7117171	0.97	8283065	85.92	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399898/2-A
Data File Name	092LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:11:19-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399898 soil 6020a dod5
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	212.289	212.289	ppb	2.916	29695	200	106.1	80	120	
Na	23	2	45	879.787	879.787	ppb	1.364	73822	200	439.9	80	120	NewName Main CR1 Failed
Mg	24	2	45	74.124	74.124	ppb	13.877	3500	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1982.998	1982.998	ppb	4.781	12201	200000	1.0	80	120	NewName Main CR1 Failed
K	39	2	45	171.138	171.138	ppb	14.668	4737	200000	0.1	80	120	NewName Main CR1 Failed
Ca	44	2	45	1092.736	1092.736	ppb	26.432	813	200000	0.5	80	120	NewName Main CR1 Failed
V	51	2	72	197.739	197.739	ppb	1.691	85389	200	98.9	80	120	
Cr	52	2	72	198.490	198.490	ppb	0.419	116478	200	99.2	80	120	
(Cr)	53	2	72	203.950	203.950	ppb	0.922	14677	200	102.0	80	120	
Mn	55	2	72	208.844	208.844	ppb	0.200	32764	200	104.4	80	120	
Fe	57	2	72	1908.293	1908.293	ppb	1.686	20473	200000	1.0	80	120	NewName Main CR1 Failed
Co	59	2	72	198.253	198.253	ppb	0.677	258095	200	99.1	80	120	
Ni	60	2	72	198.644	198.644	ppb	2.357	77472	200	99.3	80	120	
Cu	63	2	72	194.178	194.178	ppb	1.398	228330	200	97.1	80	120	
Zn	66	2	72	199.828	199.828	ppb	1.427	19368	200	99.9	80	120	
As	75	2	72	191.546	191.546	ppb	2.932	11302	200	95.8	80	120	
Se	78	1	72	188.782	188.782	ppb	1.339	45382	200	94.4	80	120	
(Se)	82	1	72	186.471	186.471	ppb	1.285	28584	200	93.2	80	120	
Nb	93	2	72	-1.104	-1.104	ppb	-1.170	537	400	-0.3	80	120	NewName Main CR1 Failed
Mo	95	2	115	181.091	181.091	ppb	1.892	90466	200	90.5	80	120	
Pd	105	2	115	-0.087	-0.087	ppb	-28.459	13	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	190.495	190.495	ppb	0.615	373682	200	95.2	80	120	
Cd	111	2	115	195.416	195.416	ppb	1.992	31757	200	97.7	80	120	
(Cd)	114	2	115	190.971	190.971	ppb	0.476	82619	200	95.5	80	120	
Sn	120	2	115	191.308	191.308	ppb	1.592	73051	200	95.7	80	120	
Sb	121	2	115	191.746	191.746	ppb	0.465	57910	200	95.9	80	110	
Ba	137	2	115	192.539	192.539	ppb	1.313	17750	200	96.3	80	120	
W	182	2	165	198.305	198.305	ppb	0.818	642862	200	99.2	80	120	
Pt	195	2	165	0.027	0.027	ppb	104.613	303	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	199.005	199.005	ppb	1.275	848366	200	99.5	80	120	
(Pb)	206	2	165	202.742	202.742	ppb	1.202	264018	200	101.4	80	120	
(Pb)	207	2	165	201.754	201.754	ppb	0.890	240847	200	100.9	80	120	
Pb	208	2	165	201.949	201.949	ppb	0.731	1098392	200	101.0	80	120	
Th	232	2	165	202.731	202.731	ppb	1.929	1232450	200	101.4	80	120	
U	238	2	165	208.634	208.634	ppb	1.335	1477936	200	104.3	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	424060	0.15	608971	69.64	60	120	
Sc (IS)	45	1	HMI H2	19759983	0.60	24673136	80.09	60	120	
Sc (IS)	45	2	HMI He	241800	1.67	281864	85.79	60	120	
Sc (IS)	45	3	No Gas	53632431	0.05	78056314	68.71	60	120	
Ge Internal Standard	72	1	HMI H2	10235367	0.49	12619474	81.11	60	120	
Ge Internal Standard	72	2	HMI He	374668	0.39	434818	86.17	60	120	
In Internal Standard	115	2	HMI He	903177	0.89	1007281	89.66	60	120	
Ho-165	165	2	HMI He	7169447	0.10	8283065	86.56	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCSD 280-399898/3-A
Data File Name	093LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:15:08-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399898 soil 6020a dod5
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	207.860	207.860	ppb	2.400	29805	200	103.9	80	120	
Na	23	2	45	812.929	812.929	ppb	1.320	70291	200	406.5	80	120	NewName Main CR1 Failed
Mg	24	2	45	79.360	79.360	ppb	12.991	3751	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1999.514	1999.514	ppb	1.010	12568	200000	1.0	80	120	NewName Main CR1 Failed
K	39	2	45	109.750	109.750	ppb	26.382	4147	200000	0.1	80	120	NewName Main CR1 Failed
Ca	44	2	45	1071.157	1071.157	ppb	15.184	817	200000	0.5	80	120	NewName Main CR1 Failed
V	51	2	72	193.003	193.003	ppb	1.533	84827	200	96.5	80	120	
Cr	52	2	72	197.716	197.716	ppb	1.430	118083	200	98.9	80	120	
(Cr)	53	2	72	202.423	202.423	ppb	6.159	14827	200	101.2	80	120	
Mn	55	2	72	204.941	204.941	ppb	1.911	32721	200	102.5	80	120	
Fe	57	2	72	1851.343	1851.343	ppb	3.522	20212	200000	0.9	80	120	NewName Main CR1 Failed
Co	59	2	72	196.867	196.867	ppb	0.854	260817	200	98.4	80	120	
Ni	60	2	72	197.090	197.090	ppb	2.691	78229	200	98.5	80	120	
Cu	63	2	72	192.233	192.233	ppb	0.228	230050	200	96.1	80	120	
Zn	66	2	72	199.796	199.796	ppb	1.459	19708	200	99.9	80	120	
As	75	2	72	191.461	191.461	ppb	0.469	11498	200	95.7	80	120	
Se	78	1	72	188.424	188.424	ppb	1.206	46485	200	94.2	80	120	
(Se)	82	1	72	182.535	182.535	ppb	6.020	28871	200	91.3	80	120	
Nb	93	2	72	-1.223	-1.223	ppb	-2.044	333	400	-0.3	80	120	NewName Main CR1 Failed
Mo	95	2	115	178.267	178.267	ppb	1.091	89880	200	89.1	80	120	
Pd	105	2	115	-0.084	-0.084	ppb	-19.435	17	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	188.740	188.740	ppb	1.398	373737	200	94.4	80	120	
Cd	111	2	115	192.670	192.670	ppb	1.905	31610	200	96.3	80	120	
(Cd)	114	2	115	192.320	192.320	ppb	0.942	83983	200	96.2	80	120	
Sn	120	2	115	190.538	190.538	ppb	2.735	73433	200	95.3	80	120	
Sb	121	2	115	196.646	196.646	ppb	0.570	59950	200	98.3	80	110	
Ba	137	2	115	196.564	196.564	ppb	2.528	18291	200	98.3	80	120	
W	182	2	165	198.702	198.702	ppb	0.630	656787	200	99.4	80	120	
Pt	195	2	165	0.022	0.022	ppb	15.128	293	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	198.522	198.522	ppb	1.333	862860	200	99.3	80	120	
(Pb)	206	2	165	202.750	202.750	ppb	0.620	269210	200	101.4	80	120	
(Pb)	207	2	165	204.119	204.119	ppb	1.993	248428	200	102.1	80	120	
Pb	208	2	165	201.732	201.732	ppb	1.194	1118696	200	100.9	80	120	
Th	232	2	165	201.229	201.229	ppb	1.811	1247273	200	100.6	80	120	
U	238	2	165	209.455	209.455	ppb	4.975	1512557	200	104.7	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	434717	0.52	608971	71.39	60	120	
Sc (IS)	45	1	HMI H2	20116856	0.16	24673136	81.53	60	120	
Sc (IS)	45	2	HMI He	246902	0.33	281864	87.60	60	120	
Sc (IS)	45	3	No Gas	54808629	0.94	78056314	70.22	60	120	
Ge Internal Standard	72	1	HMI H2	10503415	0.46	12619474	83.23	60	120	
Ge Internal Standard	72	2	HMI He	381293	0.59	434818	87.69	60	120	
In Internal Standard	115	2	HMI He	911717	1.38	1007281	90.51	60	120	
Ho-165	165	2	HMI He	7310309	1.15	8283065	88.26	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-K@50
Data File Name	094SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:18:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-34.381	ppb	-34.381	-16.80	62566	500000	
Li	7	2	45	-30.223	ppb	-30.223	-107.19	3671	500000	
Li	7	3	45	-35.443	ppb	-35.443	-3.53	3199093	50000	
Be	9	1	6	0.149	ppb	0.149	65.11	23	2000	
B	11	1	6	-274.784	ppb	-274.784	-0.49	8859	2000	
Na	23	1	45	588.428	ppb	588.428	1.27	1380182	2000	
Na	23	2	45	671.166	ppb	671.166	1.71	61423	400000	
Mg	24	2	45	4358.563	ppb	4358.563	0.80	150981	400000	
Al	27	2	45	2018.063	ppb	2018.063	2.88	13092	400000	
K	39	1	45	578.182	ppb	578.182	6.20	5886278	400000	
K	39	2	45	650.857	ppb	650.857	2.92	10580	400000	
Ca	40	1	45	55393.667	ppb	55393.667	0.20	185286804	400000	
Ca	44	2	45	51424.190	ppb	51424.190	3.16	38773	400000	
Ti	47	2	45	15114.232	ppb	15114.232	26.17	460	4000	
V	51	2	72	4.014	ppb	4.014	24.04	2190	2000	
Cr	52	2	72	12.297	ppb	12.297	0.30	7685	5000	
Mn	55	2	72	56.356	ppb	56.356	2.66	9349	10000	
Fe	57	2	72	2134.506	ppb	2134.506	2.46	24054	400000	
Co	59	2	72	1.033	ppb	1.033	9.62	1433	2000	
Ni	60	2	72	3.063	ppb	3.063	3.25	1293	5000	
Cu	63	2	72	132.796	ppb	132.796	0.08	164502	5000	
Zn	66	2	72	27.187	ppb	27.187	1.29	2844	5000	
As	75	2	72	1.254	ppb	1.254	5.94	83	2000	
Se	78	1	72	0.915	ppb	0.915	14.29	260	2000	
Sr	88	2	72	132.914	ppb	132.914	1.35	18197	4000	
Zr	90	2	72	527.045	ppb	527.045	1.97	2100	1000	
Nb	93	2	72	-1.241	ppb	-1.241	-2.64	310	200	
Mo	95	2	115	0.561	ppb	0.561	27.76	317	2000	
Pd	105	2	115	-0.084	ppb	-0.084	-18.97	17	100	
Ag	107	2	115	0.076	ppb	0.076	28.57	193	100	
Cd	111	2	115	0.542	ppb	0.542	29.92	90	2000	
Sn	120	2	115	0.904	ppb	0.904	44.53	463	2000	
Sb	121	2	115	1.264	ppb	1.264	30.89	433	1000	
Ba	137	2	115	25.653	ppb	25.653	10.74	2420	5000	
W	182	2	165	0.106	ppb	0.106	24.86	627	100	
Pt	195	2	165	0.009	ppb	0.009	313.24	250	100	
Tl	205	2	165	0.094	ppb	0.094	7.45	513	2000	
Pb	208	2	165	1860.495	ppb	1860.495	1.33	10528721	5000	
Th	232	2	165	2.427	ppb	2.427	8.20	16456	2000	
U	238	2	165	0.368	ppb	0.368	8.54	2790	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	473247	0.60	608971	77.71	60	120	
Sc (IS)	45	1	HMI H2	21053654	0.56	24673136	85.33	60	120	
Sc (IS)	45	2	HMI He	254818	1.21	281864	90.40	60	120	
Sc (IS)	45	3	No Gas	59101992	0.47	78056314	75.72	60	120	
Ge Internal Standard	72	1	HMI H2	10921442	0.47	12619474	86.54	60	120	
Ge Internal Standard	72	2	HMI He	393580	0.23	434818	90.52	60	120	
In Internal Standard	115	2	HMI He	924312	0.65	1007281	91.76	60	120	
Ho-165	165	2	HMI He	7465763	0.59	8283065	90.13	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-Rsd@250
Data File Name	095SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:22:49-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-35.854	ppb	-35.854	-5.56	63141	500000	
Li	7	2	45	-40.865	ppb	-40.865	-21.16	3520	500000	
Li	7	3	45	-34.674	ppb	-34.674	-24.07	3234344	50000	
Be	9	1	6	0.105	ppb	0.105	34.95	17	2000	
B	11	1	6	-280.277	ppb	-280.277	-0.10	8105	2000	
Na	23	1	45	533.092	ppb	533.092	1.27	1285480	2000	
Na	23	2	45	610.620	ppb	610.620	4.60	56230	400000	
Mg	24	2	45	933.321	ppb	933.321	2.29	32977	400000	
Al	27	2	45	436.463	ppb	436.463	9.10	2827	400000	
K	39	1	45	133.422	ppb	133.422	22.81	5036845	400000	
K	39	2	45	211.991	ppb	211.991	20.99	5428	400000	
Ca	40	1	45	10830.181	ppb	10830.181	1.89	36778043	400000	
Ca	44	2	45	10203.656	ppb	10203.656	3.47	7665	400000	
Ti	47	2	45	1981.856	ppb	1981.856	1.36	60	4000	
V	51	2	72	0.447	ppb	0.447	1.22	573	2000	
Cr	52	2	72	2.540	ppb	2.540	12.86	1660	5000	
Mn	55	2	72	12.729	ppb	12.729	12.81	2157	10000	
Fe	57	2	72	429.049	ppb	429.049	6.67	4814	400000	
Co	59	2	72	0.176	ppb	0.176	12.26	260	2000	
Ni	60	2	72	0.512	ppb	0.512	25.04	247	5000	
Cu	63	2	72	27.090	ppb	27.090	1.75	34458	5000	
Zn	66	2	72	5.144	ppb	5.144	13.60	603	5000	
As	75	2	72	0.319	ppb	0.319	46.56	25	2000	
Se	78	1	72	0.779	ppb	0.779	15.11	227	2000	
Sr	88	2	72	27.069	ppb	27.069	3.64	3691	4000	
Zr	90	2	72	123.376	ppb	123.376	14.56	520	1000	
Nb	93	2	72	-1.323	ppb	-1.323	-3.22	157	200	
Mo	95	2	115	0.254	ppb	0.254	6.98	160	2000	
Pd	105	2	115	-0.091	ppb	-0.091	-11.60	10	100	
Ag	107	2	115	0.014	ppb	0.014	115.93	67	100	
Cd	111	2	115	0.141	ppb	0.141	24.64	23	2000	
Sn	120	2	115	0.138	ppb	0.138	125.06	163	2000	
Sb	121	2	115	0.239	ppb	0.239	60.06	117	1000	
Ba	137	2	115	5.623	ppb	5.623	18.53	530	5000	
W	182	2	165	0.014	ppb	0.014	60.99	317	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1789.22	217	100	
Tl	205	2	165	0.019	ppb	0.019	39.33	180	2000	
Pb	208	2	165	364.458	ppb	364.458	2.01	2068699	5000	
Th	232	2	165	0.589	ppb	0.589	11.06	4841	2000	
U	238	2	165	0.084	ppb	0.084	6.97	700	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	483055	0.48	608971	79.32	60	120	
Sc (IS)	45	1	HMI H2	21343933	0.99	24673136	86.51	60	120	
Sc (IS)	45	2	HMI He	252956	1.35	281864	89.74	60	120	
Sc (IS)	45	3	No Gas	59623559	1.14	78056314	76.39	60	120	
Ge Internal Standard	72	1	HMI H2	10999710	1.35	12619474	87.16	60	120	
Ge Internal Standard	72	2	HMI He	390237	1.21	434818	89.75	60	120	
In Internal Standard	115	2	HMI He	922120	1.26	1007281	91.55	60	120	
Ho-165	165	2	HMI He	7486852	2.03	8283065	90.39	60	120	

Sample Table

Sample Name	280-104412-A-21-L MS@50
Data File Name	096SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:26:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-26.745	ppb	-26.745	-13.22	62566	500000	
Li	7	2	45	-25.984	ppb	-25.984	-88.85	3677	500000	
Li	7	3	45	-31.216	ppb	-31.216	-6.58	3284021	50000	
Be	9	1	6	3.965	ppb	3.965	5.68	613	2000	
B	11	1	6	-276.924	ppb	-276.924	-0.52	8422	2000	
Na	23	1	45	548.210	ppb	548.210	1.98	1269319	2000	
Na	23	2	45	613.956	ppb	613.956	1.12	56197	400000	
Mg	24	2	45	4492.089	ppb	4492.089	1.08	153563	400000	
Al	27	2	45	2369.095	ppb	2369.095	4.48	15167	400000	
K	39	1	45	700.435	ppb	700.435	5.95	5999718	400000	
K	39	2	45	719.574	ppb	719.574	5.49	11234	400000	
Ca	40	1	45	57302.955	ppb	57302.955	0.18	187339764	400000	
Ca	44	2	45	53639.599	ppb	53639.599	1.51	39929	400000	
Ti	47	2	45	17159.973	ppb	17159.973	12.38	517	4000	
V	51	2	72	8.149	ppb	8.149	1.98	3971	2000	
Cr	52	2	72	16.289	ppb	16.289	7.93	9930	5000	
Mn	55	2	72	66.416	ppb	66.416	2.15	10767	10000	
Fe	57	2	72	2265.308	ppb	2265.308	1.49	24978	400000	
Co	59	2	72	4.668	ppb	4.668	3.26	6268	2000	
Ni	60	2	72	7.033	ppb	7.033	2.12	2857	5000	
Cu	63	2	72	126.065	ppb	126.065	2.46	152888	5000	
Zn	66	2	72	31.159	ppb	31.159	3.53	3177	5000	
As	75	2	72	4.892	ppb	4.892	17.34	302	2000	
Se	78	1	72	4.106	ppb	4.106	5.00	1063	2000	
Sr	88	2	72	140.717	ppb	140.717	1.80	18851	4000	
Zr	90	2	72	813.619	ppb	813.619	1.66	3150	1000	
Nb	93	2	72	-1.241	ppb	-1.241	-2.01	303	200	
Mo	95	2	115	3.367	ppb	3.367	8.04	1737	2000	
Pd	105	2	115	-0.087	ppb	-0.087	-18.15	13	100	
Ag	107	2	115	3.482	ppb	3.482	2.26	6972	100	
Cd	111	2	115	3.537	ppb	3.537	5.81	583	2000	
Sn	120	2	115	1.474	ppb	1.474	23.25	680	2000	
Sb	121	2	115	1.929	ppb	1.929	4.41	633	1000	
Ba	137	2	115	29.262	ppb	29.262	12.23	2737	5000	
W	182	2	165	1.236	ppb	1.236	7.42	4394	100	
Pt	195	2	165	0.016	ppb	0.016	50.48	273	100	
Tl	205	2	165	3.613	ppb	3.613	4.83	15979	2000	
Pb	208	2	165	2042.862	ppb	2042.862	2.29	11446877	5000	
Th	232	2	165	4.838	ppb	4.838	2.70	31396	2000	
U	238	2	165	4.144	ppb	4.144	2.60	30340	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	468934	1.01	608971	77.00	60	120	
Sc (IS)	45	1	HMI H2	20577911	0.68	24673136	83.40	60	120	
Sc (IS)	45	2	HMI He	251548	0.46	281864	89.24	60	120	
Sc (IS)	45	3	No Gas	59895699	0.57	78056314	76.73	60	120	
Ge Internal Standard	72	1	HMI H2	10764788	0.60	12619474	85.30	60	120	
Ge Internal Standard	72	2	HMI He	385161	0.64	434818	88.58	60	120	
In Internal Standard	115	2	HMI He	916683	0.82	1007281	91.01	60	120	
Ho-165	165	2	HMI He	7394107	1.96	8283065	89.27	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-M MSD@50
Data File Name	097SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:30:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-31.685	ppb	-31.685	-17.41	62208	500000	
Li	7	2	45	-22.236	ppb	-22.236	-128.36	3724	500000	
Li	7	3	45	-30.184	ppb	-30.184	-14.31	3312037	50000	
Be	9	1	6	4.342	ppb	4.342	28.79	677	2000	
B	11	1	6	-279.962	ppb	-279.962	-0.91	7985	2000	
Na	23	1	45	507.337	ppb	507.337	2.22	1199031	2000	
Na	23	2	45	545.649	ppb	545.649	3.05	50941	400000	
Mg	24	2	45	4564.508	ppb	4564.508	0.62	156150	400000	
Al	27	2	45	2363.832	ppb	2363.832	1.46	15147	400000	
K	39	1	45	699.391	ppb	699.391	1.33	6051856	400000	
K	39	2	45	721.069	ppb	721.069	2.59	11261	400000	
Ca	40	1	45	58340.651	ppb	58340.651	0.60	192439484	400000	
Ca	44	2	45	54731.787	ppb	54731.787	3.22	40774	400000	
Ti	47	2	45	18912.172	ppb	18912.172	12.97	570	4000	
V	51	2	72	8.379	ppb	8.379	2.81	4087	2000	
Cr	52	2	72	15.910	ppb	15.910	1.29	9733	5000	
Mn	55	2	72	65.689	ppb	65.689	3.78	10687	10000	
Fe	57	2	72	2331.506	ppb	2331.506	0.26	25799	400000	
Co	59	2	72	4.826	ppb	4.826	0.13	6501	2000	
Ni	60	2	72	6.409	ppb	6.409	7.12	2617	5000	
Cu	63	2	72	129.717	ppb	129.717	1.42	157827	5000	
Zn	66	2	72	29.818	ppb	29.818	5.29	3054	5000	
As	75	2	72	5.183	ppb	5.183	18.92	320	2000	
Se	78	1	72	4.266	ppb	4.266	4.30	1108	2000	
Sr	88	2	72	144.045	ppb	144.045	1.40	19365	4000	
Zr	90	2	72	820.243	ppb	820.243	2.90	3187	1000	
Nb	93	2	72	-1.286	ppb	-1.286	-1.61	223	200	
Mo	95	2	115	3.909	ppb	3.909	8.32	1990	2000	
Pd	105	2	115	-0.080	ppb	-0.080	-26.25	20	100	
Ag	107	2	115	3.736	ppb	3.736	5.11	7399	100	
Cd	111	2	115	3.657	ppb	3.657	5.64	597	2000	
Sn	120	2	115	1.998	ppb	1.998	12.57	873	2000	
Sb	121	2	115	2.436	ppb	2.436	15.51	780	1000	
Ba	137	2	115	31.289	ppb	31.289	10.32	2897	5000	
W	182	2	165	1.298	ppb	1.298	5.60	4574	100	
Pt	195	2	165	0.013	ppb	0.013	60.71	263	100	
Tl	205	2	165	3.864	ppb	3.864	3.13	16963	2000	
Pb	208	2	165	1930.686	ppb	1930.686	1.19	10746872	5000	
Th	232	2	165	4.999	ppb	4.999	0.92	32194	2000	
U	238	2	165	4.385	ppb	4.385	1.59	31887	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	472780	0.33	608971	77.64	60	120	
Sc (IS)	45	1	HMI H2	20763092	0.86	24673136	84.15	60	120	
Sc (IS)	45	2	HMI He	251749	0.32	281864	89.32	60	120	
Sc (IS)	45	3	No Gas	60220162	0.57	78056314	77.15	60	120	
Ge Internal Standard	72	1	HMI H2	10813690	0.52	12619474	85.69	60	120	
Ge Internal Standard	72	2	HMI He	386519	0.87	434818	88.89	60	120	
In Internal Standard	115	2	HMI He	907082	0.58	1007281	90.05	60	120	
Ho-165	165	2	HMI He	7343789	1.27	8283065	88.66	60	120	

Sample Table

Sample Name	280-104412-A-21-K pds@50
Data File Name	098SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:34:12-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-30.813	ppb	-30.813	-19.34	62298	500000	
Li	7	2	45	-15.951	ppb	-15.951	-59.64	3784	500000	
Li	7	3	45	-34.710	ppb	-34.710	-8.36	3266087	50000	
Be	9	1	6	217.467	ppb	217.467	0.23	33965	2000	
B	11	1	6	-284.400	ppb	-284.400	-0.50	7255	2000	
Na	23	1	45	396.456	ppb	396.456	0.63	976286	2000	
Na	23	2	45	444.716	ppb	444.716	2.16	42948	400000	
Mg	24	2	45	4212.616	ppb	4212.616	0.75	143639	400000	
Al	27	2	45	4198.318	ppb	4198.318	1.00	26784	400000	
K	39	1	45	589.399	ppb	589.399	1.62	5821772	400000	
K	39	2	45	618.330	ppb	618.330	3.97	10040	400000	
Ca	40	1	45	53943.290	ppb	53943.290	0.85	177749737	400000	
Ca	44	2	45	49660.716	ppb	49660.716	1.90	36855	400000	
Ti	47	2	45	16441.858	ppb	16441.858	28.55	493	4000	
V	51	2	72	208.471	ppb	208.471	2.95	93067	2000	
Cr	52	2	72	215.290	ppb	215.290	2.28	130631	5000	
Mn	55	2	72	269.682	ppb	269.682	1.99	43731	10000	
Fe	57	2	72	4089.359	ppb	4089.359	1.29	45339	400000	
Co	59	2	72	201.988	ppb	201.988	0.42	271934	2000	
Ni	60	2	72	203.720	ppb	203.720	1.14	82156	5000	
Cu	63	2	72	330.140	ppb	330.140	0.24	400416	5000	
Zn	66	2	72	239.478	ppb	239.478	2.14	23984	5000	
As	75	2	72	198.080	ppb	198.080	1.92	12089	2000	
Se	78	1	72	206.495	ppb	206.495	0.89	52277	2000	
Sr	88	2	72	127.069	ppb	127.069	2.09	17129	4000	
Zr	90	2	72	32099.075	ppb	32099.075	0.62	123439	1000	>LDR
Nb	93	2	72	-0.686	ppb	-0.686	-9.77	1317	200	
Mo	95	2	115	196.083	ppb	196.083	2.34	98570	2000	
Pd	105	2	115	-0.066	ppb	-0.066	-48.43	33	100	
Ag	107	2	115	49.438	ppb	49.438	1.25	97614	100	
Cd	111	2	115	201.298	ppb	201.298	2.16	32923	2000	
Sn	120	2	115	194.202	ppb	194.202	1.14	74611	2000	
Sb	121	2	115	215.269	ppb	215.269	1.71	65411	1000	
Ba	137	2	115	222.292	ppb	222.292	0.27	20623	5000	
W	182	2	165	200.162	ppb	200.162	1.28	666238	100	
Pt	195	2	165	0.050	ppb	0.050	63.28	393	100	
Tl	205	2	165	205.070	ppb	205.070	0.83	897645	2000	
Pb	208	2	165	2036.219	ppb	2036.219	1.38	11361926	5000	
Th	232	2	165	2.054	ppb	2.054	6.04	13907	2000	
U	238	2	165	227.466	ppb	227.466	2.20	1654316	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	473485	0.34	608971	77.75	60	120	
Sc (IS)	45	1	HMI H2	20740607	0.33	24673136	84.06	60	120	
Sc (IS)	45	2	HMI He	250777	0.51	281864	88.97	60	120	
Sc (IS)	45	3	No Gas	60204454	0.31	78056314	77.13	60	120	
Ge Internal Standard	72	1	HMI H2	10779157	0.51	12619474	85.42	60	120	
Ge Internal Standard	72	2	HMI He	387464	0.88	434818	89.11	60	120	
In Internal Standard	115	2	HMI He	908849	0.90	1007281	90.23	60	120	
Ho-165	165	2	HMI He	7361771	1.24	8283065	88.88	60	120	

Sample Table

Sample Name	280-104412-A-34-E@50
Data File Name	099SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:38:00-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-28.930	ppb	-28.930	-2.98	62579	500000	
Li	7	2	45	-27.245	ppb	-27.245	-77.83	3544	500000	
Li	7	3	45	-29.368	ppb	-29.368	-14.74	3254035	50000	
Be	9	1	6	0.235	ppb	0.235	41.60	37	2000	
B	11	1	6	-285.897	ppb	-285.897	-0.24	6985	2000	
Na	23	1	45	359.126	ppb	359.126	0.90	900675	2000	
Na	23	2	45	424.363	ppb	424.363	2.46	40155	400000	
Mg	24	2	45	6164.617	ppb	6164.617	0.26	203514	400000	
Al	27	2	45	3704.556	ppb	3704.556	1.93	22939	400000	
K	39	1	45	918.802	ppb	918.802	3.03	6483591	400000	
K	39	2	45	920.850	ppb	920.850	1.21	13109	400000	
Ca	40	1	45	41788.211	ppb	41788.211	0.53	137557188	400000	
Ca	44	2	45	39967.425	ppb	39967.425	2.56	28794	400000	
Ti	47	2	45	29148.254	ppb	29148.254	14.50	850	4000	>LDR
V	51	2	72	5.428	ppb	5.428	4.16	2720	2000	
Cr	52	2	72	8.318	ppb	8.318	7.90	5034	5000	
Mn	55	2	72	94.234	ppb	94.234	1.29	14984	10000	
Fe	57	2	72	3356.898	ppb	3356.898	3.39	36362	400000	
Co	59	2	72	1.558	ppb	1.558	6.87	2070	2000	
Ni	60	2	72	3.782	ppb	3.782	7.88	1527	5000	
Cu	63	2	72	7.735	ppb	7.735	5.08	10574	5000	
Zn	66	2	72	16.087	ppb	16.087	7.97	1653	5000	
As	75	2	72	1.458	ppb	1.458	33.13	92	2000	
Se	78	1	72	0.601	ppb	0.601	15.37	177	2000	
Sr	88	2	72	89.755	ppb	89.755	3.11	11828	4000	
Zr	90	2	72	561.947	ppb	561.947	16.46	2154	1000	
Nb	93	2	72	-1.310	ppb	-1.310	-0.71	177	200	
Mo	95	2	115	0.331	ppb	0.331	18.04	193	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.34	3	100	
Ag	107	2	115	0.001	ppb	0.001	1449.11	40	100	
Cd	111	2	115	0.167	ppb	0.167	109.09	27	2000	
Sn	120	2	115	0.168	ppb	0.168	14.01	170	2000	
Sb	121	2	115	0.095	ppb	0.095	58.87	70	1000	
Ba	137	2	115	37.202	ppb	37.202	3.93	3397	5000	
W	182	2	165	0.064	ppb	0.064	32.00	473	100	
Pt	195	2	165	0.017	ppb	0.017	49.05	273	100	
Tl	205	2	165	0.077	ppb	0.077	24.09	430	2000	
Pb	208	2	165	47.030	ppb	47.030	1.01	262006	5000	
Th	232	2	165	1.516	ppb	1.516	10.59	10484	2000	
U	238	2	165	0.378	ppb	0.378	9.94	2804	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	472137	0.40	608971	77.53	60	120	
Sc (IS)	45	1	HMI H2	20716381	0.71	24673136	83.96	60	120	
Sc (IS)	45	2	HMI He	243406	1.05	281864	86.36	60	120	
Sc (IS)	45	3	No Gas	59017711	0.33	78056314	75.61	60	120	
Ge Internal Standard	72	1	HMI H2	10795925	0.86	12619474	85.55	60	120	
Ge Internal Standard	72	2	HMI He	378567	1.01	434818	87.06	60	120	
In Internal Standard	115	2	HMI He	894272	1.23	1007281	88.78	60	120	
Ho-165	165	2	HMI He	7323207	1.47	8283065	88.41	60	120	

Sample Table

Sample Name	280-104412-A-35-E@50
Data File Name	100SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:41:49-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-25.188	ppb	-25.188	-6.28	62890	500000	
Li	7	2	45	-17.564	ppb	-17.564	-40.37	3657	500000	
Li	7	3	45	-28.365	ppb	-28.365	-14.87	3251893	50000	
Be	9	1	6	0.300	ppb	0.300	44.47	47	2000	
B	11	1	6	-288.264	ppb	-288.264	-0.59	6578	2000	
Na	23	1	45	351.286	ppb	351.286	1.66	879596	2000	
Na	23	2	45	408.676	ppb	408.676	2.85	39019	400000	
Mg	24	2	45	6073.560	ppb	6073.560	1.73	200714	400000	
Al	27	2	45	3610.802	ppb	3610.802	4.25	22384	400000	
K	39	1	45	914.583	ppb	914.583	2.70	6435488	400000	
K	39	2	45	949.278	ppb	949.278	4.76	13436	400000	
Ca	40	1	45	40347.779	ppb	40347.779	0.97	131998651	400000	
Ca	44	2	45	37901.207	ppb	37901.207	2.91	27338	400000	
Ti	47	2	45	24227.835	ppb	24227.835	13.04	707	4000	>LDR
V	51	2	72	5.158	ppb	5.158	8.35	2614	2000	
Cr	52	2	72	7.257	ppb	7.257	4.49	4424	5000	
Mn	55	2	72	95.627	ppb	95.627	2.22	15257	10000	
Fe	57	2	72	3370.497	ppb	3370.497	0.74	36652	400000	
Co	59	2	72	1.348	ppb	1.348	5.38	1800	2000	
Ni	60	2	72	3.951	ppb	3.951	5.92	1600	5000	
Cu	63	2	72	9.372	ppb	9.372	2.77	12548	5000	
Zn	66	2	72	15.727	ppb	15.727	3.48	1623	5000	
As	75	2	72	1.368	ppb	1.368	5.44	87	2000	
Se	78	1	72	0.625	ppb	0.625	19.94	181	2000	
Sr	88	2	72	84.756	ppb	84.756	2.88	11211	4000	
Zr	90	2	72	452.672	ppb	452.672	6.99	1747	1000	
Nb	93	2	72	-1.315	ppb	-1.315	-1.41	167	200	
Mo	95	2	115	0.304	ppb	0.304	45.18	180	2000	
Pd	105	2	115	-0.087	ppb	-0.087	-28.27	13	100	
Ag	107	2	115	0.006	ppb	0.006	89.66	50	100	
Cd	111	2	115	0.208	ppb	0.208	76.00	33	2000	
Sn	120	2	115	0.311	ppb	0.311	40.50	223	2000	
Sb	121	2	115	0.095	ppb	0.095	174.44	70	1000	
Ba	137	2	115	36.791	ppb	36.791	8.19	3354	5000	
W	182	2	165	-0.004	ppb	-0.004	-332.92	250	100	
Pt	195	2	165	0.032	ppb	0.032	38.17	327	100	
Tl	205	2	165	0.048	ppb	0.048	44.39	303	2000	
Pb	208	2	165	91.142	ppb	91.142	1.79	507304	5000	
Th	232	2	165	1.628	ppb	1.628	3.78	11194	2000	
U	238	2	165	0.335	ppb	0.335	11.04	2504	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	471230	0.26	608971	77.38	60	120	
Sc (IS)	45	1	HMI H2	20589374	0.31	24673136	83.45	60	120	
Sc (IS)	45	2	HMI He	243622	0.61	281864	86.43	60	120	
Sc (IS)	45	3	No Gas	58800226	0.84	78056314	75.33	60	120	
Ge Internal Standard	72	1	HMI H2	10672666	0.49	12619474	84.57	60	120	
Ge Internal Standard	72	2	HMI He	379967	0.91	434818	87.39	60	120	
In Internal Standard	115	2	HMI He	892656	0.73	1007281	88.62	60	120	
Ho-165	165	2	HMI He	7330223	1.17	8283065	88.50	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	101_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:45:40-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	420.219	ppb	1.122	148042	500	84.0	90	110	>+\-10%
Li	7	2	45	452.539	ppb	5.105	9019	500	90.5	90	110	
Li	7	3	45	422.838	ppb	0.740	7700749	500	84.6	90	110	>+\-10%
Be	9	1	6	49.143	ppb	0.422	7619	50	98.3	90	110	
B	11	1	6	-246.179	ppb	-0.674	13542	50	-492.4	90	110	>+\-10%
Na	23	1	45	5100.666	ppb	1.970	10471198	5000	102.0	90	110	
Na	23	2	45	5248.026	ppb	1.644	400714	5000	105.0	90	110	
Mg	24	2	45	4952.053	ppb	2.484	163224	5000	99.0	90	110	
Al	27	2	45	5130.575	ppb	1.490	31675	5000	102.6	90	110	
K	39	1	45	5121.212	ppb	3.076	15178106	5000	102.4	90	110	
K	39	2	45	5298.718	ppb	1.912	61633	5000	106.0	90	110	
Ca	40	1	45	5019.735	ppb	2.138	16762674	5000	100.4	90	110	
Ca	44	2	45	4941.917	ppb	8.816	3584	5000	98.8	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	47.937	ppb	2.043	21180	50	95.9	90	110	
Cr	52	2	72	49.450	ppb	1.600	29385	50	98.9	90	110	
Mn	55	2	72	50.392	ppb	5.130	8045	50	100.8	90	110	
Fe	57	2	72	4902.109	ppb	1.756	53070	5000	98.0	90	110	
Co	59	2	72	48.921	ppb	1.296	64331	50	97.8	90	110	
Ni	60	2	72	49.127	ppb	3.128	19378	50	98.3	90	110	
Cu	63	2	72	47.911	ppb	2.660	57972	50	95.8	90	110	
Zn	66	2	72	50.549	ppb	2.890	5011	50	101.1	90	110	
As	75	2	72	50.053	ppb	1.629	2987	50	100.1	90	110	
Se	78	1	72	49.664	ppb	2.649	12697	50	99.3	90	110	
Sr	88	2	72	52.111	ppb	4.803	6872	50	104.2	90	110	
Zr	90	2	72	115.291	ppb	14.812	473	50	230.6	90	110	>+\-10%
Nb	93	2	72	94.037	ppb	0.581	169798	100	94.0	90	110	
Mo	95	2	115	46.904	ppb	1.952	23216	50	93.8	90	110	
Pd	105	2	115	48.903	ppb	1.514	45645	50	97.8	90	110	
Ag	107	2	115	48.052	ppb	1.181	93350	50	96.1	90	110	
Cd	111	2	115	48.124	ppb	2.779	7742	50	96.2	90	110	
Sn	120	2	115	48.889	ppb	3.885	18558	50	97.8	90	110	
Sb	121	2	115	49.331	ppb	1.907	14780	50	98.7	90	110	
Ba	137	2	115	47.807	ppb	5.035	4364	50	95.6	90	110	
W	182	2	165	48.064	ppb	1.946	158931	50	96.1	90	110	
Pt	195	2	165	47.318	ppb	1.908	165627	50	94.6	90	110	
Tl	205	2	165	48.979	ppb	1.086	212800	50	98.0	90	110	
Pb	208	2	165	49.356	ppb	1.825	274222	50	98.7	90	110	
Th	232	2	165	50.153	ppb	2.250	311420	50	100.3	90	110	
U	238	2	165	50.670	ppb	0.483	365757	50	101.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	469984	1.20	608971	77.18	60	120	
Sc (IS)	45	1	HMI H2	20943001	1.38	24673136	84.88	60	120	
Sc (IS)	45	2	HMI He	242742	1.27	281864	86.12	60	120	
Sc (IS)	45	3	No Gas	59165352	0.23	78056314	75.80	60	120	
Ge Internal Standard	72	1	HMI H2	10869767	1.23	12619474	86.13	60	120	
Ge Internal Standard	72	2	HMI He	378370	0.32	434818	87.02	60	120	
In Internal Standard	115	2	HMI He	894191	0.56	1007281	88.77	60	120	
Ho-165	165	2	HMI He	7304624	0.85	8283065	88.19	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	102_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:49:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-37.449	ppb	-14.0	3194694	10	
Be	9	1	6	0.107	ppb	91.5	17	0.5	
B	11	1	6	-292.008	ppb	-0.8	5968	0.5	
Na	23	1	45	271.963	ppb	0.9	720332	25	>RL
Na	23	2	45	339.228	ppb	0.1	33825	25	>RL
Mg	24	2	45	57.390	ppb	28.7	2977	25	>RL
Al	27	2	45	1.502	ppb	326.5	27	15	
K	39	1	45	104.918	ppb	9.4	4788277	50	>RL
K	39	2	45	89.445	ppb	8.9	3867	50	>RL
Ca	40	1	45	27.521	ppb	1.5	158274	50	
Ca	44	2	45	2.920	ppb	724.6	37	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.343	ppb	-41.9	213	1	
Cr	52	2	72	-0.108	ppb	-44.9	43	1	
Mn	55	2	72	-0.076	ppb	-246.7	70	0.5	
Fe	57	2	72	2.504	ppb	93.9	53	25	
Co	59	2	72	0.002	ppb	421.5	23	0.5	
Ni	60	2	72	-0.020	ppb	-2.5	30	1	
Cu	63	2	72	0.220	ppb	152.6	1700	1	
Zn	66	2	72	0.944	ppb	26.8	177	5	
As	75	2	72	-0.009	ppb	-798.0	5	1	
Se	78	1	72	0.502	ppb	16.2	152	1	
Sr	88	2	72	-0.129	ppb	-34.2	3	0.5	
Zr	90	2	72	15.804	ppb	59.0	100	1	>RL
Nb	93	2	72	0.249	ppb	24.6	2957	2	
Mo	95	2	115	0.095	ppb	74.0	77	0.5	
Pd	105	2	115	-0.062	ppb	-35.7	37	1	
Ag	107	2	115	-0.004	ppb	-198.3	30	1	
Cd	111	2	115	0.021	ppb	173.2	3	0.5	
Sn	120	2	115	0.186	ppb	122.4	177	1	
Sb	121	2	115	0.095	ppb	37.3	70	0.6	
Ba	137	2	115	0.146	ppb	42.6	13	0.5	
W	182	2	165	-0.007	ppb	-192.7	240	1	
Pt	195	2	165	0.003	ppb	153.2	227	1	
Tl	205	2	165	0.020	ppb	62.3	180	0.1	
Pb	208	2	165	0.367	ppb	0.2	3020	0.5	
Th	232	2	165	0.148	ppb	35.9	2007	1	
U	238	2	165	0.011	ppb	8.4	153	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	472224	0.35	608971	77.54	60	120	
Sc (IS)	45	1	HMI H2	20532052	0.27	24673136	83.22	60	120	
Sc (IS)	45	2	HMI He	243762	0.81	281864	86.48	60	120	
Sc (IS)	45	3	No Gas	59393627	1.36	78056314	76.09	60	120	
Ge Internal Standard	72	1	HMI H2	10780739	0.48	12619474	85.43	60	120	
Ge Internal Standard	72	2	HMI He	379414	0.64	434818	87.26	60	120	
In Internal Standard	115	2	HMI He	895793	0.95	1007281	88.93	60	120	
Ho-165	165	2	HMI He	7330378	1.17	8283065	88.50	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	103LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:53:19-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-24.054	ppb	-9.744	3265134	50	-48.1	70	130	>+/-30%
Be	9	1	6	1.408	ppb	8.461	220	1	140.8	70	130	>+/-30%
Na	23	2	45	386.327	ppb	1.748	37375	50	772.7	70	130	>+/-30%
Mg	24	2	45	118.455	ppb	13.005	4984	50	236.9	70	130	>+/-30%
Al	27	2	45	26.296	ppb	12.849	180	30	87.7	70	130	
K	39	2	45	193.087	ppb	9.936	5024	100	193.1	70	130	>+/-30%
Ca	44	2	45	39.817	ppb	51.774	63	50	79.6	70	130	
V	51	2	72	5.001	ppb	1.100	2534	5	100.0	70	130	
Cr	52	2	72	2.060	ppb	7.477	1327	2	103.0	70	130	
Mn	55	2	72	1.274	ppb	42.447	283	1	127.4	70	130	
Fe	57	2	72	46.856	ppb	9.272	533	50	93.7	70	130	
Co	59	2	72	1.062	ppb	7.190	1417	1	106.2	70	130	
Ni	60	2	72	2.071	ppb	14.653	853	2	103.5	70	130	
Cu	63	2	72	2.360	ppb	11.259	4224	2	118.0	70	130	
Zn	66	2	72	10.259	ppb	10.993	1083	10	102.6	70	130	
As	75	2	72	4.303	ppb	14.293	261	5	86.1	70	130	
Se	78	1	72	5.548	ppb	5.512	1429	5	111.0	70	130	
Sr	88	2	72	1.115	ppb	24.851	167	1	111.5	70	130	
Zr	90	2	72	46.888	ppb	20.921	217	0.5	9377.7	70	130	>+/-30%
Nb	93	2	72	0.068	ppb	194.069	2627	2	3.4	70	130	>+/-30%
Mo	95	2	115	1.974	ppb	4.977	1007	2	98.7	70	130	
Pd	105	2	115	-0.073	ppb	-45.546	27	1	-7.3	70	130	>+/-30%
Ag	107	2	115	4.523	ppb	2.668	8836	5	90.5	70	130	
Cd	111	2	115	0.992	ppb	47.111	160	1	99.2	70	130	
Sn	120	2	115	9.958	ppb	5.137	3871	10	99.6	70	130	
Sb	121	2	115	2.234	ppb	8.402	710	2	111.7	70	130	
Ba	137	2	115	1.605	ppb	14.479	147	1	160.5	70	130	>+/-30%
W	182	2	165	4.770	ppb	5.437	15909	1	477.0	70	130	>+/-30%
Pt	195	2	165	0.044	ppb	69.339	367	1	4.4	70	130	>+/-30%
Tl	205	2	165	1.029	ppb	6.123	4534	1	102.9	70	130	
Pb	208	2	165	1.157	ppb	9.120	7334	1	115.7	70	130	
Th	232	2	165	2.128	ppb	2.791	14164	2	106.4	70	130	
U	238	2	165	1.057	ppb	7.847	7656	1	105.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	473658	0.64	608971	77.78	60	120	
Sc (IS)	45	1	HMI H2	20551188	0.51	24673136	83.29	60	120	
Sc (IS)	45	2	HMI He	243881	1.89	281864	86.52	60	120	
Sc (IS)	45	3	No Gas	58286579	0.45	78056314	74.67	60	120	
Ge Internal Standard	72	1	HMI H2	10782629	0.12	12619474	85.44	60	120	
Ge Internal Standard	72	2	HMI He	378379	0.86	434818	87.02	60	120	
In Internal Standard	115	2	HMI He	895455	0.99	1007281	88.90	60	120	
Ho-165	165	2	HMI He	7258272	0.76	8283065	87.63	60	120	

Sample Table

Sample Name	280-104412-A-36-E@50
Data File Name	104SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T21:57:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-23.356	ppb	-23.356	-16.95	62947	500000	
Li	7	2	45	-9.854	ppb	-9.854	-93.20	3781	500000	
Li	7	3	45	-26.216	ppb	-26.216	-14.74	3219518	50000	
Be	9	1	6	0.173	ppb	0.173	86.60	27	2000	
B	11	1	6	-291.432	ppb	-291.432	-0.36	5991	2000	
Na	23	1	45	296.782	ppb	296.782	1.42	768100	2000	
Na	23	2	45	344.872	ppb	344.872	6.27	34527	400000	
Mg	24	2	45	6083.314	ppb	6083.314	4.08	202784	400000	
Al	27	2	45	3627.687	ppb	3627.687	1.44	22702	400000	
K	39	1	45	907.803	ppb	907.803	0.70	6393297	400000	
K	39	2	45	960.051	ppb	960.051	3.22	13679	400000	
Ca	40	1	45	38677.995	ppb	38677.995	0.36	125976775	400000	
Ca	44	2	45	35362.119	ppb	35362.119	2.43	25749	400000	
Ti	47	2	45	24782.186	ppb	24782.186	9.58	730	4000	>LDR
V	51	2	72	5.517	ppb	5.517	16.07	2764	2000	
Cr	52	2	72	6.356	ppb	6.356	6.10	3884	5000	
Mn	55	2	72	90.192	ppb	90.192	6.09	14383	10000	
Fe	57	2	72	3336.446	ppb	3336.446	6.14	36248	400000	
Co	59	2	72	1.303	ppb	1.303	15.28	1737	2000	
Ni	60	2	72	3.896	ppb	3.896	19.21	1573	5000	
Cu	63	2	72	8.917	ppb	8.917	4.60	12005	5000	
Zn	66	2	72	16.796	ppb	16.796	5.59	1727	5000	
As	75	2	72	1.238	ppb	1.238	7.99	79	2000	
Se	78	1	72	0.324	ppb	0.324	7.86	105	2000	
Sr	88	2	72	82.544	ppb	82.544	2.22	10914	4000	
Zr	90	2	72	408.988	ppb	408.988	7.15	1583	1000	
Nb	93	2	72	-1.205	ppb	-1.205	-2.20	363	200	
Mo	95	2	115	0.222	ppb	0.222	19.90	140	2000	
Pd	105	2	115	-0.087	ppb	-0.087	-19.27	13	100	
Ag	107	2	115	0.002	ppb	0.002	511.92	43	100	
Cd	111	2	115	0.082	ppb	0.082	40.58	13	2000	
Sn	120	2	115	0.244	ppb	0.244	76.04	200	2000	
Sb	121	2	115	-0.027	ppb	-0.027	-150.21	33	1000	
Ba	137	2	115	36.748	ppb	36.748	8.39	3370	5000	
W	182	2	165	-0.005	ppb	-0.005	-313.42	247	100	
Pt	195	2	165	0.013	ppb	0.013	52.16	263	100	
Tl	205	2	165	0.051	ppb	0.051	10.86	317	2000	
Pb	208	2	165	39.641	ppb	39.641	3.22	222503	5000	
Th	232	2	165	1.490	ppb	1.490	2.50	10407	2000	
U	238	2	165	0.289	ppb	0.289	14.42	2180	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	466587	0.33	608971	76.62	60	120	
Sc (IS)	45	1	HMI H2	20497702	0.36	24673136	83.08	60	120	
Sc (IS)	45	2	HMI He	245915	2.46	281864	87.25	60	120	
Sc (IS)	45	3	No Gas	57844094	0.64	78056314	74.11	60	120	
Ge Internal Standard	72	1	HMI H2	10617657	0.32	12619474	84.14	60	120	
Ge Internal Standard	72	2	HMI He	379960	2.40	434818	87.38	60	120	
In Internal Standard	115	2	HMI He	898316	2.63	1007281	89.18	60	120	
Ho-165	165	2	HMI He	7374675	1.48	8283065	89.03	60	120	

Sample Table

Sample Name	280-104412-A-37-E@50
Data File Name	105SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:00:58-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-23.908	ppb	-23.908	-21.57	62348	500000	
Li	7	2	45	-11.490	ppb	-11.490	-303.30	3674	500000	
Li	7	3	45	-32.339	ppb	-32.339	-3.84	3173823	50000	
Be	9	1	6	0.302	ppb	0.302	53.55	47	2000	
B	11	1	6	-292.306	ppb	-292.306	-0.62	5861	2000	
Na	23	1	45	302.799	ppb	302.799	0.95	773825	2000	
Na	23	2	45	347.410	ppb	347.410	2.97	33969	400000	
Mg	24	2	45	6193.794	ppb	6193.794	1.10	202002	400000	
Al	27	2	45	4211.118	ppb	4211.118	2.38	25756	400000	
K	39	1	45	983.782	ppb	983.782	2.33	6494176	400000	
K	39	2	45	1014.829	ppb	1014.829	8.88	13976	400000	
Ca	40	1	45	40647.874	ppb	40647.874	0.36	131346818	400000	
Ca	44	2	45	38613.338	ppb	38613.338	0.41	27492	400000	
Ti	47	2	45	25378.656	ppb	25378.656	5.50	730	4000	>LDR
V	51	2	72	6.141	ppb	6.141	9.34	2997	2000	
Cr	52	2	72	7.411	ppb	7.411	4.61	4447	5000	
Mn	55	2	72	97.853	ppb	97.853	2.57	15380	10000	
Fe	57	2	72	3606.404	ppb	3606.404	0.62	38636	400000	
Co	59	2	72	1.482	ppb	1.482	11.81	1947	2000	
Ni	60	2	72	4.022	ppb	4.022	5.19	1603	5000	
Cu	63	2	72	9.796	ppb	9.796	2.75	12859	5000	
Zn	66	2	72	15.970	ppb	15.970	12.60	1623	5000	
As	75	2	72	1.367	ppb	1.367	22.24	86	2000	
Se	78	1	72	0.581	ppb	0.581	20.94	169	2000	
Sr	88	2	72	82.392	ppb	82.392	2.64	10737	4000	
Zr	90	2	72	492.631	ppb	492.631	11.81	1870	1000	
Nb	93	2	72	-1.182	ppb	-1.182	-1.72	400	200	
Mo	95	2	115	0.254	ppb	0.254	45.29	153	2000	
Pd	105	2	115	-0.083	ppb	-0.083	-7.44	17	100	
Ag	107	2	115	0.012	ppb	0.012	228.29	60	100	
Cd	111	2	115	0.190	ppb	0.190	67.21	30	2000	
Sn	120	2	115	0.067	ppb	0.067	70.43	130	2000	
Sb	121	2	115	-0.026	ppb	-0.026	-401.00	33	1000	
Ba	137	2	115	36.253	ppb	36.253	9.44	3260	5000	
W	182	2	165	-0.016	ppb	-0.016	-79.00	207	100	
Pt	195	2	165	0.009	ppb	0.009	137.49	243	100	
Tl	205	2	165	0.050	ppb	0.050	35.09	310	2000	
Pb	208	2	165	116.290	ppb	116.290	0.41	639625	5000	
Th	232	2	165	1.671	ppb	1.671	4.18	11331	2000	
U	238	2	165	0.332	ppb	0.332	3.21	2447	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	467766	0.74	608971	76.81	60	120	
Sc (IS)	45	1	HMI H2	20336065	0.55	24673136	82.42	60	120	
Sc (IS)	45	2	HMI He	240496	2.10	281864	85.32	60	120	
Sc (IS)	45	3	No Gas	58082019	0.19	78056314	74.41	60	120	
Ge Internal Standard	72	1	HMI H2	10601266	0.54	12619474	84.01	60	120	
Ge Internal Standard	72	2	HMI He	374348	0.32	434818	86.09	60	120	
In Internal Standard	115	2	HMI He	881426	0.92	1007281	87.51	60	120	
Ho-165	165	2	HMI He	7245545	0.17	8283065	87.47	60	120	

Sample Table

Sample Name	280-104412-A-38-E@50
Data File Name	106SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:04:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-23.750	ppb	-23.750	-17.31	61720	500000	
Li	7	2	45	-26.789	ppb	-26.789	-85.34	3524	500000	
Li	7	3	45	-29.291	ppb	-29.291	-7.56	3224175	50000	
Be	9	1	6	0.110	ppb	0.110	125.05	17	2000	
B	11	1	6	-294.679	ppb	-294.679	-0.33	5401	2000	
Na	23	1	45	316.766	ppb	316.766	1.15	792725	2000	
Na	23	2	45	356.851	ppb	356.851	3.44	34857	400000	
Mg	24	2	45	6599.913	ppb	6599.913	0.74	216335	400000	
Al	27	2	45	4287.975	ppb	4287.975	2.80	26373	400000	
K	39	1	45	1095.647	ppb	1095.647	1.12	6646594	400000	
K	39	2	45	1052.622	ppb	1052.622	3.08	14476	400000	
Ca	40	1	45	40435.049	ppb	40435.049	0.93	129276961	400000	
Ca	44	2	45	37004.073	ppb	37004.073	1.89	26484	400000	
Ti	47	2	45	26364.574	ppb	26364.574	18.12	763	4000	>LDR
V	51	2	72	6.443	ppb	6.443	3.79	3104	2000	
Cr	52	2	72	7.029	ppb	7.029	2.54	4194	5000	
Mn	55	2	72	106.957	ppb	106.957	4.39	16685	10000	
Fe	57	2	72	3860.823	ppb	3860.823	1.32	41068	400000	
Co	59	2	72	1.911	ppb	1.911	9.21	2487	2000	
Ni	60	2	72	4.086	ppb	4.086	15.45	1617	5000	
Cu	63	2	72	17.328	ppb	17.328	5.26	21497	5000	
Zn	66	2	72	18.493	ppb	18.493	13.64	1854	5000	
As	75	2	72	1.613	ppb	1.613	9.42	99	2000	
Se	78	1	72	0.410	ppb	0.410	19.05	125	2000	
Sr	88	2	72	83.836	ppb	83.836	4.35	10847	4000	
Zr	90	2	72	593.927	ppb	593.927	0.76	2230	1000	
Nb	93	2	72	-1.233	ppb	-1.233	-2.20	307	200	
Mo	95	2	115	0.394	ppb	0.394	22.38	220	2000	
Pd	105	2	115	-0.094	ppb	-0.094	-13.39	7	100	
Ag	107	2	115	0.015	ppb	0.015	222.97	67	100	
Cd	111	2	115	0.107	ppb	0.107	125.37	17	2000	
Sn	120	2	115	0.088	ppb	0.088	160.39	137	2000	
Sb	121	2	115	0.032	ppb	0.032	104.00	50	1000	
Ba	137	2	115	43.926	ppb	43.926	6.68	3931	5000	
W	182	2	165	-0.006	ppb	-0.006	-488.24	240	100	
Pt	195	2	165	0.025	ppb	0.025	94.26	297	100	
Tl	205	2	165	0.049	ppb	0.049	53.52	303	2000	
Pb	208	2	165	171.154	ppb	171.154	1.26	937443	5000	
Th	232	2	165	1.925	ppb	1.925	6.71	12842	2000	
U	238	2	165	0.310	ppb	0.310	10.93	2284	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	461871	0.22	608971	75.84	60	120	
Sc (IS)	45	1	HMI H2	20121708	0.61	24673136	81.55	60	120	
Sc (IS)	45	2	HMI He	241759	0.49	281864	85.77	60	120	
Sc (IS)	45	3	No Gas	58463297	0.45	78056314	74.90	60	120	
Ge Internal Standard	72	1	HMI H2	10506905	0.94	12619474	83.26	60	120	
Ge Internal Standard	72	2	HMI He	371708	0.77	434818	85.49	60	120	
In Internal Standard	115	2	HMI He	876251	0.90	1007281	86.99	60	120	
Ho-165	165	2	HMI He	7219397	1.22	8283065	87.16	60	120	

Sample Table

Sample Name	280-104412-A-39-E@50
Data File Name	107SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:08:33-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-33.284	ppb	-33.284	-20.73	60425	500000	
Li	7	2	45	-25.640	ppb	-25.640	-103.22	3494	500000	
Li	7	3	45	-31.042	ppb	-31.042	-4.84	3175653	50000	
Be	9	1	6	0.286	ppb	0.286	53.44	43	2000	
B	11	1	6	-292.390	ppb	-292.390	-0.19	5738	2000	
Na	23	1	45	273.375	ppb	273.375	0.75	713785	2000	
Na	23	2	45	308.533	ppb	308.533	0.91	30893	400000	
Mg	24	2	45	6425.805	ppb	6425.805	1.72	208165	400000	
Al	27	2	45	3930.969	ppb	3930.969	0.60	23893	400000	
K	39	1	45	963.573	ppb	963.573	1.39	6432086	400000	
K	39	2	45	1008.972	ppb	1008.972	8.13	13822	400000	
Ca	40	1	45	40535.427	ppb	40535.427	0.15	130538041	400000	
Ca	44	2	45	37979.154	ppb	37979.154	4.02	26864	400000	
Ti	47	2	45	23440.052	ppb	23440.052	8.61	670	4000	>LDR
V	51	2	72	5.896	ppb	5.896	6.99	2867	2000	
Cr	52	2	72	6.387	ppb	6.387	2.09	3817	5000	
Mn	55	2	72	99.442	ppb	99.442	5.64	15501	10000	
Fe	57	2	72	3536.184	ppb	3536.184	3.46	37574	400000	
Co	59	2	72	1.552	ppb	1.552	6.80	2024	2000	
Ni	60	2	72	4.048	ppb	4.048	14.23	1600	5000	
Cu	63	2	72	18.226	ppb	18.226	2.56	22518	5000	
Zn	66	2	72	19.437	ppb	19.437	15.72	1944	5000	
As	75	2	72	1.321	ppb	1.321	22.29	82	2000	
Se	78	1	72	0.378	ppb	0.378	25.05	117	2000	
Sr	88	2	72	83.821	ppb	83.821	6.43	10830	4000	
Zr	90	2	72	481.566	ppb	481.566	5.10	1814	1000	
Nb	93	2	72	-1.239	ppb	-1.239	-3.98	297	200	
Mo	95	2	115	0.401	ppb	0.401	8.11	223	2000	
Pd	105	2	115	-0.083	ppb	-0.083	-38.26	17	100	
Ag	107	2	115	0.077	ppb	0.077	15.17	183	100	
Cd	111	2	115	0.233	ppb	0.233	57.21	37	2000	
Sn	120	2	115	0.115	ppb	0.115	90.82	147	2000	
Sb	121	2	115	0.534	ppb	0.534	21.44	197	1000	
Ba	137	2	115	39.469	ppb	39.469	14.33	3527	5000	
W	182	2	165	-0.002	ppb	-0.002	-569.14	250	100	
Pt	195	2	165	0.021	ppb	0.021	101.43	283	100	
Tl	205	2	165	0.063	ppb	0.063	18.00	360	2000	
Pb	208	2	165	728.741	ppb	728.741	3.66	3967307	5000	
Th	232	2	165	1.652	ppb	1.652	5.77	11114	2000	
U	238	2	165	0.321	ppb	0.321	9.76	2350	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	458946	0.37	608971	75.36	60	120	
Sc (IS)	45	1	HMI H2	20266906	0.17	24673136	82.14	60	120	
Sc (IS)	45	2	HMI He	238917	1.16	281864	84.76	60	120	
Sc (IS)	45	3	No Gas	57887981	0.59	78056314	74.16	60	120	
Ge Internal Standard	72	1	HMI H2	10482112	0.59	12619474	83.06	60	120	
Ge Internal Standard	72	2	HMI He	371351	1.04	434818	85.40	60	120	
In Internal Standard	115	2	HMI He	875922	0.77	1007281	86.96	60	120	
Ho-165	165	2	HMI He	7182733	1.42	8283065	86.72	60	120	

Sample Table

Sample Name	280-104412-A-47-E@50
Data File Name	108SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:12:20-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-25.505	ppb	-25.505	-19.50	61258	500000	
Li	7	2	45	-16.449	ppb	-16.449	-32.21	3564	500000	
Li	7	3	45	-34.632	ppb	-34.632	-9.80	3128807	50000	
Be	9	1	6	0.109	ppb	0.109	173.21	17	2000	
B	11	1	6	-295.796	ppb	-295.796	-0.54	5194	2000	
Na	23	1	45	244.640	ppb	244.640	1.30	651391	2000	
Na	23	2	45	296.280	ppb	296.280	3.33	29695	400000	
Mg	24	2	45	3811.358	ppb	3811.358	1.10	122687	400000	
Al	27	2	45	1847.951	ppb	1847.951	4.15	11131	400000	
K	39	1	45	502.640	ppb	502.640	1.66	5463613	400000	
K	39	2	45	523.514	ppb	523.514	7.40	8446	400000	
Ca	40	1	45	50242.497	ppb	50242.497	0.56	160229211	400000	
Ca	44	2	45	47375.933	ppb	47375.933	2.20	33168	400000	
Ti	47	2	45	9653.376	ppb	9653.376	13.77	273	4000	
V	51	2	72	3.646	ppb	3.646	4.08	1884	2000	
Cr	52	2	72	7.523	ppb	7.523	1.31	4417	5000	
Mn	55	2	72	54.914	ppb	54.914	3.31	8482	10000	
Fe	57	2	72	1827.287	ppb	1827.287	4.30	19171	400000	
Co	59	2	72	0.767	ppb	0.767	8.53	997	2000	
Ni	60	2	72	2.606	ppb	2.606	8.42	1030	5000	
Cu	63	2	72	542.956	ppb	542.956	0.82	621825	5000	
Zn	66	2	72	73.456	ppb	73.456	7.30	7015	5000	
As	75	2	72	1.126	ppb	1.126	23.85	70	2000	
Se	78	1	72	0.291	ppb	0.291	38.56	96	2000	
Sr	88	2	72	124.550	ppb	124.550	6.59	15874	4000	
Zr	90	2	72	249.700	ppb	249.700	19.10	947	1000	
Nb	93	2	72	-1.252	ppb	-1.252	-2.62	270	200	
Mo	95	2	115	0.348	ppb	0.348	19.84	197	2000	
Pd	105	2	115	-0.094	ppb	-0.094	-13.57	7	100	
Ag	107	2	115	0.059	ppb	0.059	107.23	150	100	
Cd	111	2	115	0.191	ppb	0.191	33.43	30	2000	
Sn	120	2	115	0.260	ppb	0.260	115.09	200	2000	
Sb	121	2	115	1.636	ppb	1.636	14.95	517	1000	
Ba	137	2	115	25.615	ppb	25.615	4.01	2280	5000	
W	182	2	165	-0.038	ppb	-0.038	-19.98	133	100	
Pt	195	2	165	0.018	ppb	0.018	86.02	273	100	
Tl	205	2	165	0.030	ppb	0.030	81.03	220	2000	
Pb	208	2	165	2375.727	ppb	2375.727	0.94	12891338	5000	
Th	232	2	165	0.741	ppb	0.741	6.88	5555	2000	
U	238	2	165	0.355	ppb	0.355	15.07	2580	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	459602	0.47	608971	75.47	60	120	
Sc (IS)	45	1	HMI H2	20072781	0.49	24673136	81.35	60	120	
Sc (IS)	45	2	HMI He	236548	0.33	281864	83.92	60	120	
Sc (IS)	45	3	No Gas	57660904	0.55	78056314	73.87	60	120	
Ge Internal Standard	72	1	HMI H2	10488847	0.19	12619474	83.12	60	120	
Ge Internal Standard	72	2	HMI He	366392	0.33	434818	84.26	60	120	
In Internal Standard	115	2	HMI He	871907	0.67	1007281	86.56	60	120	
Ho-165	165	2	HMI He	7158278	0.44	8283065	86.42	60	120	

Sample Table

Sample Name	280-104412-A-48-E@50
Data File Name	109SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:16:08-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-28.705	ppb	-28.705	-23.58	60987	500000	
Li	7	2	45	-2.563	ppb	-2.563	-837.52	3721	500000	
Li	7	3	45	-34.373	ppb	-34.373	-3.24	3142786	50000	
Be	9	1	6	0.328	ppb	0.328	19.52	50	2000	
B	11	1	6	-297.461	ppb	-297.461	-0.42	4948	2000	
Na	23	1	45	235.410	ppb	235.410	1.94	636858	2000	
Na	23	2	45	289.178	ppb	289.178	0.89	29201	400000	
Mg	24	2	45	4232.204	ppb	4232.204	1.81	136193	400000	
Al	27	2	45	2109.955	ppb	2109.955	5.81	12705	400000	
K	39	1	45	583.563	ppb	583.563	4.87	5652186	400000	
K	39	2	45	638.976	ppb	638.976	10.31	9693	400000	
Ca	40	1	45	53483.629	ppb	53483.629	2.04	171438711	400000	
Ca	44	2	45	51774.906	ppb	51774.906	1.96	36268	400000	
Ti	47	2	45	12397.447	ppb	12397.447	26.33	350	4000	
V	51	2	72	3.779	ppb	3.779	0.70	1950	2000	
Cr	52	2	72	8.273	ppb	8.273	3.39	4874	5000	
Mn	55	2	72	56.490	ppb	56.490	3.07	8773	10000	
Fe	57	2	72	2158.870	ppb	2158.870	4.32	22772	400000	
Co	59	2	72	0.969	ppb	0.969	6.71	1260	2000	
Ni	60	2	72	2.817	ppb	2.817	17.43	1117	5000	
Cu	63	2	72	123.312	ppb	123.312	1.17	143087	5000	
Zn	66	2	72	24.534	ppb	24.534	6.59	2410	5000	
As	75	2	72	1.368	ppb	1.368	15.18	84	2000	
Se	78	1	72	0.332	ppb	0.332	20.78	107	2000	
Sr	88	2	72	132.208	ppb	132.208	3.47	16942	4000	
Zr	90	2	72	265.556	ppb	265.556	11.01	1010	1000	
Nb	93	2	72	-1.249	ppb	-1.249	-1.16	277	200	
Mo	95	2	115	0.475	ppb	0.475	45.13	257	2000	
Pd	105	2	115	-0.087	ppb	-0.087	-14.74	13	100	
Ag	107	2	115	0.028	ppb	0.028	87.15	90	100	
Cd	111	2	115	0.212	ppb	0.212	45.14	33	2000	
Sn	120	2	115	0.316	ppb	0.316	29.68	220	2000	
Sb	121	2	115	1.088	ppb	1.088	18.85	357	1000	
Ba	137	2	115	26.717	ppb	26.717	10.22	2374	5000	
W	182	2	165	-0.015	ppb	-0.015	-137.58	207	100	
Pt	195	2	165	0.002	ppb	0.002	576.75	217	100	
Tl	205	2	165	0.033	ppb	0.033	15.02	233	2000	
Pb	208	2	165	2076.907	ppb	2076.907	0.76	11239286	5000	
Th	232	2	165	0.878	ppb	0.878	2.15	6372	2000	
U	238	2	165	0.358	ppb	0.358	4.32	2597	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	461828	0.69	608971	75.84	60	120	
Sc (IS)	45	1	HMI H2	20179107	1.32	24673136	81.79	60	120	
Sc (IS)	45	2	HMI He	236728	2.07	281864	83.99	60	120	
Sc (IS)	45	3	No Gas	57871549	1.08	78056314	74.14	60	120	
Ge Internal Standard	72	1	HMI H2	10526559	1.25	12619474	83.42	60	120	
Ge Internal Standard	72	2	HMI He	368408	0.21	434818	84.73	60	120	
In Internal Standard	115	2	HMI He	870510	1.06	1007281	86.42	60	120	
Ho-165	165	2	HMI He	7138820	0.30	8283065	86.19	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-49-E@50
Data File Name	110SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:19:55-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-30.415	ppb	-30.415	-17.78	60706	500000	
Li	7	2	45	-1.704	ppb	-1.704	-497.32	3747	500000	
Li	7	3	45	-37.247	ppb	-37.247	-17.94	3090604	50000	
Be	9	1	6	0.177	ppb	0.177	56.78	27	2000	
B	11	1	6	-296.512	ppb	-296.512	-0.18	5031	2000	
Na	23	1	45	220.107	ppb	220.107	1.77	607359	2000	
Na	23	2	45	260.521	ppb	260.521	6.63	27207	400000	
Mg	24	2	45	3662.974	ppb	3662.974	5.35	118457	400000	
Al	27	2	45	1821.813	ppb	1821.813	5.94	11017	400000	
K	39	1	45	521.624	ppb	521.624	2.87	5531849	400000	
K	39	2	45	540.432	ppb	540.432	11.86	8669	400000	
Ca	40	1	45	55123.096	ppb	55123.096	0.94	176772857	400000	
Ca	44	2	45	52097.234	ppb	52097.234	5.05	36625	400000	
Ti	47	2	45	7359.091	ppb	7359.091	16.51	210	4000	
V	51	2	72	3.345	ppb	3.345	16.13	1767	2000	
Cr	52	2	72	6.552	ppb	6.552	6.71	3877	5000	
Mn	55	2	72	48.607	ppb	48.607	4.86	7549	10000	
Fe	57	2	72	1790.330	ppb	1790.330	4.21	18861	400000	
Co	59	2	72	0.722	ppb	0.722	16.11	943	2000	
Ni	60	2	72	2.395	ppb	2.395	11.48	953	5000	
Cu	63	2	72	202.526	ppb	202.526	4.22	233773	5000	
Zn	66	2	72	33.032	ppb	33.032	9.10	3210	5000	
As	75	2	72	0.873	ppb	0.873	23.66	56	2000	
Se	78	1	72	0.203	ppb	0.203	44.65	75	2000	
Sr	88	2	72	133.618	ppb	133.618	5.83	17096	4000	
Zr	90	2	72	253.057	ppb	253.057	4.74	963	1000	
Nb	93	2	72	-1.320	ppb	-1.320	-2.02	153	200	
Mo	95	2	115	0.464	ppb	0.464	9.47	253	2000	
Pd	105	2	115	-0.090	ppb	-0.090	-21.27	10	100	
Ag	107	2	115	0.063	ppb	0.063	10.91	157	100	
Cd	111	2	115	0.192	ppb	0.192	58.69	30	2000	
Sn	120	2	115	0.263	ppb	0.263	91.86	200	2000	
Sb	121	2	115	2.272	ppb	2.272	3.46	703	1000	
Ba	137	2	115	23.226	ppb	23.226	13.07	2074	5000	
W	182	2	165	-0.019	ppb	-0.019	-34.99	193	100	
Pt	195	2	165	0.018	ppb	0.018	48.44	273	100	
Tl	205	2	165	0.022	ppb	0.022	28.20	187	2000	
Pb	208	2	165	2782.721	ppb	2782.721	4.25	15069411	5000	
Th	232	2	165	0.710	ppb	0.710	5.45	5358	2000	
U	238	2	165	0.373	ppb	0.373	16.78	2700	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	455366	0.78	608971	74.78	60	120	
Sc (IS)	45	1	HMI H2	20185293	0.29	24673136	81.81	60	120	
Sc (IS)	45	2	HMI He	237782	2.92	281864	84.36	60	120	
Sc (IS)	45	3	No Gas	57424842	1.44	78056314	73.57	60	120	
Ge Internal Standard	72	1	HMI H2	10549850	0.81	12619474	83.60	60	120	
Ge Internal Standard	72	2	HMI He	368011	1.39	434818	84.64	60	120	
In Internal Standard	115	2	HMI He	873440	1.65	1007281	86.71	60	120	
Ho-165	165	2	HMI He	7147084	1.68	8283065	86.29	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	111_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:23:43-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	440.298	ppb	0.452	144088	500	88.1	90	110	>+\-10%
Li	7	2	45	401.083	ppb	1.817	8159	500	80.2	90	110	>+\-10%
Li	7	3	45	430.445	ppb	1.055	7431624	500	86.1	90	110	>+\-10%
Be	9	1	6	51.894	ppb	3.858	7629	50	103.8	90	110	
B	11	1	6	-257.129	ppb	-0.435	11120	50	-514.3	90	110	>+\-10%
Na	23	1	45	5104.308	ppb	0.981	9945138	5000	102.1	90	110	
Na	23	2	45	5014.729	ppb	1.336	370884	5000	100.3	90	110	
Mg	24	2	45	4944.622	ppb	0.963	157727	5000	98.9	90	110	
Al	27	2	45	4987.239	ppb	1.328	29795	5000	99.7	90	110	
K	39	1	45	5332.120	ppb	2.694	14815529	5000	106.6	90	110	
K	39	2	45	5135.778	ppb	1.683	57893	5000	102.7	90	110	
Ca	40	1	45	5132.360	ppb	0.559	16265940	5000	102.6	90	110	
Ca	44	2	45	4893.224	ppb	8.241	3432	5000	97.9	90	110	
Ti	47	2	45	238.003	ppb	173.205	7	50	476.0	90	110	>+\-10%
V	51	2	72	47.726	ppb	0.876	20215	50	95.5	90	110	
Cr	52	2	72	48.022	ppb	1.179	27362	50	96.0	90	110	
Mn	55	2	72	50.455	ppb	2.291	7722	50	100.9	90	110	
Fe	57	2	72	4832.582	ppb	1.065	50155	5000	96.7	90	110	
Co	59	2	72	48.024	ppb	0.396	60544	50	96.0	90	110	
Ni	60	2	72	48.443	ppb	1.694	18317	50	96.9	90	110	
Cu	63	2	72	47.998	ppb	2.265	55685	50	96.0	90	110	
Zn	66	2	72	50.310	ppb	1.674	4781	50	100.6	90	110	
As	75	2	72	50.434	ppb	4.523	2885	50	100.9	90	110	
Se	78	1	72	48.953	ppb	3.237	11982	50	97.9	90	110	
Sr	88	2	72	51.083	ppb	7.939	6455	50	102.2	90	110	
Zr	90	2	72	82.743	ppb	13.894	337	50	165.5	90	110	>+\-10%
Nb	93	2	72	94.574	ppb	0.510	163698	100	94.6	90	110	
Mo	95	2	115	48.485	ppb	3.218	22893	50	97.0	90	110	
Pd	105	2	115	49.255	ppb	0.613	43847	50	98.5	90	110	
Ag	107	2	115	48.106	ppb	1.210	89141	50	96.2	90	110	
Cd	111	2	115	49.630	ppb	5.423	7619	50	99.3	90	110	
Sn	120	2	115	49.138	ppb	1.738	17790	50	98.3	90	110	
Sb	121	2	115	53.027	ppb	2.719	15151	50	106.1	90	110	
Ba	137	2	115	49.259	ppb	7.686	4291	50	98.5	90	110	
W	182	2	165	48.745	ppb	0.879	157755	50	97.5	90	110	
Pt	195	2	165	47.309	ppb	1.526	162067	50	94.6	90	110	
Tl	205	2	165	49.114	ppb	0.713	208858	50	98.2	90	110	
Pb	208	2	165	49.515	ppb	0.680	269277	50	99.0	90	110	
Th	232	2	165	49.743	ppb	0.815	302321	50	99.5	90	110	
U	238	2	165	50.552	ppb	0.577	357121	50	101.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	445685	0.45	608971	73.19	60	120	
Sc (IS)	45	1	HMI H2	19874899	1.17	24673136	80.55	60	120	
Sc (IS)	45	2	HMI He	234886	0.98	281864	83.33	60	120	
Sc (IS)	45	3	No Gas	56548834	0.84	78056314	72.45	60	120	
Ge Internal Standard	72	1	HMI H2	10405057	0.32	12619474	82.45	60	120	
Ge Internal Standard	72	2	HMI He	362737	0.85	434818	83.42	60	120	
In Internal Standard	115	2	HMI He	852847	1.10	1007281	84.67	60	120	
Ho-165	165	2	HMI He	7149020	1.16	8283065	86.31	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	112_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:27:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-34.658	ppb	-9.8	3145087	10	
Be	9	1	6	0.022	ppb	173.2	3	0.5	
B	11	1	6	-300.558	ppb	-0.8	4411	0.5	
Na	23	1	45	174.564	ppb	1.9	514300	25	>RL
Na	23	2	45	221.947	ppb	5.6	23943	25	>RL
Mg	24	2	45	39.301	ppb	11.4	2284	25	>RL
Al	27	2	45	-1.645	ppb	-59.8	7	15	
K	39	1	45	91.959	ppb	5.7	4640762	50	>RL
K	39	2	45	74.771	ppb	26.5	3544	50	>RL
Ca	40	1	45	28.349	ppb	2.5	156869	50	
Ca	44	2	45	-19.058	ppb	-74.0	20	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.185	ppb	-39.6	273	1	
Cr	52	2	72	-0.077	ppb	-96.6	60	1	
Mn	55	2	72	-0.148	ppb	-109.6	57	0.5	
Fe	57	2	72	3.294	ppb	58.4	60	25	
Co	59	2	72	0.000	ppb	17286.4	20	0.5	
Ni	60	2	72	0.044	ppb	172.3	53	1	
Cu	63	2	72	0.025	ppb	320.8	1423	1	
Zn	66	2	72	0.475	ppb	43.9	127	5	
As	75	2	72	0.038	ppb	220.4	7	1	
Se	78	1	72	0.240	ppb	46.8	84	1	
Sr	88	2	72	-0.050	ppb	-180.0	13	0.5	
Zr	90	2	72	6.575	ppb	21.9	63	1	>RL
Nb	93	2	72	0.155	ppb	32.1	2700	2	
Mo	95	2	115	0.079	ppb	92.6	67	0.5	
Pd	105	2	115	-0.072	ppb	-47.1	27	1	
Ag	107	2	115	-0.002	ppb	-776.8	33	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.017	ppb	775.1	110	1	
Sb	121	2	115	0.113	ppb	119.6	73	0.6	
Ba	137	2	115	0.037	ppb	173.2	3	0.5	
W	182	2	165	-0.011	ppb	-90.3	220	1	
Pt	195	2	165	0.004	ppb	603.1	223	1	
Tl	205	2	165	0.004	ppb	347.6	110	0.1	
Pb	208	2	165	0.454	ppb	5.8	3424	0.5	
Th	232	2	165	0.155	ppb	9.9	2007	1	
U	238	2	165	0.012	ppb	83.4	153	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	458504	0.25	608971	75.29	60	120	
Sc (IS)	45	1	HMI H2	20008516	0.41	24673136	81.09	60	120	
Sc (IS)	45	2	HMI He	233397	2.12	281864	82.80	60	120	
Sc (IS)	45	3	No Gas	57968357	1.05	78056314	74.26	60	120	
Ge Internal Standard	72	1	HMI H2	10565178	0.45	12619474	83.72	60	120	
Ge Internal Standard	72	2	HMI He	367239	0.82	434818	84.46	60	120	
In Internal Standard	115	2	HMI He	868485	1.45	1007281	86.22	60	120	
Ho-165	165	2	HMI He	7164326	1.22	8283065	86.49	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	113LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:31:19-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-30.478	ppb	-7.702	3142733	50	-61.0	70	130	>+/-30%
Be	9	1	6	0.997	ppb	17.871	150	1	99.7	70	130	
Na	23	2	45	254.575	ppb	3.169	26500	50	509.2	70	130	>+/-30%
Mg	24	2	45	99.724	ppb	9.739	4217	50	199.4	70	130	>+/-30%
Al	27	2	45	35.678	ppb	25.923	230	30	118.9	70	130	
K	39	2	45	162.734	ppb	15.351	4517	100	162.7	70	130	>+/-30%
Ca	44	2	45	57.612	ppb	101.762	73	50	115.2	70	130	
V	51	2	72	4.505	ppb	9.376	2254	5	90.1	70	130	
Cr	52	2	72	1.961	ppb	3.269	1233	2	98.1	70	130	
Mn	55	2	72	0.828	ppb	42.721	207	1	82.8	70	130	
Fe	57	2	72	55.896	ppb	20.617	613	50	111.8	70	130	
Co	59	2	72	0.962	ppb	15.696	1250	1	96.2	70	130	
Ni	60	2	72	1.803	ppb	9.245	727	2	90.1	70	130	
Cu	63	2	72	2.291	ppb	5.687	4027	2	114.6	70	130	
Zn	66	2	72	12.827	ppb	9.828	1297	10	128.3	70	130	
As	75	2	72	4.995	ppb	11.728	294	5	99.9	70	130	
Se	78	1	72	4.798	ppb	6.378	1209	5	96.0	70	130	
Sr	88	2	72	0.860	ppb	55.767	130	1	86.0	70	130	
Zr	90	2	72	35.666	ppb	72.679	170	0.5	7133.3	70	130	>+/-30%
Nb	93	2	72	0.134	ppb	146.055	2667	2	6.7	70	130	>+/-30%
Mo	95	2	115	2.103	ppb	17.627	1043	2	105.1	70	130	
Pd	105	2	115	-0.087	ppb	-14.741	13	1	-8.7	70	130	>+/-30%
Ag	107	2	115	4.718	ppb	4.565	8973	5	94.4	70	130	
Cd	111	2	115	1.084	ppb	25.728	170	1	108.4	70	130	
Sn	120	2	115	9.179	ppb	9.341	3481	10	91.8	70	130	
Sb	121	2	115	2.343	ppb	9.387	723	2	117.2	70	130	
Ba	137	2	115	0.825	ppb	44.034	73	1	82.5	70	130	
W	182	2	165	4.852	ppb	2.418	15878	1	485.2	70	130	>+/-30%
Pt	195	2	165	0.044	ppb	31.509	360	1	4.4	70	130	>+/-30%
Tl	205	2	165	1.041	ppb	0.867	4501	1	104.1	70	130	
Pb	208	2	165	1.188	ppb	3.727	7371	1	118.8	70	130	
Th	232	2	165	2.101	ppb	3.846	13737	2	105.0	70	130	
U	238	2	165	1.040	ppb	6.228	7385	1	104.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	456410	0.50	608971	74.95	60	120	
Sc (IS)	45	1	HMI H2	20067200	0.37	24673136	81.33	60	120	
Sc (IS)	45	2	HMI He	235167	0.83	281864	83.43	60	120	
Sc (IS)	45	3	No Gas	57189452	0.54	78056314	73.27	60	120	
Ge Internal Standard	72	1	HMI H2	10523121	0.77	12619474	83.39	60	120	
Ge Internal Standard	72	2	HMI He	367923	0.95	434818	84.62	60	120	
In Internal Standard	115	2	HMI He	871742	0.88	1007281	86.54	60	120	
Ho-165	165	2	HMI He	7124959	1.71	8283065	86.02	60	120	

Sample Table

Sample Name	280-104412-A-50-E@50
Data File Name	114SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:35:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-37.441	ppb	-37.441	-14.52	58820	500000	
Li	7	2	45	-4.546	ppb	-4.546	-985.90	3681	500000	
Li	7	3	45	-41.976	ppb	-41.976	-12.91	3057326	50000	
Be	9	1	6	0.292	ppb	0.292	74.33	43	2000	
B	11	1	6	-300.204	ppb	-300.204	-0.72	4387	2000	
Na	23	1	45	188.725	ppb	188.725	0.68	540806	2000	
Na	23	2	45	217.251	ppb	217.251	1.43	23849	400000	
Mg	24	2	45	3772.282	ppb	3772.282	2.62	120990	400000	
Al	27	2	45	1848.326	ppb	1848.326	4.01	11090	400000	
K	39	1	45	533.997	ppb	533.997	5.29	5499844	400000	
K	39	2	45	556.442	ppb	556.442	2.77	8769	400000	
Ca	40	1	45	57857.413	ppb	57857.413	0.24	183652924	400000	
Ca	44	2	45	55402.662	ppb	55402.662	1.20	38646	400000	
Ti	47	2	45	13564.032	ppb	13564.032	25.84	383	4000	
V	51	2	72	3.544	ppb	3.544	13.09	1840	2000	
Cr	52	2	72	9.035	ppb	9.035	2.02	5284	5000	
Mn	55	2	72	51.896	ppb	51.896	3.89	8022	10000	
Fe	57	2	72	1879.564	ppb	1879.564	2.03	19722	400000	
Co	59	2	72	0.754	ppb	0.754	9.75	980	2000	
Ni	60	2	72	2.897	ppb	2.897	16.39	1140	5000	
Cu	63	2	72	426.740	ppb	426.740	1.14	489108	5000	
Zn	66	2	72	60.965	ppb	60.965	6.55	5835	5000	
As	75	2	72	1.014	ppb	1.014	11.25	63	2000	
Se	78	1	72	0.251	ppb	0.251	37.64	85	2000	
Sr	88	2	72	139.457	ppb	139.457	0.65	17776	4000	
Zr	90	2	72	228.769	ppb	228.769	18.82	870	1000	
Nb	93	2	72	-1.080	ppb	-1.080	-5.89	567	200	
Mo	95	2	115	0.462	ppb	0.462	23.46	250	2000	
Pd	105	2	115	-0.090	ppb	-0.090	-12.37	10	100	
Ag	107	2	115	0.095	ppb	0.095	45.71	217	100	
Cd	111	2	115	0.213	ppb	0.213	68.21	33	2000	
Sn	120	2	115	0.400	ppb	0.400	59.39	250	2000	
Sb	121	2	115	2.785	ppb	2.785	7.25	847	1000	
Ba	137	2	115	21.591	ppb	21.591	4.77	1910	5000	
W	182	2	165	0.007	ppb	0.007	168.72	277	100	
Pt	195	2	165	0.005	ppb	0.005	506.28	227	100	
Tl	205	2	165	0.037	ppb	0.037	21.69	250	2000	
Pb	208	2	165	3165.793	ppb	3165.793	1.34	17053171	5000	
Th	232	2	165	0.826	ppb	0.826	2.99	6028	2000	
U	238	2	165	0.377	ppb	0.377	10.99	2724	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	450178	0.63	608971	73.92	60	120	
Sc (IS)	45	1	HMI H2	19979912	0.54	24673136	80.98	60	120	
Sc (IS)	45	2	HMI He	235714	1.25	281864	83.63	60	120	
Sc (IS)	45	3	No Gas	57639192	0.44	78056314	73.84	60	120	
Ge Internal Standard	72	1	HMI H2	10387774	0.90	12619474	82.32	60	120	
Ge Internal Standard	72	2	HMI He	366468	1.00	434818	84.28	60	120	
In Internal Standard	115	2	HMI He	866936	1.04	1007281	86.07	60	120	
Ho-165	165	2	HMI He	7107002	1.09	8283065	85.80	60	120	

Sample Table

Sample Name	280-104412-A-51-E@50
Data File Name	115SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:38:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-40.984	ppb	-40.984	-10.62	58319	500000	
Li	7	2	45	-13.786	ppb	-13.786	-388.29	3627	500000	
Li	7	3	45	-40.777	ppb	-40.777	-6.49	3039041	50000	
Be	9	1	6	0.134	ppb	0.134	1.25	20	2000	
B	11	1	6	-300.323	ppb	-300.323	-0.75	4374	2000	
Na	23	1	45	189.981	ppb	189.981	1.04	544486	2000	
Na	23	2	45	203.162	ppb	203.162	7.68	23179	400000	
Mg	24	2	45	4265.582	ppb	4265.582	4.30	138807	400000	
Al	27	2	45	2041.606	ppb	2041.606	5.15	12438	400000	
K	39	1	45	577.874	ppb	577.874	2.07	5598615	400000	
K	39	2	45	576.343	ppb	576.343	9.97	9123	400000	
Ca	40	1	45	66910.101	ppb	66910.101	0.59	212868797	400000	
Ca	44	2	45	61776.038	ppb	61776.038	3.01	43764	400000	
Ti	47	2	45	11086.644	ppb	11086.644	18.87	317	4000	
V	51	2	72	4.272	ppb	4.272	0.74	2170	2000	
Cr	52	2	72	7.122	ppb	7.122	5.47	4231	5000	
Mn	55	2	72	61.243	ppb	61.243	2.60	9553	10000	
Fe	57	2	72	2013.696	ppb	2013.696	1.12	21354	400000	
Co	59	2	72	0.829	ppb	0.829	5.08	1087	2000	
Ni	60	2	72	2.749	ppb	2.749	4.67	1097	5000	
Cu	63	2	72	498.758	ppb	498.758	2.60	577402	5000	
Zn	66	2	72	68.410	ppb	68.410	3.92	6611	5000	
As	75	2	72	1.318	ppb	1.318	16.37	82	2000	
Se	78	1	72	0.167	ppb	0.167	74.30	65	2000	
Sr	88	2	72	159.533	ppb	159.533	2.47	20546	4000	
Zr	90	2	72	296.716	ppb	296.716	5.73	1130	1000	
Nb	93	2	72	-1.191	ppb	-1.191	-4.78	380	200	
Mo	95	2	115	0.520	ppb	0.520	39.76	280	2000	
Pd	105	2	115	-0.068	ppb	-0.068	-70.20	30	100	
Ag	107	2	115	0.112	ppb	0.112	39.41	250	100	
Cd	111	2	115	0.314	ppb	0.314	50.43	50	2000	
Sn	120	2	115	0.369	ppb	0.369	67.74	240	2000	
Sb	121	2	115	4.272	ppb	4.272	9.21	1293	1000	
Ba	137	2	115	26.245	ppb	26.245	7.61	2350	5000	
W	182	2	165	-0.019	ppb	-0.019	-36.86	197	100	
Pt	195	2	165	-0.002	ppb	-0.002	-1197.46	207	100	
Tl	205	2	165	0.035	ppb	0.035	34.35	243	2000	
Pb	208	2	165	4135.659	ppb	4135.659	2.77	22602072	5000	
Th	232	2	165	0.848	ppb	0.848	7.15	6252	2000	
U	238	2	165	0.415	ppb	0.415	10.35	3024	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	451146	1.26	608971	74.08	60	120	
Sc (IS)	45	1	HMI H2	20026023	0.10	24673136	81.17	60	120	
Sc (IS)	45	2	HMI He	239573	3.30	281864	85.00	60	120	
Sc (IS)	45	3	No Gas	57077787	0.49	78056314	73.12	60	120	
Ge Internal Standard	72	1	HMI H2	10485055	0.90	12619474	83.09	60	120	
Ge Internal Standard	72	2	HMI He	370383	1.52	434818	85.18	60	120	
In Internal Standard	115	2	HMI He	877484	2.37	1007281	87.11	60	120	
Ho-165	165	2	HMI He	7213018	2.32	8283065	87.08	60	120	

Sample Table

Sample Name	280-104412-A-69-E@50
Data File Name	116SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:42:42-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-32.026	ppb	-32.026	-28.07	59345	500000	
Li	7	2	45	-29.670	ppb	-29.670	-106.00	3350	500000	
Li	7	3	45	-38.942	ppb	-38.942	-6.07	3048772	50000	
Be	9	1	6	0.158	ppb	0.158	107.78	23	2000	
B	11	1	6	-300.561	ppb	-300.561	-0.84	4287	2000	
Na	23	1	45	183.828	ppb	183.828	0.75	527384	2000	
Na	23	2	45	212.016	ppb	212.016	4.41	23115	400000	
Mg	24	2	45	7774.115	ppb	7774.115	2.20	244486	400000	
Al	27	2	45	2909.764	ppb	2909.764	1.15	17192	400000	
K	39	1	45	776.413	ppb	776.413	1.68	5929423	400000	
K	39	2	45	777.172	ppb	777.172	4.38	10977	400000	
Ca	40	1	45	36645.503	ppb	36645.503	0.24	115467368	400000	
Ca	44	2	45	34499.459	ppb	34499.459	3.57	23710	400000	
Ti	47	2	45	17873.692	ppb	17873.692	18.13	497	4000	
V	51	2	72	4.666	ppb	4.666	9.80	2280	2000	
Cr	52	2	72	8.276	ppb	8.276	2.70	4781	5000	
Mn	55	2	72	78.298	ppb	78.298	1.72	11891	10000	
Fe	57	2	72	2756.845	ppb	2756.845	1.80	28507	400000	
Co	59	2	72	1.134	ppb	1.134	11.35	1443	2000	
Ni	60	2	72	3.160	ppb	3.160	10.16	1223	5000	
Cu	63	2	72	3.018	ppb	3.018	8.68	4771	5000	
Zn	66	2	72	14.799	ppb	14.799	13.01	1457	5000	
As	75	2	72	1.076	ppb	1.076	28.54	66	2000	
Se	78	1	72	0.186	ppb	0.186	40.67	69	2000	
Sr	88	2	72	63.725	ppb	63.725	8.81	8016	4000	
Zr	90	2	72	357.568	ppb	357.568	3.33	1320	1000	
Nb	93	2	72	-1.230	ppb	-1.230	-5.56	303	200	
Mo	95	2	115	0.277	ppb	0.277	14.96	160	2000	
Pd	105	2	115	-0.090	ppb	-0.090	-21.46	10	100	
Ag	107	2	115	-0.002	ppb	-0.002	-161.08	33	100	
Cd	111	2	115	0.194	ppb	0.194	57.78	30	2000	
Sn	120	2	115	-0.015	ppb	-0.015	-278.81	97	2000	
Sb	121	2	115	-0.012	ppb	-0.012	-1403.80	37	1000	
Ba	137	2	115	26.990	ppb	26.990	3.53	2367	5000	
W	182	2	165	-0.017	ppb	-0.017	-144.01	200	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1643.66	207	100	
Tl	205	2	165	0.046	ppb	0.046	60.20	290	2000	
Pb	208	2	165	5.630	ppb	5.630	0.50	31490	5000	
Th	232	2	165	1.198	ppb	1.198	4.73	8323	2000	
U	238	2	165	0.285	ppb	0.285	19.05	2084	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	445800	0.26	608971	73.21	60	120	
Sc (IS)	45	1	HMI H2	19829133	0.47	24673136	80.37	60	120	
Sc (IS)	45	2	HMI He	232163	1.16	281864	82.37	60	120	
Sc (IS)	45	3	No Gas	56935516	0.99	78056314	72.94	60	120	
Ge Internal Standard	72	1	HMI H2	10389569	0.67	12619474	82.33	60	120	
Ge Internal Standard	72	2	HMI He	361235	0.59	434818	83.08	60	120	
In Internal Standard	115	2	HMI He	859091	0.57	1007281	85.29	60	120	
Ho-165	165	2	HMI He	7155052	0.46	8283065	86.38	60	120	

Sample Table

Sample Name	280-104412-A-70-E@50
Data File Name	117SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:46:30-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-31.721	ppb	-31.721	-15.81	59368	500000	
Li	7	2	45	-34.676	ppb	-34.676	-103.03	3327	500000	
Li	7	3	45	-38.956	ppb	-38.956	-1.73	3020850	50000	
Be	9	1	6	0.113	ppb	0.113	91.44	17	2000	
B	11	1	6	-301.950	ppb	-301.950	-0.22	4071	2000	
Na	23	1	45	167.202	ppb	167.202	1.90	495349	2000	
Na	23	2	45	191.949	ppb	191.949	7.83	21880	400000	
Mg	24	2	45	4315.233	ppb	4315.233	0.93	137467	400000	
Al	27	2	45	2207.787	ppb	2207.787	2.57	13169	400000	
K	39	1	45	621.098	ppb	621.098	4.85	5624344	400000	
K	39	2	45	610.958	ppb	610.958	5.78	9303	400000	
Ca	40	1	45	59044.719	ppb	59044.719	0.85	185902651	400000	
Ca	44	2	45	54754.793	ppb	54754.793	2.32	37968	400000	
Ti	47	2	45	11161.949	ppb	11161.949	15.53	313	4000	
V	51	2	72	4.167	ppb	4.167	12.26	2087	2000	
Cr	52	2	72	8.584	ppb	8.584	11.68	4988	5000	
Mn	55	2	72	58.150	ppb	58.150	5.06	8913	10000	
Fe	57	2	72	2138.005	ppb	2138.005	4.93	22271	400000	
Co	59	2	72	0.978	ppb	0.978	20.34	1257	2000	
Ni	60	2	72	3.190	ppb	3.190	5.56	1243	5000	
Cu	63	2	72	236.958	ppb	236.958	0.20	270219	5000	
Zn	66	2	72	42.968	ppb	42.968	5.30	4107	5000	
As	75	2	72	1.318	ppb	1.318	13.16	80	2000	
Se	78	1	72	0.211	ppb	0.211	55.47	76	2000	
Sr	88	2	72	142.035	ppb	142.035	2.94	17970	4000	
Zr	90	2	72	288.660	ppb	288.660	20.74	1080	1000	
Nb	93	2	72	-1.193	ppb	-1.193	-1.40	370	200	
Mo	95	2	115	0.467	ppb	0.467	13.65	253	2000	
Pd	105	2	115	-0.076	ppb	-0.076	-46.30	23	100	
Ag	107	2	115	0.088	ppb	0.088	58.75	203	100	
Cd	111	2	115	0.361	ppb	0.361	49.99	57	2000	
Sn	120	2	115	0.766	ppb	0.766	44.28	383	2000	
Sb	121	2	115	2.650	ppb	2.650	9.76	810	1000	
Ba	137	2	115	27.453	ppb	27.453	3.96	2437	5000	
W	182	2	165	-0.004	ppb	-0.004	-658.56	243	100	
Pt	195	2	165	-0.011	ppb	-0.011	-147.09	173	100	
Tl	205	2	165	0.027	ppb	0.027	87.45	207	2000	
Pb	208	2	165	2041.223	ppb	2041.223	0.49	11042777	5000	
Th	232	2	165	0.840	ppb	0.840	3.82	6142	2000	
U	238	2	165	0.379	ppb	0.379	5.10	2747	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	446040	1.08	608971	73.24	60	120	
Sc (IS)	45	1	HMI H2	19818577	0.59	24673136	80.32	60	120	
Sc (IS)	45	2	HMI He	234339	0.84	281864	83.14	60	120	
Sc (IS)	45	3	No Gas	56416477	1.03	78056314	72.28	60	120	
Ge Internal Standard	72	1	HMI H2	10447083	0.28	12619474	82.79	60	120	
Ge Internal Standard	72	2	HMI He	363771	0.51	434818	83.66	60	120	
In Internal Standard	115	2	HMI He	869293	1.32	1007281	86.30	60	120	
Ho-165	165	2	HMI He	7136511	0.94	8283065	86.16	60	120	

Sample Table

Sample Name	280-104412-A-71-E@50
Data File Name	118SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:50:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-40.255	ppb	-40.255	-16.55	57984	500000	
Li	7	2	45	-44.698	ppb	-44.698	-26.93	3204	500000	
Li	7	3	45	-39.804	ppb	-39.804	-3.03	3021810	50000	
Be	9	1	6	0.068	ppb	0.068	100.02	10	2000	
B	11	1	6	-301.537	ppb	-301.537	-0.20	4121	2000	
Na	23	1	45	157.596	ppb	157.596	1.30	478126	2000	
Na	23	2	45	189.107	ppb	189.107	1.44	21580	400000	
Mg	24	2	45	4082.023	ppb	4082.023	1.66	129493	400000	
Al	27	2	45	1991.251	ppb	1991.251	4.22	11824	400000	
K	39	1	45	590.105	ppb	590.105	1.94	5577137	400000	
K	39	2	45	536.858	ppb	536.858	7.98	8469	400000	
Ca	40	1	45	56169.033	ppb	56169.033	1.78	177248057	400000	
Ca	44	2	45	52399.348	ppb	52399.348	3.25	36171	400000	
Ti	47	2	45	12055.900	ppb	12055.900	17.20	337	4000	
V	51	2	72	3.727	ppb	3.727	10.61	1907	2000	
Cr	52	2	72	7.460	ppb	7.460	2.93	4357	5000	
Mn	55	2	72	56.504	ppb	56.504	9.22	8676	10000	
Fe	57	2	72	2027.145	ppb	2027.145	0.96	21153	400000	
Co	59	2	72	0.877	ppb	0.877	3.40	1130	2000	
Ni	60	2	72	3.203	ppb	3.203	7.52	1250	5000	
Cu	63	2	72	469.111	ppb	469.111	1.11	534540	5000	
Zn	66	2	72	69.363	ppb	69.363	2.18	6592	5000	
As	75	2	72	1.191	ppb	1.191	14.94	73	2000	
Se	78	1	72	0.169	ppb	0.169	87.28	65	2000	
Sr	88	2	72	132.971	ppb	132.971	0.76	16856	4000	
Zr	90	2	72	262.153	ppb	262.153	2.61	987	1000	
Nb	93	2	72	-1.236	ppb	-1.236	-4.49	297	200	
Mo	95	2	115	0.338	ppb	0.338	50.04	193	2000	
Pd	105	2	115	-0.087	ppb	-0.087	-19.22	13	100	
Ag	107	2	115	0.052	ppb	0.052	46.75	137	100	
Cd	111	2	115	0.297	ppb	0.297	101.87	47	2000	
Sn	120	2	115	0.437	ppb	0.437	36.74	267	2000	
Sb	121	2	115	1.648	ppb	1.648	35.41	523	1000	
Ba	137	2	115	27.079	ppb	27.079	3.94	2427	5000	
W	182	2	165	-0.020	ppb	-0.020	-166.62	190	100	
Pt	195	2	165	0.013	ppb	0.013	201.50	253	100	
Tl	205	2	165	0.033	ppb	0.033	62.94	230	2000	
Pb	208	2	165	1749.191	ppb	1749.191	1.17	9431307	5000	
Th	232	2	165	0.810	ppb	0.810	4.56	5938	2000	
U	238	2	165	0.333	ppb	0.333	8.49	2410	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	444386	0.03	608971	72.97	60	120	
Sc (IS)	45	1	HMI H2	19864487	0.89	24673136	80.51	60	120	
Sc (IS)	45	2	HMI He	233251	0.23	281864	82.75	60	120	
Sc (IS)	45	3	No Gas	56582427	1.02	78056314	72.49	60	120	
Ge Internal Standard	72	1	HMI H2	10394756	0.29	12619474	82.37	60	120	
Ge Internal Standard	72	2	HMI He	364420	0.96	434818	83.81	60	120	
In Internal Standard	115	2	HMI He	878172	0.92	1007281	87.18	60	120	
Ho-165	165	2	HMI He	7112910	0.79	8283065	85.87	60	120	

Sample Table

Sample Name	280-104412-A-72-E@50
Data File Name	119SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:54:06-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	009CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-40.984	ppb	-40.984	-9.85	57262	500000	
Li	7	2	45	-21.087	ppb	-21.087	-119.01	3490	500000	
Li	7	3	45	-36.931	ppb	-36.931	-15.78	3068225	50000	
Be	9	1	6	0.138	ppb	0.138	0.24	20	2000	
B	11	1	6	-302.667	ppb	-302.667	-0.66	3907	2000	
Na	23	1	45	160.893	ppb	160.893	1.87	479553	2000	
Na	23	2	45	182.518	ppb	182.518	2.01	21283	400000	
Mg	24	2	45	4622.274	ppb	4622.274	0.05	147715	400000	
Al	27	2	45	2351.749	ppb	2351.749	2.95	14076	400000	
K	39	1	45	673.741	ppb	673.741	4.98	5682112	400000	
K	39	2	45	659.342	ppb	659.342	8.32	9853	400000	
Ca	40	1	45	65185.450	ppb	65185.450	0.26	203639057	400000	
Ca	44	2	45	59480.433	ppb	59480.433	1.53	41399	400000	
Ti	47	2	45	15395.988	ppb	15395.988	14.94	433	4000	
V	51	2	72	4.070	ppb	4.070	17.80	2040	2000	
Cr	52	2	72	7.459	ppb	7.459	2.70	4341	5000	
Mn	55	2	72	64.576	ppb	64.576	2.50	9870	10000	
Fe	57	2	72	2364.850	ppb	2364.850	2.14	24584	400000	
Co	59	2	72	1.010	ppb	1.010	11.18	1293	2000	
Ni	60	2	72	3.529	ppb	3.529	15.82	1370	5000	
Cu	63	2	72	290.524	ppb	290.524	2.28	330273	5000	
Zn	66	2	72	50.836	ppb	50.836	5.09	4834	5000	
As	75	2	72	1.568	ppb	1.568	26.34	95	2000	
Se	78	1	72	0.204	ppb	0.204	31.63	73	2000	
Sr	88	2	72	154.691	ppb	154.691	1.65	19532	4000	
Zr	90	2	72	321.060	ppb	321.060	17.16	1193	1000	
Nb	93	2	72	-1.192	ppb	-1.192	-2.01	370	200	
Mo	95	2	115	0.285	ppb	0.285	40.57	163	2000	
Pd	105	2	115	-0.098	ppb	-0.098	-6.70	3	100	
Ag	107	2	115	0.134	ppb	0.134	14.21	287	100	
Cd	111	2	115	0.196	ppb	0.196	89.24	30	2000	
Sn	120	2	115	2.839	ppb	2.839	9.91	1130	2000	
Sb	121	2	115	4.081	ppb	4.081	6.96	1210	1000	
Ba	137	2	115	31.527	ppb	31.527	12.88	2764	5000	
W	182	2	165	-0.001	ppb	-0.001	-2308.01	253	100	
Pt	195	2	165	0.014	ppb	0.014	104.22	260	100	
Tl	205	2	165	0.053	ppb	0.053	18.64	317	2000	
Pb	208	2	165	2312.022	ppb	2312.022	0.39	12546716	5000	
Th	232	2	165	0.980	ppb	0.980	3.96	7005	2000	
U	238	2	165	0.388	ppb	0.388	2.42	2814	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	440272	0.24	608971	72.30	60	120	
Sc (IS)	45	1	HMI H2	19664419	0.73	24673136	79.70	60	120	
Sc (IS)	45	2	HMI He	235196	1.00	281864	83.44	60	120	
Sc (IS)	45	3	No Gas	56946917	0.82	78056314	72.96	60	120	
Ge Internal Standard	72	1	HMI H2	10327857	0.79	12619474	81.84	60	120	
Ge Internal Standard	72	2	HMI He	363059	1.51	434818	83.50	60	120	
In Internal Standard	115	2	HMI He	857918	1.12	1007281	85.17	60	120	
Ho-165	165	2	HMI He	7159086	0.62	8283065	86.43	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	120_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T22:57:53-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	421.975	ppb	4.574	140371	500	84.4	90	110	>+\-10%
Li	7	2	45	393.784	ppb	13.327	7992	500	78.8	90	110	>+\-10%
Li	7	3	45	413.382	ppb	1.797	7174377	500	82.7	90	110	>+\-10%
Be	9	1	6	52.479	ppb	4.113	7572	50	105.0	90	110	
B	11	1	6	-261.985	ppb	-0.501	10167	50	-524.0	90	110	>+\-10%
Na	23	1	45	5027.573	ppb	0.909	9768439	5000	100.6	90	110	
Na	23	2	45	4915.959	ppb	0.642	359938	5000	98.3	90	110	
Mg	24	2	45	4876.939	ppb	0.725	153952	5000	97.5	90	110	
Al	27	2	45	5010.545	ppb	1.287	29621	5000	100.2	90	110	
K	39	1	45	5251.464	ppb	0.395	14614899	5000	105.0	90	110	
K	39	2	45	5010.607	ppb	1.961	55950	5000	100.2	90	110	
Ca	40	1	45	5172.360	ppb	0.738	16341343	5000	103.4	90	110	
Ca	44	2	45	5303.071	ppb	5.432	3677	5000	106.1	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	47.624	ppb	1.711	20129	50	95.2	90	110	
Cr	52	2	72	48.729	ppb	1.332	27702	50	97.5	90	110	
Mn	55	2	72	50.921	ppb	7.108	7775	50	101.8	90	110	
Fe	57	2	72	4837.565	ppb	2.469	50091	5000	96.8	90	110	
Co	59	2	72	47.334	ppb	1.707	59537	50	94.7	90	110	
Ni	60	2	72	48.812	ppb	3.325	18413	50	97.6	90	110	
Cu	63	2	72	48.069	ppb	1.545	55632	50	96.1	90	110	
Zn	66	2	72	51.877	ppb	1.694	4918	50	103.8	90	110	
As	75	2	72	51.638	ppb	1.679	2947	50	103.3	90	110	
Se	78	1	72	49.351	ppb	2.262	12008	50	98.7	90	110	
Sr	88	2	72	51.124	ppb	2.663	6448	50	102.2	90	110	
Zr	90	2	72	73.853	ppb	36.188	303	50	147.7	90	110	>+\-10%
Nb	93	2	72	95.474	ppb	1.331	164879	100	95.5	90	110	
Mo	95	2	115	48.715	ppb	2.862	23130	50	97.4	90	110	
Pd	105	2	115	48.965	ppb	1.232	43840	50	97.9	90	110	
Ag	107	2	115	49.064	ppb	1.089	91437	50	98.1	90	110	
Cd	111	2	115	49.331	ppb	6.605	7612	50	98.7	90	110	
Sn	120	2	115	49.422	ppb	0.575	17997	50	98.8	90	110	
Sb	121	2	115	50.575	ppb	4.245	14533	50	101.2	90	110	
Ba	137	2	115	45.832	ppb	8.141	4014	50	91.7	90	110	
W	182	2	165	48.834	ppb	1.402	156760	50	97.7	90	110	
Pt	195	2	165	48.664	ppb	0.675	165370	50	97.3	90	110	
Tl	205	2	165	49.262	ppb	2.545	207752	50	98.5	90	110	
Pb	208	2	165	50.357	ppb	2.194	271580	50	100.7	90	110	
Th	232	2	165	50.710	ppb	1.716	305682	50	101.4	90	110	
U	238	2	165	50.752	ppb	1.820	355624	50	101.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	437459	0.80	608971	71.84	60	120	
Sc (IS)	45	1	HMI H2	19812992	0.06	24673136	80.30	60	120	
Sc (IS)	45	2	HMI He	232413	0.20	281864	82.46	60	120	
Sc (IS)	45	3	No Gas	55795961	0.63	78056314	71.48	60	120	
Ge Internal Standard	72	1	HMI H2	10344531	0.18	12619474	81.97	60	120	
Ge Internal Standard	72	2	HMI He	361954	1.19	434818	83.24	60	120	
In Internal Standard	115	2	HMI He	857734	0.64	1007281	85.15	60	120	
Ho-165	165	2	HMI He	7091075	0.76	8283065	85.61	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	121_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:01:41-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-42.189	ppb	-4.3	2988592	10	
Be	9	1	6	0.045	ppb	173.2	7	0.5	
B	11	1	6	-304.895	ppb	-0.5	3627	0.5	
Na	23	1	45	113.534	ppb	0.7	391979	25	>RL
Na	23	2	45	142.713	ppb	1.9	18283	25	>RL
Mg	24	2	45	32.933	ppb	17.2	2087	25	>RL
Al	27	2	45	0.661	ppb	696.9	20	15	
K	39	1	45	104.912	ppb	19.5	4610362	50	>RL
K	39	2	45	60.778	ppb	80.0	3394	50	>RL
Ca	40	1	45	27.560	ppb	2.9	152511	50	
Ca	44	2	45	-9.517	ppb	-78.5	27	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.175	ppb	-117.4	277	1	
Cr	52	2	72	-0.030	ppb	-28.1	87	1	
Mn	55	2	72	-0.255	ppb	-24.9	40	0.5	
Fe	57	2	72	4.557	ppb	50.7	73	25	
Co	59	2	72	-0.003	ppb	-607.0	17	0.5	
Ni	60	2	72	0.045	ppb	248.4	53	1	
Cu	63	2	72	-0.171	ppb	-49.9	1197	1	
Zn	66	2	72	0.867	ppb	35.5	163	5	
As	75	2	72	-0.040	ppb	-97.3	3	1	
Se	78	1	72	0.037	ppb	100.0	33	1	
Sr	88	2	72	-0.077	ppb	-175.2	10	0.5	
Zr	90	2	72	2.964	ppb	94.9	50	1	>RL
Nb	93	2	72	0.252	ppb	92.7	2860	2	
Mo	95	2	115	0.031	ppb	224.9	43	0.5	
Pd	105	2	115	-0.075	ppb	-47.9	23	1	
Ag	107	2	115	-0.002	ppb	-333.1	33	1	
Cd	111	2	115	0.042	ppb	173.2	7	0.5	
Sn	120	2	115	0.096	ppb	122.7	140	1	
Sb	121	2	115	-0.013	ppb	-940.5	37	0.6	
Ba	137	2	115	0.149	ppb	42.8	13	0.5	
W	182	2	165	-0.023	ppb	-95.8	183	1	
Pt	195	2	165	0.020	ppb	98.5	283	1	
Tl	205	2	165	0.000	ppb	34857.1	93	0.1	
Pb	208	2	165	0.484	ppb	5.5	3634	0.5	
Th	232	2	165	0.166	ppb	9.9	2097	1	
U	238	2	165	0.013	ppb	34.5	170	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	448475	0.92	608971	73.64	60	120	
Sc (IS)	45	1	HMI H2	19769958	0.71	24673136	80.13	60	120	
Sc (IS)	45	2	HMI He	233767	2.66	281864	82.94	60	120	
Sc (IS)	45	3	No Gas	56381846	1.74	78056314	72.23	60	120	
Ge Internal Standard	72	1	HMI H2	10440526	0.36	12619474	82.73	60	120	
Ge Internal Standard	72	2	HMI He	366472	1.25	434818	84.28	60	120	
In Internal Standard	115	2	HMI He	874529	1.85	1007281	86.82	60	120	
Ho-165	165	2	HMI He	7260670	1.73	8283065	87.66	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	122LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:05:30-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-30.915	ppb	-8.255	3074627	50	-61.8	70	130	>+/-30%
Be	9	1	6	0.657	ppb	15.976	97	1	65.7	70	130	>+/-30%
Na	23	2	45	198.867	ppb	0.079	22057	50	397.7	70	130	>+/-30%
Mg	24	2	45	104.586	ppb	4.533	4294	50	209.2	70	130	>+/-30%
Al	27	2	45	36.964	ppb	13.067	233	30	123.2	70	130	
K	39	2	45	152.307	ppb	26.489	4324	100	152.3	70	130	>+/-30%
Ca	44	2	45	45.091	ppb	115.296	63	50	90.2	70	130	
V	51	2	72	4.736	ppb	5.489	2317	5	94.7	70	130	
Cr	52	2	72	1.946	ppb	17.931	1207	2	97.3	70	130	
Mn	55	2	72	0.474	ppb	47.519	150	1	47.4	70	130	>+/-30%
Fe	57	2	72	48.674	ppb	17.444	530	50	97.3	70	130	
Co	59	2	72	0.988	ppb	8.337	1263	1	98.8	70	130	
Ni	60	2	72	2.070	ppb	4.347	817	2	103.5	70	130	
Cu	63	2	72	2.098	ppb	11.536	3747	2	104.9	70	130	
Zn	66	2	72	11.424	ppb	8.641	1147	10	114.2	70	130	
As	75	2	72	4.827	ppb	8.024	280	5	96.5	70	130	
Se	78	1	72	5.456	ppb	6.743	1357	5	109.1	70	130	
Sr	88	2	72	1.035	ppb	37.601	150	1	103.5	70	130	
Zr	90	2	72	12.362	ppb	46.422	83	0.5	2472.4	70	130	>+/-30%
Nb	93	2	72	0.213	ppb	43.996	2764	2	10.6	70	130	>+/-30%
Mo	95	2	115	1.787	ppb	11.507	890	2	89.3	70	130	
Pd	105	2	115	-0.079	ppb	-13.911	20	1	-7.9	70	130	>+/-30%
Ag	107	2	115	4.836	ppb	1.801	9193	5	96.7	70	130	
Cd	111	2	115	1.041	ppb	38.803	163	1	104.1	70	130	
Sn	120	2	115	9.248	ppb	9.781	3507	10	92.5	70	130	
Sb	121	2	115	1.944	ppb	25.272	607	2	97.2	70	130	
Ba	137	2	115	1.049	ppb	53.918	93	1	104.9	70	130	
W	182	2	165	4.643	ppb	2.005	15101	1	464.3	70	130	>+/-30%
Pt	195	2	165	0.025	ppb	97.867	293	1	2.5	70	130	>+/-30%
Tl	205	2	165	0.999	ppb	4.090	4291	1	99.9	70	130	
Pb	208	2	165	1.155	ppb	5.885	7138	1	115.5	70	130	
Th	232	2	165	2.066	ppb	6.128	13433	2	103.3	70	130	
U	238	2	165	1.058	ppb	6.374	7465	1	105.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	446182	0.28	608971	73.27	60	120	
Sc (IS)	45	1	HMI H2	19739520	0.07	24673136	80.00	60	120	
Sc (IS)	45	2	HMI He	230907	1.28	281864	81.92	60	120	
Sc (IS)	45	3	No Gas	56025843	0.81	78056314	71.78	60	120	
Ge Internal Standard	72	1	HMI H2	10408610	0.62	12619474	82.48	60	120	
Ge Internal Standard	72	2	HMI He	362464	0.65	434818	83.36	60	120	
In Internal Standard	115	2	HMI He	871760	0.15	1007281	86.55	60	120	
Ho-165	165	2	HMI He	7074812	0.55	8283065	85.41	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	123WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:09:19-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	140.495	ppb	5.548307813	17813	25
Mg	24	2	45	55.609	ppb	11.34324635	2754	25
Al	27	2	45	3.483	ppb	185.0215046	37	15
K	39	2	45	46.041	ppb	76.001728	3190	50
Ca	44	2	45	-18.589	ppb	-136.880869	20	25
V	51	2	72	-0.314	ppb	-78.44941479	213	1
Cr	52	2	72	-0.069	ppb	-147.970293	63	1
Mn	55	2	72	-0.338	ppb	-22.88360518	27	0.5
Fe	57	2	72	4.419	ppb	59.11086669	70	25
Co	59	2	72	-0.005	ppb	-96.14880893	13	0.5
Ni	60	2	72	0.065	ppb	42.11292961	60	1
Cu	63	2	72	-0.165	ppb	-6.8521919	1177	1
Zn	66	2	72	-0.104	ppb	-366.9968163	70	5
As	75	2	72	-0.051	ppb	-119.3368055	2	1
Se	78	1	72	0.138	ppb	102.7002426	57	1
Nb	93	2	72	-1.142	ppb	-5.040177653	450	2
Mo	95	2	115	0.115	ppb	36.66030159	83	0.5
Pd	105	2	115	-0.083	ppb	-20.58400373	17	1
Ag	107	2	115	-0.006	ppb	-56.63270184	27	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.080	ppb	-40.83763017	73	1
Sb	121	2	115	-0.081	ppb	-89.16168459	17	0.6
Ba	137	2	115	0.038	ppb	173.2050808	3	0.5
W	182	2	165	-0.025	ppb	-24.2849259	173	1
Pt	195	2	165	0.033	ppb	50.18656218	317	1
Tl	205	2	165	-0.003	ppb	-124.0857429	77	0.1
Pb	208	2	165	0.140	ppb	12.17882532	1687	0.5
Th	232	2	165	-0.078	ppb	-26.06217645	580	1
U	238	2	165	-0.003	ppb	-89.34405505	50	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	439827	0.19	608971	72.22	60	120	
Sc (IS)	45	1	HMI H2	19480777	1.19	24673136	78.96	60	120	
Sc (IS)	45	2	HMI He	229727	0.44	281864	81.50	60	120	
Sc (IS)	45	3	No Gas	55374099	0.17	78056314	70.94	60	120	
Ge Internal Standard	72	1	HMI H2	10346600	0.67	12619474	81.99	60	120	
Ge Internal Standard	72	2	HMI He	358405	0.70	434818	82.43	60	120	
In Internal Standard	115	2	HMI He	859103	1.00	1007281	85.29	60	120	
Ho-165	165	2	HMI He	7033286	2.41	8283065	84.91	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	124WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:30:02-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	99.061	ppb	6.376866237	16501	25
Mg	24	2	45	69.653	ppb	10.2526857	3534	25
Al	27	2	45	10.040	ppb	70.22619586	83	15
K	39	2	45	65.854	ppb	18.93767655	3767	50
Ca	44	2	45	-21.131	ppb	-126.9731678	20	25
V	51	2	72	-0.129	ppb	-67.9192224	320	1
Cr	52	2	72	-0.074	ppb	-107.1626201	67	1
Mn	55	2	72	-0.194	ppb	-19.48594634	53	0.5
Fe	57	2	72	6.097	ppb	59.1390069	97	25
Co	59	2	72	-0.013	ppb	-31.36383416	3	0.5
Ni	60	2	72	-0.007	ppb	-1726.60881	37	1
Cu	63	2	72	-0.372	ppb	-41.03038196	1043	1
Zn	66	2	72	0.382	ppb	109.3688527	127	5
As	75	2	72	0.019	ppb	342.8336554	7	1
Se	78	1	72	0.055	ppb	177.7314944	37	1
Nb	93	2	72	-1.323	ppb	-1.5162949	160	2
Mo	95	2	115	0.086	ppb	32.77170099	80	0.5
Pd	105	2	115	-0.098	ppb	-5.740650346	3	1
Ag	107	2	115	-0.009	ppb	-79.50496175	23	1
Cd	111	2	115	0.038	ppb	173.2050808	7	0.5
Sn	120	2	115	0.046	ppb	120.2004198	137	1
Sb	121	2	115	-0.059	ppb	-103.8163665	27	0.6
Ba	137	2	115	0.033	ppb	173.2050808	3	0.5
W	182	2	165	-0.031	ppb	-29.46824477	170	1
Pt	195	2	165	0.000	ppb	-4275.294153	227	1
Tl	205	2	165	-0.009	ppb	-91.42490224	57	0.1
Pb	208	2	165	0.098	ppb	15.00242459	1613	0.5
Th	232	2	165	-0.127	ppb	-6.627492639	317	1
U	238	2	165	-0.006	ppb	-0.972900737	30	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	433675	0.75	608971	71.21	60	120	
Sc (IS)	45	1	HMI H2	20069416	0.46	24673136	81.34	60	120	
Sc (IS)	45	2	HMI He	254834	1.93	281864	90.41	60	120	
Sc (IS)	45	3	No Gas	54479491	0.40	78056314	69.80	60	120	
Ge Internal Standard	72	1	HMI H2	10384487	0.52	12619474	82.29	60	120	
Ge Internal Standard	72	2	HMI He	395771	1.10	434818	91.02	60	120	
In Internal Standard	115	2	HMI He	986639	2.31	1007281	97.95	60	120	
Ho-165	165	2	HMI He	7761903	1.56	8283065	93.71	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	125WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:33:50-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	101.627	ppb	2.928487568	15854	25
Mg	24	2	45	69.395	ppb	4.255598984	3347	25
Al	27	2	45	8.093	ppb	62.68020526	67	15
K	39	2	45	63.200	ppb	40.23195231	3547	50
Ca	44	2	45	3.244	ppb	887.3791565	37	25
V	51	2	72	-0.297	ppb	-23.67398964	233	1
Cr	52	2	72	-0.114	ppb	-29.6839916	40	1
Mn	55	2	72	-0.348	ppb	-27.57818086	27	0.5
Fe	57	2	72	2.507	ppb	23.37482746	53	25
Co	59	2	72	-0.010	ppb	-84.59165294	7	0.5
Ni	60	2	72	-0.036	ppb	-42.0726526	23	1
Cu	63	2	72	-0.224	ppb	-56.58411391	1173	1
Zn	66	2	72	-0.041	ppb	-1014.767039	80	5
As	75	2	72	0.002	ppb	951.2878161	5	1
Se	78	1	72	0.032	ppb	90.16898385	32	1
Nb	93	2	72	-1.306	ppb	-2.106248249	183	2
Mo	95	2	115	-0.014	ppb	-82.37115623	23	0.5
Pd	105	2	115	-0.081	ppb	-34.39394639	20	1
Ag	107	2	115	-0.010	ppb	-1.093426612	20	1
Cd	111	2	115	0.040	ppb	173.2050808	7	0.5
Sn	120	2	115	-0.019	ppb	-342.6260093	103	1
Sb	121	2	115	-0.117	ppb	-32.17226057	7	0.6
Ba	137	2	115	0.036	ppb	173.2050808	3	0.5
W	182	2	165	-0.024	ppb	-62.51907045	190	1
Pt	195	2	165	0.018	ppb	113.6572521	290	1
Tl	205	2	165	-0.012	ppb	-45.82491208	43	0.1
Pb	208	2	165	0.120	ppb	3.010526945	1710	0.5
Th	232	2	165	-0.129	ppb	-2.508529984	300	1
U	238	2	165	-0.004	ppb	-75.76703623	43	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	436180	0.63	608971	71.63	60	120	
Sc (IS)	45	1	HMI H2	19968174	0.59	24673136	80.93	60	120	
Sc (IS)	45	2	HMI He	241786	0.81	281864	85.78	60	120	
Sc (IS)	45	3	No Gas	55404578	0.76	78056314	70.98	60	120	
Ge Internal Standard	72	1	HMI H2	10463954	0.27	12619474	82.92	60	120	
Ge Internal Standard	72	2	HMI He	378725	1.05	434818	87.10	60	120	
In Internal Standard	115	2	HMI He	929309	1.09	1007281	92.26	60	120	
Ho-165	165	2	HMI He	7608924	0.28	8283065	91.86	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	126WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:37:39-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	009CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	99.989	ppb	4.947686336	15487	25
Mg	24	2	45	65.950	ppb	7.184203766	3184	25
Al	27	2	45	1.109	ppb	236.0647397	23	15
K	39	2	45	36.431	ppb	23.07749529	3200	50
Ca	44	2	45	-43.262	ppb	-18.84751094	3	25
V	51	2	72	-0.277	ppb	-46.24087184	237	1
Cr	52	2	72	-0.050	ppb	-139.0645338	77	1
Mn	55	2	72	-0.410	ppb	-17.74573543	17	0.5
Fe	57	2	72	3.550	ppb	110.3086857	63	25
Co	59	2	72	-0.013	ppb	-34.26336584	3	0.5
Ni	60	2	72	-0.010	ppb	-813.2970513	33	1
Cu	63	2	72	-0.103	ppb	-207.3593471	1293	1
Zn	66	2	72	0.010	ppb	2247.007292	83	5
As	75	2	72	-0.041	ppb	-128.4377565	3	1
Se	78	1	72	0.019	ppb	168.8700029	29	1
Nb	93	2	72	-1.291	ppb	-4.418003617	207	2
Mo	95	2	115	-0.014	ppb	-218.2995293	23	0.5
Pd	105	2	115	-0.094	ppb	-13.01188301	7	1
Ag	107	2	115	-0.010	ppb	-50.5633157	20	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.023	ppb	-292.5845157	100	1
Sb	121	2	115	-0.073	ppb	-45.64499256	20	0.6
Ba	137	2	115	0.072	ppb	173.2050808	7	0.5
W	182	2	165	-0.023	ppb	-90.57157863	190	1
Pt	195	2	165	0.029	ppb	78.16638395	323	1
Tl	205	2	165	-0.010	ppb	-37.37317841	50	0.1
Pb	208	2	165	0.070	ppb	28.31430189	1393	0.5
Th	232	2	165	-0.129	ppb	-7.173098013	293	1
U	238	2	165	-0.004	ppb	-74.9907047	47	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	439120	1.97	608971	72.11	60	120	
Sc (IS)	45	1	HMI H2	20269436	2.21	24673136	82.15	60	120	
Sc (IS)	45	2	HMI He	238100	1.98	281864	84.47	60	120	
Sc (IS)	45	3	No Gas	54841454	0.89	78056314	70.26	60	120	
Ge Internal Standard	72	1	HMI H2	10563176	1.64	12619474	83.71	60	120	
Ge Internal Standard	72	2	HMI He	371266	1.47	434818	85.38	60	120	
In Internal Standard	115	2	HMI He	912560	0.97	1007281	90.60	60	120	
Ho-165	165	2	HMI He	7471375	0.85	8283065	90.20	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4907385
Data File Name	127CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:41:26-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	55801	0.00
Li	7	2	HMI He	3190	0.15
Li	7	3	No Gas	2848966	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	3030	0.23
Na	23	1	HMI H2	317235	0.00
Na	23	2	HMI He	14627	0.02
Mg	24	2	HMI He	3054	0.34
Al	27	2	HMI He	20	0.00
K	39	2	HMI He	3444	0.33
Ca	44	2	HMI He	13	324.76
Ti	47	2	HMI He	3	5196.15
V	51	2	HMI He	153	6.50
Cr	52	2	HMI He	63	62.74
Mn	55	2	HMI He	23	106.04
Fe	57	2	HMI He	33	363.71
Co	59	2	HMI He	23	280.57
Ni	60	2	HMI He	20	250.00
Cu	63	2	HMI He	1107	0.33
Zn	66	2	HMI He	97	26.93
As	75	2	HMI He	3	4383.84
Se	78	1	HMI H2	41	105.58
Sr	88	2	HMI He	10	1732.05
Zr	90	2	HMI He	20	661.44
Nb	93	2	HMI He	150	16.03
Mo	95	2	HMI He	7	2598.08
Pd	105	2	HMI He	10	1000.00
Ag	107	2	HMI He	7	1299.04
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	90	21.39
Sb	121	2	HMI He	3	5196.15
Ba	137	2	HMI He	3	5196.15
W	182	2	HMI He	147	9.68
Pt	195	2	HMI He	233	3.82
Tl	205	2	HMI He	33	207.85
Pb	208	2	HMI He	1470	0.14
Th	232	2	HMI He	270	10.97
U	238	2	HMI He	33	137.48

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	431891	0.49
Sc (IS)	45	1	HMI H2	19663217	0.32
Sc (IS)	45	2	HMI He	231225	0.26
Sc (IS)	45	3	No Gas	54165951	0.62
Ge Internal Standard	72	1	HMI H2	10361975	0.60
Ge Internal Standard	72	2	HMI He	363969	0.47
In Internal Standard	115	2	HMI He	883693	1.09
Ho-165	165	2	HMI He	7293776	1.03

Calibration Standard Report

Sample Table

Sample Name	ic-4907386
Data File Name	128CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:45:16-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	213381	0.00
Li	7	2	HMI He	12468	0.03
Li	7	3	No Gas	10899804	0.00
Be	9	1	HMI H2	14386	0.01
B	11	1	HMI H2	19621	0.01
Na	23	1	HMI H2	18597318	0.00
Na	23	2	HMI He	697731	0.00
Mg	24	2	HMI He	303740	0.00
Al	27	2	HMI He	58528	0.00
K	39	1	HMI H2	24253565	0.00
K	39	2	HMI He	110220	0.00
Ca	40	1	HMI H2	31750817	0.00
Ca	44	2	HMI He	6628	0.07
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	40717	0.00
Cr	52	2	HMI He	54851	0.00
Mn	55	2	HMI He	15217	0.01
Fe	57	2	HMI He	98810	0.00
Co	59	2	HMI He	120877	0.00
Ni	60	2	HMI He	36899	0.00
Cu	63	2	HMI He	108409	0.00
Zn	66	2	HMI He	9443	0.03
As	75	2	HMI He	5685	0.06
Se	78	1	HMI H2	24091	0.01
Sr	88	2	HMI He	13186	0.04
Zr	90	2	HMI He	560	6.51
Nb	93	2	HMI He	337270	0.00
Mo	95	2	HMI He	45832	0.00
Pd	105	2	HMI He	83637	0.00
Ag	107	2	HMI He	181397	0.00
Cd	111	2	HMI He	15531	0.02
Sn	120	2	HMI He	35769	0.01
Sb	121	2	HMI He	30659	0.01
Ba	137	2	HMI He	8839	0.10
Nd	146	2	HMI He	42145	0.00
Sm	147	2	HMI He	37136	0.01
Sm	150	2	HMI He	36438	0.01
Gd	156	1	HMI H2	635323	0.00
Gd	157	1	HMI H2	487693	0.00
W	182	2	HMI He	322091	0.00
Pt	195	2	HMI He	335259	0.00
Tl	205	2	HMI He	425294	0.00
Pb	208	2	HMI He	546632	0.00
Th	232	2	HMI He	618352	0.00
U	238	2	HMI He	732407	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	415035	0.53	431891	96.10	60	120	
Sc (IS)	45	1	HMI H2	19558407	0.57	19663217	99.47	60	120	
Sc (IS)	45	2	HMI He	231121	0.69	231225	99.95	60	120	
Sc (IS)	45	3	No Gas	53717983	0.47	54165951	99.17	60	120	
Ge Internal Standard	72	1	HMI H2	10194216	0.40	10361975	98.38	60	120	
Ge Internal Standard	72	2	HMI He	361387	0.18	363969	99.29	60	120	
In Internal Standard	115	2	HMI He	866530	0.87	883693	98.06	60	120	
Ho-165	165	2	HMI He	7314415	1.31	7293776	100.28	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	129_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:49:03-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	511.793	ppb	0.821	136046	500	102.4	90	110	
Li	7	2	45	517.551	ppb	14.510	7832	500	103.5	90	110	
Li	7	3	45	497.473	ppb	1.753	6954982	500	99.5	90	110	
Be	9	1	6	50.406	ppb	3.571	7362	50	100.8	90	110	
B	11	1	6	38.011	ppb	11.296	9403	50	76.0	90	110	>+\-10%
Na	23	1	45	5063.749	ppb	0.836	9554767	5000	101.3	90	110	
Na	23	2	45	5075.793	ppb	2.485	354404	5000	101.5	90	110	
Mg	24	2	45	5086.800	ppb	1.597	153018	5000	101.7	90	110	
Al	27	2	45	5258.999	ppb	4.027	30192	5000	105.2	90	110	
K	39	1	45	5031.692	ppb	0.724	14410241	5000	100.6	90	110	
K	39	2	45	5009.469	ppb	3.199	55834	5000	100.2	90	110	
Ca	40	1	45	5067.564	ppb	0.463	16097799	5000	101.4	90	110	
Ca	44	2	45	5381.090	ppb	4.311	3504	5000	107.6	90	110	
Ti	47	2	45	100.000	ppb	0.000	0	50	200.0	90	110	>+\-10%
V	51	2	72	50.058	ppb	2.562	20332	50	100.1	90	110	
Cr	52	2	72	51.104	ppb	3.088	27883	50	102.2	90	110	
Mn	55	2	72	49.113	ppb	5.260	7438	50	98.2	90	110	
Fe	57	2	72	5026.351	ppb	0.498	49373	5000	100.5	90	110	
Co	59	2	72	50.195	ppb	2.742	60299	50	100.4	90	110	
Ni	60	2	72	51.627	ppb	0.612	18941	50	103.3	90	110	
Cu	63	2	72	51.922	ppb	1.794	56467	50	103.8	90	110	
Zn	66	2	72	49.614	ppb	2.367	4704	50	99.2	90	110	
As	75	2	72	49.757	ppb	2.767	2812	50	99.5	90	110	
Se	78	1	72	50.625	ppb	1.369	12304	50	101.3	90	110	
Sr	88	2	72	50.862	ppb	8.837	6668	50	101.7	90	110	
Zr	90	2	72	12.443	ppb	42.248	87	50	24.9	90	110	>+\-10%
Nb	93	2	72	102.513	ppb	0.928	171877	100	102.5	90	110	
Mo	95	2	115	50.851	ppb	3.385	23143	50	101.7	90	110	
Pd	105	2	115	53.889	ppb	2.442	44749	50	107.8	90	110	
Ag	107	2	115	50.803	ppb	1.421	91494	50	101.6	90	110	
Cd	111	2	115	49.000	ppb	4.871	7555	50	98.0	90	110	
Sn	120	2	115	51.415	ppb	4.243	18301	50	102.8	90	110	
Sb	121	2	115	49.030	ppb	1.218	14927	50	98.1	90	110	
Ba	137	2	115	46.110	ppb	1.018	4047	50	92.2	90	110	
W	182	2	165	50.594	ppb	2.470	161251	50	101.2	90	110	
Pt	195	2	165	50.494	ppb	1.573	167590	50	101.0	90	110	
Tl	205	2	165	50.807	ppb	1.303	213769	50	101.6	90	110	
Pb	208	2	165	50.559	ppb	2.817	274072	50	101.1	90	110	
Th	232	2	165	51.269	ppb	2.189	313709	50	102.5	90	110	
U	238	2	165	50.493	ppb	3.079	365785	50	101.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	421375	0.57	431891	97.56	60	120	
Sc (IS)	45	1	HMI H2	19521060	0.30	19663217	99.28	60	120	
Sc (IS)	45	2	HMI He	226734	2.00	231225	98.06	60	120	
Sc (IS)	45	3	No Gas	54604889	0.75	54165951	100.81	60	120	
Ge Internal Standard	72	1	HMI H2	10268162	0.35	10361975	99.09	60	120	
Ge Internal Standard	72	2	HMI He	359155	1.05	363969	98.68	60	120	
In Internal Standard	115	2	HMI He	860258	0.64	883693	97.35	60	120	
Ho-165	165	2	HMI He	7235572	1.67	7293776	99.20	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	130_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:52:50-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	4.152	ppb	113.4	2926090	10	
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5	
B	11	1	6	-0.721	ppb	-18.1	2897	0.5	
Na	23	1	45	-2.249	ppb	-86.8	307754	25	
Na	23	2	45	-12.910	ppb	-72.2	13415	25	
Mg	24	2	45	-15.902	ppb	-47.1	2514	25	
Al	27	2	45	1.281	ppb	348.9	27	15	
K	39	1	45	-16.692	ppb	-46.8	4410413	50	
K	39	2	45	-25.814	ppb	-83.9	3094	50	
Ca	40	1	45	13.851	ppb	5.2	120012	50	
Ca	44	2	45	-15.025	ppb	-59.1	3	25	
Ti	47	2	45	100.000	ppb	0.0	0	0.5	>RL
V	51	2	72	0.348	ppb	57.5	293	1	
Cr	52	2	72	-0.017	ppb	-216.5	53	1	
Mn	55	2	72	0.111	ppb	158.1	40	0.5	
Fe	57	2	72	2.037	ppb	151.3	53	25	
Co	59	2	72	0.006	ppb	392.8	30	0.5	
Ni	60	2	72	0.019	ppb	304.3	27	1	
Cu	63	2	72	-0.129	ppb	-74.2	960	1	
Zn	66	2	72	0.830	ppb	65.0	173	5	
As	75	2	72	0.058	ppb	60.5	6	1	
Se	78	1	72	0.008	ppb	907.0	43	1	
Sr	88	2	72	0.101	ppb	187.5	23	0.5	
Zr	90	2	72	4.936	ppb	140.7	47	1	>RL
Nb	93	2	72	2.210	ppb	10.6	3874	2	>RL
Mo	95	2	115	0.123	ppb	10.8	63	0.5	
Pd	105	2	115	0.063	ppb	90.6	63	1	
Ag	107	2	115	0.007	ppb	73.2	20	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.076	ppb	105.3	117	1	
Sb	121	2	115	0.216	ppb	16.1	70	0.6	
Ba	137	2	115	-0.037	ppb	0.0	0	0.5	
W	182	2	165	0.038	ppb	20.6	267	1	
Pt	195	2	165	0.003	ppb	387.0	240	1	
Tl	205	2	165	0.024	ppb	15.5	133	0.1	
Pb	208	2	165	0.127	ppb	5.0	2137	0.5	
Th	232	2	165	0.417	ppb	6.4	2810	1	
U	238	2	165	0.021	ppb	29.9	183	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	430666	1.03	431891	99.72	60	120	
Sc (IS)	45	1	HMI H2	19327891	0.13	19663217	98.29	60	120	
Sc (IS)	45	2	HMI He	225795	1.50	231225	97.65	60	120	
Sc (IS)	45	3	No Gas	54974561	1.11	54165951	101.49	60	120	
Ge Internal Standard	72	1	HMI H2	10223397	0.47	10361975	98.66	60	120	
Ge Internal Standard	72	2	HMI He	361313	0.64	363969	99.27	60	120	
In Internal Standard	115	2	HMI He	873329	1.42	883693	98.83	60	120	
Ho-165	165	2	HMI He	7215996	0.17	7293776	98.93	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	131LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-28T23:56:39-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	9.723	ppb	34.014	2961252	50	19.4	70	130	>+/-30%
Be	9	1	6	0.810	ppb	29.546	120	1	81.0	70	130	
Na	23	2	45	58.763	ppb	10.472	18220	50	117.5	70	130	
Mg	24	2	45	46.004	ppb	22.104	4334	50	92.0	70	130	
Al	27	2	45	33.728	ppb	31.459	213	30	112.4	70	130	
K	39	2	45	90.864	ppb	27.500	4317	100	90.9	70	130	
Ca	44	2	45	78.680	ppb	90.999	63	50	157.4	70	130	>+/-30%
V	51	2	72	4.953	ppb	9.548	2140	5	99.1	70	130	
Cr	52	2	72	2.343	ppb	4.099	1333	2	117.1	70	130	
Mn	55	2	72	1.043	ppb	16.235	180	1	104.3	70	130	
Fe	57	2	72	52.192	ppb	8.404	543	50	104.4	70	130	
Co	59	2	72	1.156	ppb	9.823	1407	1	115.6	70	130	
Ni	60	2	72	2.046	ppb	7.050	767	2	102.3	70	130	
Cu	63	2	72	2.482	ppb	14.469	3724	2	124.1	70	130	
Zn	66	2	72	10.502	ppb	4.300	1067	10	105.0	70	130	
As	75	2	72	4.532	ppb	6.729	258	5	90.6	70	130	
Se	78	1	72	4.903	ppb	1.003	1211	5	98.1	70	130	
Sr	88	2	72	0.871	ppb	44.105	123	1	87.1	70	130	
Zr	90	2	72	16.274	ppb	43.667	107	0.5	3254.7	70	130	>+/-30%
Nb	93	2	72	2.167	ppb	4.016	3764	2	108.4	70	130	
Mo	95	2	115	2.022	ppb	20.654	933	2	101.1	70	130	
Pd	105	2	115	0.040	ppb	46.245	43	1	4.0	70	130	>+/-30%
Ag	107	2	115	5.263	ppb	4.378	9550	5	105.3	70	130	
Cd	111	2	115	0.967	ppb	37.678	150	1	96.7	70	130	
Sn	120	2	115	9.915	ppb	8.469	3624	10	99.2	70	130	
Sb	121	2	115	2.142	ppb	29.814	660	2	107.1	70	130	
Ba	137	2	115	1.510	ppb	21.061	137	1	151.0	70	130	>+/-30%
W	182	2	165	5.033	ppb	3.329	16122	1	503.3	70	130	>+/-30%
Pt	195	2	165	0.049	ppb	31.767	393	1	4.9	70	130	>+/-30%
Tl	205	2	165	1.028	ppb	3.276	4344	1	102.8	70	130	
Pb	208	2	165	1.011	ppb	3.189	6888	1	101.1	70	130	
Th	232	2	165	2.262	ppb	1.974	14057	2	113.1	70	130	
U	238	2	165	1.092	ppb	9.805	7916	1	109.2	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	426784	0.97	431891	98.82	60	120	
Sc (IS)	45	1	HMI H2	19255068	0.53	19663217	97.92	60	120	
Sc (IS)	45	2	HMI He	226017	1.99	231225	97.75	60	120	
Sc (IS)	45	3	No Gas	54781298	1.04	54165951	101.14	60	120	
Ge Internal Standard	72	1	HMI H2	10117648	0.66	10361975	97.64	60	120	
Ge Internal Standard	72	2	HMI He	357825	0.63	363969	98.31	60	120	
In Internal Standard	115	2	HMI He	866149	0.65	883693	98.01	60	120	
Ho-165	165	2	HMI He	7212324	0.70	7293776	98.88	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA-4905066
Data File Name	132ICSA.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:00:28-07:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-11.648	ppb	-40.0	2768517	1	
Be	9	1	6	0.120	ppb	125.7	17	1	
B	11	1	6	-0.045	ppb	-3031.7	2820	1	
Na	23	1	45	95751.538	ppb	1.0	171679177	100000	
K	39	1	45	96647.237	ppb	1.5	191340124	100000	
Ca	40	1	45	96517.350	ppb	1.2	299349642	100000	
Ti	47	2	45	-408971.564	ppb	-6.5	13239	1	
V	51	2	72	0.026	ppb	286.9	157	1	
Cr	52	2	72	1.449	ppb	23.3	823	1	>RL or LOD
Mn	55	2	72	1.242	ppb	37.9	203	1	>RL or LOD
Co	59	2	72	0.001	ppb	2143.0	23	1	
Ni	60	2	72	0.312	ppb	17.2	130	1	
Cu	63	2	72	0.202	ppb	90.2	1267	1	
Zn	66	2	72	0.187	ppb	377.3	110	1	
As	75	2	72	0.110	ppb	21.3	8	1	
Se	78	1	72	0.125	ppb	35.7	68	1	
Sr	88	2	72	0.872	ppb	17.6	120	1	
Zr	90	2	72	1.471	ppb	328.8	27	1	>RL or LOD
Nb	93	2	72	0.279	ppb	9.9	597	1	
Mo	95	2	115	2030.117	ppb	2.2	889790	2000	>RL or LOD
Pd	105	2	115	0.030	ppb	49.5	33	1	
Ag	107	2	115	0.042	ppb	22.4	80	1	
Cd	111	2	115	0.157	ppb	99.1	23	1	
Sn	120	2	115	0.172	ppb	10.9	143	1	
Sb	121	2	115	0.127	ppb	73.1	40	1	
Ba	137	2	115	0.003	ppb	2358.8	3	1	
W	182	2	165	0.206	ppb	19.5	797	1	
Pt	195	2	165	0.012	ppb	195.8	270	1	
Tl	205	2	165	0.019	ppb	28.0	113	1	
Pb	208	2	165	0.226	ppb	37.7	2657	1	
Th	232	2	165	0.122	ppb	21.6	1007	1	
U	238	2	165	0.017	ppb	30.5	157	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	403106	1.21	431891	93.34	60	120	
Sc (IS)	45	1	HMI H2	19147559	0.66	19663217	97.38	60	120	
Sc (IS)	45	2	HMI He	224097	1.66	231225	96.92	60	120	
Sc (IS)	45	3	No Gas	54448928	0.59	54165951	100.52	60	120	
Ge Internal Standard	72	1	HMI H2	9802833	0.47	10361975	94.60	60	120	
Ge Internal Standard	72	2	HMI He	348133	1.78	363969	95.65	60	120	
In Internal Standard	115	2	HMI He	828897	1.55	883693	93.80	60	120	
Ho-165	165	2	HMI He	7192856	1.66	7293776	98.62	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB-4905067
Data File Name	133ICSB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:04:15-07:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	929.926	ppb	0.672	199316	100	929.9	80	120	
Li	7	2	45	951.185	ppb	10.640	11978	100	951.2	80	120	
Li	7	3	45	910.770	ppb	1.701	10459220	100	910.8	80	120	
Be	9	1	6	95.896	ppb	5.143	13118	100	95.9	80	120	
B	11	1	6	76.207	ppb	5.017	14870	100	76.2	80	120	>+\-20%
Na	23	1	45	102978.705	ppb	0.297	185778637	100	102978.7	80	120	>+\-20%
K	39	1	45	104013.806	ppb	0.766	206883257	100	104013.8	80	120	>+\-20%
Ca	40	1	45	104531.700	ppb	0.422	326249742	100	104531.7	80	120	
V	51	2	72	95.986	ppb	3.379	38215	100	96.0	80	120	
Cr	52	2	72	96.467	ppb	7.051	51696	100	96.5	80	120	
Mn	55	2	72	96.180	ppb	7.118	14300	100	96.2	80	120	
Co	59	2	72	97.281	ppb	4.735	114938	100	97.3	80	120	
Ni	60	2	72	94.548	ppb	4.828	34107	100	94.5	80	120	
Cu	63	2	72	96.687	ppb	4.097	102497	100	96.7	80	120	
Zn	66	2	72	93.630	ppb	1.875	8656	100	93.6	80	120	
As	75	2	72	96.422	ppb	4.715	5358	100	96.4	80	120	
Se	78	1	72	101.276	ppb	0.762	23619	100	101.3	80	120	
Sr	88	2	72	98.657	ppb	1.538	12722	100	98.7	80	120	
Zr	90	2	72	10.658	ppb	85.348	77	100	10.7	80	120	>+\-20%
Nb	93	2	72	151.794	ppb	5.630	250184	100	151.8	80	120	>+\-20%
Mo	95	2	115	2036.655	ppb	4.981	901488	100	2036.7	80	120	>+\-20%
Pd	105	2	115	92.800	ppb	5.066	74961	100	92.8	80	120	
Ag	107	2	115	93.697	ppb	3.883	164194	100	93.7	80	120	
Cd	111	2	115	98.175	ppb	3.589	14734	100	98.2	80	120	
Sn	120	2	115	92.924	ppb	2.206	32125	100	92.9	80	120	
Sb	121	2	115	96.603	ppb	3.410	28615	100	96.6	80	120	
Ba	137	2	115	94.415	ppb	4.857	8059	100	94.4	80	120	
W	182	2	165	94.755	ppb	4.536	301399	100	94.8	80	120	
Pt	195	2	165	90.663	ppb	4.170	300214	100	90.7	80	120	
Tl	205	2	165	92.810	ppb	3.421	389867	100	92.8	80	120	
Pb	208	2	165	92.279	ppb	3.498	498332	100	92.3	80	120	
Th	232	2	165	97.160	ppb	3.938	593372	100	97.2	80	120	
U	238	2	165	93.897	ppb	4.536	679181	100	93.9	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	394558	0.88	431891	91.36	60	120	
Sc (IS)	45	1	HMI H2	19267420	0.53	19663217	97.99	60	120	
Sc (IS)	45	2	HMI He	230424	3.09	231225	99.65	60	120	
Sc (IS)	45	3	No Gas	55196156	0.56	54165951	101.90	60	120	
Ge Internal Standard	72	1	HMI H2	9868461	1.06	10361975	95.24	60	120	
Ge Internal Standard	72	2	HMI He	353528	2.86	363969	97.13	60	120	
In Internal Standard	115	2	HMI He	837543	2.55	883693	94.78	60	120	
Ho-165	165	2	HMI He	7226501	2.01	7293776	99.08	60	120	

Sample Table

Sample Name	rinse
Data File Name	134SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:08:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.200	ppb	3.200	329.25	56897	500000	
Li	7	2	45	29.108	ppb	29.108	63.90	3527	500000	
Li	7	3	45	-3.376	ppb	-3.376	-103.38	2996447	50000	
Be	9	1	6	0.091	ppb	0.091	114.42	13	2000	
B	11	1	6	-1.103	ppb	-1.103	-73.05	2804	2000	
Na	23	1	45	37.223	ppb	37.223	7.93	389705	2000	
Na	23	2	45	27.798	ppb	27.798	8.23	16848	400000	
Mg	24	2	45	105.870	ppb	105.870	11.58	6365	400000	
Al	27	2	45	11.134	ppb	11.134	62.95	87	400000	
K	39	1	45	80.151	ppb	80.151	7.98	4728951	400000	
K	39	2	45	50.496	ppb	50.496	75.83	4057	400000	
Ca	40	1	45	16.953	ppb	16.953	13.22	133331	400000	
Ca	44	2	45	14.092	ppb	14.092	334.52	23	400000	
Ti	47	2	45	100.000	ppb	100.000	0.00	0	4000	
V	51	2	72	0.132	ppb	0.132	43.76	213	2000	
Cr	52	2	72	0.038	ppb	0.038	135.10	87	5000	
Mn	55	2	72	0.017	ppb	0.017	215.58	27	10000	
Fe	57	2	72	33.744	ppb	33.744	6.77	380	400000	
Co	59	2	72	-0.017	ppb	-0.017	-27.98	3	2000	
Ni	60	2	72	0.025	ppb	0.025	104.01	30	5000	
Cu	63	2	72	0.298	ppb	0.298	61.01	1470	5000	
Zn	66	2	72	-0.166	ppb	-0.166	-376.54	83	5000	
As	75	2	72	0.098	ppb	0.098	102.53	8	2000	
Se	78	1	72	0.013	ppb	0.013	326.62	45	2000	
Sr	88	2	72	-0.026	ppb	-0.026	-160.58	7	4000	
Zr	90	2	72	6.452	ppb	6.452	43.27	57	1000	
Nb	93	2	72	2.211	ppb	2.211	3.97	4017	200	
Mo	95	2	115	0.628	ppb	0.628	23.90	307	2000	
Pd	105	2	115	0.049	ppb	0.049	13.75	53	100	
Ag	107	2	115	0.016	ppb	0.016	19.33	37	100	
Cd	111	2	115	0.042	ppb	0.042	173.21	7	2000	
Sn	120	2	115	0.225	ppb	0.225	41.62	177	2000	
Sb	121	2	115	0.051	ppb	0.051	119.78	20	1000	
Ba	137	2	115	-0.001	ppb	-0.001	-6965.21	3	5000	
W	182	2	165	0.047	ppb	0.047	4.44	300	100	
Pt	195	2	165	0.050	ppb	0.050	22.03	403	100	
Tl	205	2	165	0.027	ppb	0.027	29.76	150	2000	
Pb	208	2	165	-0.012	ppb	-0.012	-126.70	1420	5000	
Th	232	2	165	0.420	ppb	0.420	16.79	2887	2000	
U	238	2	165	0.014	ppb	0.014	44.29	140	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	426611	0.83	431891	98.78	60	120	
Sc (IS)	45	1	HMI H2	19871632	0.82	19663217	101.06	60	120	
Sc (IS)	45	2	HMI He	235745	1.56	231225	101.95	60	120	
Sc (IS)	45	3	No Gas	57525417	1.09	54165951	106.20	60	120	
Ge Internal Standard	72	1	HMI H2	10578896	0.31	10361975	102.09	60	120	
Ge Internal Standard	72	2	HMI He	374655	0.83	363969	102.94	60	120	
In Internal Standard	115	2	HMI He	905556	1.73	883693	102.47	60	120	
Ho-165	165	2	HMI He	7370631	1.16	7293776	101.05	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	135_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:11:55-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	490.834	ppb	1.157	136512	500	98.2	90	110	
Li	7	2	45	512.809	ppb	0.405	8169	500	102.6	90	110	
Li	7	3	45	474.314	ppb	1.346	6989317	500	94.9	90	110	
Be	9	1	6	49.267	ppb	3.181	7308	50	98.5	90	110	
B	11	1	6	35.545	ppb	8.780	9133	50	71.1	90	110	>+\-10%
Na	23	1	45	5040.246	ppb	0.589	9782169	5000	100.8	90	110	
Na	23	2	45	4941.762	ppb	2.384	361858	5000	98.8	90	110	
Mg	24	2	45	4979.434	ppb	1.331	156986	5000	99.6	90	110	
Al	27	2	45	5152.655	ppb	4.715	30987	5000	103.1	90	110	
K	39	1	45	5109.595	ppb	1.218	14977268	5000	102.2	90	110	
K	39	2	45	4958.016	ppb	2.185	57930	5000	99.2	90	110	
Ca	40	1	45	5086.453	ppb	0.786	16616608	5000	101.7	90	110	
Ca	44	2	45	5457.188	ppb	6.355	3721	5000	109.1	90	110	
Ti	47	2	45	-99.695	ppb	-346.941	7	50	-199.4	90	110	>+\-10%
V	51	2	72	51.399	ppb	3.947	21487	50	102.8	90	110	
Cr	52	2	72	51.571	ppb	0.544	28978	50	103.1	90	110	
Mn	55	2	72	52.210	ppb	1.848	8142	50	104.4	90	110	
Fe	57	2	72	5104.866	ppb	1.857	51632	5000	102.1	90	110	
Co	59	2	72	50.961	ppb	2.618	63039	50	101.9	90	110	
Ni	60	2	72	50.784	ppb	3.506	19181	50	101.6	90	110	
Cu	63	2	72	52.560	ppb	2.867	58832	50	105.1	90	110	
Zn	66	2	72	49.483	ppb	6.212	4831	50	99.0	90	110	
As	75	2	72	48.928	ppb	6.022	2848	50	97.9	90	110	
Se	78	1	72	48.976	ppb	2.212	12296	50	98.0	90	110	
Sr	88	2	72	49.557	ppb	2.096	6692	50	99.1	90	110	
Zr	90	2	72	15.635	ppb	36.026	107	50	31.3	90	110	>+\-10%
Nb	93	2	72	100.418	ppb	1.310	173349	100	100.4	90	110	
Mo	95	2	115	51.025	ppb	1.661	23821	50	102.0	90	110	
Pd	105	2	115	53.758	ppb	1.219	45792	50	107.5	90	110	
Ag	107	2	115	51.420	ppb	1.586	94989	50	102.8	90	110	
Cd	111	2	115	49.863	ppb	5.247	7885	50	99.7	90	110	
Sn	120	2	115	50.310	ppb	3.467	18367	50	100.6	90	110	
Sb	121	2	115	49.731	ppb	3.186	15534	50	99.5	90	110	
Ba	137	2	115	49.389	ppb	9.274	4447	50	98.8	90	110	
W	182	2	165	50.375	ppb	0.920	162985	50	100.7	90	110	
Pt	195	2	165	49.986	ppb	0.377	168395	50	100.0	90	110	
Tl	205	2	165	51.210	ppb	1.035	218701	50	102.4	90	110	
Pb	208	2	165	50.418	ppb	1.416	277476	50	100.8	90	110	
Th	232	2	165	51.183	ppb	0.892	317920	50	102.4	90	110	
U	238	2	165	50.108	ppb	1.122	368524	50	100.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	428067	0.99	431891	99.11	60	120	
Sc (IS)	45	1	HMI H2	20075332	0.33	19663217	102.10	60	120	
Sc (IS)	45	2	HMI He	237526	2.38	231225	102.72	60	120	
Sc (IS)	45	3	No Gas	56413991	0.28	54165951	104.15	60	120	
Ge Internal Standard	72	1	HMI H2	10606953	0.94	10361975	102.36	60	120	
Ge Internal Standard	72	2	HMI He	369803	1.01	363969	101.60	60	120	
In Internal Standard	115	2	HMI He	882419	1.09	883693	99.86	60	120	
Ho-165	165	2	HMI He	7343266	0.31	7293776	100.68	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	136_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:15:43-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-1.202	ppb	-195.5	2964694	10	
Be	9	1	6	0.197	ppb	60.3	30	0.5	
B	11	1	6	-0.288	ppb	-422.9	3054	0.5	
Na	23	1	45	-11.406	ppb	-56.7	307504	25	
Na	23	2	45	-10.125	ppb	-63.3	13789	25	
Mg	24	2	45	-17.059	ppb	-56.0	2514	25	
Al	27	2	45	1.761	ppb	3.6	30	15	
K	39	1	45	-58.544	ppb	-152.3	4570846	50	
K	39	2	45	-3.639	ppb	-1031.5	3370	50	
Ca	40	1	45	12.409	ppb	15.7	121938	50	
Ca	44	2	45	5.312	ppb	596.0	17	25	
Ti	47	2	45	100.000	ppb	0.0	0	0.5	>RL
V	51	2	72	0.162	ppb	83.4	220	1	
Cr	52	2	72	0.018	ppb	161.6	73	1	
Mn	55	2	72	-0.045	ppb	-220.9	17	0.5	
Fe	57	2	72	11.428	ppb	75.2	147	25	
Co	59	2	72	0.022	ppb	165.2	50	0.5	
Ni	60	2	72	-0.036	ppb	-42.8	7	1	
Cu	63	2	72	0.114	ppb	83.7	1233	1	
Zn	66	2	72	0.175	ppb	151.7	113	5	
As	75	2	72	0.023	ppb	148.8	4	1	
Se	78	1	72	-0.085	ppb	-23.3	21	1	
Sr	88	2	72	0.025	ppb	345.4	13	0.5	
Zr	90	2	72	3.673	ppb	87.8	40	1	>RL
Nb	93	2	72	1.889	ppb	3.9	3364	2	
Mo	95	2	115	0.167	ppb	40.8	83	0.5	
Pd	105	2	115	0.008	ppb	226.9	17	1	
Ag	107	2	115	0.005	ppb	206.6	17	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.011	ppb	119.6	93	1	
Sb	121	2	115	0.215	ppb	64.3	70	0.6	
Ba	137	2	115	0.075	ppb	148.5	10	0.5	
W	182	2	165	0.035	ppb	8.4	253	1	
Pt	195	2	165	0.021	ppb	35.9	297	1	
Tl	205	2	165	0.023	ppb	69.5	130	0.1	
Pb	208	2	165	0.096	ppb	47.9	1957	0.5	
Th	232	2	165	0.274	ppb	12.4	1927	1	
U	238	2	165	0.013	ppb	6.8	123	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	442823	2.46	431891	102.53	60	120	
Sc (IS)	45	1	HMI H2	20429708	3.80	19663217	103.90	60	120	
Sc (IS)	45	2	HMI He	228879	1.24	231225	98.99	60	120	
Sc (IS)	45	3	No Gas	56559549	0.12	54165951	104.42	60	120	
Ge Internal Standard	72	1	HMI H2	10759984	2.53	10361975	103.84	60	120	
Ge Internal Standard	72	2	HMI He	364743	1.32	363969	100.21	60	120	
In Internal Standard	115	2	HMI He	874280	1.13	883693	98.93	60	120	
Ho-165	165	2	HMI He	7175903	1.48	7293776	98.38	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	137LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:19:31-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	5.266	ppb	94.872	3019702	50	10.5	70	130	>+/-30%
Be	9	1	6	0.945	ppb	18.853	140	1	94.5	70	130	
Na	23	2	45	50.383	ppb	14.230	18130	50	100.8	70	130	
Mg	24	2	45	39.887	ppb	18.544	4267	50	79.8	70	130	
Al	27	2	45	29.544	ppb	19.830	193	30	98.5	70	130	
K	39	2	45	107.428	ppb	30.780	4604	100	107.4	70	130	
Ca	44	2	45	110.186	ppb	19.387	87	50	220.4	70	130	>+/-30%
V	51	2	72	4.900	ppb	11.633	2154	5	98.0	70	130	
Cr	52	2	72	2.152	ppb	9.380	1250	2	107.6	70	130	
Mn	55	2	72	0.872	ppb	19.061	157	1	87.2	70	130	
Fe	57	2	72	62.370	ppb	4.273	653	50	124.7	70	130	
Co	59	2	72	1.006	ppb	8.066	1247	1	100.6	70	130	
Ni	60	2	72	2.272	ppb	12.539	863	2	113.6	70	130	
Cu	63	2	72	2.285	ppb	7.156	3574	2	114.2	70	130	
Zn	66	2	72	11.764	ppb	9.764	1203	10	117.6	70	130	
As	75	2	72	4.883	ppb	12.555	282	5	97.7	70	130	
Se	78	1	72	4.830	ppb	7.123	1232	5	96.6	70	130	
Sr	88	2	72	0.857	ppb	60.652	123	1	85.7	70	130	
Zr	90	2	72	3.692	ppb	87.400	40	0.5	738.3	70	130	>+/-30%
Nb	93	2	72	1.985	ppb	0.467	3517	2	99.3	70	130	
Mo	95	2	115	2.106	ppb	1.957	983	2	105.3	70	130	
Pd	105	2	115	0.032	ppb	22.405	37	1	3.2	70	130	>+/-30%
Ag	107	2	115	5.110	ppb	2.810	9386	5	102.2	70	130	
Cd	111	2	115	0.721	ppb	36.167	113	1	72.1	70	130	
Sn	120	2	115	10.739	ppb	3.857	3967	10	107.4	70	130	
Sb	121	2	115	2.044	ppb	15.834	637	2	102.2	70	130	
Ba	137	2	115	1.306	ppb	22.993	120	1	130.6	70	130	>+/-30%
W	182	2	165	4.909	ppb	6.252	15782	1	490.9	70	130	>+/-30%
Pt	195	2	165	0.060	ppb	30.955	430	1	6.0	70	130	>+/-30%
Tl	205	2	165	1.065	ppb	11.578	4511	1	106.5	70	130	
Pb	208	2	165	0.991	ppb	1.519	6804	1	99.1	70	130	
Th	232	2	165	2.226	ppb	1.948	13880	2	111.3	70	130	
U	238	2	165	1.037	ppb	4.205	7546	1	103.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	427694	1.53	431891	99.03	60	120	
Sc (IS)	45	1	HMI H2	19801067	0.34	19663217	100.70	60	120	
Sc (IS)	45	2	HMI He	231988	1.35	231225	100.33	60	120	
Sc (IS)	45	3	No Gas	56561169	0.33	54165951	104.42	60	120	
Ge Internal Standard	72	1	HMI H2	10446430	0.11	10361975	100.82	60	120	
Ge Internal Standard	72	2	HMI He	363655	0.72	363969	99.91	60	120	
In Internal Standard	115	2	HMI He	876768	1.30	883693	99.22	60	120	
Ho-165	165	2	HMI He	7235707	1.17	7293776	99.20	60	120	

Sample Table

Sample Name	280-104412-A-21-K
Data File Name	138SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:23:24-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	76.355	ppb	76.355	11.45	61532	500000	
Li	7	2	45	94.698	ppb	94.698	27.10	3831	500000	
Li	7	3	45	68.534	ppb	68.534	9.38	2986474	50000	
Be	9	1	6	6.859	ppb	6.859	17.75	797	2000	
B	11	1	6	73.386	ppb	73.386	4.82	12271	2000	
Na	23	1	45	1991.739	ppb	1991.739	0.16	3603854	2000	
Na	23	2	45	1968.682	ppb	1968.682	2.05	140438	400000	
Mg	24	2	45	205112.467	ppb	205112.467	1.12	5812099	400000	
Al	27	2	45	105176.014	ppb	105176.014	1.17	579693	400000	
K	39	1	45	25177.658	ppb	25177.658	0.99	49404306	400000	
K	39	2	45	26683.566	ppb	26683.566	1.09	271622	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2674961.517	ppb	2674961.517	1.45	1666752	400000	>LDR
Ti	47	2	45	-506838.527	ppb	-506838.527	-3.30	15948	4000	
V	51	2	72	231.675	ppb	231.675	2.70	82440	2000	
Cr	52	2	72	646.062	ppb	646.062	1.16	310051	5000	
Mn	55	2	72	3038.267	ppb	3038.267	2.76	404319	10000	
Fe	57	2	72	112753.675	ppb	112753.675	0.80	975395	400000	
Co	59	2	72	47.624	ppb	47.624	1.59	50426	2000	
Ni	60	2	72	143.638	ppb	143.638	0.05	46408	5000	
Cu	63	2	72	6816.766	ppb	6816.766	0.91	6407310	5000	
Zn	66	2	72	1235.085	ppb	1235.085	1.40	101184	5000	
As	75	2	72	65.574	ppb	65.574	2.44	3266	2000	
Se	78	1	72	3.836	ppb	3.836	10.65	800	2000	
Sr	88	2	72	6651.623	ppb	6651.623	1.22	767520	4000	
Zr	90	2	72	10453.825	ppb	10453.825	3.56	49455	1000	>LDR
Nb	93	2	72	4.634	ppb	4.634	2.59	6972	200	
Mo	95	2	115	23.710	ppb	23.710	6.43	9333	2000	
Pd	105	2	115	0.141	ppb	0.141	16.58	110	100	
Ag	107	2	115	2.866	ppb	2.866	4.89	4467	100	
Cd	111	2	115	8.676	ppb	8.676	11.07	1157	2000	
Sn	120	2	115	10.103	ppb	10.103	3.73	3170	2000	
Sb	121	2	115	59.393	ppb	59.393	1.55	15634	1000	
Ba	137	2	115	1375.697	ppb	1375.697	1.06	104321	5000	
W	182	2	165	0.941	ppb	0.941	3.24	2800	100	
Pt	195	2	165	0.044	ppb	0.044	40.08	337	100	
Tl	205	2	165	1.878	ppb	1.878	5.81	7072	2000	
Pb	208	2	165	85376.036	ppb	85376.036	1.62	410468067	5000	>LDR
Th	232	2	165	51.331	ppb	51.331	0.88	280040	2000	
U	238	2	165	17.317	ppb	17.317	1.64	111878	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	335698	1.49	431891	77.73	60	120	
Sc (IS)	45	1	HMI H2	17813452	0.07	19663217	90.59	60	120	
Sc (IS)	45	2	HMI He	217696	0.63	231225	94.15	60	120	
Sc (IS)	45	3	No Gas	47483914	0.78	54165951	87.66	60	120	
Ge Internal Standard	72	1	HMI H2	8464975	0.40	10361975	81.69	60	120	
Ge Internal Standard	72	2	HMI He	316488	0.30	363969	86.95	60	120	
In Internal Standard	115	2	HMI He	743794	0.60	883693	84.17	60	120	
Ho-165	165	2	HMI He	6449663	0.34	7293776	88.43	60	120	

Sample Table

Sample Name	280-104412-A-21-Rsd@5
Data File Name	139SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:27:09-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-2.198	ppb	-2.198	-181.06	52619	500000	
Li	7	2	45	-17.696	ppb	-17.696	-65.68	2910	500000	
Li	7	3	45	-14.192	ppb	-14.192	-7.11	2551259	50000	
Be	9	1	6	1.457	ppb	1.457	66.85	187	2000	
B	11	1	6	11.959	ppb	11.959	9.48	4377	2000	
Na	23	1	45	388.955	ppb	388.955	0.72	979399	2000	
Na	23	2	45	379.632	ppb	379.632	3.70	39026	400000	
Mg	24	2	45	45098.323	ppb	45098.323	3.08	1307855	400000	
Al	27	2	45	21455.430	ppb	21455.430	1.46	120846	400000	
K	39	1	45	5258.182	ppb	5258.182	0.91	14200548	400000	
K	39	2	45	5547.647	ppb	5547.647	1.54	60328	400000	
Ca	40	1	45	537886.904	ppb	537886.904	0.42	1625392029	400000	
Ca	44	2	45	538986.966	ppb	538986.966	1.28	343183	400000	
Ti	47	2	45	-107248.066	ppb	-107248.066	-8.39	3450	4000	
V	51	2	72	45.647	ppb	45.647	3.16	17586	2000	
Cr	52	2	72	127.236	ppb	127.236	1.48	65728	5000	
Mn	55	2	72	612.476	ppb	612.476	1.55	87684	10000	
Fe	57	2	72	22842.921	ppb	22842.921	0.57	212589	400000	
Co	59	2	72	9.686	ppb	9.686	8.64	11047	2000	
Ni	60	2	72	30.919	ppb	30.919	0.80	10760	5000	
Cu	63	2	72	1491.149	ppb	1491.149	0.08	1508460	5000	
Zn	66	2	72	262.543	ppb	262.543	3.05	23209	5000	
As	75	2	72	13.486	ppb	13.486	8.26	724	2000	
Se	78	1	72	0.736	ppb	0.736	5.44	204	2000	
Sr	88	2	72	1331.379	ppb	1331.379	0.10	165258	4000	
Zr	90	2	72	2112.325	ppb	2112.325	2.94	10764	1000	
Nb	93	2	72	0.943	ppb	0.943	9.26	1637	200	
Mo	95	2	115	4.756	ppb	4.756	6.09	2027	2000	
Pd	105	2	115	0.001	ppb	0.001	1027.01	10	100	
Ag	107	2	115	0.587	ppb	0.587	12.79	993	100	
Cd	111	2	115	1.899	ppb	1.899	16.55	273	2000	
Sn	120	2	115	2.151	ppb	2.151	16.51	793	2000	
Sb	121	2	115	11.814	ppb	11.814	2.83	3360	1000	
Ba	137	2	115	278.973	ppb	278.973	1.33	22846	5000	
W	182	2	165	0.200	ppb	0.200	20.52	740	100	
Pt	195	2	165	0.027	ppb	0.027	41.41	303	100	
Tl	205	2	165	0.387	ppb	0.387	5.67	1570	2000	
Pb	208	2	165	17914.709	ppb	17914.709	1.14	91391649	5000	
Th	232	2	165	10.515	ppb	10.515	2.34	61067	2000	
U	238	2	165	3.531	ppb	3.531	1.48	24230	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	369951	0.77	431891	85.66	60	120	
Sc (IS)	45	1	HMI H2	18658666	0.44	19663217	94.89	60	120	
Sc (IS)	45	2	HMI He	222474	1.78	231225	96.22	60	120	
Sc (IS)	45	3	No Gas	50556161	0.55	54165951	93.34	60	120	
Ge Internal Standard	72	1	HMI H2	9552928	0.60	10361975	92.19	60	120	
Ge Internal Standard	72	2	HMI He	340445	0.43	363969	93.54	60	120	
In Internal Standard	115	2	HMI He	803106	0.98	883693	90.88	60	120	
Ho-165	165	2	HMI He	6843648	0.96	7293776	93.83	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-L MS
Data File Name	140SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:31:02-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	208.515	ppb	208.515	2.97	71440	500000	
Li	7	2	45	193.714	ppb	193.714	29.51	4274	500000	
Li	7	3	45	188.713	ppb	188.713	1.43	3369819	50000	
Be	9	1	6	202.717	ppb	202.717	4.10	20368	2000	
B	11	1	6	211.613	ppb	211.613	3.90	26730	2000	
Na	23	1	45	2194.127	ppb	2194.127	0.33	3495942	2000	
Na	23	2	45	2143.013	ppb	2143.013	0.69	138141	400000	
Mg	24	2	45	204143.658	ppb	204143.658	0.92	5268937	400000	
Al	27	2	45	117454.161	ppb	117454.161	0.42	589643	400000	
K	39	1	45	27970.808	ppb	27970.808	0.66	48285988	400000	
K	39	2	45	28974.100	ppb	28974.100	0.73	268384	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2689501.583	ppb	2689501.583	0.77	1526381	400000	>LDR
Ti	47	2	45	-657810.947	ppb	-657810.947	-3.18	18847	4000	
V	51	2	72	440.730	ppb	440.730	0.71	143475	2000	
Cr	52	2	72	824.017	ppb	824.017	0.66	362034	5000	
Mn	55	2	72	3233.422	ppb	3233.422	0.30	393933	10000	
Fe	57	2	72	116197.695	ppb	116197.695	0.86	920312	400000	
Co	59	2	72	226.888	ppb	226.888	0.41	219874	2000	
Ni	60	2	72	319.712	ppb	319.712	1.01	94557	5000	
Cu	63	2	72	6182.580	ppb	6182.580	0.47	5320490	5000	
Zn	66	2	72	1292.541	ppb	1292.541	0.56	96945	5000	
As	75	2	72	243.598	ppb	243.598	1.18	11102	2000	
Se	78	1	72	169.487	ppb	169.487	2.05	30688	2000	
Sr	88	2	72	6914.267	ppb	6914.267	1.05	730470	4000	
Zr	90	2	72	27510.332	ppb	27510.332	1.46	119129	1000	>LDR
Nb	93	2	72	5.315	ppb	5.315	1.65	7302	200	
Mo	95	2	115	183.422	ppb	183.422	0.45	66599	2000	
Pd	105	2	115	0.079	ppb	0.079	57.59	60	100	
Ag	107	2	115	164.736	ppb	164.736	1.13	236725	100	
Cd	111	2	115	182.117	ppb	182.117	1.64	22405	2000	
Sn	120	2	115	82.074	ppb	82.074	1.58	23277	2000	
Sb	121	2	115	100.364	ppb	100.364	2.89	24392	1000	
Ba	137	2	115	1572.787	ppb	1572.787	1.16	110073	5000	
W	182	2	165	59.294	ppb	59.294	1.65	155361	100	
Pt	195	2	165	0.023	ppb	0.023	116.12	253	100	
Tl	205	2	165	172.648	ppb	172.648	1.79	597063	2000	
Pb	208	2	165	91884.704	ppb	91884.704	1.63	407348031	5000	>LDR
Th	232	2	165	240.760	ppb	240.760	1.10	1210391	2000	
U	238	2	165	202.912	ppb	202.912	1.80	1208490	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	289923	0.63	431891	67.13	60	120	
Sc (IS)	45	1	HMI H2	15802516	0.76	19663217	80.37	60	120	
Sc (IS)	45	2	HMI He	198295	1.67	231225	85.76	60	120	
Sc (IS)	45	3	No Gas	41622400	1.11	54165951	76.84	60	120	
Ge Internal Standard	72	1	HMI H2	7667670	0.66	10361975	74.00	60	120	
Ge Internal Standard	72	2	HMI He	289762	0.70	363969	79.61	60	120	
In Internal Standard	115	2	HMI He	686508	2.31	883693	77.69	60	120	
Ho-165	165	2	HMI He	5948352	1.88	7293776	81.55	60	120	

Sample Table

Sample Name	280-104412-A-21-M MSD
Data File Name	141SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:34:51-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	207.828	ppb	207.828	5.84	67416	500000	
Li	7	2	45	219.272	ppb	219.272	6.70	4294	500000	
Li	7	3	45	180.957	ppb	180.957	4.45	3050421	50000	
Be	9	1	6	215.765	ppb	215.765	2.74	19668	2000	
B	11	1	6	216.844	ppb	216.844	1.87	24804	2000	
Na	23	1	45	2117.703	ppb	2117.703	1.22	3196270	2000	
Na	23	2	45	2042.712	ppb	2042.712	2.03	126717	400000	
Mg	24	2	45	208207.052	ppb	208207.052	0.62	5147978	400000	
Al	27	2	45	116531.103	ppb	116531.103	0.50	560423	400000	
K	39	1	45	27839.724	ppb	27839.724	0.64	45422548	400000	
K	39	2	45	28825.234	ppb	28825.234	0.32	255815	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2742087.327	ppb	2742087.327	1.06	1490815	400000	>LDR
Ti	47	2	45	-620885.997	ppb	-620885.997	-2.27	17045	4000	
V	51	2	72	447.043	ppb	447.043	0.33	138623	2000	
Cr	52	2	72	829.062	ppb	829.062	0.41	346959	5000	
Mn	55	2	72	3304.061	ppb	3304.061	0.53	383421	10000	
Fe	57	2	72	116369.063	ppb	116369.063	0.53	877882	400000	
Co	59	2	72	235.556	ppb	235.556	0.55	217442	2000	
Ni	60	2	72	325.208	ppb	325.208	0.88	91622	5000	
Cu	63	2	72	6350.043	ppb	6350.043	1.75	5204500	5000	
Zn	66	2	72	1316.943	ppb	1316.943	1.63	94082	5000	
As	75	2	72	253.921	ppb	253.921	0.31	11022	2000	
Se	78	1	72	172.252	ppb	172.252	1.34	29580	2000	
Sr	88	2	72	7213.388	ppb	7213.388	1.27	725956	4000	
Zr	90	2	72	28504.472	ppb	28504.472	1.99	117548	1000	>LDR
Nb	93	2	72	5.196	ppb	5.196	3.10	6805	200	
Mo	95	2	115	191.044	ppb	191.044	2.37	66167	2000	
Pd	105	2	115	0.109	ppb	0.109	15.05	77	100	
Ag	107	2	115	174.056	ppb	174.056	1.13	238652	100	
Cd	111	2	115	191.117	ppb	191.117	1.19	22435	2000	
Sn	120	2	115	83.773	ppb	83.773	2.74	22663	2000	
Sb	121	2	115	104.723	ppb	104.723	1.20	24271	1000	
Ba	137	2	115	1606.520	ppb	1606.520	0.77	107289	5000	
W	182	2	165	64.215	ppb	64.215	1.19	160874	100	
Pt	195	2	165	0.009	ppb	0.009	279.56	207	100	
Tl	205	2	165	180.418	ppb	180.418	0.21	596688	2000	
Pb	208	2	165	86404.382	ppb	86404.382	0.52	366303821	5000	>LDR
Th	232	2	165	249.665	ppb	249.665	0.85	1200180	2000	
U	238	2	165	209.591	ppb	209.591	0.24	1193744	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	262999	0.38	431891	60.89	60	120	
Sc (IS)	45	1	HMI H2	14930166	0.54	19663217	75.93	60	120	
Sc (IS)	45	2	HMI He	189956	0.90	231225	82.15	60	120	
Sc (IS)	45	3	No Gas	38227236	1.05	54165951	70.57	60	120	
Ge Internal Standard	72	1	HMI H2	7271782	0.46	10361975	70.18	60	120	
Ge Internal Standard	72	2	HMI He	276013	1.29	363969	75.83	60	120	
In Internal Standard	115	2	HMI He	654981	1.65	883693	74.12	60	120	
Ho-165	165	2	HMI He	5687328	1.09	7293776	77.98	60	120	

Sample Table

Sample Name	280-104412-A-21-K pds
Data File Name	142SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:38:39-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	37.500	ppb	37.500	30.39	44187	500000	
Li	7	2	45	28.721	ppb	28.721	26.07	2727	500000	
Li	7	3	45	18.313	ppb	18.313	69.28	1970528	50000	
Be	9	1	6	230.959	ppb	230.959	2.27	19277	2000	
B	11	1	6	79.454	ppb	79.454	3.94	9393	2000	
Na	23	1	45	1931.252	ppb	1931.252	1.50	2767008	2000	
Na	23	2	45	1852.255	ppb	1852.255	1.96	111405	400000	
Mg	24	2	45	199609.388	ppb	199609.388	0.90	4739571	400000	
Al	27	2	45	105732.877	ppb	105732.877	0.45	488303	400000	
K	39	1	45	25676.590	ppb	25676.590	1.05	39731955	400000	
K	39	2	45	26151.868	ppb	26151.868	1.14	223117	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2651459.691	ppb	2651459.691	1.30	1384366	400000	>LDR
Ti	47	2	45	-526647.535	ppb	-526647.535	-2.79	13886	4000	
V	51	2	72	438.461	ppb	438.461	0.66	130093	2000	
Cr	52	2	72	836.078	ppb	836.078	1.35	334750	5000	
Mn	55	2	72	3251.914	ppb	3251.914	1.76	361026	10000	
Fe	57	2	72	112752.269	ppb	112752.269	0.82	813846	400000	
Co	59	2	72	248.704	ppb	248.704	1.37	219632	2000	
Ni	60	2	72	339.999	ppb	339.999	1.74	91632	5000	
Cu	63	2	72	6932.565	ppb	6932.565	1.24	5436624	5000	
Zn	66	2	72	1403.379	ppb	1403.379	0.34	95922	5000	
As	75	2	72	265.504	ppb	265.504	1.93	11029	2000	
Se	78	1	72	196.044	ppb	196.044	2.73	32112	2000	
Sr	88	2	72	6790.402	ppb	6790.402	0.58	653797	4000	
Zr	90	2	72	33859.537	ppb	33859.537	0.78	133622	1000	>LDR
Nb	93	2	72	4.437	ppb	4.437	0.55	5575	200	
Mo	95	2	115	236.782	ppb	236.782	0.84	78923	2000	
Pd	105	2	115	0.071	ppb	0.071	115.67	50	100	
Ag	107	2	115	51.520	ppb	51.520	0.46	67975	100	
Cd	111	2	115	198.181	ppb	198.181	1.36	22385	2000	
Sn	120	2	115	215.333	ppb	215.333	3.16	55956	2000	
Sb	121	2	115	256.239	ppb	256.239	1.07	57147	1000	
Ba	137	2	115	1587.153	ppb	1587.153	1.63	101972	5000	
W	182	2	165	200.688	ppb	200.688	0.98	492124	100	
Pt	195	2	165	0.065	ppb	0.065	40.49	343	100	
Tl	205	2	165	193.515	ppb	193.515	0.48	626763	2000	
Pb	208	2	165	83531.028	ppb	83531.028	0.65	346787576	5000	>LDR
Th	232	2	165	52.844	ppb	52.844	0.45	248938	2000	
U	238	2	165	219.603	ppb	219.603	0.17	1224869	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	240843	1.28	431891	55.76	60	120	IS Failed
Sc (IS)	45	1	HMI H2	14070519	0.33	19663217	71.56	60	120	
Sc (IS)	45	2	HMI He	182409	0.21	231225	78.89	60	120	
Sc (IS)	45	3	No Gas	35604537	0.75	54165951	65.73	60	120	
Ge Internal Standard	72	1	HMI H2	6937794	0.97	10361975	66.95	60	120	
Ge Internal Standard	72	2	HMI He	264091	1.37	363969	72.56	60	120	
In Internal Standard	115	2	HMI He	630228	1.48	883693	71.32	60	120	
Ho-165	165	2	HMI He	5569548	0.94	7293776	76.36	60	120	

Sample Table

Sample Name	280-104412-A-34-E
Data File Name	143SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:42:26-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	91.914	ppb	91.914	8.49	49911	500000	
Li	7	2	45	119.723	ppb	119.723	23.78	3407	500000	
Li	7	3	45	72.825	ppb	72.825	12.06	2182153	50000	
Be	9	1	6	10.532	ppb	10.532	11.75	853	2000	
B	11	1	6	99.947	ppb	99.947	3.89	11044	2000	
Na	23	1	45	2258.396	ppb	2258.396	0.46	3168258	2000	
Na	23	2	45	2135.685	ppb	2135.685	0.32	127250	400000	
Mg	24	2	45	269251.282	ppb	269251.282	1.10	6420347	400000	
Al	27	2	45	175125.023	ppb	175125.023	1.17	812380	400000	
K	39	1	45	39215.849	ppb	39215.849	0.94	58442099	400000	
K	39	2	45	39631.277	ppb	39631.277	1.53	338182	400000	
Ca	40	1	45	1922510.982	ppb	1922510.982	0.46	4340980522	400000	
Ca	44	2	45	1963143.186	ppb	1963143.186	0.40	1029548	400000	
Ti	47	2	45	-953562.092	ppb	-953562.092	-0.31	25252	4000	
V	51	2	72	294.793	ppb	294.793	0.71	91117	2000	
Cr	52	2	72	426.440	ppb	426.440	0.25	177839	5000	
Mn	55	2	72	4561.608	ppb	4561.608	1.11	527434	10000	
Fe	57	2	72	166372.079	ppb	166372.079	1.08	1250538	400000	
Co	59	2	72	67.902	ppb	67.902	0.88	62460	2000	
Ni	60	2	72	178.218	ppb	178.218	1.26	50028	5000	
Cu	63	2	72	379.232	ppb	379.232	1.65	310487	5000	
Zn	66	2	72	666.434	ppb	666.434	0.24	47475	5000	
As	75	2	72	72.124	ppb	72.124	1.03	3121	2000	
Se	78	1	72	3.482	ppb	3.482	3.08	596	2000	
Sr	88	2	72	4500.918	ppb	4500.918	1.07	451274	4000	
Zr	90	2	72	16081.865	ppb	16081.865	2.21	66103	1000	>LDR
Nb	93	2	72	3.272	ppb	3.272	1.13	4311	200	
Mo	95	2	115	11.861	ppb	11.861	16.47	4164	2000	
Pd	105	2	115	0.061	ppb	0.061	57.95	47	100	
Ag	107	2	115	0.632	ppb	0.632	13.72	883	100	
Cd	111	2	115	8.076	ppb	8.076	9.29	960	2000	
Sn	120	2	115	7.462	ppb	7.462	6.31	2104	2000	
Sb	121	2	115	1.141	ppb	1.141	9.77	270	1000	
Ba	137	2	115	1822.666	ppb	1822.666	0.42	123126	5000	
W	182	2	165	0.820	ppb	0.820	10.50	2154	100	
Pt	195	2	165	0.043	ppb	0.043	56.95	293	100	
Tl	205	2	165	2.284	ppb	2.284	4.83	7532	2000	
Pb	208	2	165	2245.807	ppb	2245.807	1.25	9462440	5000	
Th	232	2	165	83.108	ppb	83.108	1.38	397156	2000	
U	238	2	165	15.308	ppb	15.308	0.40	86661	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	233730	0.33	431891	54.12	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13942698	0.38	19663217	70.91	60	120	
Sc (IS)	45	2	HMI He	183223	1.34	231225	79.24	60	120	
Sc (IS)	45	3	No Gas	34341431	0.20	54165951	63.40	60	120	
Ge Internal Standard	72	1	HMI H2	6920011	0.07	10361975	66.78	60	120	
Ge Internal Standard	72	2	HMI He	275009	1.30	363969	75.56	60	120	
In Internal Standard	115	2	HMI He	662611	1.87	883693	74.98	60	120	
Ho-165	165	2	HMI He	5651394	0.38	7293776	77.48	60	120	

Sample Table

Sample Name	280-104412-A-35-E
Data File Name	144SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:46:16-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	82.602	ppb	82.602	7.36	48407	500000	
Li	7	2	45	85.930	ppb	85.930	20.42	3127	500000	
Li	7	3	45	74.993	ppb	74.993	5.89	2072169	50000	
Be	9	1	6	10.362	ppb	10.362	9.17	793	2000	
B	11	1	6	101.332	ppb	101.332	5.45	10560	2000	
Na	23	1	45	2227.322	ppb	2227.322	0.88	3098648	2000	
Na	23	2	45	2083.442	ppb	2083.442	1.09	123119	400000	
Mg	24	2	45	268317.383	ppb	268317.383	0.49	6331463	400000	
Al	27	2	45	175236.731	ppb	175236.731	1.23	804367	400000	
K	39	1	45	39260.572	ppb	39260.572	0.46	57959339	400000	
K	39	2	45	40225.297	ppb	40225.297	0.34	339650	400000	
Ca	40	1	45	1866548.778	ppb	1866548.778	0.29	4175348524	400000	
Ca	44	2	45	1912086.266	ppb	1912086.266	1.22	992272	400000	
Ti	47	2	45	-977545.743	ppb	-977545.743	-1.55	25616	4000	
V	51	2	72	299.090	ppb	299.090	0.67	91466	2000	
Cr	52	2	72	362.049	ppb	362.049	1.04	149403	5000	
Mn	55	2	72	4744.222	ppb	4744.222	0.77	542754	10000	
Fe	57	2	72	167081.927	ppb	167081.927	1.45	1242630	400000	
Co	59	2	72	68.538	ppb	68.538	1.64	62387	2000	
Ni	60	2	72	175.648	ppb	175.648	1.40	48784	5000	
Cu	63	2	72	440.107	ppb	440.107	2.25	356384	5000	
Zn	66	2	72	739.111	ppb	739.111	1.61	52087	5000	
As	75	2	72	75.149	ppb	75.149	3.42	3217	2000	
Se	78	1	72	3.574	ppb	3.574	10.19	608	2000	
Sr	88	2	72	4382.710	ppb	4382.710	1.23	434779	4000	
Zr	90	2	72	16587.420	ppb	16587.420	3.53	67442	1000	>LDR
Nb	93	2	72	3.738	ppb	3.738	6.21	4858	200	
Mo	95	2	115	9.198	ppb	9.198	7.29	3250	2000	
Pd	105	2	115	0.097	ppb	0.097	79.92	70	100	
Ag	107	2	115	0.705	ppb	0.705	13.60	990	100	
Cd	111	2	115	6.940	ppb	6.940	6.56	830	2000	
Sn	120	2	115	7.496	ppb	7.496	7.55	2127	2000	
Sb	121	2	115	3.182	ppb	3.182	6.55	753	1000	
Ba	137	2	115	1881.740	ppb	1881.740	1.63	127955	5000	
W	182	2	165	0.820	ppb	0.820	7.59	2144	100	
Pt	195	2	165	0.029	ppb	0.029	56.89	253	100	
Tl	205	2	165	2.290	ppb	2.290	6.56	7515	2000	
Pb	208	2	165	4272.456	ppb	4272.456	0.92	17909260	5000	
Th	232	2	165	87.849	ppb	87.849	1.46	417680	2000	
U	238	2	165	15.562	ppb	15.562	2.13	87654	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	220836	1.02	431891	51.13	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13812628	0.26	19663217	70.25	60	120	
Sc (IS)	45	2	HMI He	181301	0.17	231225	78.41	60	120	
Sc (IS)	45	3	No Gas	32443030	0.27	54165951	59.90	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6888604	0.75	10361975	66.48	60	120	
Ge Internal Standard	72	2	HMI He	272105	1.00	363969	74.76	60	120	
In Internal Standard	115	2	HMI He	667004	0.68	883693	75.48	60	120	
Ho-165	165	2	HMI He	5623087	0.65	7293776	77.09	60	120	

Sample Table

Sample Name	280-104412-A-36-E
Data File Name	145SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:50:08-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	83.029	ppb	83.029	9.70	46699	500000	
Li	7	2	45	74.367	ppb	74.367	16.64	2980	500000	
Li	7	3	45	64.500	ppb	64.500	18.51	1910669	50000	
Be	9	1	6	8.871	ppb	8.871	14.22	643	2000	
B	11	1	6	107.791	ppb	107.791	9.73	10550	2000	
Na	23	1	45	2188.976	ppb	2188.976	1.10	2938355	2000	
Na	23	2	45	1999.540	ppb	1999.540	0.81	116184	400000	
Mg	24	2	45	269968.046	ppb	269968.046	0.88	6239564	400000	
Al	27	2	45	177852.794	ppb	177852.794	0.26	799638	400000	
K	39	1	45	40866.737	ppb	40866.737	0.42	58015546	400000	
K	39	2	45	41219.508	ppb	41219.508	0.54	340848	400000	
Ca	40	1	45	1843066.516	ppb	1843066.516	0.49	3973151194	400000	
Ca	44	2	45	1865801.996	ppb	1865801.996	0.65	948415	400000	
Ti	47	2	45	-989030.553	ppb	-989030.553	-1.36	25385	4000	
V	51	2	72	304.532	ppb	304.532	0.91	90230	2000	
Cr	52	2	72	304.517	ppb	304.517	1.97	121750	5000	
Mn	55	2	72	4726.064	ppb	4726.064	1.35	523813	10000	
Fe	57	2	72	169991.864	ppb	169991.864	1.33	1224849	400000	
Co	59	2	72	68.283	ppb	68.283	2.63	60202	2000	
Ni	60	2	72	179.840	ppb	179.840	3.51	48417	5000	
Cu	63	2	72	444.150	ppb	444.150	0.51	348515	5000	
Zn	66	2	72	724.200	ppb	724.200	3.91	49450	5000	
As	75	2	72	73.444	ppb	73.444	3.67	3045	2000	
Se	78	1	72	2.924	ppb	2.924	14.89	485	2000	
Sr	88	2	72	4410.746	ppb	4410.746	1.68	423942	4000	
Zr	90	2	72	17104.653	ppb	17104.653	0.48	67398	1000	>LDR
Nb	93	2	72	3.481	ppb	3.481	3.69	4387	200	
Mo	95	2	115	10.694	ppb	10.694	3.06	3724	2000	
Pd	105	2	115	0.041	ppb	0.041	45.16	33	100	
Ag	107	2	115	0.670	ppb	0.670	18.69	927	100	
Cd	111	2	115	7.434	ppb	7.434	13.69	877	2000	
Sn	120	2	115	7.767	ppb	7.767	4.44	2170	2000	
Sb	121	2	115	1.052	ppb	1.052	38.28	247	1000	
Ba	137	2	115	1916.602	ppb	1916.602	1.52	128492	5000	
W	182	2	165	0.762	ppb	0.762	8.92	1974	100	
Pt	195	2	165	0.013	ppb	0.013	117.55	210	100	
Tl	205	2	165	2.398	ppb	2.398	2.25	7766	2000	
Pb	208	2	165	1946.699	ppb	1946.699	1.14	8055998	5000	
Th	232	2	165	82.301	ppb	82.301	0.60	386294	2000	
U	238	2	165	14.525	ppb	14.525	2.80	80753	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	209259	0.35	431891	48.45	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13311383	0.57	19663217	67.70	60	120	
Sc (IS)	45	2	HMI He	177583	0.89	231225	76.80	60	120	
Sc (IS)	45	3	No Gas	30669847	0.62	54165951	56.62	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6649861	0.80	10361975	64.18	60	120	
Ge Internal Standard	72	2	HMI He	263656	1.82	363969	72.44	60	120	
In Internal Standard	115	2	HMI He	657507	1.03	883693	74.40	60	120	
Ho-165	165	2	HMI He	5551085	1.29	7293776	76.11	60	120	

Sample Table

Sample Name	280-104412-A-37-E
Data File Name	146SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:54:01-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	93.238	ppb	93.238	4.11	45313	500000	
Li	7	2	45	75.382	ppb	75.382	39.02	2880	500000	
Li	7	3	45	70.157	ppb	70.157	9.37	1835633	50000	
Be	9	1	6	10.918	ppb	10.918	2.55	737	2000	
B	11	1	6	115.564	ppb	115.564	3.71	10420	2000	
Na	23	1	45	2219.423	ppb	2219.423	1.55	2821744	2000	
Na	23	2	45	2037.134	ppb	2037.134	1.87	113968	400000	
Mg	24	2	45	266354.676	ppb	266354.676	1.51	5937807	400000	
Al	27	2	45	198769.604	ppb	198769.604	1.64	861940	400000	
K	39	1	45	44424.390	ppb	44424.390	0.76	59537387	400000	
K	39	2	45	43935.242	ppb	43935.242	1.53	350251	400000	
Ca	40	1	45	1942467.300	ppb	1942467.300	0.65	3969934021	400000	
Ca	44	2	45	1936781.292	ppb	1936781.292	1.91	949493	400000	
Ti	47	2	45	-1071968.352	ppb	-1071968.352	-4.70	26530	4000	
V	51	2	72	316.858	ppb	316.858	3.28	91651	2000	
Cr	52	2	72	360.083	ppb	360.083	2.75	140559	5000	
Mn	55	2	72	4919.009	ppb	4919.009	1.88	532388	10000	
Fe	57	2	72	187136.440	ppb	187136.440	5.85	1316133	400000	
Co	59	2	72	73.017	ppb	73.017	0.62	62881	2000	
Ni	60	2	72	194.244	ppb	194.244	2.43	51037	5000	
Cu	63	2	72	475.658	ppb	475.658	2.36	364351	5000	
Zn	66	2	72	695.571	ppb	695.571	3.30	46372	5000	
As	75	2	72	74.416	ppb	74.416	2.78	3015	2000	
Se	78	1	72	3.980	ppb	3.980	6.28	624	2000	
Sr	88	2	72	4482.047	ppb	4482.047	0.92	420692	4000	
Zr	90	2	72	19152.659	ppb	19152.659	3.47	73673	1000	>LDR
Nb	93	2	72	2.822	ppb	2.822	12.92	3491	200	
Mo	95	2	115	10.855	ppb	10.855	4.11	3677	2000	
Pd	105	2	115	0.036	ppb	0.036	72.76	30	100	
Ag	107	2	115	0.975	ppb	0.975	13.99	1310	100	
Cd	111	2	115	8.121	ppb	8.121	16.31	933	2000	
Sn	120	2	115	7.274	ppb	7.274	7.81	1980	2000	
Sb	121	2	115	1.786	ppb	1.786	4.13	407	1000	
Ba	137	2	115	1934.793	ppb	1934.793	2.25	126225	5000	
W	182	2	165	0.715	ppb	0.715	6.63	1807	100	
Pt	195	2	165	0.025	ppb	0.025	33.66	233	100	
Tl	205	2	165	2.786	ppb	2.786	8.49	8746	2000	
Pb	208	2	165	5468.046	ppb	5468.046	2.43	21962196	5000	
Th	232	2	165	91.770	ppb	91.770	2.60	418050	2000	
U	238	2	165	15.417	ppb	15.417	1.70	83213	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	194694	1.66	431891	45.08	60	120	IS Failed
Sc (IS)	45	1	HMI H2	12619909	0.34	19663217	64.18	60	120	
Sc (IS)	45	2	HMI He	171308	1.58	231225	74.09	60	120	
Sc (IS)	45	3	No Gas	29072633	0.76	54165951	53.67	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6376164	0.56	10361975	61.53	60	120	
Ge Internal Standard	72	2	HMI He	257476	1.76	363969	70.74	60	120	
In Internal Standard	115	2	HMI He	640058	2.40	883693	72.43	60	120	
Ho-165	165	2	HMI He	5389558	2.09	7293776	73.89	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-38-E
Data File Name	147SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T00:57:52-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	84.603	ppb	84.603	2.48	41855	500000	
Li	7	2	45	24.796	ppb	24.796	88.36	2404	500000	
Li	7	3	45	67.310	ppb	67.310	14.79	1692391	50000	
Be	9	1	6	12.886	ppb	12.886	15.50	797	2000	
B	11	1	6	124.346	ppb	124.346	6.77	10177	2000	
Na	23	1	45	2377.140	ppb	2377.140	2.55	2832680	2000	
Na	23	2	45	2172.724	ppb	2172.724	0.06	114615	400000	
Mg	24	2	45	282429.717	ppb	282429.717	1.00	5971793	400000	
Al	27	2	45	212992.824	ppb	212992.824	1.41	876053	400000	
K	39	1	45	48120.094	ppb	48120.094	2.08	60511961	400000	
K	39	2	45	47202.095	ppb	47202.095	1.82	356713	400000	
Ca	40	1	45	1904156.858	ppb	1904156.858	2.27	3665160799	400000	
Ca	44	2	45	1890795.253	ppb	1890795.253	1.13	879245	400000	
Ti	47	2	45	-1132242.955	ppb	-1132242.955	-1.48	26587	4000	
V	51	2	72	332.516	ppb	332.516	1.37	91989	2000	
Cr	52	2	72	355.087	ppb	355.087	1.14	132577	5000	
Mn	55	2	72	5220.466	ppb	5220.466	0.07	540362	10000	
Fe	57	2	72	202544.793	ppb	202544.793	4.57	1363106	400000	
Co	59	2	72	76.492	ppb	76.492	2.83	62989	2000	
Ni	60	2	72	200.084	ppb	200.084	1.17	50279	5000	
Cu	63	2	72	808.723	ppb	808.723	0.41	591940	5000	
Zn	66	2	72	771.677	ppb	771.677	5.51	49193	5000	
As	75	2	72	81.635	ppb	81.635	3.02	3162	2000	
Se	78	1	72	4.220	ppb	4.220	8.84	621	2000	
Sr	88	2	72	4317.002	ppb	4317.002	0.49	387483	4000	
Zr	90	2	72	20692.235	ppb	20692.235	0.88	76126	1000	>LDR
Nb	93	2	72	3.527	ppb	3.527	6.60	4151	200	
Mo	95	2	115	9.991	ppb	9.991	3.02	3257	2000	
Pd	105	2	115	0.016	ppb	0.016	156.88	17	100	
Ag	107	2	115	0.813	ppb	0.813	18.39	1053	100	
Cd	111	2	115	8.152	ppb	8.152	17.73	900	2000	
Sn	120	2	115	7.261	ppb	7.261	4.36	1904	2000	
Sb	121	2	115	3.204	ppb	3.204	10.41	700	1000	
Ba	137	2	115	2072.911	ppb	2072.911	0.84	130097	5000	
W	182	2	165	0.809	ppb	0.809	4.85	1987	100	
Pt	195	2	165	0.038	ppb	0.038	16.04	260	100	
Tl	205	2	165	2.680	ppb	2.680	5.23	8259	2000	
Pb	208	2	165	7811.733	ppb	7811.733	1.09	30755531	5000	
Th	232	2	165	99.204	ppb	99.204	1.18	443027	2000	
U	238	2	165	15.481	ppb	15.481	1.27	81909	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	178376	1.60	431891	41.30	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11888141	1.54	19663217	60.46	60	120	
Sc (IS)	45	2	HMI He	162465	0.46	231225	70.26	60	120	
Sc (IS)	45	3	No Gas	26983593	0.65	54165951	49.82	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6003080	0.69	10361975	57.93	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	246188	0.48	363969	67.64	60	120	
In Internal Standard	115	2	HMI He	615578	0.50	883693	69.66	60	120	
Ho-165	165	2	HMI He	5281869	1.22	7293776	72.42	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	148_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:01:43-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	297.053	ppb	2.833	65536	500	59.4	90	110	>+\-10%
Li	7	2	45	295.615	ppb	15.939	4294	500	59.1	90	110	>+\-10%
Li	7	3	45	278.968	ppb	1.598	2845176	500	55.8	90	110	>+\-10%
Be	9	1	6	57.844	ppb	4.251	4016	50	115.7	90	110	>+\-10%
B	11	1	6	38.679	ppb	6.294	4524	50	77.4	90	110	>+\-10%
Na	23	1	45	4732.894	ppb	0.320	5739451	5000	94.7	90	110	
Na	23	2	45	4398.022	ppb	3.128	228264	5000	88.0	90	110	>+\-10%
Mg	24	2	45	4660.940	ppb	2.354	103768	5000	93.2	90	110	
Al	27	2	45	4969.209	ppb	5.453	21070	5000	99.4	90	110	
K	39	1	45	5295.258	ppb	1.045	9572993	5000	105.9	90	110	
K	39	2	45	5224.434	ppb	2.474	42918	5000	104.5	90	110	
Ca	40	1	45	5841.167	ppb	0.928	11890103	5000	116.8	90	110	>+\-10%
Ca	44	2	45	5900.714	ppb	5.671	2837	5000	118.0	90	110	>+\-10%
Ti	47	2	45	-743.201	ppb	-114.113	20	50	-1486.4	90	110	>+\-10%
V	51	2	72	47.138	ppb	5.127	14626	50	94.3	90	110	
Cr	52	2	72	46.848	ppb	1.442	19531	50	93.7	90	110	
Mn	55	2	72	51.403	ppb	6.354	5948	50	102.8	90	110	
Fe	57	2	72	4800.863	ppb	2.890	36017	5000	96.0	90	110	
Co	59	2	72	48.683	ppb	0.655	44680	50	97.4	90	110	
Ni	60	2	72	46.451	ppb	8.099	13029	50	92.9	90	110	
Cu	63	2	72	55.222	ppb	3.405	45817	50	110.4	90	110	>+\-10%
Zn	66	2	72	46.530	ppb	4.403	3374	50	93.1	90	110	
As	75	2	72	47.364	ppb	3.945	2046	50	94.7	90	110	
Se	78	1	72	49.023	ppb	1.465	7998	50	98.0	90	110	
Sr	88	2	72	54.521	ppb	1.957	5461	50	109.0	90	110	
Zr	90	2	72	254.530	ppb	20.440	1057	50	509.1	90	110	>+\-10%
Nb	93	2	72	100.437	ppb	1.399	128651	100	100.4	90	110	
Mo	95	2	115	47.201	ppb	1.905	17403	50	94.4	90	110	
Pd	105	2	115	49.873	ppb	2.057	33558	50	99.7	90	110	
Ag	107	2	115	48.049	ppb	0.688	70107	50	96.1	90	110	
Cd	111	2	115	48.460	ppb	5.803	6055	50	96.9	90	110	
Sn	120	2	115	49.806	ppb	2.461	14367	50	99.6	90	110	
Sb	121	2	115	50.190	ppb	1.526	12378	50	100.4	90	110	
Ba	137	2	115	49.984	ppb	9.554	3554	50	100.0	90	110	
W	182	2	165	46.358	ppb	0.899	116174	50	92.7	90	110	
Pt	195	2	165	45.398	ppb	1.438	118461	50	90.8	90	110	
Tl	205	2	165	48.987	ppb	0.360	162026	50	98.0	90	110	
Pb	208	2	165	53.447	ppb	0.113	227733	50	106.9	90	110	
Th	232	2	165	50.339	ppb	1.480	242176	50	100.7	90	110	
U	238	2	165	48.422	ppb	0.524	275807	50	96.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	200334	0.85	431891	46.39	60	120	IS Failed
Sc (IS)	45	1	HMI H2	12516833	0.40	19663217	63.66	60	120	
Sc (IS)	45	2	HMI He	167545	3.15	231225	72.46	60	120	
Sc (IS)	45	3	No Gas	30099105	1.16	54165951	55.57	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	6891495	0.07	10361975	66.51	60	120	
Ge Internal Standard	72	2	HMI He	274356	1.23	363969	75.38	60	120	
In Internal Standard	115	2	HMI He	696921	0.71	883693	78.86	60	120	
Ho-165	165	2	HMI He	5687225	0.51	7293776	77.97	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	149_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:05:31-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-93.378	ppb	-3.3	1195532	10	
Be	9	1	6	0.045	ppb	173.2	3	0.5	
B	11	1	6	-0.959	ppb	-215.2	1417	0.5	
Na	23	1	45	-65.572	ppb	-1.5	131141	25	
Na	23	2	45	-90.593	ppb	-7.2	6388	25	
Mg	24	2	45	-62.046	ppb	-3.0	900	25	
Al	27	2	45	4.798	ppb	106.9	37	15	
K	39	1	45	184.554	ppb	8.2	3257938	50	>RL
K	39	2	45	49.475	ppb	132.2	3007	50	
Ca	40	1	45	150.362	ppb	2.4	371198	50	>RL
Ca	44	2	45	125.340	ppb	36.7	73	25	>RL
Ti	47	2	45	-33.248	ppb	-694.2	3	0.5	
V	51	2	72	0.404	ppb	31.4	253	1	
Cr	52	2	72	0.014	ppb	516.5	57	1	
Mn	55	2	72	0.940	ppb	33.7	133	0.5	>RL
Fe	57	2	72	41.234	ppb	20.2	353	25	>RL
Co	59	2	72	0.015	ppb	141.5	33	0.5	
Ni	60	2	72	0.025	ppb	154.4	23	1	
Cu	63	2	72	5.474	ppb	4.5	5584	1	>RL
Zn	66	2	72	0.130	ppb	517.5	87	5	
As	75	2	72	0.084	ppb	137.3	6	1	
Se	78	1	72	-0.044	ppb	-81.2	21	1	
Sr	88	2	72	0.367	ppb	54.3	47	0.5	
Zr	90	2	72	34.947	ppb	41.3	167	1	>RL
Nb	93	2	72	1.670	ppb	10.2	2374	2	
Mo	95	2	115	0.139	ppb	31.8	60	0.5	
Pd	105	2	115	0.035	ppb	84.3	33	1	
Ag	107	2	115	0.011	ppb	64.2	23	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.034	ppb	437.6	87	1	
Sb	121	2	115	0.304	ppb	70.0	83	0.6	
Ba	137	2	115	0.049	ppb	303.2	7	0.5	
W	182	2	165	0.024	ppb	67.3	180	1	
Pt	195	2	165	0.015	ppb	107.5	227	1	
Tl	205	2	165	0.029	ppb	42.7	127	0.1	
Pb	208	2	165	3.310	ppb	6.6	15590	0.5	>RL
Th	232	2	165	0.296	ppb	1.7	1680	1	
U	238	2	165	0.010	ppb	101.9	87	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	213770	0.66	431891	49.50	60	120	IS Failed
Sc (IS)	45	1	HMI H2	13109484	0.41	19663217	66.67	60	120	
Sc (IS)	45	2	HMI He	175133	2.74	231225	75.74	60	120	
Sc (IS)	45	3	No Gas	31003735	1.45	54165951	57.24	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7218936	0.31	10361975	69.67	60	120	
Ge Internal Standard	72	2	HMI He	289507	1.27	363969	79.54	60	120	
In Internal Standard	115	2	HMI He	742672	1.80	883693	84.04	60	120	
Ho-165	165	2	HMI He	5842538	1.32	7293776	80.10	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	150LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:09:21-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-78.431	ppb	-10.588	1256586	50	-156.9	70	130	>+/-30%
Be	9	1	6	0.934	ppb	47.450	70	1	93.4	70	130	
Na	23	2	45	-43.522	ppb	-21.063	8883	50	-87.0	70	130	>+/-30%
Mg	24	2	45	-17.968	ppb	-14.166	1917	50	-35.9	70	130	>+/-30%
Al	27	2	45	36.879	ppb	10.891	180	30	122.9	70	130	
K	39	2	45	187.994	ppb	3.681	4157	100	188.0	70	130	>+/-30%
Ca	44	2	45	164.125	ppb	47.623	93	50	328.2	70	130	>+/-30%
V	51	2	72	4.815	ppb	6.751	1677	5	96.3	70	130	
Cr	52	2	72	2.092	ppb	8.238	963	2	104.6	70	130	
Mn	55	2	72	1.693	ppb	20.586	223	1	169.3	70	130	>+/-30%
Fe	57	2	72	80.948	ppb	9.312	663	50	161.9	70	130	>+/-30%
Co	59	2	72	1.072	ppb	10.980	1050	1	107.2	70	130	
Ni	60	2	72	1.805	ppb	15.736	547	2	90.3	70	130	
Cu	63	2	72	6.377	ppb	4.756	6325	2	318.8	70	130	>+/-30%
Zn	66	2	72	11.834	ppb	12.813	957	10	118.3	70	130	
As	75	2	72	4.905	ppb	7.312	224	5	98.1	70	130	
Se	78	1	72	4.485	ppb	6.184	780	5	89.7	70	130	
Sr	88	2	72	1.359	ppb	49.942	150	1	135.9	70	130	>+/-30%
Zr	90	2	72	76.921	ppb	12.318	347	0.5	15384.2	70	130	>+/-30%
Nb	93	2	72	1.461	ppb	8.006	2080	2	73.1	70	130	
Mo	95	2	115	1.786	ppb	7.104	703	2	89.3	70	130	
Pd	105	2	115	0.016	ppb	148.734	20	1	1.6	70	130	>+/-30%
Ag	107	2	115	4.904	ppb	3.115	7592	5	98.1	70	130	
Cd	111	2	115	0.958	ppb	45.425	127	1	95.8	70	130	
Sn	120	2	115	10.225	ppb	3.109	3187	10	102.2	70	130	
Sb	121	2	115	1.913	ppb	12.571	503	2	95.7	70	130	
Ba	137	2	115	1.291	ppb	27.796	100	1	129.1	70	130	
W	182	2	165	4.719	ppb	5.890	12339	1	471.9	70	130	>+/-30%
Pt	195	2	165	0.029	ppb	105.087	267	1	2.9	70	130	>+/-30%
Tl	205	2	165	1.083	ppb	2.299	3734	1	108.3	70	130	
Pb	208	2	165	4.033	ppb	1.129	18878	1	403.3	70	130	>+/-30%
Th	232	2	165	2.348	ppb	2.482	11895	2	117.4	70	130	
U	238	2	165	1.034	ppb	4.178	6118	1	103.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	215020	1.89	431891	49.79	60	120	IS Failed
Sc (IS)	45	1	HMI H2	12986326	0.35	19663217	66.04	60	120	
Sc (IS)	45	2	HMI He	176317	1.40	231225	76.25	60	120	
Sc (IS)	45	3	No Gas	30795134	0.74	54165951	56.85	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7103489	0.10	10361975	68.55	60	120	
Ge Internal Standard	72	2	HMI He	287877	1.06	363969	79.09	60	120	
In Internal Standard	115	2	HMI He	739113	0.69	883693	83.64	60	120	
Ho-165	165	2	HMI He	5884515	0.71	7293776	80.68	60	120	

Sample Table

Sample Name	280-104412-A-39-E
Data File Name	151SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:13:11-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	88.114	ppb	88.114	11.86	39974	500000	
Li	7	2	45	67.840	ppb	67.840	42.48	2607	500000	
Li	7	3	45	58.515	ppb	58.515	1.60	1554809	50000	
Be	9	1	6	9.093	ppb	9.093	14.94	523	2000	
B	11	1	6	116.930	ppb	116.930	3.29	8986	2000	
Na	23	1	45	2290.996	ppb	2290.996	2.09	2593397	2000	
Na	23	2	45	2080.686	ppb	2080.686	1.08	107000	400000	
Mg	24	2	45	278325.920	ppb	278325.920	1.11	5714557	400000	
Al	27	2	45	197453.616	ppb	197453.616	0.64	788625	400000	
K	39	1	45	44497.616	ppb	44497.616	1.59	53214523	400000	
K	39	2	45	44594.345	ppb	44594.345	0.96	327382	400000	
Ca	40	1	45	1936393.336	ppb	1936393.336	0.87	3531819147	400000	
Ca	44	2	45	1974200.222	ppb	1974200.222	0.74	891420	400000	
Ti	47	2	45	-1018594.874	ppb	-1018594.874	-1.90	23226	4000	
V	51	2	72	318.490	ppb	318.490	1.70	84927	2000	
Cr	52	2	72	337.137	ppb	337.137	3.62	121308	5000	
Mn	55	2	72	5125.261	ppb	5125.261	1.36	511300	10000	
Fe	57	2	72	181405.974	ppb	181405.974	1.80	1176452	400000	
Co	59	2	72	72.963	ppb	72.963	2.50	57905	2000	
Ni	60	2	72	193.750	ppb	193.750	1.49	46926	5000	
Cu	63	2	72	871.535	ppb	871.535	2.00	614755	5000	
Zn	66	2	72	774.090	ppb	774.090	3.73	47568	5000	
As	75	2	72	79.939	ppb	79.939	2.82	2984	2000	
Se	78	1	72	3.885	ppb	3.885	8.61	540	2000	
Sr	88	2	72	4720.446	ppb	4720.446	2.93	408318	4000	
Zr	90	2	72	19717.358	ppb	19717.358	3.99	69911	1000	>LDR
Nb	93	2	72	3.572	ppb	3.572	1.95	4051	200	
Mo	95	2	115	11.729	ppb	11.729	4.79	3807	2000	
Pd	105	2	115	0.039	ppb	0.039	43.73	30	100	
Ag	107	2	115	4.038	ppb	4.038	9.48	5184	100	
Cd	111	2	115	7.218	ppb	7.218	15.36	793	2000	
Sn	120	2	115	7.994	ppb	7.994	4.77	2080	2000	
Sb	121	2	115	25.327	ppb	25.327	4.35	5495	1000	
Ba	137	2	115	2089.323	ppb	2089.323	2.76	130539	5000	
W	182	2	165	0.823	ppb	0.823	4.99	1994	100	
Pt	195	2	165	0.778	ppb	0.778	163.65	2032	100	
Tl	205	2	165	2.794	ppb	2.794	5.45	8489	2000	
Pb	208	2	165	33567.094	ppb	33567.094	1.51	130396860	5000	>LDR
Th	232	2	165	94.490	ppb	94.490	1.79	416337	2000	
U	238	2	165	15.845	ppb	15.845	2.15	82713	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	166119	0.79	431891	38.46	60	120	IS Failed
Sc (IS)	45	1	HMI H2	11262919	0.93	19663217	57.28	60	120	IS Failed
Sc (IS)	45	2	HMI He	157749	0.82	231225	68.22	60	120	
Sc (IS)	45	3	No Gas	25325118	0.62	54165951	46.75	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5645508	0.57	10361975	54.48	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	237276	0.63	363969	65.19	60	120	
In Internal Standard	115	2	HMI He	612896	1.34	883693	69.36	60	120	
Ho-165	165	2	HMI He	5211518	0.64	7293776	71.45	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-47-E
Data File Name	152SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:17:03-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-29.785	ppb	-29.785	-9.51	28399	500000	
Li	7	2	45	-60.709	ppb	-60.709	-49.78	1720	500000	
Li	7	3	45	-33.768	ppb	-33.768	-13.58	1152109	50000	
Be	9	1	6	5.697	ppb	5.697	27.92	317	2000	
B	11	1	6	64.735	ppb	64.735	9.78	5288	2000	
Na	23	1	45	1527.987	ppb	1527.987	0.56	1737911	2000	
Na	23	2	45	1375.315	ppb	1375.315	2.97	71095	400000	
Mg	24	2	45	164184.183	ppb	164184.183	1.72	3235230	400000	
Al	27	2	45	88354.665	ppb	88354.665	1.30	338612	400000	
K	39	1	45	21407.548	ppb	21407.548	0.27	26157812	400000	
K	39	2	45	21788.517	ppb	21788.517	1.73	154628	400000	
Ca	40	1	45	2351628.805	ppb	2351628.805	0.31	4163753431	400000	>LDR
Ca	44	2	45	2384851.018	ppb	2384851.018	0.88	1033343	400000	>LDR
Ti	47	2	45	-415847.544	ppb	-415847.544	-11.61	9086	4000	
V	51	2	72	190.595	ppb	190.595	1.36	48463	2000	
Cr	52	2	72	355.883	ppb	355.883	0.48	122036	5000	
Mn	55	2	72	2615.448	ppb	2615.448	2.00	248599	10000	
Fe	57	2	72	88854.715	ppb	88854.715	1.34	549074	400000	
Co	59	2	72	36.913	ppb	36.913	2.25	27919	2000	
Ni	60	2	72	118.563	ppb	118.563	1.93	27369	5000	
Cu	63	2	72	25064.058	ppb	25064.058	1.13	16826757	5000	>LDR
Zn	66	2	72	2984.942	ppb	2984.942	1.24	174596	5000	
As	75	2	72	58.385	ppb	58.385	0.83	2077	2000	
Se	78	1	72	3.269	ppb	3.269	17.06	451	2000	
Sr	88	2	72	6489.220	ppb	6489.220	0.88	534968	4000	
Zr	90	2	72	9763.338	ppb	9763.338	1.81	32998	1000	>LDR
Nb	93	2	72	3.996	ppb	3.996	8.19	4307	200	
Mo	95	2	115	15.699	ppb	15.699	11.88	4801	2000	
Pd	105	2	115	0.036	ppb	0.036	28.14	27	100	
Ag	107	2	115	3.258	ppb	3.258	8.63	3947	100	
Cd	111	2	115	8.241	ppb	8.241	10.40	853	2000	
Sn	120	2	115	12.058	ppb	12.058	5.50	2929	2000	
Sb	121	2	115	88.543	ppb	88.543	2.07	18107	1000	
Ba	137	2	115	1243.516	ppb	1243.516	1.05	73258	5000	
W	182	2	165	0.856	ppb	0.856	10.69	1980	100	
Pt	195	2	165	0.031	ppb	0.031	86.68	230	100	
Tl	205	2	165	1.638	ppb	1.638	10.36	4771	2000	
Pb	208	2	165	104221.110	ppb	104221.110	1.06	387362274	5000	>LDR
Th	232	2	165	44.646	ppb	44.646	0.47	188320	2000	
U	238	2	165	15.609	ppb	15.609	1.59	77960	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	159902	1.60	431891	37.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10933153	0.70	19663217	55.60	60	120	IS Failed
Sc (IS)	45	2	HMI He	151399	2.44	231225	65.48	60	120	
Sc (IS)	45	3	No Gas	24242820	0.41	54165951	44.76	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5553192	1.13	10361975	53.59	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	226105	1.40	363969	62.12	60	120	
In Internal Standard	115	2	HMI He	577838	0.64	883693	65.39	60	120	
Ho-165	165	2	HMI He	4986091	0.37	7293776	68.36	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-48-E
Data File Name	153SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:20:53-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-11.789	ppb	-11.789	-70.95	28272	500000	
Li	7	2	45	-62.718	ppb	-62.718	-47.37	1617	500000	
Li	7	3	45	-37.643	ppb	-37.643	-20.36	1073601	50000	
Be	9	1	6	7.432	ppb	7.432	12.71	383	2000	
B	11	1	6	80.686	ppb	80.686	7.37	5881	2000	
Na	23	1	45	1763.692	ppb	1763.692	1.19	1865480	2000	
Na	23	2	45	1618.649	ppb	1618.649	1.10	77671	400000	
Mg	24	2	45	183577.945	ppb	183577.945	0.94	3426597	400000	
Al	27	2	45	107402.383	ppb	107402.383	0.55	389904	400000	
K	39	1	45	26172.863	ppb	26172.863	0.62	29621580	400000	
K	39	2	45	26759.040	ppb	26759.040	1.14	179406	400000	
Ca	40	1	45	2579997.374	ppb	2579997.374	0.58	4306490282	400000	>LDR
Ca	44	2	45	2631964.982	ppb	2631964.982	0.37	1080284	400000	>LDR
Ti	47	2	45	-562110.625	ppb	-562110.625	-2.40	11651	4000	
V	51	2	72	216.892	ppb	216.892	2.45	52521	2000	
Cr	52	2	72	387.856	ppb	387.856	0.95	126674	5000	
Mn	55	2	72	2884.891	ppb	2884.891	1.82	261243	10000	
Fe	57	2	72	104808.883	ppb	104808.883	0.81	616965	400000	
Co	59	2	72	41.444	ppb	41.444	2.67	29866	2000	
Ni	60	2	72	131.771	ppb	131.771	1.52	28971	5000	
Cu	63	2	72	5858.816	ppb	5858.816	1.26	3747330	5000	
Zn	66	2	72	1078.728	ppb	1078.728	1.76	60143	5000	
As	75	2	72	65.223	ppb	65.223	6.17	2210	2000	
Se	78	1	72	4.532	ppb	4.532	14.17	579	2000	
Sr	88	2	72	7194.377	ppb	7194.377	2.22	564886	4000	
Zr	90	2	72	10723.200	ppb	10723.200	2.49	34515	1000	>LDR
Nb	93	2	72	4.237	ppb	4.237	3.19	4344	200	
Mo	95	2	115	15.453	ppb	15.453	3.23	4491	2000	
Pd	105	2	115	0.051	ppb	0.051	76.01	33	100	
Ag	107	2	115	2.943	ppb	2.943	4.80	3387	100	
Cd	111	2	115	8.186	ppb	8.186	11.56	807	2000	
Sn	120	2	115	11.352	ppb	11.352	11.67	2620	2000	
Sb	121	2	115	56.434	ppb	56.434	1.23	10967	1000	
Ba	137	2	115	1387.147	ppb	1387.147	0.90	77660	5000	
W	182	2	165	0.870	ppb	0.870	4.17	1904	100	
Pt	195	2	165	0.015	ppb	0.015	210.95	183	100	
Tl	205	2	165	1.937	ppb	1.937	6.09	5341	2000	
Pb	208	2	165	92245.194	ppb	92245.194	1.55	324783352	5000	>LDR
Th	232	2	165	49.717	ppb	49.717	1.68	198627	2000	
U	238	2	165	17.226	ppb	17.226	3.61	81477	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	148918	1.10	431891	34.48	60	120	IS Failed
Sc (IS)	45	1	HMI H2	10307139	0.65	19663217	52.42	60	120	IS Failed
Sc (IS)	45	2	HMI He	143394	1.07	231225	62.01	60	120	
Sc (IS)	45	3	No Gas	22869857	0.82	54165951	42.22	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	5219295	0.45	10361975	50.37	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	215372	0.66	363969	59.17	60	120	IS Failed
In Internal Standard	115	2	HMI He	549167	1.43	883693	62.14	60	120	
Ho-165	165	2	HMI He	4724218	2.07	7293776	64.77	60	120	

Sample Table

Sample Name	280-104412-A-49-E
Data File Name	154SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:24:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-37.106	ppb	-37.106	-29.46	24917	500000	
Li	7	2	45	-52.629	ppb	-52.629	-15.78	1580	500000	
Li	7	3	45	-76.729	ppb	-76.729	-3.45	861031	50000	
Be	9	1	6	5.679	ppb	5.679	2.56	273	2000	
B	11	1	6	74.064	ppb	74.064	4.98	5114	2000	
Na	23	1	45	1579.053	ppb	1579.053	2.27	1607140	2000	
Na	23	2	45	1443.197	ppb	1443.197	2.08	66243	400000	
Mg	24	2	45	162611.826	ppb	162611.826	0.80	2862948	400000	
Al	27	2	45	91650.846	ppb	91650.846	0.65	313800	400000	
K	39	1	45	22323.482	ppb	22323.482	2.51	24390835	400000	
K	39	2	45	23204.725	ppb	23204.725	2.49	147006	400000	
Ca	40	1	45	2590380.480	ppb	2590380.480	2.21	4117445485	400000	>LDR
Ca	44	2	45	2693774.426	ppb	2693774.426	1.06	1042714	400000	>LDR
Ti	47	2	45	-431535.318	ppb	-431535.318	-9.19	8436	4000	
V	51	2	72	190.318	ppb	190.318	1.62	43961	2000	
Cr	52	2	72	330.409	ppb	330.409	1.89	102917	5000	
Mn	55	2	72	2514.369	ppb	2514.369	1.16	217136	10000	
Fe	57	2	72	92332.851	ppb	92332.851	0.62	518347	400000	
Co	59	2	72	37.052	ppb	37.052	1.22	25462	2000	
Ni	60	2	72	122.392	ppb	122.392	1.53	25666	5000	
Cu	63	2	72	9756.143	ppb	9756.143	1.28	5950571	5000	
Zn	66	2	72	1406.869	ppb	1406.869	2.49	74781	5000	
As	75	2	72	58.277	ppb	58.277	2.09	1884	2000	
Se	78	1	72	4.375	ppb	4.375	9.02	533	2000	
Sr	88	2	72	7282.074	ppb	7282.074	1.17	545294	4000	
Zr	90	2	72	9427.588	ppb	9427.588	4.28	28942	1000	>LDR
Nb	93	2	72	3.165	ppb	3.165	8.55	3117	200	
Mo	95	2	115	21.304	ppb	21.304	9.39	5875	2000	
Pd	105	2	115	0.041	ppb	0.041	138.54	27	100	
Ag	107	2	115	3.678	ppb	3.678	6.17	4017	100	
Cd	111	2	115	8.743	ppb	8.743	5.38	817	2000	
Sn	120	2	115	15.443	ppb	15.443	5.33	3367	2000	
Sb	121	2	115	105.501	ppb	105.501	2.99	19462	1000	
Ba	137	2	115	1205.305	ppb	1205.305	0.29	64054	5000	
W	182	2	165	0.867	ppb	0.867	16.03	1824	100	
Pt	195	2	165	0.031	ppb	0.031	84.25	210	100	
Tl	205	2	165	1.873	ppb	1.873	4.65	4964	2000	
Pb	208	2	165	125545.295	ppb	125545.295	0.79	424826080	5000	>LDR
Th	232	2	165	44.685	ppb	44.685	0.18	171599	2000	
U	238	2	165	17.532	ppb	17.532	1.91	79725	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	138890	1.38	431891	32.16	60	120	IS Failed
Sc (IS)	45	1	HMI H2	9817776	1.95	19663217	49.93	60	120	IS Failed
Sc (IS)	45	2	HMI He	135236	0.45	231225	58.49	60	120	IS Failed
Sc (IS)	45	3	No Gas	20969445	1.14	54165951	38.71	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4972800	1.47	10361975	47.99	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	205392	0.70	363969	56.43	60	120	IS Failed
In Internal Standard	115	2	HMI He	521236	0.84	883693	58.98	60	120	IS Failed
Ho-165	165	2	HMI He	4539474	0.64	7293776	62.24	60	120	

Sample Table

Sample Name	280-104412-A-50-E
Data File Name	155SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:28:36-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-42.239	ppb	-42.239	-23.62	22855	500000	
Li	7	2	45	-45.288	ppb	-45.288	-66.16	1537	500000	
Li	7	3	45	-83.662	ppb	-83.662	-2.50	774414	50000	
Be	9	1	6	7.523	ppb	7.523	15.05	327	2000	
B	11	1	6	78.258	ppb	78.258	6.00	4831	2000	
Na	23	1	45	1612.248	ppb	1612.248	0.46	1527019	2000	
Na	23	2	45	1470.399	ppb	1470.399	0.57	63892	400000	
Mg	24	2	45	162260.461	ppb	162260.461	0.54	2710797	400000	
Al	27	2	45	90010.086	ppb	90010.086	0.91	292452	400000	
K	39	1	45	22519.954	ppb	22519.954	0.53	22926843	400000	
K	39	2	45	22842.810	ppb	22842.810	1.24	137339	400000	
Ca	40	1	45	2717300.450	ppb	2717300.450	0.47	4027823407	400000	>LDR
Ca	44	2	45	2783577.899	ppb	2783577.899	1.12	1022449	400000	>LDR
Ti	47	2	45	-426816.671	ppb	-426816.671	-4.51	7919	4000	
V	51	2	72	193.402	ppb	193.402	2.69	42074	2000	
Cr	52	2	72	443.268	ppb	443.268	0.60	130048	5000	
Mn	55	2	72	2510.973	ppb	2510.973	1.64	204233	10000	
Fe	57	2	72	91092.339	ppb	91092.339	1.61	481647	400000	
Co	59	2	72	37.915	ppb	37.915	2.82	24538	2000	
Ni	60	2	72	126.477	ppb	126.477	5.39	24975	5000	
Cu	63	2	72	19725.063	ppb	19725.063	0.80	11331469	5000	
Zn	66	2	72	2447.418	ppb	2447.418	1.99	122499	5000	
As	75	2	72	67.742	ppb	67.742	2.01	2062	2000	
Se	78	1	72	5.355	ppb	5.355	14.58	604	2000	
Sr	88	2	72	7497.137	ppb	7497.137	0.08	528792	4000	
Zr	90	2	72	9710.152	ppb	9710.152	1.79	28077	1000	>LDR
Nb	93	2	72	3.549	ppb	3.549	7.46	3284	200	
Mo	95	2	115	21.510	ppb	21.510	2.20	5578	2000	
Pd	105	2	115	0.079	ppb	0.079	92.34	43	100	
Ag	107	2	115	4.796	ppb	4.796	0.87	4924	100	
Cd	111	2	115	8.421	ppb	8.421	6.16	740	2000	
Sn	120	2	115	12.067	ppb	12.067	9.70	2487	2000	
Sb	121	2	115	139.031	ppb	139.031	3.80	24105	1000	
Ba	137	2	115	1219.311	ppb	1219.311	1.63	60921	5000	
W	182	2	165	0.881	ppb	0.881	0.04	1770	100	
Pt	195	2	165	0.019	ppb	0.019	78.47	177	100	
Tl	205	2	165	1.847	ppb	1.847	5.15	4678	2000	
Pb	208	2	165	138897.531	ppb	138897.531	0.42	449065237	5000	>LDR
Th	232	2	165	44.436	ppb	44.436	0.30	163035	2000	
U	238	2	165	17.733	ppb	17.733	0.48	77042	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	125465	1.78	431891	29.05	60	120	IS Failed
Sc (IS)	45	1	HMI H2	9152827	0.46	19663217	46.55	60	120	IS Failed
Sc (IS)	45	2	HMI He	128326	0.59	231225	55.50	60	120	IS Failed
Sc (IS)	45	3	No Gas	19350147	0.49	54165951	35.72	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4637041	0.68	10361975	44.75	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	193463	0.99	363969	53.15	60	120	IS Failed
In Internal Standard	115	2	HMI He	490080	1.17	883693	55.46	60	120	IS Failed
Ho-165	165	2	HMI He	4337109	0.60	7293776	59.46	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-51-E
Data File Name	156SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:32:28-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-42.129	ppb	-42.129	-27.64	20959	500000	
Li	7	2	45	-97.460	ppb	-97.460	-27.97	1163	500000	
Li	7	3	45	-82.823	ppb	-82.823	-3.30	693166	50000	
Be	9	1	6	7.426	ppb	7.426	2.34	287	2000	
B	11	1	6	88.052	ppb	88.052	6.29	4731	2000	
Na	23	1	45	1873.395	ppb	1873.395	2.45	1604566	2000	
Na	23	2	45	1727.756	ppb	1727.756	7.93	67462	400000	
Mg	24	2	45	195218.425	ppb	195218.425	4.65	2988315	400000	
Al	27	2	45	105546.046	ppb	105546.046	5.45	314201	400000	
K	39	1	45	24978.552	ppb	24978.552	0.62	23101829	400000	
K	39	2	45	25865.375	ppb	25865.375	4.79	142279	400000	
Ca	40	1	45	3199734.291	ppb	3199734.291	0.86	4347850922	400000	>LDR
Ca	44	2	45	3367187.644	ppb	3367187.644	4.88	1133300	400000	>LDR
Ti	47	2	45	-479479.113	ppb	-479479.113	-3.60	8155	4000	
V	51	2	72	228.486	ppb	228.486	2.94	45204	2000	
Cr	52	2	72	363.927	ppb	363.927	3.97	97099	5000	
Mn	55	2	72	3143.012	ppb	3143.012	6.32	232404	10000	
Fe	57	2	72	106656.933	ppb	106656.933	5.25	512782	400000	
Co	59	2	72	44.436	ppb	44.436	4.41	26153	2000	
Ni	60	2	72	144.290	ppb	144.290	6.99	25903	5000	
Cu	63	2	72	24455.932	ppb	24455.932	5.24	12774051	5000	
Zn	66	2	72	3096.921	ppb	3096.921	4.16	140959	5000	
As	75	2	72	75.189	ppb	75.189	6.11	2081	2000	
Se	78	1	72	5.240	ppb	5.240	9.28	544	2000	
Sr	88	2	72	9218.142	ppb	9218.142	5.38	591136	4000	
Zr	90	2	72	11125.937	ppb	11125.937	6.88	29242	1000	>LDR
Nb	93	2	72	4.650	ppb	4.650	6.31	3887	200	
Mo	95	2	115	20.729	ppb	20.729	9.73	4968	2000	
Pd	105	2	115	0.050	ppb	0.050	28.60	27	100	
Ag	107	2	115	4.959	ppb	4.959	5.25	4694	100	
Cd	111	2	115	12.414	ppb	12.414	20.19	1007	2000	
Sn	120	2	115	16.317	ppb	16.317	8.66	3087	2000	
Sb	121	2	115	190.864	ppb	190.864	6.24	30508	1000	
Ba	137	2	115	1477.383	ppb	1477.383	5.79	68049	5000	
W	182	2	165	1.171	ppb	1.171	13.44	2117	100	
Pt	195	2	165	-0.018	ppb	-0.018	-23.81	93	100	
Tl	205	2	165	2.317	ppb	2.317	3.79	5348	2000	
Pb	208	2	165	195750.419	ppb	195750.419	5.10	576740785	5000	>LDR
Th	232	2	165	53.556	ppb	53.556	5.94	179031	2000	
U	238	2	165	22.144	ppb	22.144	4.01	87680	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	111389	0.54	431891	25.79	60	120	IS Failed
Sc (IS)	45	1	HMI H2	8390793	0.69	19663217	42.67	60	120	IS Failed
Sc (IS)	45	2	HMI He	117695	2.80	231225	50.90	60	120	IS Failed
Sc (IS)	45	3	No Gas	17266461	1.10	54165951	31.88	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4264718	0.82	10361975	41.16	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	176048	2.47	363969	48.37	60	120	IS Failed
In Internal Standard	115	2	HMI He	452207	2.60	883693	51.17	60	120	IS Failed
Ho-165	165	2	HMI He	3955390	2.38	7293776	54.23	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-69-E
Data File Name	157SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:36:20-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-10.819	ppb	-10.819	-47.77	22277	500000	
Li	7	2	45	-11.670	ppb	-11.670	-129.17	1580	500000	
Li	7	3	45	-47.940	ppb	-47.940	-3.37	730673	50000	
Be	9	1	6	12.004	ppb	12.004	33.84	440	2000	
B	11	1	6	96.073	ppb	96.073	2.72	4827	2000	
Na	23	1	45	2180.762	ppb	2180.762	1.39	1781508	2000	
Na	23	2	45	1927.419	ppb	1927.419	1.26	75017	400000	
Mg	24	2	45	331482.507	ppb	331482.507	2.60	5111632	400000	
Al	27	2	45	142040.251	ppb	142040.251	2.03	426124	400000	
K	39	1	45	33895.842	ppb	33895.842	0.54	29594499	400000	
K	39	2	45	33998.468	ppb	33998.468	1.97	187898	400000	
Ca	40	1	45	1733522.480	ppb	1733522.480	0.77	2273640019	400000	
Ca	44	2	45	1763828.504	ppb	1763828.504	2.53	598213	400000	
Ti	47	2	45	-726416.794	ppb	-726416.794	-3.42	12445	4000	
V	51	2	72	242.438	ppb	242.438	1.61	49466	2000	
Cr	52	2	72	393.223	ppb	393.223	2.47	108215	5000	
Mn	55	2	72	3775.263	ppb	3775.263	0.41	288068	10000	
Fe	57	2	72	133537.905	ppb	133537.905	0.64	662437	400000	
Co	59	2	72	51.629	ppb	51.629	0.85	31349	2000	
Ni	60	2	72	144.763	ppb	144.763	2.25	26821	5000	
Cu	63	2	72	138.708	ppb	138.708	2.39	75286	5000	
Zn	66	2	72	540.121	ppb	540.121	2.87	25399	5000	
As	75	2	72	58.563	ppb	58.563	4.93	1672	2000	
Se	78	1	72	3.255	ppb	3.255	7.82	339	2000	
Sr	88	2	72	3417.023	ppb	3417.023	0.85	226112	4000	
Zr	90	2	72	13791.710	ppb	13791.710	2.28	37404	1000	>LDR
Nb	93	2	72	3.289	ppb	3.289	6.79	2860	200	
Mo	95	2	115	9.479	ppb	9.479	2.26	2404	2000	
Pd	105	2	115	0.111	ppb	0.111	68.68	57	100	
Ag	107	2	115	0.589	ppb	0.589	33.41	593	100	
Cd	111	2	115	6.683	ppb	6.683	11.05	573	2000	
Sn	120	2	115	7.092	ppb	7.092	5.14	1447	2000	
Sb	121	2	115	0.422	ppb	0.422	42.16	73	1000	
Ba	137	2	115	1474.928	ppb	1474.928	1.64	71992	5000	
W	182	2	165	0.609	ppb	0.609	16.10	1197	100	
Pt	195	2	165	0.021	ppb	0.021	48.47	173	100	
Tl	205	2	165	1.815	ppb	1.815	2.58	4401	2000	
Pb	208	2	165	236.661	ppb	236.661	1.38	733298	5000	
Th	232	2	165	70.109	ppb	70.109	0.87	246172	2000	
U	238	2	165	14.064	ppb	14.064	0.74	58494	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	105647	0.66	431891	24.46	60	120	IS Failed
Sc (IS)	45	1	HMI H2	8098925	0.63	19663217	41.19	60	120	IS Failed
Sc (IS)	45	2	HMI He	118520	1.62	231225	51.26	60	120	IS Failed
Sc (IS)	45	3	No Gas	16097244	0.29	54165951	29.72	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4192033	0.15	10361975	40.46	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	181489	1.44	363969	49.86	60	120	IS Failed
In Internal Standard	115	2	HMI He	478794	0.87	883693	54.18	60	120	IS Failed
Ho-165	165	2	HMI He	4152002	0.79	7293776	56.93	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-70-E
Data File Name	158SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:40:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-50.752	ppb	-50.752	-17.07	18216	500000	
Li	7	2	45	-86.020	ppb	-86.020	-43.00	1177	500000	
Li	7	3	45	-86.629	ppb	-86.629	-3.83	584052	50000	
Be	9	1	6	6.194	ppb	6.194	17.25	200	2000	
B	11	1	6	95.469	ppb	95.469	7.60	4234	2000	
Na	23	1	45	1871.855	ppb	1871.855	2.25	1433687	2000	
Na	23	2	45	1691.083	ppb	1691.083	2.23	63826	400000	
Mg	24	2	45	181780.542	ppb	181780.542	3.57	2678662	400000	
Al	27	2	45	104794.462	ppb	104794.462	1.88	300517	400000	
K	39	1	45	27771.616	ppb	27771.616	1.06	22773134	400000	
K	39	2	45	27387.205	ppb	27387.205	1.08	145034	400000	
Ca	40	1	45	2852416.087	ppb	2852416.087	1.24	3465641442	400000	>LDR
Ca	44	2	45	2848213.692	ppb	2848213.692	2.08	923256	400000	>LDR
Ti	47	2	45	-544363.891	ppb	-544363.891	-6.15	8903	4000	
V	51	2	72	217.261	ppb	217.261	0.13	42488	2000	
Cr	52	2	72	419.710	ppb	419.710	0.56	110693	5000	
Mn	55	2	72	2941.523	ppb	2941.523	0.68	215097	10000	
Fe	57	2	72	101780.198	ppb	101780.198	0.22	483843	400000	
Co	59	2	72	40.684	ppb	40.684	1.96	23677	2000	
Ni	60	2	72	137.689	ppb	137.689	4.87	24448	5000	
Cu	63	2	72	10791.421	ppb	10791.421	0.11	5573434	5000	
Zn	66	2	72	1738.185	ppb	1738.185	1.79	78219	5000	
As	75	2	72	68.165	ppb	68.165	6.01	1867	2000	
Se	78	1	72	4.200	ppb	4.200	4.99	399	2000	
Sr	88	2	72	7759.184	ppb	7759.184	1.11	492057	4000	
Zr	90	2	72	10955.032	ppb	10955.032	2.21	28481	1000	>LDR
Nb	93	2	72	6.138	ppb	6.138	4.46	5054	200	
Mo	95	2	115	17.127	ppb	17.127	6.97	4157	2000	
Pd	105	2	115	0.085	ppb	0.085	63.65	43	100	
Ag	107	2	115	2.879	ppb	2.879	8.17	2774	100	
Cd	111	2	115	10.640	ppb	10.640	11.01	877	2000	
Sn	120	2	115	37.902	ppb	37.902	3.82	7212	2000	
Sb	121	2	115	107.908	ppb	107.908	2.59	17520	1000	
Ba	137	2	115	1487.159	ppb	1487.159	1.28	69605	5000	
W	182	2	165	0.962	ppb	0.962	11.14	1774	100	
Pt	195	2	165	0.038	ppb	0.038	54.62	197	100	
Tl	205	2	165	1.862	ppb	1.862	4.08	4344	2000	
Pb	208	2	165	90110.013	ppb	90110.013	0.46	268298314	5000	>LDR
Th	232	2	165	51.206	ppb	51.206	1.06	173003	2000	
U	238	2	165	17.400	ppb	17.400	1.92	69610	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	93167	0.85	431891	21.57	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7502553	0.44	19663217	38.16	60	120	IS Failed
Sc (IS)	45	2	HMI He	113321	4.58	231225	49.01	60	120	IS Failed
Sc (IS)	45	3	No Gas	14758719	0.85	54165951	27.25	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	3867696	0.43	10361975	37.33	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	173917	2.27	363969	47.78	60	120	IS Failed
In Internal Standard	115	2	HMI He	458984	2.28	883693	51.94	60	120	IS Failed
Ho-165	165	2	HMI He	3994348	1.78	7293776	54.76	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-71-E
Data File Name	159SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:44:04-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-64.881	ppb	-64.881	-11.98	15861	500000	
Li	7	2	45	-59.505	ppb	-59.505	-93.22	1183	500000	
Li	7	3	45	-96.599	ppb	-96.599	-0.33	509124	50000	
Be	9	1	6	6.079	ppb	6.079	36.26	173	2000	
B	11	1	6	98.462	ppb	98.462	12.82	3844	2000	
Na	23	1	45	1671.944	ppb	1671.944	2.06	1181700	2000	
Na	23	2	45	1457.227	ppb	1457.227	2.39	51256	400000	
Mg	24	2	45	172016.604	ppb	172016.604	0.89	2323579	400000	
Al	27	2	45	96982.745	ppb	96982.745	1.39	254775	400000	
K	39	1	45	25896.492	ppb	25896.492	0.55	19507127	400000	
K	39	2	45	25925.514	ppb	25925.514	1.82	125831	400000	
Ca	40	1	45	2682154.713	ppb	2682154.713	1.66	2977013182	400000	>LDR
Ca	44	2	45	2728205.222	ppb	2728205.222	1.87	810260	400000	>LDR
Ti	47	2	45	-479052.438	ppb	-479052.438	-3.19	7185	4000	
V	51	2	72	205.421	ppb	205.421	1.80	37090	2000	
Cr	52	2	72	330.686	ppb	330.686	3.25	80518	5000	
Mn	55	2	72	2823.714	ppb	2823.714	1.04	190623	10000	
Fe	57	2	72	97016.004	ppb	97016.004	1.38	425763	400000	
Co	59	2	72	39.686	ppb	39.686	3.30	21320	2000	
Ni	60	2	72	132.684	ppb	132.684	4.24	21751	5000	
Cu	63	2	72	21351.342	ppb	21351.342	0.88	10179947	5000	
Zn	66	2	72	2838.830	ppb	2838.830	1.55	117926	5000	
As	75	2	72	67.165	ppb	67.165	1.21	1697	2000	
Se	78	1	72	4.105	ppb	4.105	6.15	360	2000	
Sr	88	2	72	7443.673	ppb	7443.673	1.81	435725	4000	
Zr	90	2	72	10671.294	ppb	10671.294	0.98	25610	1000	>LDR
Nb	93	2	72	5.681	ppb	5.681	2.72	4321	200	
Mo	95	2	115	13.847	ppb	13.847	3.69	3167	2000	
Pd	105	2	115	0.068	ppb	0.068	81.17	33	100	
Ag	107	2	115	2.848	ppb	2.848	8.37	2580	100	
Cd	111	2	115	8.298	ppb	8.298	15.87	643	2000	
Sn	120	2	115	21.604	ppb	21.604	3.59	3887	2000	
Sb	121	2	115	80.657	ppb	80.657	2.96	12332	1000	
Ba	137	2	115	1403.314	ppb	1403.314	2.93	61808	5000	
W	182	2	165	0.908	ppb	0.908	19.04	1597	100	
Pt	195	2	165	0.011	ppb	0.011	198.96	140	100	
Tl	205	2	165	1.594	ppb	1.594	9.20	3544	2000	
Pb	208	2	165	74792.124	ppb	74792.124	0.28	212144952	5000	>LDR
Th	232	2	165	47.205	ppb	47.205	1.38	151948	2000	
U	238	2	165	16.212	ppb	16.212	1.83	61795	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	82434	1.20	431891	19.09	60	120	IS Failed
Sc (IS)	45	1	HMI H2	6854278	0.84	19663217	34.86	60	120	IS Failed
Sc (IS)	45	2	HMI He	103763	0.29	231225	44.88	60	120	IS Failed
Sc (IS)	45	3	No Gas	13370845	1.46	54165951	24.68	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	3570593	0.07	10361975	34.46	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	160560	0.29	363969	44.11	60	120	IS Failed
In Internal Standard	115	2	HMI He	431927	1.32	883693	48.88	60	120	IS Failed
Ho-165	165	2	HMI He	3805114	0.52	7293776	52.17	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-72-E
Data File Name	160SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:47:56-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-72.332	ppb	-72.332	-4.13	14556	500000	
Li	7	2	45	-103.638	ppb	-103.638	-42.09	960	500000	
Li	7	3	45	-96.918	ppb	-96.918	-2.51	462671	50000	
Be	9	1	6	7.453	ppb	7.453	28.17	190	2000	
B	11	1	6	101.202	ppb	101.202	9.06	3514	2000	
Na	23	1	45	1951.215	ppb	1951.215	1.36	1282025	2000	
Na	23	2	45	1612.645	ppb	1612.645	5.01	53789	400000	
Mg	24	2	45	190763.287	ppb	190763.287	1.73	2474542	400000	
Al	27	2	45	109318.664	ppb	109318.664	2.20	275802	400000	
K	39	1	45	29243.560	ppb	29243.560	0.42	20563301	400000	
K	39	2	45	29009.073	ppb	29009.073	3.06	135035	400000	
Ca	40	1	45	3020524.354	ppb	3020524.354	0.16	3159033340	400000	>LDR
Ca	44	2	45	3096130.473	ppb	3096130.473	1.45	883154	400000	>LDR
Ti	47	2	45	-545629.472	ppb	-545629.472	-7.46	7862	4000	
V	51	2	72	229.106	ppb	229.106	2.34	39601	2000	
Cr	52	2	72	373.035	ppb	373.035	0.68	86968	5000	
Mn	55	2	72	3141.173	ppb	3141.173	0.52	203029	10000	
Fe	57	2	72	114179.209	ppb	114179.209	0.95	479764	400000	
Co	59	2	72	43.806	ppb	43.806	2.00	22532	2000	
Ni	60	2	72	154.058	ppb	154.058	1.41	24177	5000	
Cu	63	2	72	13224.499	ppb	13224.499	0.68	6037290	5000	
Zn	66	2	72	2025.982	ppb	2025.982	1.69	80591	5000	
As	75	2	72	78.867	ppb	78.867	3.12	1907	2000	
Se	78	1	72	4.959	ppb	4.959	2.53	409	2000	
Sr	88	2	72	8711.686	ppb	8711.686	1.36	488288	4000	
Zr	90	2	72	12510.818	ppb	12510.818	3.26	28741	1000	>LDR
Nb	93	2	72	6.598	ppb	6.598	2.54	4794	200	
Mo	95	2	115	19.222	ppb	19.222	3.86	4274	2000	
Pd	105	2	115	0.079	ppb	0.079	47.73	37	100	
Ag	107	2	115	4.746	ppb	4.746	3.25	4177	100	
Cd	111	2	115	9.600	ppb	9.600	23.26	723	2000	
Sn	120	2	115	140.163	ppb	140.163	1.65	24295	2000	
Sb	121	2	115	184.905	ppb	184.905	2.62	27493	1000	
Ba	137	2	115	1578.041	ppb	1578.041	1.11	67600	5000	
W	182	2	165	1.012	ppb	1.012	4.68	1707	100	
Pt	195	2	165	0.033	ppb	0.033	26.95	173	100	
Tl	205	2	165	2.095	ppb	2.095	5.45	4481	2000	
Pb	208	2	165	99977.537	ppb	99977.537	0.09	273141438	5000	>LDR
Th	232	2	165	54.626	ppb	54.626	0.71	169334	2000	
U	238	2	165	18.445	ppb	18.445	2.22	67718	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	73596	1.08	431891	17.04	60	120	IS Failed
Sc (IS)	45	1	HMI H2	6458003	0.34	19663217	32.84	60	120	IS Failed
Sc (IS)	45	2	HMI He	99668	1.55	231225	43.10	60	120	IS Failed
Sc (IS)	45	3	No Gas	12166922	1.07	54165951	22.46	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	3383388	0.10	10361975	32.65	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	153729	0.60	363969	42.24	60	120	IS Failed
In Internal Standard	115	2	HMI He	420160	0.50	883693	47.55	60	120	IS Failed
Ho-165	165	2	HMI He	3664998	0.60	7293776	50.25	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	161_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:51:48-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	160.723	ppb	3.062	28175	500	32.1	90	110	>+\-10%
Li	7	2	45	124.243	ppb	16.915	1904	500	24.8	90	110	>+\-10%
Li	7	3	45	164.132	ppb	9.730	1071756	500	32.8	90	110	>+\-10%
Be	9	1	6	63.779	ppb	3.851	1830	50	127.6	90	110	>+\-10%
B	11	1	6	50.405	ppb	2.863	2260	50	100.8	90	110	
Na	23	1	45	4552.042	ppb	0.328	3008971	5000	91.0	90	110	
Na	23	2	45	4137.522	ppb	0.539	130388	5000	82.8	90	110	>+\-10%
Mg	24	2	45	4366.936	ppb	2.613	58915	5000	87.3	90	110	>+\-10%
Al	27	2	45	5003.191	ppb	5.106	12855	5000	100.1	90	110	
K	39	1	45	5783.126	ppb	0.120	5546661	5000	115.7	90	110	>+\-10%
K	39	2	45	5510.176	ppb	2.067	27311	5000	110.2	90	110	>+\-10%
Ca	40	1	45	6526.348	ppb	2.639	7227217	5000	130.5	90	110	>+\-10%
Ca	44	2	45	6655.223	ppb	9.059	1937	5000	133.1	90	110	>+\-10%
Ti	47	2	45	-125.978	ppb	-310.694	3	50	-252.0	90	110	>+\-10%
V	51	2	72	46.115	ppb	5.086	9059	50	92.2	90	110	
Cr	52	2	72	45.420	ppb	3.124	11991	50	90.8	90	110	
Mn	55	2	72	49.932	ppb	4.748	3657	50	99.9	90	110	
Fe	57	2	72	4744.502	ppb	1.184	22535	5000	94.9	90	110	
Co	59	2	72	44.845	ppb	4.732	26040	50	89.7	90	110	>+\-10%
Ni	60	2	72	46.895	ppb	8.947	8312	50	93.8	90	110	
Cu	63	2	72	61.444	ppb	1.803	32207	50	122.9	90	110	>+\-10%
Zn	66	2	72	52.903	ppb	8.030	2424	50	105.8	90	110	
As	75	2	72	50.354	ppb	2.370	1377	50	100.7	90	110	
Se	78	1	72	50.879	ppb	5.940	4705	50	101.8	90	110	
Sr	88	2	72	60.327	ppb	1.662	3824	50	120.7	90	110	>+\-10%
Zr	90	2	72	154.674	ppb	33.546	410	50	309.3	90	110	>+\-10%
Nb	93	2	72	104.244	ppb	1.336	84509	100	104.2	90	110	
Mo	95	2	115	43.269	ppb	2.408	10971	50	86.5	90	110	>+\-10%
Pd	105	2	115	46.524	ppb	5.385	21518	50	93.0	90	110	
Ag	107	2	115	45.479	ppb	1.027	45632	50	91.0	90	110	
Cd	111	2	115	46.408	ppb	2.139	3987	50	92.8	90	110	
Sn	120	2	115	49.268	ppb	2.945	9773	50	98.5	90	110	
Sb	121	2	115	47.410	ppb	1.995	8042	50	94.8	90	110	
Ba	137	2	115	51.434	ppb	7.401	2514	50	102.9	90	110	
W	182	2	165	45.792	ppb	1.294	79009	50	91.6	90	110	
Pt	195	2	165	43.349	ppb	0.902	77886	50	86.7	90	110	>+\-10%
Tl	205	2	165	48.488	ppb	1.074	110417	50	97.0	90	110	
Pb	208	2	165	86.745	ppb	4.592	254011	50	173.5	90	110	>+\-10%
Th	232	2	165	51.022	ppb	2.269	168978	50	102.0	90	110	
U	238	2	165	48.976	ppb	1.968	192055	50	98.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	82777	1.00	431891	19.17	60	120	IS Failed
Sc (IS)	45	1	HMI H2	6813139	0.82	19663217	34.65	60	120	IS Failed
Sc (IS)	45	2	HMI He	101367	1.59	231225	43.84	60	120	IS Failed
Sc (IS)	45	3	No Gas	13869358	1.01	54165951	25.61	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	3907132	1.02	10361975	37.71	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	173655	1.64	363969	47.71	60	120	IS Failed
In Internal Standard	115	2	HMI He	479246	1.29	883693	54.23	60	120	IS Failed
Ho-165	165	2	HMI He	3915780	0.77	7293776	53.69	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	162_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:55:36-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-158.115	ppb	-0.6	403957	10	
Be	9	1	6	0.112	ppb	173.2	3	0.5	
B	11	1	6	2.744	ppb	58.0	693	0.5	>RL
Na	23	1	45	-72.199	ppb	-2.2	65323	25	
Na	23	2	45	-105.241	ppb	-2.0	3407	25	
Mg	24	2	45	-39.776	ppb	-35.6	850	25	
Al	27	2	45	1.417	ppb	590.9	13	15	
K	39	1	45	488.734	ppb	1.9	1943882	50	>RL
K	39	2	45	159.695	ppb	14.6	2360	50	>RL
Ca	40	1	45	403.646	ppb	0.3	482645	50	>RL
Ca	44	2	45	434.016	ppb	48.4	137	25	>RL
Ti	47	2	45	-337.936	ppb	-224.5	7	0.5	
V	51	2	72	0.084	ppb	263.5	93	1	
Cr	52	2	72	0.166	ppb	104.0	77	1	
Mn	55	2	72	2.786	ppb	30.1	223	0.5	>RL
Fe	57	2	72	40.374	ppb	11.5	217	25	>RL
Co	59	2	72	0.102	ppb	79.2	73	0.5	
Ni	60	2	72	0.091	ppb	35.3	27	1	
Cu	63	2	72	9.623	ppb	9.5	5724	1	>RL
Zn	66	2	72	0.393	ppb	163.0	67	5	
As	75	2	72	0.047	ppb	171.3	3	1	
Se	78	1	72	-0.169	ppb	0.0	0	1	
Sr	88	2	72	1.337	ppb	39.4	93	0.5	>RL
Zr	90	2	72	28.202	ppb	63.8	87	1	>RL
Nb	93	2	72	1.723	ppb	8.0	1530	2	
Mo	95	2	115	0.086	ppb	67.3	27	0.5	
Pd	105	2	115	0.015	ppb	201.2	13	1	
Ag	107	2	115	0.021	ppb	110.1	27	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.312	ppb	55.1	117	1	
Sb	121	2	115	0.344	ppb	74.2	63	0.6	
Ba	137	2	115	0.220	ppb	101.2	13	0.5	
W	182	2	165	0.047	ppb	41.9	167	1	
Pt	195	2	165	0.004	ppb	358.4	137	1	
Tl	205	2	165	0.033	ppb	26.0	97	0.1	
Pb	208	2	165	22.414	ppb	4.5	68758	0.5	>RL
Th	232	2	165	0.291	ppb	14.6	1150	1	
U	238	2	165	0.012	ppb	32.2	67	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	85350	1.38	431891	19.76	60	120	IS Failed
Sc (IS)	45	1	HMI H2	6961058	0.19	19663217	35.40	60	120	IS Failed
Sc (IS)	45	2	HMI He	105953	2.60	231225	45.82	60	120	IS Failed
Sc (IS)	45	3	No Gas	14011293	0.22	54165951	25.87	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4006485	0.41	10361975	38.67	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	181160	1.13	363969	49.77	60	120	IS Failed
In Internal Standard	115	2	HMI He	506800	0.96	883693	57.35	60	120	IS Failed
Ho-165	165	2	HMI He	4067692	1.25	7293776	55.77	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	163LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T01:59:25-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-152.386	ppb	-1.552	426196	50	-304.8	70	130	>+/-30%
Be	9	1	6	0.666	ppb	50.536	20	1	66.6	70	130	>+/-30%
Na	23	2	45	-64.537	ppb	-30.858	4784	50	-129.1	70	130	>+/-30%
Mg	24	2	45	-4.964	ppb	-290.625	1360	50	-9.9	70	130	>+/-30%
Al	27	2	45	36.638	ppb	15.661	110	30	122.1	70	130	
K	39	2	45	258.518	ppb	21.066	2910	100	258.5	70	130	>+/-30%
Ca	44	2	45	248.302	ppb	26.316	83	50	496.6	70	130	>+/-30%
V	51	2	72	4.822	ppb	14.306	1087	5	96.4	70	130	
Cr	52	2	72	1.914	ppb	5.855	573	2	95.7	70	130	
Mn	55	2	72	3.037	ppb	49.584	250	1	303.7	70	130	>+/-30%
Fe	57	2	72	89.577	ppb	12.452	473	50	179.2	70	130	>+/-30%
Co	59	2	72	0.842	ppb	6.280	537	1	84.2	70	130	
Ni	60	2	72	2.050	ppb	9.580	400	2	102.5	70	130	
Cu	63	2	72	8.943	ppb	2.804	5518	2	447.2	70	130	>+/-30%
Zn	66	2	72	11.281	ppb	4.511	593	10	112.8	70	130	
As	75	2	72	4.303	ppb	15.295	127	5	86.1	70	130	
Se	78	1	72	4.840	ppb	13.259	475	5	96.8	70	130	
Sr	88	2	72	1.246	ppb	61.958	90	1	124.6	70	130	
Zr	90	2	72	53.769	ppb	29.200	160	0.5	10753.8	70	130	>+/-30%
Nb	93	2	72	1.653	ppb	4.913	1513	2	82.6	70	130	
Mo	95	2	115	1.646	ppb	9.266	457	2	82.3	70	130	
Pd	105	2	115	0.015	ppb	205.183	13	1	1.5	70	130	>+/-30%
Ag	107	2	115	4.208	ppb	6.871	4584	5	84.2	70	130	
Cd	111	2	115	0.862	ppb	46.253	80	1	86.2	70	130	
Sn	120	2	115	9.271	ppb	14.990	2040	10	92.7	70	130	
Sb	121	2	115	2.108	ppb	10.420	390	2	105.4	70	130	
Ba	137	2	115	1.726	ppb	35.544	93	1	172.6	70	130	>+/-30%
W	182	2	165	4.298	ppb	4.183	7879	1	429.8	70	130	>+/-30%
Pt	195	2	165	-0.018	ppb	-149.442	97	1	-1.8	70	130	>+/-30%
Tl	205	2	165	1.043	ppb	4.917	2517	1	104.3	70	130	
Pb	208	2	165	14.171	ppb	3.327	44360	1	1417.1	70	130	>+/-30%
Th	232	2	165	2.278	ppb	3.687	8092	2	113.9	70	130	
U	238	2	165	1.004	ppb	3.960	4164	1	100.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	86862	0.81	431891	20.11	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7000044	1.10	19663217	35.60	60	120	IS Failed
Sc (IS)	45	2	HMI He	108347	1.38	231225	46.86	60	120	IS Failed
Sc (IS)	45	3	No Gas	14353771	0.50	54165951	26.50	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4019659	0.85	10361975	38.79	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	186409	0.74	363969	51.22	60	120	IS Failed
In Internal Standard	115	2	HMI He	519916	1.35	883693	58.83	60	120	IS Failed
Ho-165	165	2	HMI He	4122064	1.43	7293776	56.51	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	164WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:03:15-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.107	ppb	173.2050808	3	0.5
Na	23	2	45	-106.851	ppb	-4.426702343	3500	25
Mg	24	2	45	-50.698	ppb	-11.43806322	730	25
Al	27	2	45	4.972	ppb	112.6827368	23	15
K	39	2	45	156.022	ppb	20.58674433	2444	50
Ca	44	2	45	106.595	ppb	31.16352321	40	25
V	51	2	72	-0.234	ppb	-34.86068333	30	1
Cr	52	2	72	0.002	ppb	5164.078023	33	1
Mn	55	2	72	1.976	ppb	39.63348478	170	0.5
Fe	57	2	72	35.174	ppb	19.72187505	200	25
Co	59	2	72	0.002	ppb	506.839961	13	0.5
Ni	60	2	72	0.119	ppb	91.69511814	33	1
Cu	63	2	72	5.689	ppb	9.035406196	3787	1
Zn	66	2	72	1.014	ppb	72.66871827	100	5
As	75	2	72	-0.002	ppb	-3449.462	1	1
Se	78	1	72	-0.114	ppb	-21.19868931	5	1
Nb	93	2	72	0.126	ppb	73.35007358	190	2
Mo	95	2	115	0.259	ppb	53.08097414	77	0.5
Pd	105	2	115	0.033	ppb	234.0509779	23	1
Ag	107	2	115	0.005	ppb	168.6921653	10	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.055	ppb	330.2881301	67	1
Sb	121	2	115	0.165	ppb	132.5675237	33	0.6
Ba	137	2	115	-0.037	ppb	-1.77595E-06	0	0.5
W	182	2	165	0.006	ppb	278.6850201	97	1
Pt	195	2	165	0.017	ppb	79.26627634	170	1
Tl	205	2	165	0.011	ppb	21.10609773	47	0.1
Pb	208	2	165	8.788	ppb	4.220894101	28745	0.5
Th	232	2	165	0.100	ppb	36.26386504	517	1
U	238	2	165	0.010	ppb	64.58098858	60	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	89641	0.67	431891	20.76	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7113736	0.54	19663217	36.18	60	120	IS Failed
Sc (IS)	45	2	HMI He	110483	1.36	231225	47.78	60	120	IS Failed
Sc (IS)	45	3	No Gas	14504783	0.31	54165951	26.78	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4084238	0.45	10361975	39.42	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	190111	1.31	363969	52.23	60	120	IS Failed
In Internal Standard	115	2	HMI He	532532	0.94	883693	60.26	60	120	
Ho-165	165	2	HMI He	4256993	0.40	7293776	58.36	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	165WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:07:06-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.106	ppb	173.2050808	3	0.5
Na	23	2	45	-112.164	ppb	-4.452248624	3404	25
Mg	24	2	45	-50.760	ppb	-8.849498964	747	25
Al	27	2	45	3.572	ppb	169.526632	20	15
K	39	2	45	161.867	ppb	14.91448124	2530	50
Ca	44	2	45	103.836	ppb	119.0914609	40	25
V	51	2	72	0.046	ppb	108.1752757	90	1
Cr	52	2	72	0.059	ppb	59.17617059	50	1
Mn	55	2	72	1.937	ppb	54.84553441	167	0.5
Fe	57	2	72	29.945	ppb	36.32003724	173	25
Co	59	2	72	0.065	ppb	101.5590617	53	0.5
Ni	60	2	72	0.049	ppb	2.00262909	20	1
Cu	63	2	72	4.328	ppb	10.56184573	3024	1
Zn	66	2	72	0.463	ppb	22.15009914	73	5
As	75	2	72	-0.002	ppb	-4560.036969	1	1
Se	78	1	72	-0.142	ppb	-33.48020086	3	1
Nb	93	2	72	0.073	ppb	30.90370086	143	2
Mo	95	2	115	0.173	ppb	51.17272367	53	0.5
Pd	105	2	115	0.014	ppb	317.7769089	13	1
Ag	107	2	115	0.023	ppb	38.78003373	30	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.233	ppb	136.7630586	107	1
Sb	121	2	115	0.025	ppb	247.6003689	7	0.6
Ba	137	2	115	-0.037	ppb	-1.77595E-06	0	0.5
W	182	2	165	0.035	ppb	76.49883154	153	1
Pt	195	2	165	0.017	ppb	61.80407609	170	1
Tl	205	2	165	0.008	ppb	49.01061031	40	0.1
Pb	208	2	165	5.423	ppb	3.229522374	18222	0.5
Th	232	2	165	0.065	ppb	15.2402327	393	1
U	238	2	165	0.001	ppb	855.5719642	23	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	91091	0.58	431891	21.09	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7217559	0.60	19663217	36.71	60	120	IS Failed
Sc (IS)	45	2	HMI He	113076	0.87	231225	48.90	60	120	IS Failed
Sc (IS)	45	3	No Gas	14635617	0.61	54165951	27.02	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4126863	0.21	10361975	39.83	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	190312	0.96	363969	52.29	60	120	IS Failed
In Internal Standard	115	2	HMI He	538029	0.27	883693	60.88	60	120	
Ho-165	165	2	HMI He	4293315	0.14	7293776	58.86	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	166WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:10:54-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	-104.579	ppb	-2.444885208	3644	25
Mg	24	2	45	-46.691	ppb	-11.75387623	803	25
Al	27	2	45	1.269	ppb	425.5225332	13	15
K	39	2	45	143.855	ppb	17.70273038	2427	50
Ca	44	2	45	82.929	ppb	55.72164366	33	25
V	51	2	72	0.013	ppb	1742.015715	83	1
Cr	52	2	72	0.058	ppb	60.00354518	50	1
Mn	55	2	72	1.588	ppb	64.25725543	140	0.5
Fe	57	2	72	34.829	ppb	61.47700783	200	25
Co	59	2	72	0.069	ppb	56.72732732	57	0.5
Ni	60	2	72	0.168	ppb	46.70517838	43	1
Cu	63	2	72	3.520	ppb	2.622584191	2584	1
Zn	66	2	72	1.329	ppb	121.9827109	117	5
As	75	2	72	0.063	ppb	215.3674252	3	1
Se	78	1	72	-0.075	ppb	-110.3181083	9	1
Nb	93	2	72	0.151	ppb	45.76836662	213	2
Mo	95	2	115	0.174	ppb	62.37931185	53	0.5
Pd	105	2	115	-0.005	ppb	-209.0431738	3	1
Ag	107	2	115	0.005	ppb	290.9344426	10	1
Cd	111	2	115	0.035	ppb	173.2050808	3	0.5
Sn	120	2	115	0.189	ppb	72.67175607	97	1
Sb	121	2	115	0.129	ppb	61.55327717	27	0.6
Ba	137	2	115	0.145	ppb	0.856059956	10	0.5
W	182	2	165	-0.002	ppb	-659.011524	83	1
Pt	195	2	165	-0.011	ppb	-260.6601268	117	1
Tl	205	2	165	0.000	ppb	6771.695734	20	0.1
Pb	208	2	165	4.038	ppb	6.862293086	13793	0.5
Th	232	2	165	0.045	ppb	8.959930858	323	1
U	238	2	165	-0.001	ppb	-92.26150156	13	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	94988	3.29	431891	21.99	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7694166	4.94	19663217	39.13	60	120	IS Failed
Sc (IS)	45	2	HMI He	112680	1.01	231225	48.73	60	120	IS Failed
Sc (IS)	45	3	No Gas	14881981	0.02	54165951	27.47	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4318174	5.43	10361975	41.67	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	191474	0.25	363969	52.61	60	120	IS Failed
In Internal Standard	115	2	HMI He	537379	0.68	883693	60.81	60	120	
Ho-165	165	2	HMI He	4295495	0.56	7293776	58.89	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	167WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:14:44-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	127CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.103	ppb	173.2050808	3	0.5
Na	23	2	45	-99.197	ppb	-3.19496808	3874	25
Mg	24	2	45	-50.829	ppb	-25.54644699	753	25
Al	27	2	45	2.312	ppb	80.56873615	17	15
K	39	2	45	178.157	ppb	16.95537151	2640	50
Ca	44	2	45	103.868	ppb	108.8986382	40	25
V	51	2	72	-0.099	ppb	-44.60718459	60	1
Cr	52	2	72	-0.001	ppb	-6644.094226	33	1
Mn	55	2	72	1.899	ppb	21.36608532	167	0.5
Fe	57	2	72	26.308	ppb	30.50124022	157	25
Co	59	2	72	0.084	ppb	55.71123873	67	0.5
Ni	60	2	72	0.047	ppb	214.0620323	20	1
Cu	63	2	72	3.295	ppb	6.430215305	2480	1
Zn	66	2	72	0.774	ppb	45.47774731	90	5
As	75	2	72	0.062	ppb	121.34075	3	1
Se	78	1	72	-0.142	ppb	-16.61318765	3	1
Nb	93	2	72	0.063	ppb	82.99858983	137	2
Mo	95	2	115	0.160	ppb	57.75424401	50	0.5
Pd	105	2	115	-0.012	ppb	0	0	1
Ag	107	2	115	0.005	ppb	170.8657634	10	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.362	ppb	25.82765006	137	1
Sb	121	2	115	0.059	ppb	204.2956204	13	0.6
Ba	137	2	115	0.082	ppb	251.0923696	7	0.5
W	182	2	165	0.023	ppb	93.45182479	133	1
Pt	195	2	165	0.011	ppb	213.037858	163	1
Tl	205	2	165	0.004	ppb	203.0536909	30	0.1
Pb	208	2	165	3.651	ppb	7.935546754	12849	0.5
Th	232	2	165	0.014	ppb	60.1975762	213	1
U	238	2	165	-0.002	ppb	-345.4090803	13	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	93050	1.33	431891	21.54	60	120	IS Failed
Sc (IS)	45	1	HMI H2	7345671	0.58	19663217	37.36	60	120	IS Failed
Sc (IS)	45	2	HMI He	114206	2.88	231225	49.39	60	120	IS Failed
Sc (IS)	45	3	No Gas	15123455	0.66	54165951	27.92	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	4165558	0.65	10361975	40.20	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	193414	0.75	363969	53.14	60	120	IS Failed
In Internal Standard	115	2	HMI He	544379	0.48	883693	61.60	60	120	
Ho-165	165	2	HMI He	4397099	0.79	7293776	60.29	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4907385
Data File Name	168CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:18:34-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	12968	0.01
Li	7	2	HMI He	963	0.81
Li	7	3	No Gas	462420	0.00
Be	9	1	HMI H2	3	5196.15
B	11	1	HMI H2	953	0.23
Na	23	1	HMI H2	66936	0.00
Na	23	2	HMI He	3621	0.15
Mg	24	2	HMI He	833	1.02
Al	27	2	HMI He	0	#VALUE!
K	39	2	HMI He	2637	0.40
Ca	44	2	HMI He	27	292.73
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	110	16.53
Cr	52	2	HMI He	50	69.28
Mn	55	2	HMI He	127	38.08
Fe	57	2	HMI He	130	38.80
Co	59	2	HMI He	47	95.59
Ni	60	2	HMI He	23	424.18
Cu	63	2	HMI He	2324	0.19
Zn	66	2	HMI He	103	30.11
As	75	2	HMI He	3	3313.87
Se	78	1	HMI H2	1	12990.38
Sr	88	2	HMI He	30	333.33
Zr	90	2	HMI He	37	227.24
Nb	93	2	HMI He	107	22.12
Mo	95	2	HMI He	83	64.94
Pd	105	2	HMI He	3	5196.15
Ag	107	2	HMI He	20	433.01
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	97	6.18
Sb	121	2	HMI He	7	1299.04
Ba	137	2	HMI He	3	5196.15
W	182	2	HMI He	123	16.55
Pt	195	2	HMI He	157	8.48
Tl	205	2	HMI He	40	225.35
Pb	208	2	HMI He	12016	0.02
Th	232	2	HMI He	213	23.49
U	238	2	HMI He	37	171.77

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	96254	0.78
Sc (IS)	45	1	HMI H2	7565071	0.44
Sc (IS)	45	2	HMI He	115393	1.51
Sc (IS)	45	3	No Gas	15365161	0.06
Ge Internal Standard	72	1	HMI H2	4257146	0.96
Ge Internal Standard	72	2	HMI He	195325	1.15
In Internal Standard	115	2	HMI He	550317	0.97
Ho-165	165	2	HMI He	4433489	0.26

Calibration Standard Report

Sample Table

Sample Name	ic-4907386
Data File Name	169CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:22:25-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	50988	0.00
Li	7	2	HMI He	3204	0.14
Li	7	3	No Gas	1919547	0.00
Be	9	1	HMI H2	3867	0.31
B	11	1	HMI H2	5164	0.04
Na	23	1	HMI H2	6577887	0.00
Na	23	2	HMI He	297664	0.00
Mg	24	2	HMI He	133841	0.00
Al	27	2	HMI He	29986	0.01
K	39	1	HMI H2	10426904	0.00
K	39	2	HMI He	58141	0.00
Ca	40	1	HMI H2	12910306	0.00
Ca	44	2	HMI He	3741	0.11
Ti	47	2	HMI He	7	2598.08
V	51	2	HMI He	20129	0.01
Cr	52	2	HMI He	27832	0.00
Mn	55	2	HMI He	8462	0.08
Fe	57	2	HMI He	51068	0.01
Co	59	2	HMI He	60514	0.00
Ni	60	2	HMI He	17876	0.01
Cu	63	2	HMI He	56781	0.00
Zn	66	2	HMI He	4698	0.17
As	75	2	HMI He	3183	0.18
Se	78	1	HMI H2	10046	0.03
Sr	88	2	HMI He	8506	0.02
Zr	90	2	HMI He	417	4.05
Nb	93	2	HMI He	198123	0.00
Mo	95	2	HMI He	25700	0.00
Pd	105	2	HMI He	48098	0.01
Ag	107	2	HMI He	103011	0.00
Cd	111	2	HMI He	9076	0.02
Sn	120	2	HMI He	22449	0.02
Sb	121	2	HMI He	19612	0.01
Ba	137	2	HMI He	5745	0.12
Nd	146	2	HMI He	27955	0.01
Sm	147	2	HMI He	24626	0.01
Sm	150	2	HMI He	23117	0.01
Gd	156	1	HMI H2	268994	0.00
Gd	157	1	HMI H2	203658	0.00
W	182	2	HMI He	177799	0.00
Pt	195	2	HMI He	178245	0.00
Tl	205	2	HMI He	254375	0.00
Pb	208	2	HMI He	340821	0.00
Th	232	2	HMI He	380031	0.00
U	238	2	HMI He	439156	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	92981	0.85	96254	96.60	60	120	
Sc (IS)	45	1	HMI H2	7512074	0.28	7565071	99.30	60	120	
Sc (IS)	45	2	HMI He	117058	0.81	115393	101.44	60	120	
Sc (IS)	45	3	No Gas	15248982	0.51	15365161	99.24	60	120	
Ge Internal Standard	72	1	HMI H2	4231403	0.98	4257146	99.40	60	120	
Ge Internal Standard	72	2	HMI He	196947	0.61	195325	100.83	60	120	
In Internal Standard	115	2	HMI He	548481	0.63	550317	99.67	60	120	
Ho-165	165	2	HMI He	4466094	0.49	4433489	100.74	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	170_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:26:13-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	490.105	ppb	2.565	32710	500	98.0	90	110	
Li	7	2	45	557.544	ppb	14.764	2224	500	111.5	90	110	>+\-10%
Li	7	3	45	509.164	ppb	1.690	1254890	500	101.8	90	110	
Be	9	1	6	46.196	ppb	1.753	1890	50	92.4	90	110	
B	11	1	6	39.609	ppb	20.840	2750	50	79.2	90	110	>+\-10%
Na	23	1	45	4976.303	ppb	1.116	3427731	5000	99.5	90	110	
Na	23	2	45	5026.696	ppb	2.399	151784	5000	100.5	90	110	
Mg	24	2	45	5019.189	ppb	2.173	67748	5000	100.4	90	110	
Al	27	2	45	5025.775	ppb	0.637	15103	5000	100.5	90	110	
K	39	1	45	4961.425	ppb	1.634	6427633	5000	99.2	90	110	
K	39	2	45	5243.743	ppb	1.607	31839	5000	104.9	90	110	
Ca	40	1	45	4938.252	ppb	1.600	6665692	5000	98.8	90	110	
Ca	44	2	45	5334.116	ppb	11.802	2010	5000	106.7	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	49.982	ppb	4.229	10463	50	100.0	90	110	
Cr	52	2	72	49.488	ppb	1.507	14273	50	99.0	90	110	
Mn	55	2	72	47.745	ppb	4.949	4247	50	95.5	90	110	
Fe	57	2	72	4908.717	ppb	0.624	25993	5000	98.2	90	110	
Co	59	2	72	49.128	ppb	1.534	30774	50	98.3	90	110	
Ni	60	2	72	48.249	ppb	2.593	8933	50	96.5	90	110	
Cu	63	2	72	47.359	ppb	4.495	29085	50	94.7	90	110	
Zn	66	2	72	50.850	ppb	19.349	2524	50	101.7	90	110	
As	75	2	72	48.188	ppb	5.712	1588	50	96.4	90	110	
Se	78	1	72	49.788	ppb	1.422	5208	50	99.6	90	110	
Sr	88	2	72	47.753	ppb	4.529	4217	50	95.5	90	110	
Zr	90	2	72	25.987	ppb	20.432	140	50	52.0	90	110	>+\-10%
Nb	93	2	72	98.333	ppb	0.276	100805	100	98.3	90	110	
Mo	95	2	115	48.654	ppb	0.631	12989	50	97.3	90	110	
Pd	105	2	115	49.250	ppb	2.056	24518	50	98.5	90	110	
Ag	107	2	115	49.274	ppb	1.174	52555	50	98.5	90	110	
Cd	111	2	115	46.270	ppb	7.296	4347	50	92.5	90	110	
Sn	120	2	115	49.264	ppb	0.935	11501	50	98.5	90	110	
Sb	121	2	115	48.509	ppb	7.645	9843	50	97.0	90	110	
Ba	137	2	115	50.097	ppb	10.016	2980	50	100.2	90	110	
W	182	2	165	49.473	ppb	0.823	90087	50	98.9	90	110	
Pt	195	2	165	47.988	ppb	2.403	87616	50	96.0	90	110	
Tl	205	2	165	49.323	ppb	0.632	128417	50	98.6	90	110	
Pb	208	2	165	48.844	ppb	1.159	176691	50	97.7	90	110	
Th	232	2	165	49.433	ppb	1.065	192356	50	98.9	90	110	
U	238	2	165	48.620	ppb	0.505	218526	50	97.2	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	98293	0.69	96254	102.12	60	120	
Sc (IS)	45	1	HMI H2	7787127	0.65	7565071	102.94	60	120	
Sc (IS)	45	2	HMI He	117329	1.40	115393	101.68	60	120	
Sc (IS)	45	3	No Gas	15911310	0.30	15365161	103.55	60	120	
Ge Internal Standard	72	1	HMI H2	4405738	0.49	4257146	103.49	60	120	
Ge Internal Standard	72	2	HMI He	203697	0.61	195325	104.29	60	120	
In Internal Standard	115	2	HMI He	567787	1.68	550317	103.17	60	120	
Ho-165	165	2	HMI He	4570536	0.92	4433489	103.09	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	171_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:30:01-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	1.730	ppb	140.2	491610	10	
Be	9	1	6	0.396	ppb	119.9	20	0.5	
B	11	1	6	2.775	ppb	68.4	1120	0.5	>RL
Na	23	1	45	3.433	ppb	27.2	71469	25	
Na	23	2	45	2.669	ppb	313.1	3901	25	
Mg	24	2	45	11.909	ppb	69.2	1043	25	
Al	27	2	45	3.187	ppb	100.2	10	15	
K	39	1	45	66.556	ppb	43.3	2179580	50	>RL
K	39	2	45	-44.882	ppb	-62.2	2524	50	
Ca	40	1	45	-4.215	ppb	-33.8	107786	50	
Ca	44	2	45	-12.927	ppb	-498.1	23	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.031	ppb	310.7	123	1	
Cr	52	2	72	0.045	ppb	339.7	67	1	
Mn	55	2	72	-0.658	ppb	-35.9	77	0.5	
Fe	57	2	72	0.190	ppb	6045.3	140	25	
Co	59	2	72	0.001	ppb	7915.3	50	0.5	
Ni	60	2	72	0.027	ppb	340.8	30	1	
Cu	63	2	72	-0.894	ppb	-6.9	1957	1	
Zn	66	2	72	-0.754	ppb	-112.0	73	5	
As	75	2	72	-0.005	ppb	-1813.1	3	1	
Se	78	1	72	0.063	ppb	104.5	8	1	
Sr	88	2	72	-0.246	ppb	-78.2	10	0.5	
Zr	90	2	72	4.483	ppb	179.0	57	1	>RL
Nb	93	2	72	2.253	ppb	10.4	2467	2	>RL
Mo	95	2	115	-0.143	ppb	-25.8	50	0.5	
Pd	105	2	115	0.071	ppb	47.6	40	1	
Ag	107	2	115	-0.016	ppb	-32.1	3	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.055	ppb	-152.0	90	1	
Sb	121	2	115	0.268	ppb	57.2	63	0.6	
Ba	137	2	115	-0.059	ppb	0.0	0	0.5	
W	182	2	165	0.028	ppb	54.5	180	1	
Pt	195	2	165	-0.015	ppb	-278.5	137	1	
Tl	205	2	165	0.012	ppb	81.0	73	0.1	
Pb	208	2	165	-0.113	ppb	-312.0	12179	0.5	
Th	232	2	165	0.325	ppb	21.0	1503	1	
U	238	2	165	0.023	ppb	59.0	143	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	100219	1.25	96254	104.12	60	120	
Sc (IS)	45	1	HMI H2	7814092	0.46	7565071	103.29	60	120	
Sc (IS)	45	2	HMI He	121725	1.37	115393	105.49	60	120	
Sc (IS)	45	3	No Gas	16246087	0.58	15365161	105.73	60	120	
Ge Internal Standard	72	1	HMI H2	4416096	0.34	4257146	103.73	60	120	
Ge Internal Standard	72	2	HMI He	207656	0.71	195325	106.31	60	120	
In Internal Standard	115	2	HMI He	586678	0.30	550317	106.61	60	120	
Ho-165	165	2	HMI He	4637739	0.74	4433489	104.61	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	172LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:33:53-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	7.261	ppb	19.605	503506	50	14.5	70	130	>+/-30%
Be	9	1	6	0.866	ppb	30.084	40	1	86.6	70	130	
Na	23	2	45	61.557	ppb	14.659	5788	50	123.1	70	130	
Mg	24	2	45	66.090	ppb	11.004	1820	50	132.2	70	130	>+/-30%
Al	27	2	45	52.635	ppb	27.913	167	30	175.5	70	130	>+/-30%
K	39	2	45	108.309	ppb	35.677	3457	100	108.3	70	130	
Ca	44	2	45	63.118	ppb	85.051	53	50	126.2	70	130	
V	51	2	72	5.521	ppb	14.558	1280	5	110.4	70	130	
Cr	52	2	72	2.269	ppb	0.654	717	2	113.5	70	130	
Mn	55	2	72	1.094	ppb	46.444	230	1	109.4	70	130	
Fe	57	2	72	53.211	ppb	32.065	423	50	106.4	70	130	
Co	59	2	72	1.070	ppb	10.151	730	1	107.0	70	130	
Ni	60	2	72	1.943	ppb	9.378	390	2	97.1	70	130	
Cu	63	2	72	0.993	ppb	18.440	3034	2	49.7	70	130	>+/-30%
Zn	66	2	72	11.376	ppb	21.689	660	10	113.8	70	130	
As	75	2	72	4.937	ppb	9.027	168	5	98.7	70	130	
Se	78	1	72	4.856	ppb	12.970	516	5	97.1	70	130	
Sr	88	2	72	0.839	ppb	62.032	107	1	83.9	70	130	
Zr	90	2	72	13.648	ppb	63.453	93	0.5	2729.7	70	130	>+/-30%
Nb	93	2	72	2.176	ppb	10.969	2380	2	108.8	70	130	
Mo	95	2	115	1.710	ppb	23.970	553	2	85.5	70	130	
Pd	105	2	115	0.000	ppb	-2552.858	3	1	0.0	70	130	>+/-30%
Ag	107	2	115	5.001	ppb	5.035	5494	5	100.0	70	130	
Cd	111	2	115	1.346	ppb	42.069	130	1	134.6	70	130	>+/-30%
Sn	120	2	115	9.775	ppb	7.535	2424	10	97.8	70	130	
Sb	121	2	115	2.285	ppb	15.159	483	2	114.3	70	130	
Ba	137	2	115	1.138	ppb	96.877	73	1	113.8	70	130	
W	182	2	165	4.837	ppb	4.655	9066	1	483.7	70	130	>+/-30%
Pt	195	2	165	0.035	ppb	104.315	230	1	3.5	70	130	>+/-30%
Tl	205	2	165	0.941	ppb	9.586	2530	1	94.1	70	130	
Pb	208	2	165	0.109	ppb	197.713	12963	1	10.9	70	130	>+/-30%
Th	232	2	165	2.254	ppb	3.214	9126	2	112.7	70	130	
U	238	2	165	0.984	ppb	2.690	4534	1	98.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	101901	2.73	96254	105.87	60	120	
Sc (IS)	45	1	HMI H2	7898455	0.40	7565071	104.41	60	120	
Sc (IS)	45	2	HMI He	123530	0.51	115393	107.05	60	120	
Sc (IS)	45	3	No Gas	16352566	0.25	15365161	106.43	60	120	
Ge Internal Standard	72	1	HMI H2	4464871	0.09	4257146	104.88	60	120	
Ge Internal Standard	72	2	HMI He	207260	0.51	195325	106.11	60	120	
In Internal Standard	115	2	HMI He	582806	0.81	550317	105.90	60	120	
Ho-165	165	2	HMI He	4645008	0.53	4433489	104.77	60	120	

Sample Table

Sample Name	280-104412-a-56-d
Data File Name	173SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:37:44-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399902 HOT Sb 6020A
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	130.565	ppb	130.565	8.58	17849	500000	
Li	7	2	45	128.044	ppb	128.044	53.64	1223	500000	
Li	7	3	45	106.571	ppb	106.571	1.65	633176	50000	
Be	9	1	6	7.275	ppb	7.275	33.07	283	2000	
B	11	1	6	67.354	ppb	67.354	8.28	3777	2000	
Na	23	1	45	1734.978	ppb	1734.978	0.76	1195859	2000	
Na	23	2	45	1639.128	ppb	1639.128	2.04	50270	400000	
Mg	24	2	45	209750.951	ppb	209750.951	0.83	2705105	400000	
Al	27	2	45	90747.919	ppb	90747.919	1.41	263732	400000	
K	39	1	45	33705.674	ppb	33705.674	1.10	30299722	400000	
K	39	2	45	24993.731	ppb	24993.731	2.78	136956	400000	
Ca	40	1	45	2557611.038	ppb	2557611.038	0.86	3273166458	400000	>LDR
Ca	44	2	45	2411292.836	ppb	2411292.836	0.93	867840	400000	>LDR
Ti	47	2	45	153284.384	ppb	153284.384	2.83	9983	4000	>LDR
V	51	2	72	302.552	ppb	302.552	1.62	53678	2000	
Cr	52	2	72	249.283	ppb	249.283	0.17	61322	5000	
Mn	55	2	72	3628.231	ppb	3628.231	0.61	267615	10000	
Fe	57	2	72	159625.827	ppb	159625.827	0.68	719384	400000	
Co	59	2	72	62.917	ppb	62.917	1.33	33699	2000	
Ni	60	2	72	184.886	ppb	184.886	6.65	29225	5000	
Cu	63	2	72	10040.636	ppb	10040.636	1.22	4838278	5000	
Zn	66	2	72	1664.915	ppb	1664.915	1.72	67740	5000	
As	75	2	72	90.288	ppb	90.288	2.99	2542	2000	
Se	78	1	72	7.028	ppb	7.028	6.39	648	2000	
Sr	88	2	72	6746.045	ppb	6746.045	0.68	505862	4000	
Zr	90	2	72	4441.753	ppb	4441.753	3.23	14960	1000	
Nb	93	2	72	5.611	ppb	5.611	8.15	5011	200	
Mo	95	2	115	22.218	ppb	22.218	4.89	5064	2000	
Pd	105	2	115	0.151	ppb	0.151	39.46	67	100	
Ag	107	2	115	3.845	ppb	3.845	7.90	3491	100	
Cd	111	2	115	9.760	ppb	9.760	5.89	777	2000	
Sn	120	2	115	26.647	ppb	26.647	6.89	5308	2000	
Sb	121	2	115	1365.532	ppb	1365.532	0.21	234754	1000	
Ba	137	2	115	1650.276	ppb	1650.276	0.43	83079	5000	
W	182	2	165	4.163	ppb	4.163	3.30	7042	100	
Pt	195	2	165	-0.013	ppb	-0.013	-71.02	127	100	
Tl	205	2	165	1.925	ppb	1.925	10.22	4624	2000	
Pb	208	2	165	114025.578	ppb	114025.578	0.75	350976626	5000	>LDR
Th	232	2	165	50.704	ppb	50.704	0.79	180525	2000	
U	238	2	165	17.651	ppb	17.651	1.33	72610	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	92934	1.53	96254	96.55	60	120	
Sc (IS)	45	1	HMI H2	7509714	0.77	7565071	99.27	60	120	
Sc (IS)	45	2	HMI He	113474	1.36	115393	98.34	60	120	
Sc (IS)	45	3	No Gas	15710280	0.74	15365161	102.25	60	120	
Ge Internal Standard	72	1	HMI H2	3878852	0.98	4257146	91.11	60	120	
Ge Internal Standard	72	2	HMI He	174244	0.14	195325	89.21	60	120	
In Internal Standard	115	2	HMI He	480953	0.14	550317	87.40	60	120	
Ho-165	165	2	HMI He	4181904	0.66	4433489	94.33	60	120	

Sample Table

Sample Name	280-104412-a-57-d
Data File Name	174SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:41:34-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399902 HOT Sb 6020A
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	92.957	ppb	92.957	28.95	14753	500000	
Li	7	2	45	30.117	ppb	30.117	197.29	887	500000	
Li	7	3	45	74.928	ppb	74.928	3.11	526711	50000	
Be	9	1	6	6.995	ppb	6.995	24.45	237	2000	
B	11	1	6	64.682	ppb	64.682	1.57	3174	2000	
Na	23	1	45	1552.861	ppb	1552.861	1.56	967837	2000	
Na	23	2	45	1517.494	ppb	1517.494	6.08	40907	400000	
Mg	24	2	45	195376.417	ppb	195376.417	4.96	2202275	400000	
Al	27	2	45	75906.489	ppb	75906.489	5.84	192788	400000	
K	39	1	45	29815.791	ppb	29815.791	1.95	24291032	400000	
K	39	2	45	21534.123	ppb	21534.123	4.93	103471	400000	
Ca	40	1	45	2511184.108	ppb	2511184.108	2.20	2887028544	400000	>LDR
Ca	44	2	45	2402312.292	ppb	2402312.292	5.22	755649	400000	>LDR
Ti	47	2	45	129448.576	ppb	129448.576	5.90	7365	4000	>LDR
V	51	2	72	268.274	ppb	268.274	5.08	42074	2000	
Cr	52	2	72	244.138	ppb	244.138	4.07	53083	5000	
Mn	55	2	72	3371.541	ppb	3371.541	5.37	219785	10000	
Fe	57	2	72	139907.535	ppb	139907.535	3.67	557328	400000	
Co	59	2	72	55.677	ppb	55.677	4.22	26364	2000	
Ni	60	2	72	173.178	ppb	173.178	3.10	24197	5000	
Cu	63	2	72	14211.066	ppb	14211.066	3.00	6052629	5000	
Zn	66	2	72	2143.319	ppb	2143.319	3.52	77064	5000	
As	75	2	72	85.257	ppb	85.257	14.13	2119	2000	
Se	78	1	72	7.154	ppb	7.154	11.63	605	2000	
Sr	88	2	72	6632.762	ppb	6632.762	4.92	439563	4000	
Zr	90	2	72	3302.650	ppb	3302.650	3.43	9840	1000	
Nb	93	2	72	5.474	ppb	5.474	7.09	4321	200	
Mo	95	2	115	19.700	ppb	19.700	3.54	3994	2000	
Pd	105	2	115	0.111	ppb	0.111	123.26	43	100	
Ag	107	2	115	4.223	ppb	4.223	3.98	3400	100	
Cd	111	2	115	8.715	ppb	8.715	6.43	617	2000	
Sn	120	2	115	20.256	ppb	20.256	12.75	3594	2000	
Sb	121	2	115	1404.344	ppb	1404.344	4.44	214236	1000	
Ba	137	2	115	1541.900	ppb	1541.900	6.38	68856	5000	
W	182	2	165	3.829	ppb	3.829	1.99	6028	100	
Pt	195	2	165	-0.006	ppb	-0.006	-954.28	127	100	
Tl	205	2	165	1.620	ppb	1.620	2.00	3621	2000	
Pb	208	2	165	112230.927	ppb	112230.927	5.26	320741877	5000	>LDR
Th	232	2	165	44.235	ppb	44.235	5.89	146231	2000	
U	238	2	165	17.256	ppb	17.256	5.69	65901	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	80496	0.71	96254	83.63	60	120	
Sc (IS)	45	1	HMI H2	6747934	1.72	7565071	89.20	60	120	
Sc (IS)	45	2	HMI He	99248	2.38	115393	86.01	60	120	
Sc (IS)	45	3	No Gas	14131549	0.39	15365161	91.97	60	120	
Ge Internal Standard	72	1	HMI H2	3554534	2.03	4257146	83.50	60	120	
Ge Internal Standard	72	2	HMI He	154082	1.83	195325	78.89	60	120	
In Internal Standard	115	2	HMI He	427149	2.89	550317	77.62	60	120	
Ho-165	165	2	HMI He	3887209	3.37	4433489	87.68	60	120	

Sample Report

Sample Table

Sample Name	280-104412-a-67-c
Data File Name	175SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:45:28-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399904 hot Sb 6020A DOD5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	177.872	ppb	177.872	7.48	15754	500000	
Li	7	2	45	211.777	ppb	211.777	34.96	1073	500000	
Li	7	3	45	160.468	ppb	160.468	2.46	579174	50000	
Be	9	1	6	10.907	ppb	10.907	9.71	313	2000	
B	11	1	6	137.326	ppb	137.326	0.71	4978	2000	
Na	23	1	45	2533.072	ppb	2533.072	3.28	1375392	2000	
Na	23	2	45	2401.630	ppb	2401.630	1.33	55060	400000	
Mg	24	2	45	450319.507	ppb	450319.507	1.29	4440073	400000	
Al	27	2	45	174166.257	ppb	174166.257	2.21	387051	400000	
K	39	1	45	50317.187	ppb	50317.187	2.81	35460629	400000	
K	39	2	45	40160.329	ppb	40160.329	1.00	167098	400000	
Ca	40	1	45	1868153.089	ppb	1868153.089	3.18	1916797838	400000	
Ca	44	2	45	1766371.660	ppb	1766371.660	1.72	486117	400000	
Ti	47	2	45	367041.588	ppb	367041.588	1.70	18273	4000	>LDR
V	51	2	72	433.039	ppb	433.039	1.99	60489	2000	
Cr	52	2	72	335.650	ppb	335.650	1.78	65032	5000	
Mn	55	2	72	5228.488	ppb	5228.488	0.26	303794	10000	
Fe	57	2	72	229023.676	ppb	229023.676	1.44	813145	400000	
Co	59	2	72	82.374	ppb	82.374	1.29	34748	2000	
Ni	60	2	72	216.347	ppb	216.347	2.30	26941	5000	
Cu	63	2	72	220.491	ppb	220.491	1.02	85301	5000	
Zn	66	2	72	772.083	ppb	772.083	2.98	24785	5000	
As	75	2	72	86.455	ppb	86.455	5.78	1918	2000	
Se	78	1	72	5.270	ppb	5.270	3.46	403	2000	
Sr	88	2	72	3379.260	ppb	3379.260	0.36	199645	4000	
Zr	90	2	72	13182.203	ppb	13182.203	2.72	34926	1000	>LDR
Nb	93	2	72	14.197	ppb	14.197	2.93	9873	200	
Mo	95	2	115	18.120	ppb	18.120	5.95	3320	2000	
Pd	105	2	115	0.101	ppb	0.101	60.74	37	100	
Ag	107	2	115	0.639	ppb	0.639	16.08	477	100	
Cd	111	2	115	6.117	ppb	6.117	15.92	390	2000	
Sn	120	2	115	9.545	ppb	9.545	13.54	1567	2000	
Sb	121	2	115	6.910	ppb	6.910	10.59	957	1000	
Ba	137	2	115	1947.759	ppb	1947.759	1.88	78588	5000	
W	182	2	165	3.414	ppb	3.414	0.84	4924	100	
Pt	195	2	165	0.067	ppb	0.067	83.24	220	100	
Tl	205	2	165	2.294	ppb	2.294	1.94	4674	2000	
Pb	208	2	165	205.708	ppb	205.708	2.15	547590	5000	
Th	232	2	165	95.713	ppb	95.713	3.25	289359	2000	
U	238	2	165	17.352	ppb	17.352	1.24	60649	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	68566	2.35	96254	71.24	60	120	
Sc (IS)	45	1	HMI H2	6022386	1.66	7565071	79.61	60	120	
Sc (IS)	45	2	HMI He	86765	0.50	115393	75.19	60	120	
Sc (IS)	45	3	No Gas	12738856	0.47	15365161	82.91	60	120	
Ge Internal Standard	72	1	HMI H2	3210594	1.21	4257146	75.42	60	120	
Ge Internal Standard	72	2	HMI He	137278	0.93	195325	70.28	60	120	
In Internal Standard	115	2	HMI He	385484	0.40	550317	70.05	60	120	
Ho-165	165	2	HMI He	3553354	0.93	4433489	80.15	60	120	

Sample Table

Sample Name	280-104412-a-68-c
Data File Name	176SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:49:22-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399904 SOIL 6020A DOD5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	164.431	ppb	164.431	9.65	14263	500000	
Li	7	2	45	150.705	ppb	150.705	46.51	893	500000	
Li	7	3	45	161.260	ppb	161.260	1.13	512490	50000	
Be	9	1	6	10.408	ppb	10.408	26.58	270	2000	
B	11	1	6	141.574	ppb	141.574	8.55	4621	2000	
Na	23	1	45	2644.134	ppb	2644.134	0.41	1332273	2000	
Na	23	2	45	2556.666	ppb	2556.666	4.37	53676	400000	
Mg	24	2	45	483605.997	ppb	483605.997	0.65	4380988	400000	
Al	27	2	45	186402.653	ppb	186402.653	2.20	380569	400000	
K	39	1	45	52352.247	ppb	52352.247	0.99	34232771	400000	
K	39	2	45	42518.222	ppb	42518.222	1.34	162433	400000	
Ca	40	1	45	2093913.250	ppb	2093913.250	0.89	1997059224	400000	>LDR
Ca	44	2	45	2058480.762	ppb	2058480.762	1.32	520509	400000	>LDR
Ti	47	2	45	394170.687	ppb	394170.687	2.31	18033	4000	>LDR
V	51	2	72	451.051	ppb	451.051	2.27	58914	2000	
Cr	52	2	72	341.274	ppb	341.274	1.91	61831	5000	
Mn	55	2	72	5537.352	ppb	5537.352	0.46	300825	10000	
Fe	57	2	72	241441.320	ppb	241441.320	1.61	801498	400000	
Co	59	2	72	86.566	ppb	86.566	0.64	34144	2000	
Ni	60	2	72	235.806	ppb	235.806	0.88	27452	5000	
Cu	63	2	72	339.370	ppb	339.370	1.27	121938	5000	
Zn	66	2	72	907.966	ppb	907.966	0.88	27245	5000	
As	75	2	72	98.079	ppb	98.079	5.51	2034	2000	
Se	78	1	72	6.481	ppb	6.481	13.77	461	2000	
Sr	88	2	72	3959.419	ppb	3959.419	0.63	218720	4000	
Zr	90	2	72	13903.371	ppb	13903.371	3.76	34445	1000	>LDR
Nb	93	2	72	13.424	ppb	13.424	1.92	8733	200	
Mo	95	2	115	19.560	ppb	19.560	3.36	3372	2000	
Pd	105	2	115	0.150	ppb	0.150	36.31	50	100	
Ag	107	2	115	0.753	ppb	0.753	7.94	527	100	
Cd	111	2	115	7.599	ppb	7.599	30.49	457	2000	
Sn	120	2	115	10.926	ppb	10.926	10.78	1680	2000	
Sb	121	2	115	6.877	ppb	6.877	8.03	897	1000	
Ba	137	2	115	2087.791	ppb	2087.791	0.53	79338	5000	
W	182	2	165	3.617	ppb	3.617	8.95	4991	100	
Pt	195	2	165	0.010	ppb	0.010	613.84	133	100	
Tl	205	2	165	2.342	ppb	2.342	4.46	4568	2000	
Pb	208	2	165	223.555	ppb	223.555	1.01	569024	5000	
Th	232	2	165	102.488	ppb	102.488	1.09	296697	2000	
U	238	2	165	19.245	ppb	19.245	1.27	64405	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	62022	1.12	96254	64.44	60	120	
Sc (IS)	45	1	HMI H2	5596990	1.44	7565071	73.98	60	120	
Sc (IS)	45	2	HMI He	79720	1.19	115393	69.09	60	120	
Sc (IS)	45	3	No Gas	11253108	0.16	15365161	73.24	60	120	
Ge Internal Standard	72	1	HMI H2	2990267	1.44	4257146	70.24	60	120	
Ge Internal Standard	72	2	HMI He	128356	0.22	195325	65.71	60	120	
In Internal Standard	115	2	HMI He	363046	0.23	550317	65.97	60	120	
Ho-165	165	2	HMI He	3402177	0.27	4433489	76.74	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	177_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:53:17-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	404.635	ppb	2.961	21944	500	80.9	90	110	>+\-10%
Li	7	2	45	484.246	ppb	3.422	1580	500	96.8	90	110	
Li	7	3	45	359.591	ppb	0.669	831667	500	71.9	90	110	>+\-10%
Be	9	1	6	50.050	ppb	3.679	1353	50	100.1	90	110	
B	11	1	6	42.548	ppb	15.108	1904	50	85.1	90	110	>+\-10%
Na	23	1	45	4836.256	ppb	2.005	2493332	5000	96.7	90	110	
Na	23	2	45	4901.067	ppb	1.203	113596	5000	98.0	90	110	
Mg	24	2	45	4965.174	ppb	2.799	51413	5000	99.3	90	110	
Al	27	2	45	4874.091	ppb	1.382	11237	5000	97.5	90	110	
K	39	1	45	5225.255	ppb	1.296	4979993	5000	104.5	90	110	
K	39	2	45	5220.135	ppb	1.255	24317	5000	104.4	90	110	
Ca	40	1	45	5679.542	ppb	0.491	5722602	5000	113.6	90	110	>+\-10%
Ca	44	2	45	5659.737	ppb	16.461	1633	5000	113.2	90	110	>+\-10%
Ti	47	2	45	63.056	ppb	173.205	3	50	126.1	90	110	>+\-10%
V	51	2	72	46.465	ppb	3.341	7505	50	92.9	90	110	
Cr	52	2	72	47.972	ppb	3.446	10674	50	95.9	90	110	
Mn	55	2	72	46.212	ppb	10.843	3174	50	92.4	90	110	
Fe	57	2	72	5011.387	ppb	2.807	20466	5000	100.2	90	110	
Co	59	2	72	49.200	ppb	4.252	23773	50	98.4	90	110	
Ni	60	2	72	51.844	ppb	3.501	7399	50	103.7	90	110	
Cu	63	2	72	51.026	ppb	2.250	24020	50	102.1	90	110	
Zn	66	2	72	50.123	ppb	8.533	1920	50	100.2	90	110	
As	75	2	72	48.861	ppb	7.240	1242	50	97.7	90	110	
Se	78	1	72	51.100	ppb	4.967	4150	50	102.2	90	110	
Sr	88	2	72	48.732	ppb	8.785	3317	50	97.5	90	110	
Zr	90	2	72	135.354	ppb	17.484	440	50	270.7	90	110	>+\-10%
Nb	93	2	72	97.499	ppb	2.457	77085	100	97.5	90	110	
Mo	95	2	115	51.264	ppb	2.514	10734	50	102.5	90	110	
Pd	105	2	115	50.942	ppb	2.735	19889	50	101.9	90	110	
Ag	107	2	115	50.223	ppb	0.638	42012	50	100.4	90	110	
Cd	111	2	115	48.425	ppb	4.584	3567	50	96.8	90	110	
Sn	120	2	115	48.532	ppb	7.311	8879	50	97.1	90	110	
Sb	121	2	115	49.378	ppb	2.853	7865	50	98.8	90	110	
Ba	137	2	115	49.688	ppb	19.111	2317	50	99.4	90	110	
W	182	2	165	49.493	ppb	2.109	74234	50	99.0	90	110	
Pt	195	2	165	48.927	ppb	2.106	73586	50	97.9	90	110	
Tl	205	2	165	48.595	ppb	2.128	104220	50	97.2	90	110	
Pb	208	2	165	49.529	ppb	0.493	147471	50	99.1	90	110	
Th	232	2	165	49.224	ppb	1.743	157786	50	98.4	90	110	
U	238	2	165	48.465	ppb	1.892	179442	50	96.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	64975	1.55	96254	67.50	60	120	
Sc (IS)	45	1	HMI H2	5825399	0.81	7565071	77.00	60	120	
Sc (IS)	45	2	HMI He	90001	2.06	115393	78.00	60	120	
Sc (IS)	45	3	No Gas	12886021	0.33	15365161	83.87	60	120	
Ge Internal Standard	72	1	HMI H2	3420529	0.42	4257146	80.35	60	120	
Ge Internal Standard	72	2	HMI He	157082	1.39	195325	80.42	60	120	
In Internal Standard	115	2	HMI He	445317	1.94	550317	80.92	60	120	
Ho-165	165	2	HMI He	3765406	1.41	4433489	84.93	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	178_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T02:57:05-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-39.145	ppb	-4.2	354294	10	
Be	9	1	6	0.375	ppb	140.3	13	0.5	
B	11	1	6	11.856	ppb	9.4	1083	0.5	>RL
Na	23	1	45	3.203	ppb	57.2	57681	25	
Na	23	2	45	5.893	ppb	184.2	3234	25	
Mg	24	2	45	21.091	ppb	4.7	947	25	
Al	27	2	45	11.842	ppb	56.2	30	15	
K	39	1	45	294.436	ppb	10.9	1923829	50	>RL
K	39	2	45	68.016	ppb	103.3	2564	50	>RL
Ca	40	1	45	138.819	ppb	4.0	241250	50	>RL
Ca	44	2	45	97.841	ppb	20.2	53	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	-0.014	ppb	-1005.6	93	1	
Cr	52	2	72	0.137	ppb	49.5	77	1	
Mn	55	2	72	-0.007	ppb	-2415.4	110	0.5	
Fe	57	2	72	37.699	ppb	38.7	280	25	>RL
Co	59	2	72	-0.008	ppb	-120.5	37	0.5	
Ni	60	2	72	0.127	ppb	92.3	40	1	
Cu	63	2	72	-0.859	ppb	-55.1	1623	1	
Zn	66	2	72	-0.188	ppb	-541.6	83	5	
As	75	2	72	0.105	ppb	204.3	5	1	
Se	78	1	72	0.078	ppb	116.2	8	1	
Sr	88	2	72	0.460	ppb	32.3	60	0.5	
Zr	90	2	72	11.486	ppb	112.9	70	1	>RL
Nb	93	2	72	1.642	ppb	4.9	1503	2	
Mo	95	2	115	-0.075	ppb	-121.8	57	0.5	
Pd	105	2	115	0.040	ppb	103.6	20	1	
Ag	107	2	115	-0.001	ppb	-1850.5	17	1	
Cd	111	2	115	0.041	ppb	173.2	3	0.5	
Sn	120	2	115	-0.094	ppb	-253.1	67	1	
Sb	121	2	115	0.236	ppb	53.3	47	0.6	
Ba	137	2	115	-0.059	ppb	0.0	0	0.5	
W	182	2	165	0.009	ppb	144.7	123	1	
Pt	195	2	165	-0.027	ppb	-72.9	97	1	
Tl	205	2	165	0.011	ppb	41.0	60	0.1	
Pb	208	2	165	0.494	ppb	32.4	12016	0.5	
Th	232	2	165	0.324	ppb	3.0	1267	1	
U	238	2	165	-0.001	ppb	-267.1	27	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	70740	1.10	96254	73.49	60	120	
Sc (IS)	45	1	HMI H2	6321102	0.85	7565071	83.56	60	120	
Sc (IS)	45	2	HMI He	98388	1.41	115393	85.26	60	120	
Sc (IS)	45	3	No Gas	13447966	0.31	15365161	87.52	60	120	
Ge Internal Standard	72	1	HMI H2	3669215	1.07	4257146	86.19	60	120	
Ge Internal Standard	72	2	HMI He	170826	1.66	195325	87.46	60	120	
In Internal Standard	115	2	HMI He	485515	1.90	550317	88.22	60	120	
Ho-165	165	2	HMI He	3909505	0.29	4433489	88.18	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	179LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:00:58-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-29.328	ppb	-12.189	373383	50	-58.7	70	130	>+/-30%
Be	9	1	6	0.566	ppb	58.840	20	1	56.6	70	130	>+/-30%
Na	23	2	45	62.841	ppb	7.080	4978	50	125.7	70	130	
Mg	24	2	45	71.072	ppb	22.280	1613	50	142.1	70	130	>+/-30%
Al	27	2	45	50.572	ppb	37.017	137	30	168.6	70	130	>+/-30%
K	39	2	45	103.479	ppb	28.185	2930	100	103.5	70	130	
Ca	44	2	45	176.407	ppb	52.825	83	50	352.8	70	130	>+/-30%
V	51	2	72	4.781	ppb	6.547	977	5	95.6	70	130	
Cr	52	2	72	1.915	ppb	18.231	533	2	95.7	70	130	
Mn	55	2	72	2.362	ppb	17.611	297	1	236.2	70	130	>+/-30%
Fe	57	2	72	71.450	ppb	19.217	453	50	142.9	70	130	>+/-30%
Co	59	2	72	1.230	ppb	14.215	723	1	123.0	70	130	
Ni	60	2	72	1.910	ppb	23.006	333	2	95.5	70	130	
Cu	63	2	72	0.816	ppb	73.405	2550	2	40.8	70	130	>+/-30%
Zn	66	2	72	10.982	ppb	13.370	557	10	109.8	70	130	
As	75	2	72	4.881	ppb	10.212	144	5	97.6	70	130	
Se	78	1	72	5.043	ppb	12.357	456	5	100.9	70	130	
Sr	88	2	72	1.278	ppb	33.101	127	1	127.8	70	130	
Zr	90	2	72	43.075	ppb	31.560	183	0.5	8615.1	70	130	>+/-30%
Nb	93	2	72	1.712	ppb	9.675	1650	2	85.6	70	130	
Mo	95	2	115	1.658	ppb	16.735	473	2	82.9	70	130	
Pd	105	2	115	0.038	ppb	0.310	20	1	3.8	70	130	>+/-30%
Ag	107	2	115	4.734	ppb	0.262	4561	5	94.7	70	130	
Cd	111	2	115	0.867	ppb	20.833	73	1	86.7	70	130	
Sn	120	2	115	9.477	ppb	7.206	2064	10	94.8	70	130	
Sb	121	2	115	1.882	ppb	21.888	350	2	94.1	70	130	
Ba	137	2	115	0.876	ppb	92.957	50	1	87.6	70	130	
W	182	2	165	4.650	ppb	7.676	7819	1	465.0	70	130	>+/-30%
Pt	195	2	165	0.038	ppb	41.692	210	1	3.8	70	130	>+/-30%
Tl	205	2	165	0.924	ppb	7.809	2227	1	92.4	70	130	
Pb	208	2	165	2.912	ppb	3.805	20206	1	291.2	70	130	>+/-30%
Th	232	2	165	2.143	ppb	2.440	7786	2	107.1	70	130	
U	238	2	165	0.915	ppb	1.977	3781	1	91.5	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	74340	3.53	96254	77.23	60	120	
Sc (IS)	45	1	HMI H2	6589768	0.15	7565071	87.11	60	120	
Sc (IS)	45	2	HMI He	105514	0.92	115393	91.44	60	120	
Sc (IS)	45	3	No Gas	13684270	0.25	15365161	89.06	60	120	
Ge Internal Standard	72	1	HMI H2	3798567	0.42	4257146	89.23	60	120	
Ge Internal Standard	72	2	HMI He	180194	0.63	195325	92.25	60	120	
In Internal Standard	115	2	HMI He	510958	0.26	550317	92.85	60	120	
Ho-165	165	2	HMI He	4163047	0.33	4433489	93.90	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399900/1-A
Data File Name	180_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:04:47-07:00
Sample Type	Blank
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-35.912	ppb	-38.63954396	10080	0.5
Li	7	2	45	-31.006	ppb	-459.7644012	750	0.5
Li	7	3	45	-23.950	ppb	-13.69337009	378817	10
Be	9	1	6	0.120	ppb	292.825941	7	0.5
B	11	1	6	27.217	ppb	3.222893313	1740	0.5
Na	23	1	45	440.152	ppb	0.854349186	309217	25
Na	23	2	45	440.486	ppb	6.218308389	13772	25
Mg	24	2	45	36.944	ppb	34.98853018	1107	25
Al	27	2	45	13.374	ppb	33.61031645	33	15
K	39	1	45	8811.595	ppb	1.874412679	8258506	50
K	39	2	45	94.127	ppb	33.90172223	2650	50
Ca	40	1	45	291.339	ppb	1.467635446	422100	50
Ca	44	2	45	240.379	ppb	37.28732098	97	25
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5
V	51	2	72	0.359	ppb	41.12551062	157	1
Cr	52	2	72	0.293	ppb	57.60639822	113	1
Mn	55	2	72	0.848	ppb	71.76856195	170	0.5
Fe	57	2	72	41.331	ppb	22.72751169	293	25
Co	59	2	72	-0.020	ppb	-165.3317181	30	0.5
Ni	60	2	72	0.847	ppb	7.962662991	150	1
Cu	63	2	72	2.951	ppb	13.96547808	3387	1
Zn	66	2	72	1.961	ppb	75.06659256	167	5
As	75	2	72	0.013	ppb	626.4830366	3	1
Se	78	1	72	0.077	ppb	102.0331973	8	1
Sr	88	2	72	0.651	ppb	24.63919252	73	0.5
Zr	90	2	72	6.693	ppb	147.289182	53	1
Nb	93	2	72	0.189	ppb	17.64636493	253	2
Mo	95	2	115	-0.072	ppb	-131.1557138	57	0.5
Pd	105	2	115	0.072	ppb	100.7972162	33	1
Ag	107	2	115	0.003	ppb	658.0809727	20	1
Cd	111	2	115	0.084	ppb	173.2050808	7	0.5
Sn	120	2	115	0.131	ppb	70.69836941	110	1
Sb	121	2	115	0.199	ppb	51.2705443	40	0.6
Ba	137	2	115	1.068	ppb	38.82628191	57	0.5
W	182	2	165	0.072	ppb	73.60540109	223	1
Pt	195	2	165	0.025	ppb	40.27942476	180	1
Tl	205	2	165	0.008	ppb	182.8614096	53	0.1
Pb	208	2	165	2.598	ppb	8.927273756	18298	0.5
Th	232	2	165	0.245	ppb	20.75645216	1013	1
U	238	2	165	0.005	ppb	170.6320038	53	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	77953	2.13	96254	80.99	60	120	
Sc (IS)	45	1	HMI H2	6578992	0.53	7565071	86.97	60	120	
Sc (IS)	45	2	HMI He	96996	1.52	115393	84.06	60	120	
Sc (IS)	45	3	No Gas	13626918	1.00	15365161	88.69	60	120	
Ge Internal Standard	72	1	HMI H2	3763453	0.79	4257146	88.40	60	120	
Ge Internal Standard	72	2	HMI He	168927	0.22	195325	86.48	60	120	
In Internal Standard	115	2	HMI He	480696	0.94	550317	87.35	60	120	
Ho-165	165	2	HMI He	3959310	0.64	4433489	89.30	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399900/2-A
Data File Name	181LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:08:36-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399900 hot Sb 6020a dod5
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	209.615	209.615	ppb	3.396	6405	200	104.8	80	120	
Na	23	2	45	266.556	266.556	ppb	6.717	9366	200	133.3	80	120	NewName Main CR1 Failed
Mg	24	2	45	41.455	41.455	ppb	41.188	1137	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1899.697	1899.697	ppb	7.942	4634	200000	0.9	80	120	NewName Main CR1 Failed
K	39	2	45	112.598	112.598	ppb	46.163	2684	200000	0.1	80	120	NewName Main CR1 Failed
Ca	44	2	45	1316.944	1316.944	ppb	9.411	420	200000	0.7	80	120	NewName Main CR1 Failed
V	51	2	72	202.983	202.983	ppb	7.404	33616	200	101.5	80	120	
Cr	52	2	72	198.192	198.192	ppb	3.162	45489	200	99.1	80	120	
(Cr)	53	2	72	185.901	185.901	ppb	5.988	5501	200	93.0	80	120	
Mn	55	2	72	197.736	197.736	ppb	0.619	13709	200	98.9	80	120	
Fe	57	2	72	1915.382	1915.382	ppb	1.235	8162	200000	1.0	80	120	NewName Main CR1 Failed
Co	59	2	72	202.499	202.499	ppb	4.559	101099	200	101.2	80	120	
Ni	60	2	72	201.997	201.997	ppb	1.620	29789	200	101.0	80	120	
Cu	63	2	72	213.851	213.851	ppb	3.468	98029	200	106.9	80	120	
Zn	66	2	72	200.688	200.688	ppb	1.015	7695	200	100.3	80	120	
As	75	2	72	194.179	194.179	ppb	0.786	5099	200	97.1	80	120	
Se	78	1	72	199.946	199.946	ppb	0.494	17254	200	100.0	80	120	
(Se)	82	1	72	202.875	202.875	ppb	0.560	9760	200	101.4	80	120	
Nb	93	2	72	0.336	0.336	ppb	10.275	363	400	0.1	80	120	NewName Main CR1 Failed
Mo	95	2	115	194.535	194.535	ppb	1.226	42276	200	97.3	80	120	
Pd	105	2	115	0.067	0.067	ppb	37.198	30	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	202.254	202.254	ppb	2.519	176440	200	101.1	80	120	
Cd	111	2	115	206.003	206.003	ppb	3.796	15835	200	103.0	80	120	
(Cd)	114	2	115	197.587	197.587	ppb	3.426	40760	200	98.8	80	120	
Sn	120	2	115	195.505	195.505	ppb	2.652	37091	200	97.8	80	120	
Sb	121	2	115	186.336	186.336	ppb	4.602	30943	200	93.2	80	110	
Ba	137	2	115	201.748	201.748	ppb	2.993	9813	200	100.9	80	120	
W	182	2	165	201.085	201.085	ppb	2.985	315827	200	100.5	80	120	
Pt	195	2	165	0.043	0.043	ppb	71.963	207	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	195.000	195.000	ppb	3.227	438298	200	97.5	80	120	
(Pb)	206	2	165	195.339	195.339	ppb	1.543	139201	200	97.7	80	120	
(Pb)	207	2	165	193.072	193.072	ppb	2.824	127914	200	96.5	80	120	
Pb	208	2	165	196.165	196.165	ppb	2.583	580539	200	98.1	80	120	
Th	232	2	165	192.791	192.791	ppb	3.277	647283	200	96.4	80	120	
U	238	2	165	192.969	192.969	ppb	3.155	748839	200	96.5	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	73539	2.54	96254	76.40	60	120	
Sc (IS)	45	1	HMI H2	6275742	0.58	7565071	82.96	60	120	
Sc (IS)	45	2	HMI He	95234	1.34	115393	82.53	60	120	
Sc (IS)	45	3	No Gas	13514666	0.36	15365161	87.96	60	120	
Ge Internal Standard	72	1	HMI H2	3635442	1.30	4257146	85.40	60	120	
Ge Internal Standard	72	2	HMI He	162586	1.66	195325	83.24	60	120	
In Internal Standard	115	2	HMI He	464523	0.74	550317	84.41	60	120	
Ho-165	165	2	HMI He	3947095	0.73	4433489	89.03	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCSD 280-399900/3-A
Data File Name	182LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:12:25-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399900 hot Sb 6020a dod5
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	210.446	210.446	ppb	0.983	6435	200	105.2	80	120	
Na	23	2	45	208.415	208.415	ppb	11.117	7992	200	104.2	80	120	
Mg	24	2	45	41.417	41.417	ppb	13.861	1140	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1907.217	1907.217	ppb	9.316	4664	200000	1.0	80	120	NewName Main CR1 Failed
K	39	2	45	79.937	79.937	ppb	30.659	2547	200000	0.0	80	120	NewName Main CR1 Failed
Ca	44	2	45	1039.844	1039.844	ppb	25.700	337	200000	0.5	80	120	NewName Main CR1 Failed
V	51	2	72	200.256	200.256	ppb	2.750	33268	200	100.1	80	120	
Cr	52	2	72	196.491	196.491	ppb	3.762	45228	200	98.2	80	120	
(Cr)	53	2	72	201.249	201.249	ppb	5.681	5968	200	100.6	80	120	
Mn	55	2	72	205.733	205.733	ppb	5.109	14310	200	102.9	80	120	
Fe	57	2	72	2043.635	2043.635	ppb	5.663	8719	200000	1.0	80	120	NewName Main CR1 Failed
Co	59	2	72	199.128	199.128	ppb	4.223	99671	200	99.6	80	120	
Ni	60	2	72	206.882	206.882	ppb	5.870	30577	200	103.4	80	120	
Cu	63	2	72	208.699	208.699	ppb	3.296	95972	200	104.3	80	120	
Zn	66	2	72	210.720	210.720	ppb	9.457	8092	200	105.4	80	120	
As	75	2	72	189.231	189.231	ppb	6.652	4983	200	94.6	80	120	
Se	78	1	72	199.958	199.958	ppb	1.880	17265	200	100.0	80	120	
(Se)	82	1	72	189.416	189.416	ppb	0.923	9193	200	94.7	80	120	
Nb	93	2	72	0.204	0.204	ppb	18.720	257	400	0.1	80	120	NewName Main CR1 Failed
Mo	95	2	115	190.564	190.564	ppb	2.823	41597	200	95.3	80	120	
Pd	105	2	115	0.099	0.099	ppb	15.204	43	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	202.324	202.324	ppb	0.165	177311	200	101.2	80	120	
Cd	111	2	115	202.159	202.159	ppb	5.153	15601	200	101.1	80	120	
(Cd)	114	2	115	198.148	198.148	ppb	2.140	41060	200	99.1	80	120	
Sn	120	2	115	190.436	190.436	ppb	2.655	36290	200	95.2	80	120	
Sb	121	2	115	181.502	181.502	ppb	0.460	30278	200	90.8	80	110	
Ba	137	2	115	195.725	195.725	ppb	1.077	9563	200	97.9	80	120	
W	182	2	165	201.042	201.042	ppb	1.642	314289	200	100.5	80	120	
Pt	195	2	165	-0.003	-0.003	ppb	-890.724	133	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	195.140	195.140	ppb	2.172	436568	200	97.6	80	120	
(Pb)	206	2	165	195.645	195.645	ppb	2.239	138754	200	97.8	80	120	
(Pb)	207	2	165	194.498	194.498	ppb	2.457	128240	200	97.2	80	120	
Pb	208	2	165	196.562	196.562	ppb	2.185	578959	200	98.3	80	120	
Th	232	2	165	195.340	195.340	ppb	1.529	652874	200	97.7	80	120	
U	238	2	165	192.627	192.627	ppb	1.617	744064	200	96.3	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	73574	2.55	96254	76.44	60	120	
Sc (IS)	45	1	HMI H2	6356885	0.92	7565071	84.03	60	120	
Sc (IS)	45	2	HMI He	95545	2.39	115393	82.80	60	120	
Sc (IS)	45	3	No Gas	13519789	0.21	15365161	87.99	60	120	
Ge Internal Standard	72	1	HMI H2	3637459	0.43	4257146	85.44	60	120	
Ge Internal Standard	72	2	HMI He	163073	2.52	195325	83.49	60	120	
In Internal Standard	115	2	HMI He	466633	1.70	550317	84.79	60	120	
Ho-165	165	2	HMI He	3928719	1.21	4433489	88.61	60	120	

Sample Table

Sample Name	280-104412-A-21-H
Data File Name	183SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:16:14-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	50.129	ppb	50.129	20.67	11731	500000	
Li	7	2	45	1.632	ppb	1.632	3600.72	797	500000	
Li	7	3	45	41.871	ppb	41.871	4.53	403356	50000	
Be	9	1	6	5.388	ppb	5.388	19.62	147	2000	
B	11	1	6	85.711	ppb	85.711	16.81	3174	2000	
Na	23	1	45	1793.707	ppb	1793.707	3.35	978749	2000	
Na	23	2	45	1731.617	ppb	1731.617	4.80	44351	400000	
Mg	24	2	45	198392.228	ppb	198392.228	0.58	2144876	400000	
Al	27	2	45	69205.469	ppb	69205.469	2.11	168586	400000	
K	39	1	45	27526.073	ppb	27526.073	3.26	19923054	400000	
K	39	2	45	19694.312	ppb	19694.312	0.12	90945	400000	
Ca	40	1	45	2652386.224	ppb	2652386.224	4.16	2691869187	400000	>LDR
Ca	44	2	45	2502333.681	ppb	2502333.681	0.43	754985	400000	>LDR
Ti	47	2	45	132126.985	ppb	132126.985	0.32	7212	4000	>LDR
V	51	2	72	248.330	ppb	248.330	4.12	36979	2000	
Cr	52	2	72	444.192	ppb	444.192	3.26	91654	5000	
Mn	55	2	72	2984.125	ppb	2984.125	0.92	184707	10000	
Fe	57	2	72	128699.445	ppb	128699.445	1.08	486697	400000	
Co	59	2	72	47.621	ppb	47.621	1.80	21414	2000	
Ni	60	2	72	160.321	ppb	160.321	2.95	21263	5000	
Cu	63	2	72	7222.099	ppb	7222.099	0.90	2920634	5000	
Zn	66	2	72	1291.858	ppb	1291.858	0.91	44123	5000	
As	75	2	72	81.111	ppb	81.111	1.73	1916	2000	
Se	78	1	72	6.277	ppb	6.277	14.28	463	2000	
Sr	88	2	72	6893.754	ppb	6893.754	1.87	433756	4000	
Zr	90	2	72	3168.520	ppb	3168.520	3.06	8963	1000	
Nb	93	2	72	4.331	ppb	4.331	4.41	3264	200	
Mo	95	2	115	30.676	ppb	30.676	7.58	6045	2000	
Pd	105	2	115	0.175	ppb	0.175	39.80	67	100	
Ag	107	2	115	2.906	ppb	2.906	7.82	2294	100	
Cd	111	2	115	8.018	ppb	8.018	31.87	553	2000	
Sn	120	2	115	19.663	ppb	19.663	2.25	3420	2000	
Sb	121	2	115	717.258	ppb	717.258	1.32	107080	1000	
Ba	137	2	115	1389.133	ppb	1389.133	1.60	60734	5000	
W	182	2	165	3.993	ppb	3.993	7.14	6048	100	
Pt	195	2	165	0.003	ppb	0.003	1742.42	137	100	
Tl	205	2	165	1.556	ppb	1.556	1.36	3351	2000	
Pb	208	2	165	85387.530	ppb	85387.530	0.75	235200475	5000	>LDR
Th	232	2	165	39.179	ppb	39.179	0.95	124869	2000	
U	238	2	165	16.605	ppb	16.605	2.04	61128	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	64868	4.18	96254	67.39	60	120	
Sc (IS)	45	1	HMI H2	5958554	1.98	7565071	78.76	60	120	
Sc (IS)	45	2	HMI He	95120	1.34	115393	82.43	60	120	
Sc (IS)	45	3	No Gas	11826554	0.32	15365161	76.97	60	120	
Ge Internal Standard	72	1	HMI H2	3100178	2.24	4257146	72.82	60	120	
Ge Internal Standard	72	2	HMI He	146213	0.68	195325	74.86	60	120	
In Internal Standard	115	2	HMI He	417673	1.02	550317	75.90	60	120	
Ho-165	165	2	HMI He	3742173	0.05	4433489	84.41	60	120	

Sample Table

Sample Name	280-104412-A-21-Hsd@5
Data File Name	184SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:20:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-21.408	ppb	-21.408	-57.45	9700	500000	
Li	7	2	45	-47.364	ppb	-47.364	-88.52	697	500000	
Li	7	3	45	-27.009	ppb	-27.009	-2.24	349165	50000	
Be	9	1	6	0.876	ppb	0.876	61.55	27	2000	
B	11	1	6	29.683	ppb	29.683	29.89	1557	2000	
Na	23	1	45	366.365	ppb	366.365	0.65	245339	2000	
Na	23	2	45	393.858	ppb	393.858	7.53	12191	400000	
Mg	24	2	45	42466.197	ppb	42466.197	2.53	452071	400000	
Al	27	2	45	14777.812	ppb	14777.812	3.99	35418	400000	
K	39	1	45	5829.883	ppb	5829.883	2.35	5572881	400000	
K	39	2	45	4204.880	ppb	4204.880	4.25	20776	400000	
Ca	40	1	45	536852.343	ppb	536852.343	1.41	552812538	400000	
Ca	44	2	45	526858.544	ppb	526858.544	1.24	156356	400000	
Ti	47	2	45	27440.677	ppb	27440.677	25.00	1473	4000	>LDR
V	51	2	72	49.636	ppb	49.636	6.42	7929	2000	
Cr	52	2	72	88.985	ppb	88.985	4.53	19561	5000	
Mn	55	2	72	593.407	ppb	593.407	2.40	39147	10000	
Fe	57	2	72	25596.261	ppb	25596.261	2.36	103022	400000	
Co	59	2	72	9.885	ppb	9.885	5.67	4754	2000	
Ni	60	2	72	33.608	ppb	33.608	6.20	4754	5000	
Cu	63	2	72	1438.344	ppb	1438.344	2.13	620165	5000	
Zn	66	2	72	267.887	ppb	267.887	3.47	9800	5000	
As	75	2	72	14.676	ppb	14.676	17.01	370	2000	
Se	78	1	72	1.297	ppb	1.297	29.02	105	2000	
Sr	88	2	72	1345.439	ppb	1345.439	1.67	90053	4000	
Zr	90	2	72	622.224	ppb	622.224	7.59	1897	1000	
Nb	93	2	72	0.820	ppb	0.820	17.72	727	200	
Mo	95	2	115	5.273	ppb	5.273	6.61	1143	2000	
Pd	105	2	115	0.028	ppb	0.028	108.26	13	100	
Ag	107	2	115	0.597	ppb	0.597	22.76	507	100	
Cd	111	2	115	1.751	ppb	1.751	30.20	127	2000	
Sn	120	2	115	3.814	ppb	3.814	10.32	757	2000	
Sb	121	2	115	144.926	ppb	144.926	3.80	22663	1000	
Ba	137	2	115	274.302	ppb	274.302	4.73	12559	5000	
W	182	2	165	0.869	ppb	0.869	3.17	1423	100	
Pt	195	2	165	0.010	ppb	0.010	132.68	150	100	
Tl	205	2	165	0.322	ppb	0.322	14.07	733	2000	
Pb	208	2	165	18127.397	ppb	18127.397	1.62	50835565	5000	
Th	232	2	165	8.245	ppb	8.245	3.60	26894	2000	
U	238	2	165	3.394	ppb	3.394	4.99	12742	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	66514	1.86	96254	69.10	60	120	
Sc (IS)	45	1	HMI H2	6042286	1.06	7565071	79.87	60	120	
Sc (IS)	45	2	HMI He	93558	1.05	115393	81.08	60	120	
Sc (IS)	45	3	No Gas	12693055	0.54	15365161	82.61	60	120	
Ge Internal Standard	72	1	HMI H2	3388839	1.17	4257146	79.60	60	120	
Ge Internal Standard	72	2	HMI He	155519	1.65	195325	79.62	60	120	
In Internal Standard	115	2	HMI He	437366	0.73	550317	79.48	60	120	
Ho-165	165	2	HMI He	3809448	0.67	4433489	85.92	60	120	

Sample Table

Sample Name	280-104412-A-21-I MS
Data File Name	185SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:23:53-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	218.252	ppb	218.252	0.91	15704	500000	
Li	7	2	45	105.273	ppb	105.273	33.16	870	500000	
Li	7	3	45	179.471	ppb	179.471	0.56	511724	50000	
Be	9	1	6	231.708	ppb	231.708	8.23	5648	2000	
B	11	1	6	249.323	ppb	249.323	5.11	7248	2000	
Na	23	1	45	1924.944	ppb	1924.944	2.26	977709	2000	
Na	23	2	45	1937.576	ppb	1937.576	4.39	43512	400000	
Mg	24	2	45	216625.036	ppb	216625.036	1.69	2068447	400000	
Al	27	2	45	84092.772	ppb	84092.772	1.21	180964	400000	
K	39	1	45	30480.760	ppb	30480.760	2.51	20447391	400000	
K	39	2	45	22378.058	ppb	22378.058	1.90	91004	400000	
Ca	40	1	45	2749840.834	ppb	2749840.834	2.31	2607553401	400000	>LDR
Ca	44	2	45	2668030.098	ppb	2668030.098	0.88	711022	400000	>LDR
Ti	47	2	45	171823.703	ppb	171823.703	2.75	8286	4000	>LDR
V	51	2	72	503.247	ppb	503.247	1.00	66139	2000	
Cr	52	2	72	703.023	ppb	703.023	1.18	128134	5000	
Mn	55	2	72	3480.925	ppb	3480.925	1.34	190322	10000	
Fe	57	2	72	147413.167	ppb	147413.167	0.62	492474	400000	
Co	59	2	72	254.175	ppb	254.175	1.57	100824	2000	
Ni	60	2	72	378.801	ppb	378.801	3.74	44366	5000	
Cu	63	2	72	7211.971	ppb	7211.971	0.95	2576523	5000	
Zn	66	2	72	1515.332	ppb	1515.332	3.67	45710	5000	
As	75	2	72	281.783	ppb	281.783	1.55	5877	2000	
Se	78	1	72	203.563	ppb	203.563	2.12	13991	2000	
Sr	88	2	72	7617.644	ppb	7617.644	1.28	423432	4000	
Zr	90	2	72	13607.365	ppb	13607.365	0.99	33924	1000	>LDR
Nb	93	2	72	5.627	ppb	5.627	7.12	3724	200	
Mo	95	2	115	237.277	ppb	237.277	1.63	41133	2000	
Pd	105	2	115	0.167	ppb	0.167	38.00	57	100	
Ag	107	2	115	199.115	ppb	199.115	1.43	138607	100	
Cd	111	2	115	201.714	ppb	201.714	3.34	12372	2000	
Sn	120	2	115	216.913	ppb	216.913	1.49	32833	2000	
Sb	121	2	115	875.885	ppb	875.885	1.05	116044	1000	
Ba	137	2	115	1763.716	ppb	1763.716	0.12	68431	5000	
W	182	2	165	169.992	ppb	169.992	1.50	227692	100	
Pt	195	2	165	0.003	ppb	0.003	1332.06	123	100	
Tl	205	2	165	185.408	ppb	185.408	0.93	355386	2000	
Pb	208	2	165	85364.974	ppb	85364.974	0.41	211468414	5000	>LDR
Th	232	2	165	225.993	ppb	225.993	0.40	646995	2000	
U	238	2	165	216.696	ppb	216.696	0.49	717078	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	58599	1.49	96254	60.88	60	120	
Sc (IS)	45	1	HMI H2	5565568	1.88	7565071	73.57	60	120	
Sc (IS)	45	2	HMI He	84026	1.79	115393	72.82	60	120	
Sc (IS)	45	3	No Gas	10821831	0.43	15365161	70.43	60	120	
Ge Internal Standard	72	1	HMI H2	2895798	1.98	4257146	68.02	60	120	
Ge Internal Standard	72	2	HMI He	129164	0.26	195325	66.13	60	120	
In Internal Standard	115	2	HMI He	370671	1.08	550317	67.36	60	120	
Ho-165	165	2	HMI He	3365456	0.25	4433489	75.91	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-J MSD
Data File Name	186SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:27:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	187.478	ppb	187.478	9.28	13135	500000	
Li	7	2	45	260.617	ppb	260.617	16.98	990	500000	
Li	7	3	45	158.144	ppb	158.144	2.68	448624	50000	
Be	9	1	6	230.222	ppb	230.222	3.04	4757	2000	
B	11	1	6	265.820	ppb	265.820	1.25	6525	2000	
Na	23	1	45	1884.991	ppb	1884.991	3.79	848759	2000	
Na	23	2	45	1959.589	ppb	1959.589	1.71	38952	400000	
Mg	24	2	45	213041.123	ppb	213041.123	1.27	1801540	400000	
Al	27	2	45	80352.567	ppb	80352.567	3.06	153137	400000	
K	39	1	45	31072.228	ppb	31072.228	3.90	18433928	400000	
K	39	2	45	22079.779	ppb	22079.779	2.64	79548	400000	
Ca	40	1	45	2650815.366	ppb	2650815.366	4.24	2225885033	400000	>LDR
Ca	44	2	45	2594314.064	ppb	2594314.064	2.96	612296	400000	>LDR
Ti	47	2	45	160643.607	ppb	160643.607	5.29	6858	4000	>LDR
V	51	2	72	485.032	ppb	485.032	2.24	56958	2000	
Cr	52	2	72	675.432	ppb	675.432	1.87	109975	5000	
Mn	55	2	72	3387.150	ppb	3387.150	1.35	165453	10000	
Fe	57	2	72	143343.477	ppb	143343.477	1.03	427783	400000	
Co	59	2	72	250.316	ppb	250.316	2.29	88687	2000	
Ni	60	2	72	364.386	ppb	364.386	3.30	38118	5000	
Cu	63	2	72	7694.641	ppb	7694.641	1.18	2455850	5000	
Zn	66	2	72	1521.896	ppb	1521.896	0.53	41012	5000	
As	75	2	72	285.982	ppb	285.982	2.81	5330	2000	
Se	78	1	72	200.897	ppb	200.897	3.09	12479	2000	
Sr	88	2	72	7389.442	ppb	7389.442	1.36	366904	4000	
Zr	90	2	72	13908.079	ppb	13908.079	1.99	30972	1000	>LDR
Nb	93	2	72	5.326	ppb	5.326	3.91	3154	200	
Mo	95	2	115	233.771	ppb	233.771	2.89	36195	2000	
Pd	105	2	115	0.121	ppb	0.121	85.80	37	100	
Ag	107	2	115	195.842	ppb	195.842	2.48	121759	100	
Cd	111	2	115	202.882	ppb	202.882	7.69	11114	2000	
Sn	120	2	115	221.761	ppb	221.761	4.19	29974	2000	
Sb	121	2	115	924.261	ppb	924.261	4.00	109354	1000	
Ba	137	2	115	1724.210	ppb	1724.210	3.60	59737	5000	
W	182	2	165	165.265	ppb	165.265	3.12	204777	100	
Pt	195	2	165	0.014	ppb	0.014	103.92	127	100	
Tl	205	2	165	179.287	ppb	179.287	2.66	317919	2000	
Pb	208	2	165	89053.180	ppb	89053.180	2.79	204082987	5000	>LDR
Th	232	2	165	221.762	ppb	221.762	3.14	587304	2000	
U	238	2	165	208.372	ppb	208.372	2.26	637944	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	49723	2.76	96254	51.66	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4931214	2.91	7565071	65.18	60	120	
Sc (IS)	45	2	HMI He	74397	0.76	115393	64.47	60	120	
Sc (IS)	45	3	No Gas	9915768	0.73	15365161	64.53	60	120	
Ge Internal Standard	72	1	HMI H2	2617883	1.73	4257146	61.49	60	120	
Ge Internal Standard	72	2	HMI He	115386	1.52	195325	59.07	60	120	IS Failed
In Internal Standard	115	2	HMI He	331169	2.31	550317	60.18	60	120	
Ho-165	165	2	HMI He	3114342	1.86	4433489	70.25	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-21-H pds
Data File Name	187SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:31:36-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	14.679	ppb	14.679	195.62	8776	500000	
Li	7	2	45	-9.285	ppb	-9.285	-441.43	620	500000	
Li	7	3	45	1.857	ppb	1.857	90.57	295367	50000	
Be	9	1	6	230.174	ppb	230.174	5.74	4511	2000	
B	11	1	6	94.718	ppb	94.718	3.19	2504	2000	
Na	23	1	45	1723.760	ppb	1723.760	2.94	776717	2000	
Na	23	2	45	1772.286	ppb	1772.286	3.90	36220	400000	
Mg	24	2	45	200787.640	ppb	200787.640	4.61	1734101	400000	
Al	27	2	45	71209.244	ppb	71209.244	2.76	138680	400000	
K	39	1	45	27484.542	ppb	27484.542	2.15	16392845	400000	
K	39	2	45	20153.614	ppb	20153.614	3.49	74353	400000	
Ca	40	1	45	2550705.719	ppb	2550705.719	2.49	2133216875	400000	>LDR
Ca	44	2	45	2539679.501	ppb	2539679.501	2.79	612468	400000	>LDR
Ti	47	2	45	135417.878	ppb	135417.878	6.32	5901	4000	>LDR
V	51	2	72	453.764	ppb	453.764	2.30	55052	2000	
Cr	52	2	72	646.350	ppb	646.350	1.86	108722	5000	
Mn	55	2	72	3160.946	ppb	3160.946	1.00	159531	10000	
Fe	57	2	72	129003.393	ppb	129003.393	1.54	397761	400000	
Co	59	2	72	250.795	ppb	250.795	2.91	91816	2000	
Ni	60	2	72	362.244	ppb	362.244	2.23	39157	5000	
Cu	63	2	72	7589.529	ppb	7589.529	0.83	2502455	5000	
Zn	66	2	72	1498.987	ppb	1498.987	3.27	41734	5000	
As	75	2	72	274.251	ppb	274.251	5.92	5282	2000	
Se	78	1	72	209.185	ppb	209.185	3.95	12866	2000	
Sr	88	2	72	6881.635	ppb	6881.635	1.76	353036	4000	
Zr	90	2	72	21877.837	ppb	21877.837	2.14	50321	1000	>LDR
Nb	93	2	72	5.157	ppb	5.157	4.21	3157	200	
Mo	95	2	115	241.388	ppb	241.388	4.03	38320	2000	
Pd	105	2	115	0.239	ppb	0.239	19.99	73	100	
Ag	107	2	115	51.405	ppb	51.405	1.18	32803	100	
Cd	111	2	115	201.321	ppb	201.321	2.60	11317	2000	
Sn	120	2	115	224.574	ppb	224.574	2.85	31136	2000	
Sb	121	2	115	903.806	ppb	903.806	1.33	109713	1000	
Ba	137	2	115	1642.178	ppb	1642.178	1.99	58369	5000	
W	182	2	165	199.872	ppb	199.872	0.29	248340	100	
Pt	195	2	165	-0.016	ppb	-0.016	-178.26	90	100	
Tl	205	2	165	186.946	ppb	186.946	0.61	332419	2000	
Pb	208	2	165	85124.313	ppb	85124.313	0.13	195623724	5000	>LDR
Th	232	2	165	40.067	ppb	40.067	1.17	106533	2000	
U	238	2	165	209.469	ppb	209.469	0.82	643048	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	47126	1.57	96254	48.96	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4908314	0.98	7565071	64.88	60	120	
Sc (IS)	45	2	HMI He	76088	4.48	115393	65.94	60	120	
Sc (IS)	45	3	No Gas	9756695	0.07	15365161	63.50	60	120	
Ge Internal Standard	72	1	HMI H2	2591271	0.54	4257146	60.87	60	120	
Ge Internal Standard	72	2	HMI He	119215	1.24	195325	61.03	60	120	
In Internal Standard	115	2	HMI He	339680	2.78	550317	61.72	60	120	
Ho-165	165	2	HMI He	3122119	0.66	4433489	70.42	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-34-D
Data File Name	188SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:35:26-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	54.323	ppb	54.323	19.22	9303	500000	
Li	7	2	45	110.657	ppb	110.657	11.08	753	500000	
Li	7	3	45	51.538	ppb	51.538	9.73	321047	50000	
Be	9	1	6	8.519	ppb	8.519	2.30	153	2000	
B	11	1	6	110.225	ppb	110.225	1.53	2584	2000	
Na	23	1	45	1880.306	ppb	1880.306	1.34	803350	2000	
Na	23	2	45	1910.966	ppb	1910.966	2.72	36871	400000	
Mg	24	2	45	285786.847	ppb	285786.847	2.44	2341811	400000	
Al	27	2	45	127527.327	ppb	127527.327	1.68	235498	400000	
K	39	1	45	41197.993	ppb	41197.993	0.78	22774349	400000	
K	39	2	45	32775.165	ppb	32775.165	2.08	113638	400000	
Ca	40	1	45	2016345.698	ppb	2016345.698	0.62	1606474056	400000	>LDR
Ca	44	2	45	1969365.169	ppb	1969365.169	1.40	450397	400000	
Ti	47	2	45	236226.217	ppb	236226.217	0.67	9773	4000	>LDR
V	51	2	72	378.680	ppb	378.680	1.70	42952	2000	
Cr	52	2	72	343.273	ppb	343.273	2.50	53999	5000	
Mn	55	2	72	4926.736	ppb	4926.736	0.42	232392	10000	
Fe	57	2	72	208635.242	ppb	208635.242	1.27	601309	400000	
Co	59	2	72	78.103	ppb	78.103	3.07	26741	2000	
Ni	60	2	72	209.527	ppb	209.527	2.24	21180	5000	
Cu	63	2	72	422.296	ppb	422.296	1.85	131395	5000	
Zn	66	2	72	750.442	ppb	750.442	1.56	19561	5000	
As	75	2	72	93.073	ppb	93.073	2.00	1676	2000	
Se	78	1	72	6.042	ppb	6.042	17.11	353	2000	
Sr	88	2	72	4892.682	ppb	4892.682	1.27	234663	4000	
Zr	90	2	72	7192.731	ppb	7192.731	1.62	15484	1000	>LDR
Nb	93	2	72	5.201	ppb	5.201	3.97	2974	200	
Mo	95	2	115	19.860	ppb	19.860	8.71	3020	2000	
Pd	105	2	115	0.064	ppb	0.064	55.56	20	100	
Ag	107	2	115	0.590	ppb	0.590	26.66	367	100	
Cd	111	2	115	8.852	ppb	8.852	19.15	470	2000	
Sn	120	2	115	8.790	ppb	8.790	8.09	1203	2000	
Sb	121	2	115	16.662	ppb	16.662	10.96	1914	1000	
Ba	137	2	115	2012.107	ppb	2012.107	1.99	67484	5000	
W	182	2	165	4.134	ppb	4.134	1.22	5021	100	
Pt	195	2	165	-0.002	ppb	-0.002	-1033.77	103	100	
Tl	205	2	165	1.966	ppb	1.966	2.26	3387	2000	
Pb	208	2	165	1957.286	ppb	1957.286	0.97	4332886	5000	
Th	232	2	165	74.096	ppb	74.096	0.84	189320	2000	
U	238	2	165	15.628	ppb	15.628	0.50	46153	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	42899	1.81	96254	44.57	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4675112	0.14	7565071	61.80	60	120	
Sc (IS)	45	2	HMI He	72105	1.74	115393	62.49	60	120	
Sc (IS)	45	3	No Gas	9164701	0.43	15365161	59.65	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	2458021	0.95	4257146	57.74	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	111444	1.78	195325	57.06	60	120	IS Failed
In Internal Standard	115	2	HMI He	320385	1.22	550317	58.22	60	120	IS Failed
Ho-165	165	2	HMI He	3001901	0.98	4433489	67.71	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	189_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:39:18-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	244.840	ppb	8.904	14436	500	49.0	90	110	>+\-10%
Li	7	2	45	354.093	ppb	9.285	1217	500	70.8	90	110	>+\-10%
Li	7	3	45	263.463	ppb	0.890	553793	500	52.7	90	110	>+\-10%
Be	9	1	6	54.523	ppb	7.185	1033	50	109.0	90	110	
B	11	1	6	62.320	ppb	17.821	1743	50	124.6	90	110	>+\-10%
Na	23	1	45	4754.787	ppb	0.440	2056024	5000	95.1	90	110	
Na	23	2	45	4580.199	ppb	3.171	95313	5000	91.6	90	110	
Mg	24	2	45	4652.700	ppb	2.196	43225	5000	93.1	90	110	
Al	27	2	45	4825.380	ppb	5.579	9970	5000	96.5	90	110	
K	39	1	45	5559.462	ppb	1.489	4357170	5000	111.2	90	110	>+\-10%
K	39	2	45	5220.449	ppb	1.644	21800	5000	104.4	90	110	
Ca	40	1	45	5306.381	ppb	1.016	4487609	5000	106.1	90	110	
Ca	44	2	45	5150.678	ppb	5.093	1337	5000	103.0	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	49.298	ppb	1.543	6945	50	98.6	90	110	
Cr	52	2	72	45.944	ppb	6.243	8916	50	91.9	90	110	
Mn	55	2	72	47.072	ppb	7.216	2820	50	94.1	90	110	
Fe	57	2	72	4855.411	ppb	3.386	17299	5000	97.1	90	110	
Co	59	2	72	49.098	ppb	3.264	20693	50	98.2	90	110	
Ni	60	2	72	49.726	ppb	1.946	6195	50	99.5	90	110	
Cu	63	2	72	48.996	ppb	1.113	20199	50	98.0	90	110	
Zn	66	2	72	54.938	ppb	8.241	1830	50	109.9	90	110	
As	75	2	72	46.591	ppb	2.789	1033	50	93.2	90	110	
Se	78	1	72	49.913	ppb	5.198	3362	50	99.8	90	110	
Sr	88	2	72	52.436	ppb	10.475	3114	50	104.9	90	110	
Zr	90	2	72	128.061	ppb	27.298	363	50	256.1	90	110	>+\-10%
Nb	93	2	72	93.529	ppb	3.048	64541	100	93.5	90	110	
Mo	95	2	115	46.646	ppb	2.741	8536	50	93.3	90	110	
Pd	105	2	115	49.981	ppb	0.865	17056	50	100.0	90	110	
Ag	107	2	115	48.413	ppb	2.159	35387	50	96.8	90	110	
Cd	111	2	115	53.170	ppb	3.845	3424	50	106.3	90	110	
Sn	120	2	115	49.075	ppb	4.919	7852	50	98.1	90	110	
Sb	121	2	115	45.930	ppb	9.112	6395	50	91.9	90	110	
Ba	137	2	115	52.812	ppb	6.351	2154	50	105.6	90	110	
W	182	2	165	46.902	ppb	2.764	60889	50	93.8	90	110	
Pt	195	2	165	46.931	ppb	2.956	61087	50	93.9	90	110	
Tl	205	2	165	48.091	ppb	2.092	89270	50	96.2	90	110	
Pb	208	2	165	48.892	ppb	1.910	126099	50	97.8	90	110	
Th	232	2	165	47.129	ppb	2.527	130751	50	94.3	90	110	
U	238	2	165	46.753	ppb	3.355	149791	50	93.5	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	45646	4.73	96254	47.42	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4883913	1.45	7565071	64.56	60	120	
Sc (IS)	45	2	HMI He	80667	0.88	115393	69.91	60	120	
Sc (IS)	45	3	No Gas	10008636	0.53	15365161	65.14	60	120	
Ge Internal Standard	72	1	HMI H2	2836778	0.30	4257146	66.64	60	120	
Ge Internal Standard	72	2	HMI He	137084	1.39	195325	70.18	60	120	
In Internal Standard	115	2	HMI He	389095	0.62	550317	70.70	60	120	
Ho-165	165	2	HMI He	3259337	2.01	4433489	73.52	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	190_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:43:07-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-78.342	ppb	-2.2	231770	10	
Be	9	1	6	0.246	ppb	231.5	7	0.5	
B	11	1	6	17.567	ppb	23.4	863	0.5	>RL
Na	23	1	45	4.532	ppb	15.6	47248	25	
Na	23	2	45	13.672	ppb	70.2	2910	25	
Mg	24	2	45	-4.255	ppb	-266.7	563	25	
Al	27	2	45	7.775	ppb	34.2	17	15	
K	39	1	45	514.032	ppb	4.7	1681473	50	>RL
K	39	2	45	185.281	ppb	18.4	2644	50	>RL
Ca	40	1	45	144.248	ppb	2.6	199876	50	>RL
Ca	44	2	45	115.107	ppb	64.3	50	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.275	ppb	75.8	120	1	
Cr	52	2	72	0.050	ppb	151.7	47	1	
Mn	55	2	72	1.233	ppb	102.6	167	0.5	>RL
Fe	57	2	72	46.579	ppb	79.8	267	25	>RL
Co	59	2	72	0.089	ppb	115.1	73	0.5	
Ni	60	2	72	0.384	ppb	64.8	67	1	
Cu	63	2	72	-0.850	ppb	-14.9	1360	1	
Zn	66	2	72	-0.568	ppb	-169.9	57	5	
As	75	2	72	-0.026	ppb	-382.5	1	1	
Se	78	1	72	0.025	ppb	265.3	3	1	
Sr	88	2	72	0.131	ppb	214.5	30	0.5	
Zr	90	2	72	17.009	ppb	12.3	73	1	>RL
Nb	93	2	72	1.752	ppb	14.6	1333	2	
Mo	95	2	115	0.001	ppb	14649.9	63	0.5	
Pd	105	2	115	0.021	ppb	134.8	10	1	
Ag	107	2	115	0.019	ppb	67.8	30	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.095	ppb	-97.6	57	1	
Sb	121	2	115	0.439	ppb	15.9	70	0.6	
Ba	137	2	115	0.096	ppb	139.3	7	0.5	
W	182	2	165	0.111	ppb	24.8	243	1	
Pt	195	2	165	-0.024	ppb	-222.9	87	1	
Tl	205	2	165	0.017	ppb	70.1	63	0.1	
Pb	208	2	165	1.182	ppb	30.4	12066	0.5	>RL
Th	232	2	165	0.268	ppb	16.2	930	1	
U	238	2	165	0.021	ppb	88.8	97	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	48137	2.19	96254	50.01	60	120	IS Failed
Sc (IS)	45	1	HMI H2	5112844	0.67	7565071	67.58	60	120	
Sc (IS)	45	2	HMI He	83570	0.73	115393	72.42	60	120	
Sc (IS)	45	3	No Gas	10259377	0.27	15365161	66.77	60	120	
Ge Internal Standard	72	1	HMI H2	2980178	0.22	4257146	70.00	60	120	
Ge Internal Standard	72	2	HMI He	142500	0.19	195325	72.96	60	120	
In Internal Standard	115	2	HMI He	414224	1.04	550317	75.27	60	120	
Ho-165	165	2	HMI He	3370551	0.47	4433489	76.02	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	191LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:46:56-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-64.830	ppb	-1.624	240729	50	-129.7	70	130	>+/-30%
Be	9	1	6	1.600	ppb	79.070	33	1	160.0	70	130	>+/-30%
Na	23	2	45	63.391	ppb	8.884	4014	50	126.8	70	130	
Mg	24	2	45	27.944	ppb	50.258	883	50	55.9	70	130	>+/-30%
Al	27	2	45	38.211	ppb	37.029	83	30	127.4	70	130	
K	39	2	45	287.309	ppb	12.993	3094	100	287.3	70	130	>+/-30%
Ca	44	2	45	237.543	ppb	56.355	83	50	475.1	70	130	>+/-30%
V	51	2	72	4.374	ppb	25.922	723	5	87.5	70	130	
Cr	52	2	72	2.421	ppb	18.723	530	2	121.0	70	130	
Mn	55	2	72	2.452	ppb	9.178	243	1	245.2	70	130	>+/-30%
Fe	57	2	72	76.837	ppb	19.085	383	50	153.7	70	130	>+/-30%
Co	59	2	72	1.163	ppb	25.168	550	1	116.3	70	130	
Ni	60	2	72	2.745	ppb	12.201	377	2	137.2	70	130	>+/-30%
Cu	63	2	72	0.894	ppb	55.717	2074	2	44.7	70	130	>+/-30%
Zn	66	2	72	10.803	ppb	10.635	440	10	108.0	70	130	
As	75	2	72	4.573	ppb	12.344	109	5	91.5	70	130	
Se	78	1	72	5.587	ppb	8.456	396	5	111.7	70	130	
Sr	88	2	72	1.147	ppb	66.775	93	1	114.7	70	130	
Zr	90	2	72	36.950	ppb	43.679	130	0.5	7389.9	70	130	>+/-30%
Nb	93	2	72	1.664	ppb	7.136	1287	2	83.2	70	130	
Mo	95	2	115	1.717	ppb	15.951	397	2	85.9	70	130	
Pd	105	2	115	0.029	ppb	107.336	13	1	2.9	70	130	>+/-30%
Ag	107	2	115	4.823	ppb	8.812	3791	5	96.5	70	130	
Cd	111	2	115	0.537	ppb	80.454	37	1	53.7	70	130	>+/-30%
Sn	120	2	115	9.901	ppb	2.578	1754	10	99.0	70	130	
Sb	121	2	115	2.079	ppb	40.424	313	2	103.9	70	130	
Ba	137	2	115	1.543	ppb	38.175	70	1	154.3	70	130	>+/-30%
W	182	2	165	4.643	ppb	7.235	6275	1	464.3	70	130	>+/-30%
Pt	195	2	165	0.011	ppb	133.914	133	1	1.1	70	130	>+/-30%
Tl	205	2	165	1.032	ppb	5.677	1997	1	103.2	70	130	
Pb	208	2	165	1.130	ppb	20.727	11856	1	113.0	70	130	
Th	232	2	165	2.174	ppb	4.102	6348	2	108.7	70	130	
U	238	2	165	0.921	ppb	6.727	3060	1	92.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	47788	1.53	96254	49.65	60	120	IS Failed
Sc (IS)	45	1	HMI H2	5123476	0.30	7565071	67.73	60	120	
Sc (IS)	45	2	HMI He	84856	1.42	115393	73.54	60	120	
Sc (IS)	45	3	No Gas	10078497	0.18	15365161	65.59	60	120	
Ge Internal Standard	72	1	HMI H2	2979923	1.38	4257146	70.00	60	120	
Ge Internal Standard	72	2	HMI He	144370	0.62	195325	73.91	60	120	
In Internal Standard	115	2	HMI He	416477	1.65	550317	75.68	60	120	
Ho-165	165	2	HMI He	3347686	0.76	4433489	75.51	60	120	

Sample Table

Sample Name	280-104412-A-35-D
Data File Name	192SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:50:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	69.566	ppb	69.566	26.88	9576	500000	
Li	7	2	45	9.994	ppb	9.994	912.57	623	500000	
Li	7	3	45	61.399	ppb	61.399	10.31	310859	50000	
Be	9	1	6	9.450	ppb	9.450	25.60	167	2000	
B	11	1	6	105.060	ppb	105.060	9.23	2424	2000	
Na	23	1	45	2007.867	ppb	2007.867	1.58	846945	2000	
Na	23	2	45	1963.349	ppb	1963.349	2.44	38331	400000	
Mg	24	2	45	289791.412	ppb	289791.412	0.50	2406932	400000	
Al	27	2	45	130027.827	ppb	130027.827	0.43	243397	400000	
K	39	1	45	42889.722	ppb	42889.722	1.42	23434040	400000	
K	39	2	45	34495.208	ppb	34495.208	0.76	121129	400000	
Ca	40	1	45	2012884.757	ppb	2012884.757	0.63	1588644243	400000	>LDR
Ca	44	2	45	1956033.381	ppb	1956033.381	1.36	453405	400000	
Ti	47	2	45	271527.994	ppb	271527.994	2.18	11387	4000	>LDR
V	51	2	72	391.410	ppb	391.410	0.99	45395	2000	
Cr	52	2	72	329.944	ppb	329.944	1.65	53066	5000	
Mn	55	2	72	5147.685	ppb	5147.685	0.83	248265	10000	
Fe	57	2	72	212332.095	ppb	212332.095	0.81	625757	400000	
Co	59	2	72	75.243	ppb	75.243	1.59	26350	2000	
Ni	60	2	72	211.767	ppb	211.767	0.42	21887	5000	
Cu	63	2	72	510.482	ppb	510.482	1.14	162148	5000	
Zn	66	2	72	844.276	ppb	844.276	2.63	22495	5000	
As	75	2	72	95.822	ppb	95.822	3.23	1764	2000	
Se	78	1	72	6.621	ppb	6.621	21.22	384	2000	
Sr	88	2	72	4769.301	ppb	4769.301	0.54	233884	4000	
Zr	90	2	72	7110.760	ppb	7110.760	3.96	15648	1000	>LDR
Nb	93	2	72	4.884	ppb	4.884	13.39	2860	200	
Mo	95	2	115	17.395	ppb	17.395	20.39	2787	2000	
Pd	105	2	115	0.072	ppb	0.072	26.60	23	100	
Ag	107	2	115	0.871	ppb	0.871	8.52	563	100	
Cd	111	2	115	8.378	ppb	8.378	29.31	467	2000	
Sn	120	2	115	9.691	ppb	9.691	2.27	1390	2000	
Sb	121	2	115	19.038	ppb	19.038	4.75	2297	1000	
Ba	137	2	115	2141.993	ppb	2141.993	1.24	75544	5000	
W	182	2	165	4.170	ppb	4.170	4.03	5118	100	
Pt	195	2	165	0.016	ppb	0.016	314.60	127	100	
Tl	205	2	165	2.193	ppb	2.193	6.50	3817	2000	
Pb	208	2	165	3144.069	ppb	3144.069	1.66	7030147	5000	
Th	232	2	165	76.391	ppb	76.391	1.57	197279	2000	
U	238	2	165	15.959	ppb	15.959	0.13	47641	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	41941	2.66	96254	43.57	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4631342	1.14	7565071	61.22	60	120	
Sc (IS)	45	2	HMI He	73082	0.70	115393	63.33	60	120	
Sc (IS)	45	3	No Gas	8641360	1.06	15365161	56.24	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	2442132	1.40	4257146	57.37	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	113950	0.44	195325	58.34	60	120	IS Failed
In Internal Standard	115	2	HMI He	336937	0.46	550317	61.23	60	120	
Ho-165	165	2	HMI He	3034480	0.48	4433489	68.44	60	120	

Sample Table

Sample Name	280-104412-A-36-D
Data File Name	193SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:54:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	18.360	ppb	18.360	65.03	7435	500000	
Li	7	2	45	-37.202	ppb	-37.202	-122.04	477	500000	
Li	7	3	45	42.536	ppb	42.536	3.13	263662	50000	
Be	9	1	6	10.285	ppb	10.285	31.31	150	2000	
B	11	1	6	108.235	ppb	108.235	1.18	2074	2000	
Na	23	1	45	1814.600	ppb	1814.600	1.18	683472	2000	
Na	23	2	45	1813.745	ppb	1813.745	2.36	30409	400000	
Mg	24	2	45	292818.921	ppb	292818.921	2.19	2078257	400000	
Al	27	2	45	129882.392	ppb	129882.392	1.07	207774	400000	
K	39	1	45	42387.430	ppb	42387.430	0.26	20585774	400000	
K	39	2	45	34725.975	ppb	34725.975	2.54	104192	400000	
Ca	40	1	45	1884622.301	ppb	1884622.301	0.58	1321211047	400000	
Ca	44	2	45	1905178.621	ppb	1905178.621	1.14	377415	400000	
Ti	47	2	45	279983.668	ppb	279983.668	5.45	10033	4000	>LDR
V	51	2	72	377.916	ppb	377.916	2.40	38536	2000	
Cr	52	2	72	282.507	ppb	282.507	2.24	39952	5000	
Mn	55	2	72	5050.995	ppb	5050.995	1.19	214183	10000	
Fe	57	2	72	208315.893	ppb	208315.893	0.99	539769	400000	
Co	59	2	72	78.340	ppb	78.340	1.59	24120	2000	
Ni	60	2	72	205.124	ppb	205.124	0.57	18640	5000	
Cu	63	2	72	528.266	ppb	528.266	1.83	147490	5000	
Zn	66	2	72	809.936	ppb	809.936	2.43	18974	5000	
As	75	2	72	97.813	ppb	97.813	6.78	1583	2000	
Se	78	1	72	5.588	ppb	5.588	19.55	288	2000	
Sr	88	2	72	4617.817	ppb	4617.817	0.94	199102	4000	
Zr	90	2	72	7555.968	ppb	7555.968	3.13	14620	1000	>LDR
Nb	93	2	72	5.398	ppb	5.398	11.36	2774	200	
Mo	95	2	115	19.672	ppb	19.672	2.19	2774	2000	
Pd	105	2	115	0.056	ppb	0.056	139.13	17	100	
Ag	107	2	115	0.745	ppb	0.745	17.97	427	100	
Cd	111	2	115	7.600	ppb	7.600	18.47	373	2000	
Sn	120	2	115	9.418	ppb	9.418	10.44	1193	2000	
Sb	121	2	115	13.913	ppb	13.913	4.84	1480	1000	
Ba	137	2	115	2109.815	ppb	2109.815	1.83	65596	5000	
W	182	2	165	3.887	ppb	3.887	3.76	4374	100	
Pt	195	2	165	0.002	ppb	0.002	1443.35	100	100	
Tl	205	2	165	2.219	ppb	2.219	1.95	3537	2000	
Pb	208	2	165	1970.572	ppb	1970.572	0.54	4038824	5000	
Th	232	2	165	76.551	ppb	76.551	1.48	181071	2000	
U	238	2	165	14.890	ppb	14.890	3.50	40708	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	34955	2.76	96254	36.32	60	120	IS Failed
Sc (IS)	45	1	HMI H2	4113739	0.65	7565071	54.38	60	120	IS Failed
Sc (IS)	45	2	HMI He	62455	0.64	115393	54.12	60	120	IS Failed
Sc (IS)	45	3	No Gas	7716296	0.81	15365161	50.22	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	2166011	1.35	4257146	50.88	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	100184	0.29	195325	51.29	60	120	IS Failed
In Internal Standard	115	2	HMI He	297033	1.58	550317	53.97	60	120	IS Failed
Ho-165	165	2	HMI He	2779477	1.07	4433489	62.69	60	120	

Sample Table

Sample Name	280-104412-A-37-D
Data File Name	194SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T03:58:31-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	26.303	ppb	26.303	12.70	7032	500000	
Li	7	2	45	-35.905	ppb	-35.905	-149.73	447	500000	
Li	7	3	45	36.426	ppb	36.426	6.35	232432	50000	
Be	9	1	6	9.865	ppb	9.865	14.38	127	2000	
B	11	1	6	111.803	ppb	111.803	12.09	1857	2000	
Na	23	1	45	1917.050	ppb	1917.050	1.26	666080	2000	
Na	23	2	45	1915.248	ppb	1915.248	3.70	29875	400000	
Mg	24	2	45	284820.418	ppb	284820.418	1.32	1887009	400000	
Al	27	2	45	139865.163	ppb	139865.163	1.44	208814	400000	
K	39	1	45	43931.299	ppb	43931.299	0.71	19700358	400000	
K	39	2	45	36352.593	ppb	36352.593	0.70	101751	400000	
Ca	40	1	45	1948209.315	ppb	1948209.315	0.87	1263500381	400000	
Ca	44	2	45	1944929.924	ppb	1944929.924	0.94	359627	400000	
Ti	47	2	45	254832.649	ppb	254832.649	2.75	8522	4000	>LDR
V	51	2	72	394.457	ppb	394.457	0.62	35907	2000	
Cr	52	2	72	401.856	ppb	401.856	1.43	50722	5000	
Mn	55	2	72	5338.703	ppb	5338.703	0.89	202077	10000	
Fe	57	2	72	223217.235	ppb	223217.235	1.17	516268	400000	
Co	59	2	72	79.832	ppb	79.832	3.31	21944	2000	
Ni	60	2	72	219.467	ppb	219.467	2.81	17803	5000	
Cu	63	2	72	576.176	ppb	576.176	1.46	143498	5000	
Zn	66	2	72	795.537	ppb	795.537	7.06	16649	5000	
As	75	2	72	99.340	ppb	99.340	5.22	1435	2000	
Se	78	1	72	6.543	ppb	6.543	16.45	309	2000	
Sr	88	2	72	4758.604	ppb	4758.604	0.97	183168	4000	
Zr	90	2	72	9282.930	ppb	9282.930	5.38	16031	1000	>LDR
Nb	93	2	72	4.099	ppb	4.099	9.97	1894	200	
Mo	95	2	115	21.366	ppb	21.366	5.97	2757	2000	
Pd	105	2	115	0.161	ppb	0.161	45.56	40	100	
Ag	107	2	115	0.745	ppb	0.745	21.54	390	100	
Cd	111	2	115	8.366	ppb	8.366	5.88	377	2000	
Sn	120	2	115	9.223	ppb	9.223	13.75	1070	2000	
Sb	121	2	115	46.419	ppb	46.419	5.56	4517	1000	
Ba	137	2	115	2180.577	ppb	2180.577	0.75	62106	5000	
W	182	2	165	3.714	ppb	3.714	1.13	3901	100	
Pt	195	2	165	-0.031	ppb	-0.031	-55.90	60	100	
Tl	205	2	165	2.164	ppb	2.164	7.95	3217	2000	
Pb	208	2	165	4760.850	ppb	4760.850	1.13	9087382	5000	
Th	232	2	165	80.675	ppb	80.675	1.56	177916	2000	
U	238	2	165	15.383	ppb	15.383	2.44	39214	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	30520	4.51	96254	31.71	60	120	IS Failed
Sc (IS)	45	1	HMI H2	3806031	2.03	7565071	50.31	60	120	IS Failed
Sc (IS)	45	2	HMI He	58292	0.85	115393	50.52	60	120	IS Failed
Sc (IS)	45	3	No Gas	6920932	0.93	15365161	45.04	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1990095	0.93	4257146	46.75	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	89434	1.36	195325	45.79	60	120	IS Failed
In Internal Standard	115	2	HMI He	272094	0.61	550317	49.44	60	120	IS Failed
Ho-165	165	2	HMI He	2591409	0.69	4433489	58.45	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-38-D
Data File Name	195SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:02:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	36.506	ppb	36.506	47.34	6481	500000	
Li	7	2	45	-17.588	ppb	-17.588	-135.41	427	500000	
Li	7	3	45	37.807	ppb	37.807	5.45	210750	50000	
Be	9	1	6	9.857	ppb	9.857	65.57	107	2000	
B	11	1	6	120.940	ppb	120.940	6.24	1693	2000	
Na	23	1	45	1856.566	ppb	1856.566	2.18	578937	2000	
Na	23	2	45	1880.291	ppb	1880.291	2.97	26837	400000	
Mg	24	2	45	298378.706	ppb	298378.706	3.56	1806150	400000	
Al	27	2	45	150049.894	ppb	150049.894	3.77	204690	400000	
K	39	1	45	46613.532	ppb	46613.532	2.37	18672804	400000	
K	39	2	45	39319.444	ppb	39319.444	4.29	100441	400000	
Ca	40	1	45	1902350.663	ppb	1902350.663	2.00	1105507477	400000	
Ca	44	2	45	1910894.658	ppb	1910894.658	3.17	322852	400000	
Ti	47	2	45	289129.522	ppb	289129.522	8.61	8833	4000	>LDR
V	51	2	72	413.093	ppb	413.093	3.62	35820	2000	
Cr	52	2	72	324.800	ppb	324.800	0.48	39057	5000	
Mn	55	2	72	5495.524	ppb	5495.524	0.81	198132	10000	
Fe	57	2	72	232986.665	ppb	232986.665	0.69	513304	400000	
Co	59	2	72	86.759	ppb	86.759	3.22	22705	2000	
Ni	60	2	72	220.439	ppb	220.439	2.74	17029	5000	
Cu	63	2	72	1295.003	ppb	1295.003	0.65	305956	5000	
Zn	66	2	72	867.983	ppb	867.983	2.68	17292	5000	
As	75	2	72	104.918	ppb	104.918	3.10	1444	2000	
Se	78	1	72	6.211	ppb	6.211	11.57	267	2000	
Sr	88	2	72	4532.316	ppb	4532.316	0.53	166157	4000	
Zr	90	2	72	9729.568	ppb	9729.568	3.71	15998	1000	>LDR
Nb	93	2	72	5.023	ppb	5.023	5.25	2197	200	
Mo	95	2	115	17.847	ppb	17.847	15.03	2194	2000	
Pd	105	2	115	0.111	ppb	0.111	46.64	27	100	
Ag	107	2	115	0.936	ppb	0.936	10.02	463	100	
Cd	111	2	115	7.959	ppb	7.959	19.63	340	2000	
Sn	120	2	115	9.259	ppb	9.259	13.30	1020	2000	
Sb	121	2	115	51.194	ppb	51.194	6.68	4728	1000	
Ba	137	2	115	2235.956	ppb	2235.956	1.29	60440	5000	
W	182	2	165	3.897	ppb	3.897	6.81	3841	100	
Pt	195	2	165	0.004	ppb	0.004	1023.17	90	100	
Tl	205	2	165	2.249	ppb	2.249	1.21	3140	2000	
Pb	208	2	165	8156.700	ppb	8156.700	0.69	14622194	5000	
Th	232	2	165	85.196	ppb	85.196	1.58	176507	2000	
U	238	2	165	15.081	ppb	15.081	0.95	36120	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	25998	2.64	96254	27.01	60	120	IS Failed
Sc (IS)	45	1	HMI H2	3411104	2.41	7565071	45.09	60	120	IS Failed
Sc (IS)	45	2	HMI He	53290	2.39	115393	46.18	60	120	IS Failed
Sc (IS)	45	3	No Gas	6250689	0.39	15365161	40.68	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1805720	0.29	4257146	42.42	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	85190	1.56	195325	43.61	60	120	IS Failed
In Internal Standard	115	2	HMI He	258260	0.79	550317	46.93	60	120	IS Failed
Ho-165	165	2	HMI He	2434522	1.03	4433489	54.91	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-39-D
Data File Name	196SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:06:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-0.368	ppb	-0.368	-1724.88	5471	500000	
Li	7	2	45	-72.429	ppb	-72.429	-84.84	343	500000	
Li	7	3	45	19.107	ppb	19.107	5.37	179552	50000	
Be	9	1	6	13.674	ppb	13.674	13.86	133	2000	
B	11	1	6	114.806	ppb	114.806	16.86	1440	2000	
Na	23	1	45	1860.802	ppb	1860.802	1.31	543582	2000	
Na	23	2	45	1903.330	ppb	1903.330	3.14	25118	400000	
Mg	24	2	45	290577.911	ppb	290577.911	1.35	1628331	400000	
Al	27	2	45	138735.769	ppb	138735.769	1.48	175217	400000	
K	39	1	45	44667.183	ppb	44667.183	1.23	16800273	400000	
K	39	2	45	36859.687	ppb	36859.687	1.11	87250	400000	
Ca	40	1	45	1913061.004	ppb	1913061.004	0.67	1041590038	400000	
Ca	44	2	45	1940589.384	ppb	1940589.384	1.07	303511	400000	
Ti	47	2	45	273846.839	ppb	273846.839	3.81	7749	4000	>LDR
V	51	2	72	395.981	ppb	395.981	2.49	31175	2000	
Cr	52	2	72	295.905	ppb	295.905	0.97	32313	5000	
Mn	55	2	72	5361.888	ppb	5361.888	0.66	175560	10000	
Fe	57	2	72	225071.445	ppb	225071.445	0.28	450304	400000	
Co	59	2	72	83.762	ppb	83.762	4.89	19915	2000	
Ni	60	2	72	218.613	ppb	218.613	5.06	15337	5000	
Cu	63	2	72	696.090	ppb	696.090	0.91	149778	5000	
Zn	66	2	72	809.203	ppb	809.203	2.61	14640	5000	
As	75	2	72	99.065	ppb	99.065	7.79	1239	2000	
Se	78	1	72	5.479	ppb	5.479	18.26	219	2000	
Sr	88	2	72	4782.489	ppb	4782.489	1.15	159217	4000	
Zr	90	2	72	8693.481	ppb	8693.481	1.14	12985	1000	>LDR
Nb	93	2	72	5.180	ppb	5.180	5.07	2057	200	
Mo	95	2	115	19.317	ppb	19.317	4.37	2190	2000	
Pd	105	2	115	0.120	ppb	0.120	45.66	27	100	
Ag	107	2	115	1.260	ppb	1.260	4.13	573	100	
Cd	111	2	115	9.287	ppb	9.287	11.45	367	2000	
Sn	120	2	115	8.304	ppb	8.304	19.24	850	2000	
Sb	121	2	115	204.339	ppb	204.339	2.43	17436	1000	
Ba	137	2	115	2242.805	ppb	2242.805	1.89	56038	5000	
W	182	2	165	3.819	ppb	3.819	7.27	3577	100	
Pt	195	2	165	0.024	ppb	0.024	324.60	103	100	
Tl	205	2	165	2.288	ppb	2.288	5.29	3034	2000	
Pb	208	2	165	18686.966	ppb	18686.966	0.89	31812183	5000	
Th	232	2	165	80.087	ppb	80.087	1.68	157611	2000	
U	238	2	165	15.040	ppb	15.040	1.26	34215	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	23221	5.10	96254	24.12	60	120	IS Failed
Sc (IS)	45	1	HMI H2	3195081	1.53	7565071	42.23	60	120	IS Failed
Sc (IS)	45	2	HMI He	49308	0.36	115393	42.73	60	120	IS Failed
Sc (IS)	45	3	No Gas	5623946	1.65	15365161	36.60	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1676988	1.95	4257146	39.39	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	77358	0.72	195325	39.61	60	120	IS Failed
In Internal Standard	115	2	HMI He	238705	0.61	550317	43.38	60	120	IS Failed
Ho-165	165	2	HMI He	2312473	0.48	4433489	52.16	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-47-D
Data File Name	197SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:09:58-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-68.448	ppb	-68.448	-28.57	3894	500000	
Li	7	2	45	-154.119	ppb	-154.119	-23.08	233	500000	
Li	7	3	45	-53.432	ppb	-53.432	-1.15	124326	50000	
Be	9	1	6	15.039	ppb	15.039	39.34	123	2000	
B	11	1	6	99.581	ppb	99.581	18.38	1090	2000	
Na	23	1	45	1601.865	ppb	1601.865	0.86	420636	2000	
Na	23	2	45	1673.812	ppb	1673.812	3.74	19504	400000	
Mg	24	2	45	186999.683	ppb	186999.683	1.47	917831	400000	
Al	27	2	45	72296.135	ppb	72296.135	2.24	79958	400000	
K	39	1	45	29627.625	ppb	29627.625	0.79	10194157	400000	
K	39	2	45	21470.939	ppb	21470.939	0.89	44930	400000	
Ca	40	1	45	2653509.680	ppb	2653509.680	0.98	1287839501	400000	>LDR
Ca	44	2	45	2738417.136	ppb	2738417.136	2.06	375061	400000	>LDR
Ti	47	2	45	156436.371	ppb	156436.371	13.44	3874	4000	>LDR
V	51	2	72	263.090	ppb	263.090	2.52	18597	2000	
Cr	52	2	72	343.082	ppb	343.082	1.85	33609	5000	
Mn	55	2	72	3173.135	ppb	3173.135	0.94	93222	10000	
Fe	57	2	72	135298.200	ppb	135298.200	0.72	242867	400000	
Co	59	2	72	47.164	ppb	47.164	4.18	10067	2000	
Ni	60	2	72	163.898	ppb	163.898	4.21	10320	5000	
Cu	63	2	72	8383.273	ppb	8383.273	1.39	1609139	5000	
Zn	66	2	72	1467.458	ppb	1467.458	3.10	23783	5000	
As	75	2	72	91.063	ppb	91.063	7.96	1021	2000	
Se	78	1	72	7.602	ppb	7.602	13.04	269	2000	
Sr	88	2	72	7843.980	ppb	7843.980	0.98	234267	4000	
Zr	90	2	72	3554.412	ppb	3554.412	4.94	4771	1000	
Nb	93	2	72	5.663	ppb	5.663	9.10	2014	200	
Mo	95	2	115	27.133	ppb	27.133	9.65	2770	2000	
Pd	105	2	115	0.187	ppb	0.187	65.61	37	100	
Ag	107	2	115	3.767	ppb	3.767	14.83	1537	100	
Cd	111	2	115	10.161	ppb	10.161	27.27	363	2000	
Sn	120	2	115	20.244	ppb	20.244	1.44	1820	2000	
Sb	121	2	115	839.053	ppb	839.053	1.11	64778	1000	
Ba	137	2	115	1591.469	ppb	1591.469	1.33	35979	5000	
W	182	2	165	4.122	ppb	4.122	3.33	3477	100	
Pt	195	2	165	-0.012	ppb	-0.012	-116.67	63	100	
Tl	205	2	165	1.748	ppb	1.748	2.98	2094	2000	
Pb	208	2	165	102949.997	ppb	102949.997	0.95	157924081	5000	>LDR
Th	232	2	165	41.273	ppb	41.273	0.26	73259	2000	
U	238	2	165	17.781	ppb	17.781	0.71	36457	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	19689	1.12	96254	20.46	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2847908	0.40	7565071	37.65	60	120	IS Failed
Sc (IS)	45	2	HMI He	43189	1.88	115393	37.43	60	120	IS Failed
Sc (IS)	45	3	No Gas	4977595	0.60	15365161	32.40	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1489265	1.35	4257146	34.98	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	69400	0.43	195325	35.53	60	120	IS Failed
In Internal Standard	115	2	HMI He	215996	0.75	550317	39.25	60	120	IS Failed
Ho-165	165	2	HMI He	2084254	1.68	4433489	47.01	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-48-D
Data File Name	198SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:13:51-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-62.998	ppb	-62.998	-27.95	3530	500000	
Li	7	2	45	-112.686	ppb	-112.686	-74.42	240	500000	
Li	7	3	45	-48.802	ppb	-48.802	-5.14	108110	50000	
Be	9	1	6	6.006	ppb	6.006	78.62	43	2000	
B	11	1	6	121.566	ppb	121.566	5.28	1107	2000	
Na	23	1	45	1806.040	ppb	1806.040	1.02	418633	2000	
Na	23	2	45	1923.331	ppb	1923.331	1.44	19935	400000	
Mg	24	2	45	205041.364	ppb	205041.364	0.68	903102	400000	
Al	27	2	45	83177.171	ppb	83177.171	2.01	82553	400000	
K	39	1	45	33690.062	ppb	33690.062	0.81	10208073	400000	
K	39	2	45	24822.035	ppb	24822.035	1.20	46464	400000	
Ca	40	1	45	2969137.226	ppb	2969137.226	0.27	1280672914	400000	>LDR
Ca	44	2	45	3056178.999	ppb	3056178.999	1.09	375671	400000	>LDR
Ti	47	2	45	183999.825	ppb	183999.825	2.90	4091	4000	>LDR
V	51	2	72	296.523	ppb	296.523	3.54	18433	2000	
Cr	52	2	72	374.586	ppb	374.586	3.50	32277	5000	
Mn	55	2	72	3430.143	ppb	3430.143	1.13	88646	10000	
Fe	57	2	72	151538.339	ppb	151538.339	1.43	239282	400000	
Co	59	2	72	54.946	ppb	54.946	1.74	10313	2000	
Ni	60	2	72	179.786	ppb	179.786	1.71	9957	5000	
Cu	63	2	72	10267.482	ppb	10267.482	0.90	1733452	5000	
Zn	66	2	72	1630.728	ppb	1630.728	2.64	23246	5000	
As	75	2	72	104.308	ppb	104.308	0.64	1029	2000	
Se	78	1	72	8.617	ppb	8.617	31.70	257	2000	
Sr	88	2	72	9034.108	ppb	9034.108	2.43	237345	4000	
Zr	90	2	72	4449.345	ppb	4449.345	8.38	5251	1000	
Nb	93	2	72	5.246	ppb	5.246	10.04	1643	200	
Mo	95	2	115	27.835	ppb	27.835	4.38	2505	2000	
Pd	105	2	115	0.253	ppb	0.253	13.68	43	100	
Ag	107	2	115	3.598	ppb	3.598	20.59	1293	100	
Cd	111	2	115	9.829	ppb	9.829	33.72	310	2000	
Sn	120	2	115	26.910	ppb	26.910	11.36	2124	2000	
Sb	121	2	115	820.009	ppb	820.009	2.29	55826	1000	
Ba	137	2	115	1796.906	ppb	1796.906	0.87	35816	5000	
W	182	2	165	4.804	ppb	4.804	9.50	3634	100	
Pt	195	2	165	0.005	ppb	0.005	271.13	70	100	
Tl	205	2	165	1.983	ppb	1.983	14.68	2134	2000	
Pb	208	2	165	100427.204	ppb	100427.204	1.18	138563305	5000	>LDR
Th	232	2	165	45.866	ppb	45.866	1.54	73206	2000	
U	238	2	165	20.054	ppb	20.054	1.00	36978	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	16942	5.02	96254	17.60	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2531022	0.48	7565071	33.46	60	120	IS Failed
Sc (IS)	45	2	HMI He	38753	1.14	115393	33.58	60	120	IS Failed
Sc (IS)	45	3	No Gas	4252814	0.66	15365161	27.68	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1252646	1.50	4257146	29.42	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	61048	0.30	195325	31.25	60	120	IS Failed
In Internal Standard	115	2	HMI He	190432	0.99	550317	34.60	60	120	IS Failed
Ho-165	165	2	HMI He	1874559	0.63	4433489	42.28	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-49-D
Data File Name	199SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:17:42-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-96.575	ppb	-96.575	-18.60	2780	500000	
Li	7	2	45	-87.305	ppb	-87.305	-131.85	233	500000	
Li	7	3	45	-80.285	ppb	-80.285	-0.86	84489	50000	
Be	9	1	6	5.690	ppb	5.690	78.26	33	2000	
B	11	1	6	91.708	ppb	91.708	40.32	727	2000	
Na	23	1	45	1551.451	ppb	1551.451	2.24	325543	2000	
Na	23	2	45	1682.019	ppb	1682.019	4.16	15904	400000	
Mg	24	2	45	166910.597	ppb	166910.597	0.81	664759	400000	
Al	27	2	45	63525.363	ppb	63525.363	1.26	57006	400000	
K	39	1	45	27557.991	ppb	27557.991	1.15	7605606	400000	
K	39	2	45	19917.927	ppb	19917.927	1.76	33876	400000	
Ca	40	1	45	2820470.172	ppb	2820470.172	1.95	1091711504	400000	>LDR
Ca	44	2	45	2927474.221	ppb	2927474.221	0.79	325340	400000	>LDR
Ti	47	2	45	120809.265	ppb	120809.265	11.81	2430	4000	>LDR
V	51	2	72	246.673	ppb	246.673	4.35	13349	2000	
Cr	52	2	72	301.500	ppb	301.500	0.57	22612	5000	
Mn	55	2	72	3133.422	ppb	3133.422	1.05	70473	10000	
Fe	57	2	72	124540.678	ppb	124540.678	2.01	171126	400000	
Co	59	2	72	47.004	ppb	47.004	5.11	7679	2000	
Ni	60	2	72	158.871	ppb	158.871	3.80	7659	5000	
Cu	63	2	72	14456.622	ppb	14456.622	0.87	2123695	5000	
Zn	66	2	72	1836.583	ppb	1836.583	2.38	22782	5000	
As	75	2	72	92.853	ppb	92.853	5.95	797	2000	
Se	78	1	72	7.928	ppb	7.928	14.62	209	2000	
Sr	88	2	72	8999.326	ppb	8999.326	1.50	205747	4000	
Zr	90	2	72	3836.291	ppb	3836.291	2.92	3941	1000	
Nb	93	2	72	4.702	ppb	4.702	19.30	1287	200	
Mo	95	2	115	28.524	ppb	28.524	1.94	2304	2000	
Pd	105	2	115	0.170	ppb	0.170	44.05	27	100	
Ag	107	2	115	4.484	ppb	4.484	3.91	1447	100	
Cd	111	2	115	9.300	ppb	9.300	8.01	263	2000	
Sn	120	2	115	21.116	ppb	21.116	10.05	1500	2000	
Sb	121	2	115	1091.670	ppb	1091.670	1.28	66722	1000	
Ba	137	2	115	1535.405	ppb	1535.405	1.95	27480	5000	
W	182	2	165	4.192	ppb	4.192	5.11	2917	100	
Pt	195	2	165	-0.006	ppb	-0.006	-146.62	57	100	
Tl	205	2	165	1.818	ppb	1.818	15.46	1797	2000	
Pb	208	2	165	140495.945	ppb	140495.945	1.38	177870182	5000	>LDR
Th	232	2	165	36.322	ppb	36.322	3.15	53212	2000	
U	238	2	165	18.693	ppb	18.693	2.17	31626	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	13975	2.26	96254	14.52	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2271500	0.63	7565071	30.03	60	120	IS Failed
Sc (IS)	45	2	HMI He	35038	1.55	115393	30.36	60	120	IS Failed
Sc (IS)	45	3	No Gas	3770998	0.94	15365161	24.54	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1110400	0.29	4257146	26.08	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	53130	1.11	195325	27.20	60	120	IS Failed
In Internal Standard	115	2	HMI He	171000	1.95	550317	31.07	60	120	IS Failed
Ho-165	165	2	HMI He	1720101	0.70	4433489	38.80	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	200_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:21:31-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	76.688	ppb	7.779	4601	500	15.3	90	110	>+\-10%
Li	7	2	45	32.524	ppb	100.545	323	500	6.5	90	110	>+\-10%
Li	7	3	45	131.494	ppb	0.623	181461	500	26.3	90	110	>+\-10%
Be	9	1	6	58.808	ppb	17.101	323	50	117.6	90	110	>+\-10%
B	11	1	6	114.267	ppb	18.290	820	50	228.5	90	110	>+\-10%
Na	23	1	45	4406.708	ppb	2.118	854625	5000	88.1	90	110	>+\-10%
Na	23	2	45	4491.818	ppb	3.050	41785	5000	89.8	90	110	>+\-10%
Mg	24	2	45	4362.052	ppb	3.222	18110	5000	87.2	90	110	>+\-10%
Al	27	2	45	4664.291	ppb	5.600	4301	5000	93.3	90	110	
K	39	1	45	6330.682	ppb	1.521	2139539	5000	126.6	90	110	>+\-10%
K	39	2	45	6218.312	ppb	12.383	11424	5000	124.4	90	110	>+\-10%
Ca	40	1	45	5943.669	ppb	1.137	2247219	5000	118.9	90	110	>+\-10%
Ca	44	2	45	4868.528	ppb	13.362	563	5000	97.4	90	110	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	45.464	ppb	4.756	3004	50	90.9	90	110	
Cr	52	2	72	47.578	ppb	4.980	4321	50	95.2	90	110	
Mn	55	2	72	51.160	ppb	3.255	1430	50	102.3	90	110	
Fe	57	2	72	5137.061	ppb	4.391	8562	5000	102.7	90	110	
Co	59	2	72	47.315	ppb	4.981	9333	50	94.6	90	110	
Ni	60	2	72	48.845	ppb	8.191	2854	50	97.7	90	110	
Cu	63	2	72	55.867	ppb	4.576	10667	50	111.7	90	110	>+\-10%
Zn	66	2	72	49.075	ppb	15.364	767	50	98.1	90	110	
As	75	2	72	54.266	ppb	5.850	563	50	108.5	90	110	
Se	78	1	72	62.172	ppb	1.899	1824	50	124.3	90	110	>+\-10%
Sr	88	2	72	55.388	ppb	12.560	1540	50	110.8	90	110	>+\-10%
Zr	90	2	72	109.327	ppb	36.891	147	50	218.7	90	110	>+\-10%
Nb	93	2	72	102.642	ppb	2.351	33140	100	102.6	90	110	
Mo	95	2	115	46.584	ppb	13.088	4431	50	93.2	90	110	
Pd	105	2	115	48.415	ppb	4.146	8589	50	96.8	90	110	
Ag	107	2	115	47.023	ppb	3.536	17873	50	94.0	90	110	
Cd	111	2	115	47.346	ppb	12.504	1587	50	94.7	90	110	
Sn	120	2	115	48.500	ppb	5.201	4034	50	97.0	90	110	
Sb	121	2	115	48.773	ppb	2.740	3531	50	97.5	90	110	
Ba	137	2	115	59.642	ppb	12.890	1263	50	119.3	90	110	>+\-10%
W	182	2	165	44.758	ppb	1.603	32444	50	89.5	90	110	>+\-10%
Pt	195	2	165	46.996	ppb	3.170	34154	50	94.0	90	110	
Tl	205	2	165	48.560	ppb	0.641	50327	50	97.1	90	110	
Pb	208	2	165	75.429	ppb	6.167	105920	50	150.9	90	110	>+\-10%
Th	232	2	165	48.161	ppb	0.793	74602	50	96.3	90	110	
U	238	2	165	46.955	ppb	0.279	84004	50	93.9	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	13215	0.49	96254	13.73	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2187128	1.30	7565071	28.91	60	120	IS Failed
Sc (IS)	45	2	HMI He	36030	3.15	115393	31.22	60	120	IS Failed
Sc (IS)	45	3	No Gas	4250564	0.52	15365161	27.66	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1235875	0.19	4257146	29.03	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	64186	3.05	195325	32.86	60	120	IS Failed
In Internal Standard	115	2	HMI He	202443	2.75	550317	36.79	60	120	IS Failed
Ho-165	165	2	HMI He	1819216	0.60	4433489	41.03	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	201_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:25:22-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-131.454	ppb	-3.6	75209	10	
Be	9	1	6	-0.083	ppb	0.0	0	0.5	
B	11	1	6	15.036	ppb	103.1	247	0.5	>RL
Na	23	1	45	19.110	ppb	7.8	24153	25	
Na	23	2	45	33.745	ppb	19.3	1540	25	>RL
Mg	24	2	45	1.082	ppb	595.2	283	25	
Al	27	2	45	23.969	ppb	173.2	23	15	>RL
K	39	1	45	664.622	ppb	3.7	794813	50	>RL
K	39	2	45	576.687	ppb	14.6	1940	50	>RL
Ca	40	1	45	138.391	ppb	3.0	87592	50	>RL
Ca	44	2	45	168.012	ppb	122.8	30	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.288	ppb	200.4	57	1	
Cr	52	2	72	0.068	ppb	399.2	23	1	
Mn	55	2	72	1.418	ppb	12.5	83	0.5	>RL
Fe	57	2	72	66.607	ppb	59.7	160	25	>RL
Co	59	2	72	0.231	ppb	25.2	63	0.5	
Ni	60	2	72	0.196	ppb	81.9	20	1	
Cu	63	2	72	3.211	ppb	19.1	1387	1	>RL
Zn	66	2	72	0.291	ppb	210.5	40	5	
As	75	2	72	0.219	ppb	170.5	3	1	
Se	78	1	72	-0.013	ppb	0.0	0	1	
Sr	88	2	72	0.449	ppb	115.8	23	0.5	
Zr	90	2	72	23.922	ppb	80.4	43	1	>RL
Nb	93	2	72	1.946	ppb	14.3	690	2	
Mo	95	2	115	0.140	ppb	177.2	47	0.5	
Pd	105	2	115	0.046	ppb	114.8	10	1	
Ag	107	2	115	0.006	ppb	439.4	10	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.028	ppb	819.5	40	1	
Sb	121	2	115	0.577	ppb	57.7	47	0.6	
Ba	137	2	115	-0.059	ppb	0.0	0	0.5	
W	182	2	165	0.093	ppb	61.2	120	1	
Pt	195	2	165	0.007	ppb	1239.5	70	1	
Tl	205	2	165	0.016	ppb	181.5	33	0.1	
Pb	208	2	165	7.598	ppb	10.7	15380	0.5	>RL
Th	232	2	165	0.206	ppb	16.2	413	1	
U	238	2	165	-0.003	ppb	-3.5	10	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	14661	2.51	96254	15.23	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2299006	1.44	7565071	30.39	60	120	IS Failed
Sc (IS)	45	2	HMI He	38602	2.83	115393	33.45	60	120	IS Failed
Sc (IS)	45	3	No Gas	4297267	0.82	15365161	27.97	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1303420	2.01	4257146	30.62	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	66784	1.65	195325	34.19	60	120	IS Failed
In Internal Standard	115	2	HMI He	214226	0.92	550317	38.93	60	120	IS Failed
Ho-165	165	2	HMI He	1854020	1.90	4433489	41.82	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	202LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:29:14-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-126.194	ppb	-2.158	78502	50	-252.4	70	130	>+/-30%
Be	9	1	6	0.943	ppb	94.277	7	1	94.3	70	130	
Na	23	2	45	94.982	ppb	16.761	2214	50	190.0	70	130	>+/-30%
Mg	24	2	45	29.454	ppb	41.386	423	50	58.9	70	130	>+/-30%
Al	27	2	45	38.928	ppb	48.276	40	30	129.8	70	130	
K	39	2	45	804.597	ppb	37.479	2427	100	804.6	70	130	>+/-30%
Ca	44	2	45	324.848	ppb	76.827	50	50	649.7	70	130	>+/-30%
V	51	2	72	5.467	ppb	43.799	420	5	109.3	70	130	
Cr	52	2	72	2.206	ppb	17.635	233	2	110.3	70	130	
Mn	55	2	72	3.378	ppb	28.249	143	1	337.8	70	130	>+/-30%
Fe	57	2	72	86.276	ppb	20.092	200	50	172.6	70	130	>+/-30%
Co	59	2	72	1.056	ppb	20.903	240	1	105.6	70	130	
Ni	60	2	72	2.623	ppb	18.207	173	2	131.1	70	130	>+/-30%
Cu	63	2	72	4.042	ppb	13.775	1593	2	202.1	70	130	>+/-30%
Zn	66	2	72	8.970	ppb	50.529	180	10	89.7	70	130	
As	75	2	72	4.981	ppb	31.196	56	5	99.6	70	130	
Se	78	1	72	5.041	ppb	14.292	165	5	100.8	70	130	
Sr	88	2	72	0.992	ppb	90.466	40	1	99.2	70	130	
Zr	90	2	72	37.487	ppb	66.857	63	0.5	7497.5	70	130	>+/-30%
Nb	93	2	72	1.746	ppb	12.971	643	2	87.3	70	130	
Mo	95	2	115	1.858	ppb	36.183	223	2	92.9	70	130	
Pd	105	2	115	-0.007	ppb	0.000	0	1	-0.7	70	130	>+/-30%
Ag	107	2	115	4.472	ppb	3.708	1857	5	89.4	70	130	
Cd	111	2	115	1.099	ppb	24.855	40	1	109.9	70	130	
Sn	120	2	115	10.639	ppb	18.732	990	10	106.4	70	130	
Sb	121	2	115	1.742	ppb	11.887	140	2	87.1	70	130	
Ba	137	2	115	0.802	ppb	51.725	20	1	80.2	70	130	
W	182	2	165	4.652	ppb	7.991	3594	1	465.2	70	130	>+/-30%
Pt	195	2	165	0.025	ppb	73.766	87	1	2.5	70	130	>+/-30%
Tl	205	2	165	1.090	ppb	6.656	1207	1	109.0	70	130	
Pb	208	2	165	4.801	ppb	14.442	11936	1	480.1	70	130	>+/-30%
Th	232	2	165	2.173	ppb	4.031	3631	2	108.6	70	130	
U	238	2	165	0.971	ppb	5.187	1844	1	97.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	15629	2.56	96254	16.24	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2402523	0.17	7565071	31.76	60	120	IS Failed
Sc (IS)	45	2	HMI He	40002	3.42	115393	34.67	60	120	IS Failed
Sc (IS)	45	3	No Gas	4359527	0.33	15365161	28.37	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1379769	2.04	4257146	32.41	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	69174	2.93	195325	35.42	60	120	IS Failed
In Internal Standard	115	2	HMI He	220112	3.17	550317	40.00	60	120	IS Failed
Ho-165	165	2	HMI He	1913794	2.23	4433489	43.17	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-50-D
Data File Name	203SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:33:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-113.695	ppb	-113.695	-17.61	2557	500000	
Li	7	2	45	-195.617	ppb	-195.617	-64.61	160	500000	
Li	7	3	45	-84.596	ppb	-84.596	-3.36	79437	50000	
Be	9	1	6	5.178	ppb	5.178	59.35	30	2000	
B	11	1	6	100.486	ppb	100.486	15.05	767	2000	
Na	23	1	45	1495.033	ppb	1495.033	2.25	310757	2000	
Na	23	2	45	1538.606	ppb	1538.606	3.32	14606	400000	
Mg	24	2	45	154577.520	ppb	154577.520	4.79	614033	400000	
Al	27	2	45	57337.953	ppb	57337.953	6.41	51313	400000	
K	39	1	45	26317.187	ppb	26317.187	1.74	7205709	400000	
K	39	2	45	18642.054	ppb	18642.054	4.18	31675	400000	
Ca	40	1	45	2738464.096	ppb	2738464.096	1.46	1047649718	400000	>LDR
Ca	44	2	45	2820342.649	ppb	2820342.649	3.95	312669	400000	>LDR
Ti	47	2	45	110953.966	ppb	110953.966	15.58	2220	4000	>LDR
V	51	2	72	228.572	ppb	228.572	5.26	12398	2000	
Cr	52	2	72	371.110	ppb	371.110	3.45	27886	5000	
Mn	55	2	72	2815.926	ppb	2815.926	1.66	63477	10000	
Fe	57	2	72	119016.165	ppb	119016.165	2.36	163904	400000	
Co	59	2	72	42.467	ppb	42.467	8.22	6952	2000	
Ni	60	2	72	150.603	ppb	150.603	2.42	7275	5000	
Cu	63	2	72	15259.801	ppb	15259.801	1.90	2246639	5000	
Zn	66	2	72	1922.191	ppb	1922.191	6.49	23887	5000	
As	75	2	72	81.855	ppb	81.855	4.58	705	2000	
Se	78	1	72	8.414	ppb	8.414	18.34	215	2000	
Sr	88	2	72	8506.773	ppb	8506.773	2.04	194920	4000	
Zr	90	2	72	4068.414	ppb	4068.414	6.68	4191	1000	
Nb	93	2	72	4.999	ppb	4.999	7.99	1367	200	
Mo	95	2	115	28.993	ppb	28.993	11.64	2340	2000	
Pd	105	2	115	0.194	ppb	0.194	60.38	30	100	
Ag	107	2	115	4.930	ppb	4.930	10.24	1587	100	
Cd	111	2	115	11.211	ppb	11.211	9.30	317	2000	
Sn	120	2	115	21.795	ppb	21.795	11.37	1547	2000	
Sb	121	2	115	1424.956	ppb	1424.956	2.57	87003	1000	
Ba	137	2	115	1397.961	ppb	1397.961	1.98	24999	5000	
W	182	2	165	3.674	ppb	3.674	5.86	2514	100	
Pt	195	2	165	0.005	ppb	0.005	1167.87	63	100	
Tl	205	2	165	1.597	ppb	1.597	4.27	1550	2000	
Pb	208	2	165	154052.429	ppb	154052.429	2.27	191368482	5000	>LDR
Th	232	2	165	33.622	ppb	33.622	2.02	48339	2000	
U	238	2	165	17.953	ppb	17.953	5.89	29796	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	13759	1.07	96254	14.29	60	120	IS Failed
Sc (IS)	45	1	HMI H2	2245328	2.01	7565071	29.68	60	120	IS Failed
Sc (IS)	45	2	HMI He	34978	2.95	115393	30.31	60	120	IS Failed
Sc (IS)	45	3	No Gas	3612252	0.63	15365161	23.51	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	1071742	1.25	4257146	25.18	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	53252	1.14	195325	27.26	60	120	IS Failed
In Internal Standard	115	2	HMI He	170861	1.78	550317	31.05	60	120	IS Failed
Ho-165	165	2	HMI He	1688039	1.45	4433489	38.07	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-51-D
Data File Name	204SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:36:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-101.598	ppb	-101.598	-8.21	2217	500000	
Li	7	2	45	-299.258	ppb	-299.258	-21.73	73	500000	
Li	7	3	45	-93.059	ppb	-93.059	-2.95	64315	50000	
Be	9	1	6	7.648	ppb	7.648	110.56	33	2000	
B	11	1	6	97.473	ppb	97.473	9.61	583	2000	
Na	23	1	45	1449.017	ppb	1449.017	0.38	248552	2000	
Na	23	2	45	1469.607	ppb	1469.607	2.20	11174	400000	
Mg	24	2	45	154229.307	ppb	154229.307	1.99	489140	400000	
Al	27	2	45	58830.807	ppb	58830.807	1.96	42059	400000	
K	39	1	45	28300.143	ppb	28300.143	0.52	6343081	400000	
K	39	2	45	18933.633	ppb	18933.633	3.05	25672	400000	
Ca	40	1	45	2603384.550	ppb	2603384.550	0.79	820109401	400000	>LDR
Ca	44	2	45	2730911.900	ppb	2730911.900	2.27	241666	400000	>LDR
Ti	47	2	45	145433.547	ppb	145433.547	8.85	2330	4000	>LDR
V	51	2	72	238.138	ppb	238.138	4.26	10680	2000	
Cr	52	2	72	273.089	ppb	273.089	2.45	16959	5000	
Mn	55	2	72	2795.123	ppb	2795.123	2.06	52060	10000	
Fe	57	2	72	117106.245	ppb	117106.245	0.35	133279	400000	
Co	59	2	72	38.798	ppb	38.798	4.39	5254	2000	
Ni	60	2	72	147.004	ppb	147.004	4.90	5868	5000	
Cu	63	2	72	14127.424	ppb	14127.424	1.62	1718578	5000	
Zn	66	2	72	1942.926	ppb	1942.926	1.61	19955	5000	
As	75	2	72	88.708	ppb	88.708	5.01	631	2000	
Se	78	1	72	9.840	ppb	9.840	12.05	208	2000	
Sr	88	2	72	8128.649	ppb	8128.649	0.66	153926	4000	
Zr	90	2	72	3781.803	ppb	3781.803	6.73	3215	1000	
Nb	93	2	72	5.184	ppb	5.184	6.69	1170	200	
Mo	95	2	115	27.989	ppb	27.989	6.87	1907	2000	
Pd	105	2	115	0.337	ppb	0.337	37.43	43	100	
Ag	107	2	115	4.328	ppb	4.328	7.42	1177	100	
Cd	111	2	115	12.168	ppb	12.168	13.26	290	2000	
Sn	120	2	115	29.523	ppb	29.523	1.40	1760	2000	
Sb	121	2	115	1235.578	ppb	1235.578	0.79	63670	1000	
Ba	137	2	115	1399.767	ppb	1399.767	0.51	21121	5000	
W	182	2	165	5.006	ppb	5.006	2.65	2750	100	
Pt	195	2	165	-0.009	ppb	-0.009	-111.17	43	100	
Tl	205	2	165	1.983	ppb	1.983	0.89	1550	2000	
Pb	208	2	165	151549.293	ppb	151549.293	0.54	151937432	5000	>LDR
Th	232	2	165	38.176	ppb	38.176	0.75	44290	2000	
U	238	2	165	19.100	ppb	19.100	2.10	25588	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	10748	5.75	96254	11.17	60	120	IS Failed
Sc (IS)	45	1	HMI H2	1848666	1.62	7565071	24.44	60	120	IS Failed
Sc (IS)	45	2	HMI He	27909	2.60	115393	24.19	60	120	IS Failed
Sc (IS)	45	3	No Gas	3036555	0.68	15365161	19.76	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	890341	1.76	4257146	20.91	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	44002	1.91	195325	22.53	60	120	IS Failed
In Internal Standard	115	2	HMI He	144149	2.07	550317	26.19	60	120	IS Failed
Ho-165	165	2	HMI He	1362108	0.88	4433489	30.72	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-69-D
Data File Name	205SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:40:42-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-93.621	ppb	-93.621	-31.98	1967	500000	
Li	7	2	45	-49.595	ppb	-49.595	-283.24	173	500000	
Li	7	3	45	-61.427	ppb	-61.427	-3.48	65185	50000	
Be	9	1	6	9.228	ppb	9.228	92.50	33	2000	
B	11	1	6	142.570	ppb	142.570	12.06	647	2000	
Na	23	1	45	1949.122	ppb	1949.122	1.03	282372	2000	
Na	23	2	45	2020.767	ppb	2020.767	4.05	12728	400000	
Mg	24	2	45	366331.901	ppb	366331.901	5.30	982681	400000	
Al	27	2	45	110101.673	ppb	110101.673	5.40	66566	400000	
K	39	1	45	40665.672	ppb	40665.672	2.58	7640875	400000	
K	39	2	45	31824.040	ppb	31824.040	6.29	36130	400000	
Ca	40	1	45	1847251.651	ppb	1847251.651	1.68	499919313	400000	
Ca	44	2	45	1966641.908	ppb	1966641.908	5.51	147241	400000	
Ti	47	2	45	206864.498	ppb	206864.498	5.80	2810	4000	>LDR
V	51	2	72	301.396	ppb	301.396	6.06	11598	2000	
Cr	52	2	72	342.685	ppb	342.685	2.28	18293	5000	
Mn	55	2	72	4409.075	ppb	4409.075	3.94	70553	10000	
Fe	57	2	72	183177.937	ppb	183177.937	4.92	179075	400000	
Co	59	2	72	62.762	ppb	62.762	8.00	7288	2000	
Ni	60	2	72	188.595	ppb	188.595	3.41	6468	5000	
Cu	63	2	72	182.608	ppb	182.608	0.21	19545	5000	
Zn	66	2	72	694.614	ppb	694.614	12.52	6135	5000	
As	75	2	72	81.988	ppb	81.988	9.37	501	2000	
Se	78	1	72	6.727	ppb	6.727	34.15	124	2000	
Sr	88	2	72	4098.401	ppb	4098.401	4.98	66672	4000	
Zr	90	2	72	6200.310	ppb	6200.310	3.51	4531	1000	>LDR
Nb	93	2	72	4.833	ppb	4.833	3.62	940	200	
Mo	95	2	115	17.734	ppb	17.734	8.09	1067	2000	
Pd	105	2	115	0.142	ppb	0.142	129.01	17	100	
Ag	107	2	115	0.430	ppb	0.430	68.65	107	100	
Cd	111	2	115	7.966	ppb	7.966	10.32	167	2000	
Sn	120	2	115	6.768	ppb	6.768	18.93	370	2000	
Sb	121	2	115	5.398	ppb	5.398	25.07	247	1000	
Ba	137	2	115	1806.648	ppb	1806.648	4.17	23925	5000	
W	182	2	165	3.344	ppb	3.344	6.34	1650	100	
Pt	195	2	165	0.001	ppb	0.001	2770.33	43	100	
Tl	205	2	165	1.671	ppb	1.671	4.84	1167	2000	
Pb	208	2	165	255.399	ppb	255.399	1.83	231724	5000	
Th	232	2	165	64.535	ppb	64.535	4.72	66720	2000	
U	238	2	165	15.976	ppb	15.976	3.15	19093	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	8624	0.16	96254	8.96	60	120	IS Failed
Sc (IS)	45	1	HMI H2	1588356	1.91	7565071	21.00	60	120	IS Failed
Sc (IS)	45	2	HMI He	23639	4.25	115393	20.49	60	120	IS Failed
Sc (IS)	45	3	No Gas	2692522	1.75	15365161	17.52	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	775725	0.43	4257146	18.22	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	37829	2.57	195325	19.37	60	120	IS Failed
In Internal Standard	115	2	HMI He	126601	3.26	550317	23.01	60	120	IS Failed
Ho-165	165	2	HMI He	1215296	1.87	4433489	27.41	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-70-D
Data File Name	206SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:44:31-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-127.114	ppb	-127.114	-19.73	1490	500000	
Li	7	2	45	-201.983	ppb	-201.983	-46.61	93	500000	
Li	7	3	45	-98.471	ppb	-98.471	-3.39	48096	50000	
Be	9	1	6	8.522	ppb	8.522	94.83	27	2000	
B	11	1	6	141.057	ppb	141.057	14.40	550	2000	
Na	23	1	45	1603.638	ppb	1603.638	1.59	206163	2000	
Na	23	2	45	1762.654	ppb	1762.654	2.34	9886	400000	
Mg	24	2	45	176134.223	ppb	176134.223	2.09	417502	400000	
Al	27	2	45	67906.335	ppb	67906.335	2.30	36270	400000	
K	39	1	45	33238.831	ppb	33238.831	1.35	5553621	400000	
K	39	2	45	24226.616	ppb	24226.616	1.93	24417	400000	
Ca	40	1	45	2677241.618	ppb	2677241.618	0.77	636213231	400000	>LDR
Ca	44	2	45	2872502.401	ppb	2872502.401	2.48	189991	400000	>LDR
Ti	47	2	45	163129.466	ppb	163129.466	4.71	1954	4000	>LDR
V	51	2	72	276.160	ppb	276.160	2.68	9163	2000	
Cr	52	2	72	353.012	ppb	353.012	0.39	16231	5000	
Mn	55	2	72	3266.831	ppb	3266.831	3.08	45048	10000	
Fe	57	2	72	142040.634	ppb	142040.634	1.93	119665	400000	
Co	59	2	72	49.155	ppb	49.155	1.32	4924	2000	
Ni	60	2	72	174.793	ppb	174.793	3.51	5164	5000	
Cu	63	2	72	8194.383	ppb	8194.383	0.80	738260	5000	
Zn	66	2	72	1536.568	ppb	1536.568	4.37	11691	5000	
As	75	2	72	103.937	ppb	103.937	1.87	547	2000	
Se	78	1	72	8.748	ppb	8.748	23.71	139	2000	
Sr	88	2	72	8664.685	ppb	8664.685	0.98	121460	4000	
Zr	90	2	72	3558.935	ppb	3558.935	14.25	2244	1000	
Nb	93	2	72	6.745	ppb	6.745	16.23	1123	200	
Mo	95	2	115	24.781	ppb	24.781	5.93	1307	2000	
Pd	105	2	115	0.094	ppb	0.094	186.12	10	100	
Ag	107	2	115	3.421	ppb	3.421	17.10	720	100	
Cd	111	2	115	14.993	ppb	14.993	17.64	277	2000	
Sn	120	2	115	69.881	ppb	69.881	7.47	3194	2000	
Sb	121	2	115	976.021	ppb	976.021	1.81	38869	1000	
Ba	137	2	115	1705.183	ppb	1705.183	2.16	19886	5000	
W	182	2	165	4.130	ppb	4.130	14.44	1807	100	
Pt	195	2	165	0.012	ppb	0.012	111.52	43	100	
Tl	205	2	165	2.037	ppb	2.037	24.59	1263	2000	
Pb	208	2	165	107636.607	ppb	107636.607	0.76	85666363	5000	>LDR
Th	232	2	165	41.479	ppb	41.479	0.99	38195	2000	
U	238	2	165	18.917	ppb	18.917	2.35	20120	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	7400	1.33	96254	7.69	60	120	IS Failed
Sc (IS)	45	1	HMI H2	1394536	1.11	7565071	18.43	60	120	IS Failed
Sc (IS)	45	2	HMI He	20859	2.21	115393	18.08	60	120	IS Failed
Sc (IS)	45	3	No Gas	2327843	1.09	15365161	15.15	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	666976	0.89	4257146	15.67	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	32575	0.85	195325	16.68	60	120	IS Failed
In Internal Standard	115	2	HMI He	111407	1.45	550317	20.24	60	120	IS Failed
Ho-165	165	2	HMI He	1081274	0.17	4433489	24.39	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-71-D
Data File Name	207SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:48:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-142.001	ppb	-142.001	-11.59	1107	500000	
Li	7	2	45	-181.005	ppb	-181.005	-27.12	87	500000	
Li	7	3	45	-102.836	ppb	-102.836	-2.96	39403	50000	
Be	9	1	6	5.462	ppb	5.462	88.70	13	2000	
B	11	1	6	140.080	ppb	140.080	30.63	410	2000	
Na	23	1	45	1712.045	ppb	1712.045	0.91	175101	2000	
Na	23	2	45	1667.116	ppb	1667.116	8.94	7899	400000	
Mg	24	2	45	170943.725	ppb	170943.725	4.60	341163	400000	
Al	27	2	45	71782.552	ppb	71782.552	5.07	32283	400000	
K	39	1	45	36068.862	ppb	36068.862	0.93	4786723	400000	
K	39	2	45	24484.107	ppb	24484.107	0.88	20799	400000	
Ca	40	1	45	2815421.229	ppb	2815421.229	0.87	534250979	400000	>LDR
Ca	44	2	45	2836081.155	ppb	2836081.155	7.03	157819	400000	>LDR
Ti	47	2	45	161262.335	ppb	161262.335	12.39	1623	4000	>LDR
V	51	2	72	260.789	ppb	260.789	3.46	7545	2000	
Cr	52	2	72	357.280	ppb	357.280	5.56	14320	5000	
Mn	55	2	72	3143.501	ppb	3143.501	3.76	37791	10000	
Fe	57	2	72	132657.470	ppb	132657.470	1.90	97451	400000	
Co	59	2	72	45.480	ppb	45.480	4.30	3974	2000	
Ni	60	2	72	171.073	ppb	171.073	4.97	4407	5000	
Cu	63	2	72	13740.065	ppb	13740.065	1.88	1079076	5000	
Zn	66	2	72	2013.791	ppb	2013.791	2.83	13352	5000	
As	75	2	72	84.894	ppb	84.894	5.14	390	2000	
Se	78	1	72	11.209	ppb	11.209	3.55	151	2000	
Sr	88	2	72	8277.184	ppb	8277.184	2.56	101163	4000	
Zr	90	2	72	3731.990	ppb	3731.990	8.41	2050	1000	
Nb	93	2	72	6.786	ppb	6.786	23.91	983	200	
Mo	95	2	115	22.148	ppb	22.148	19.07	997	2000	
Pd	105	2	115	0.234	ppb	0.234	51.83	20	100	
Ag	107	2	115	4.582	ppb	4.582	19.85	820	100	
Cd	111	2	115	10.604	ppb	10.604	19.23	167	2000	
Sn	120	2	115	177.258	ppb	177.258	4.54	6878	2000	
Sb	121	2	115	1050.691	ppb	1050.691	2.50	35675	1000	
Ba	137	2	115	1735.369	ppb	1735.369	3.49	17250	5000	
W	182	2	165	3.742	ppb	3.742	7.00	1430	100	
Pt	195	2	165	0.018	ppb	0.018	259.76	40	100	
Tl	205	2	165	1.890	ppb	1.890	5.25	1023	2000	
Pb	208	2	165	96051.211	ppb	96051.211	1.30	66668244	5000	>LDR
Th	232	2	165	40.137	ppb	40.137	3.13	32231	2000	
U	238	2	165	19.450	ppb	19.450	1.36	18041	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	5640	9.74	96254	5.86	60	120	IS Failed
Sc (IS)	45	1	HMI H2	1113563	0.99	7565071	14.72	60	120	IS Failed
Sc (IS)	45	2	HMI He	17586	5.23	115393	15.24	60	120	IS Failed
Sc (IS)	45	3	No Gas	1946180	0.66	15365161	12.67	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	565706	0.50	4257146	13.29	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	28405	0.93	195325	14.54	60	120	IS Failed
In Internal Standard	115	2	HMI He	94979	0.76	550317	17.26	60	120	IS Failed
Ho-165	165	2	HMI He	943027	0.89	4433489	21.27	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-72-D
Data File Name	208SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:52:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-169.191	ppb	-169.191	-18.74	820	500000	
Li	7	2	45	-180.586	ppb	-180.586	-98.75	73	500000	
Li	7	3	45	-121.297	ppb	-121.297	-3.97	31538	50000	
Be	9	1	6	9.125	ppb	9.125	91.25	17	2000	
B	11	1	6	145.978	ppb	145.978	8.49	337	2000	
Na	23	1	45	1468.537	ppb	1468.537	1.42	130178	2000	
Na	23	2	45	1503.202	ppb	1503.202	5.38	6175	400000	
Mg	24	2	45	162437.330	ppb	162437.330	6.21	278699	400000	
Al	27	2	45	64516.125	ppb	64516.125	6.48	24938	400000	
K	39	1	45	34726.955	ppb	34726.955	0.51	3966872	400000	
K	39	2	45	22968.371	ppb	22968.371	7.93	16762	400000	
Ca	40	1	45	2649918.120	ppb	2649918.120	0.34	431795714	400000	>LDR
Ca	44	2	45	2678376.313	ppb	2678376.313	6.54	128208	400000	>LDR
Ti	47	2	45	157173.874	ppb	157173.874	8.25	1363	4000	>LDR
V	51	2	72	278.898	ppb	278.898	5.05	6495	2000	
Cr	52	2	72	281.238	ppb	281.238	2.32	9079	5000	
Mn	55	2	72	3211.518	ppb	3211.518	2.35	31088	10000	
Fe	57	2	72	136449.261	ppb	136449.261	3.43	80700	400000	
Co	59	2	72	47.687	ppb	47.687	2.88	3354	2000	
Ni	60	2	72	152.322	ppb	152.322	1.03	3160	5000	
Cu	63	2	72	11558.965	ppb	11558.965	1.85	730932	5000	
Zn	66	2	72	1751.933	ppb	1751.933	6.10	9353	5000	
As	75	2	72	102.243	ppb	102.243	12.56	378	2000	
Se	78	1	72	8.915	ppb	8.915	8.64	103	2000	
Sr	88	2	72	8454.467	ppb	8454.467	2.65	83196	4000	
Zr	90	2	72	3703.634	ppb	3703.634	20.02	1637	1000	
Nb	93	2	72	6.094	ppb	6.094	13.05	713	200	
Mo	95	2	115	23.303	ppb	23.303	18.88	900	2000	
Pd	105	2	115	0.701	ppb	0.701	75.12	50	100	
Ag	107	2	115	3.341	ppb	3.341	23.55	517	100	
Cd	111	2	115	10.940	ppb	10.940	43.90	147	2000	
Sn	120	2	115	89.721	ppb	89.721	2.10	3004	2000	
Sb	121	2	115	753.562	ppb	753.562	1.63	22005	1000	
Ba	137	2	115	1603.335	ppb	1603.335	3.79	13709	5000	
W	182	2	165	4.365	ppb	4.365	9.52	1423	100	
Pt	195	2	165	-0.017	ppb	-0.017	-265.64	23	100	
Tl	205	2	165	1.542	ppb	1.542	4.07	717	2000	
Pb	208	2	165	80646.588	ppb	80646.588	3.46	47937292	5000	>LDR
Th	232	2	165	41.532	ppb	41.532	5.07	28554	2000	
U	238	2	165	18.246	ppb	18.246	4.26	14494	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4397	3.62	96254	4.57	60	120	IS Failed
Sc (IS)	45	1	HMI H2	956180	1.58	7565071	12.64	60	120	IS Failed
Sc (IS)	45	2	HMI He	15127	5.53	115393	13.11	60	120	IS Failed
Sc (IS)	45	3	No Gas	1706974	0.29	15365161	11.11	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	484217	1.89	4257146	11.37	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	22868	0.50	195325	11.71	60	120	IS Failed
In Internal Standard	115	2	HMI He	81717	2.91	550317	14.85	60	120	IS Failed
Ho-165	165	2	HMI He	808018	2.62	4433489	18.23	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	209_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:55:59-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	12.502	ppb	555.227	1507	500	2.5	90	110	>+\-10%
Li	7	2	45	-177.159	ppb	-43.382	73	500	-35.4	90	110	>+\-10%
Li	7	3	45	47.274	ppb	13.854	56697	500	9.5	90	110	>+\-10%
Be	9	1	6	73.349	ppb	18.416	123	50	146.7	90	110	>+\-10%
B	11	1	6	101.107	ppb	15.767	227	50	202.2	90	110	>+\-10%
Na	23	1	45	4374.694	ppb	2.206	329125	5000	87.5	90	110	>+\-10%
Na	23	2	45	4166.814	ppb	4.218	15931	5000	83.3	90	110	>+\-10%
Mg	24	2	45	3826.096	ppb	3.339	6535	5000	76.5	90	110	>+\-10%
Al	27	2	45	4168.787	ppb	12.119	1580	5000	83.4	90	110	>+\-10%
K	39	1	45	7486.599	ppb	1.506	939345	5000	149.7	90	110	>+\-10%
K	39	2	45	7010.069	ppb	4.797	5248	5000	140.2	90	110	>+\-10%
Ca	40	1	45	5940.635	ppb	1.519	871045	5000	118.8	90	110	>+\-10%
Ca	44	2	45	5966.282	ppb	33.605	283	5000	119.3	90	110	>+\-10%
Ti	47	2	45	0.000	ppb	#DIV/0!	0	50	0.0	90	110	>+\-10%
V	51	2	72	42.862	ppb	11.671	1153	50	85.7	90	110	>+\-10%
Cr	52	2	72	44.969	ppb	2.623	1663	50	89.9	90	110	>+\-10%
Mn	55	2	72	53.097	ppb	11.857	603	50	106.2	90	110	
Fe	57	2	72	4821.923	ppb	4.177	3274	5000	96.4	90	110	
Co	59	2	72	45.204	ppb	10.949	3627	50	90.4	90	110	
Ni	60	2	72	48.167	ppb	3.721	1143	50	96.3	90	110	
Cu	63	2	72	58.003	ppb	4.960	4497	50	116.0	90	110	>+\-10%
Zn	66	2	72	47.050	ppb	25.803	300	50	94.1	90	110	
As	75	2	72	52.919	ppb	0.615	224	50	105.8	90	110	
Se	78	1	72	66.306	ppb	6.619	785	50	132.6	90	110	>+\-10%
Sr	88	2	72	54.712	ppb	17.275	620	50	109.4	90	110	
Zr	90	2	72	69.963	ppb	98.615	40	50	139.9	90	110	>+\-10%
Nb	93	2	72	97.818	ppb	3.790	12855	100	97.8	90	110	
Mo	95	2	115	41.335	ppb	3.794	1797	50	82.7	90	110	>+\-10%
Pd	105	2	115	44.050	ppb	3.721	3567	50	88.1	90	110	>+\-10%
Ag	107	2	115	45.073	ppb	3.041	7819	50	90.1	90	110	
Cd	111	2	115	48.880	ppb	14.900	747	50	97.8	90	110	
Sn	120	2	115	50.764	ppb	3.409	1927	50	101.5	90	110	
Sb	121	2	115	43.114	ppb	13.207	1423	50	86.2	90	110	>+\-10%
Ba	137	2	115	54.068	ppb	13.390	523	50	108.1	90	110	
W	182	2	165	47.544	ppb	1.481	15602	50	95.1	90	110	
Pt	195	2	165	50.027	ppb	2.918	16459	50	100.1	90	110	
Tl	205	2	165	54.641	ppb	2.381	25635	50	109.3	90	110	
Pb	208	2	165	79.956	ppb	4.534	50697	50	159.9	90	110	>+\-10%
Th	232	2	165	52.209	ppb	2.249	36614	50	104.4	90	110	
U	238	2	165	51.829	ppb	1.824	41982	50	103.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4050	2.40	96254	4.21	60	120	IS Failed
Sc (IS)	45	1	HMI H2	848345	1.61	7565071	11.21	60	120	IS Failed
Sc (IS)	45	2	HMI He	14783	1.25	115393	12.81	60	120	IS Failed
Sc (IS)	45	3	No Gas	1637575	0.93	15365161	10.66	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	499182	1.96	4257146	11.73	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	26123	1.72	195325	13.37	60	120	IS Failed
In Internal Standard	115	2	HMI He	92337	0.52	550317	16.78	60	120	IS Failed
Ho-165	165	2	HMI He	823686	0.86	4433489	18.58	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	210_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T04:59:51-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-165.255	ppb	-0.8	24417	10	
Be	9	1	6	-0.083	ppb	0.0	0	0.5	
B	11	1	6	54.170	ppb	32.7	140	0.5	>RL
Na	23	1	45	46.887	ppb	25.7	11614	25	>RL
Na	23	2	45	57.130	ppb	55.3	710	25	>RL
Mg	24	2	45	-7.016	ppb	-419.9	100	25	
Al	27	2	45	0.000	ppb	#DIV/0!	0	15	
K	39	1	45	1419.417	ppb	13.4	387096	50	>RL
K	39	2	45	1462.049	ppb	10.4	1433	50	>RL
Ca	40	1	45	210.295	ppb	11.5	45291	50	>RL
Ca	44	2	45	401.769	ppb	77.5	23	25	>RL
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.631	ppb	81.9	33	1	
Cr	52	2	72	-0.182	ppb	0.0	0	1	
Mn	55	2	72	3.030	ppb	69.1	53	0.5	>RL
Fe	57	2	72	118.866	ppb	67.8	103	25	>RL
Co	59	2	72	0.080	ppb	83.8	13	0.5	
Ni	60	2	72	1.082	ppb	99.9	30	1	>RL
Cu	63	2	72	5.340	ppb	24.8	733	1	>RL
Zn	66	2	72	-0.208	ppb	-1116.5	13	5	
As	75	2	72	0.513	ppb	100.6	3	1	
Se	78	1	72	-0.013	ppb	0.0	0	1	
Sr	88	2	72	0.770	ppb	165.5	13	0.5	>RL
Zr	90	2	72	9.000	ppb	359.3	10	1	>RL
Nb	93	2	72	1.529	ppb	17.4	227	2	
Mo	95	2	115	0.418	ppb	60.4	33	0.5	
Pd	105	2	115	0.034	ppb	209.2	3	1	
Ag	107	2	115	-0.019	ppb	0.0	0	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.005	ppb	10814.1	17	1	
Sb	121	2	115	0.549	ppb	53.8	20	0.6	
Ba	137	2	115	0.622	ppb	189.5	7	0.5	>RL
W	182	2	165	0.168	ppb	31.2	80	1	
Pt	195	2	165	0.030	ppb	96.8	40	1	
Tl	205	2	165	0.005	ppb	735.5	10	0.1	
Pb	208	2	165	9.434	ppb	6.8	8148	0.5	>RL
Th	232	2	165	0.273	ppb	14.9	237	1	
U	238	2	165	0.039	ppb	109.2	40	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4072	7.04	96254	4.23	60	120	IS Failed
Sc (IS)	45	1	HMI H2	901612	4.49	7565071	11.92	60	120	IS Failed
Sc (IS)	45	2	HMI He	15564	2.86	115393	13.49	60	120	IS Failed
Sc (IS)	45	3	No Gas	1711361	1.78	15365161	11.14	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	530762	3.13	4257146	12.47	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	27488	2.81	195325	14.07	60	120	IS Failed
In Internal Standard	115	2	HMI He	95866	3.37	550317	17.42	60	120	IS Failed
Ho-165	165	2	HMI He	844376	1.37	4433489	19.05	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	211LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:03:41-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-162.257	ppb	-0.091	25365	50	-324.5	70	130	>+/-30%
Be	9	1	6	3.295	ppb	177.548	7	1	329.5	70	130	>+/-30%
Na	23	2	45	78.748	ppb	46.672	807	50	157.5	70	130	>+/-30%
Mg	24	2	45	60.599	ppb	34.607	223	50	121.2	70	130	
Al	27	2	45	16.838	ppb	173.205	7	30	56.1	70	130	>+/-30%
K	39	2	45	1350.511	ppb	2.776	1377	100	1350.5	70	130	>+/-30%
Ca	44	2	45	183.900	ppb	155.958	13	50	367.8	70	130	>+/-30%
V	51	2	72	4.942	ppb	42.292	157	5	98.8	70	130	
Cr	52	2	72	1.332	ppb	33.241	60	2	66.6	70	130	>+/-30%
Mn	55	2	72	3.785	ppb	32.514	63	1	378.5	70	130	>+/-30%
Fe	57	2	72	180.704	ppb	15.215	150	50	361.4	70	130	>+/-30%
Co	59	2	72	1.041	ppb	56.595	97	1	104.1	70	130	
Ni	60	2	72	2.474	ppb	31.301	67	2	123.7	70	130	
Cu	63	2	72	6.620	ppb	48.534	847	2	331.0	70	130	>+/-30%
Zn	66	2	72	14.527	ppb	22.586	110	10	145.3	70	130	>+/-30%
As	75	2	72	4.812	ppb	5.044	22	5	96.2	70	130	
Se	78	1	72	6.321	ppb	47.861	80	5	126.4	70	130	
Sr	88	2	72	1.565	ppb	121.145	23	1	156.5	70	130	>+/-30%
Zr	90	2	72	27.140	ppb	66.647	20	0.5	5428.0	70	130	>+/-30%
Nb	93	2	72	1.490	ppb	28.840	227	2	74.5	70	130	
Mo	95	2	115	1.183	ppb	2.176	70	2	59.1	70	130	>+/-30%
Pd	105	2	115	-0.007	ppb	0.000	0	1	-0.7	70	130	>+/-30%
Ag	107	2	115	4.248	ppb	9.040	797	5	85.0	70	130	
Cd	111	2	115	1.024	ppb	91.855	17	1	102.4	70	130	
Sn	120	2	115	10.698	ppb	35.215	450	10	107.0	70	130	
Sb	121	2	115	1.463	ppb	27.484	53	2	73.1	70	130	
Ba	137	2	115	1.861	ppb	51.716	20	1	186.1	70	130	>+/-30%
W	182	2	165	4.731	ppb	5.735	1663	1	473.1	70	130	>+/-30%
Pt	195	2	165	0.026	ppb	574.213	40	1	2.6	70	130	>+/-30%
Tl	205	2	165	0.986	ppb	11.348	497	1	98.6	70	130	
Pb	208	2	165	8.178	ppb	6.523	7601	1	817.8	70	130	>+/-30%
Th	232	2	165	2.370	ppb	3.138	1797	2	118.5	70	130	
U	238	2	165	1.090	ppb	9.131	940	1	109.0	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4349	8.73	96254	4.52	60	120	IS Failed
Sc (IS)	45	1	HMI H2	896353	0.55	7565071	11.85	60	120	IS Failed
Sc (IS)	45	2	HMI He	15851	4.63	115393	13.74	60	120	IS Failed
Sc (IS)	45	3	No Gas	1742920	0.99	15365161	11.34	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	532213	0.21	4257146	12.50	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	28128	1.73	195325	14.40	60	120	IS Failed
In Internal Standard	115	2	HMI He	99395	1.72	550317	18.06	60	120	IS Failed
Ho-165	165	2	HMI He	870832	1.02	4433489	19.64	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	212WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:07:32-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.083	ppb	-1.59436E-06	0	0.5
Na	23	2	45	63.924	ppb	18.43435123	807	25
Mg	24	2	45	27.944	ppb	98.7810943	177	25
Al	27	2	45	15.275	ppb	173.2050808	7	15
K	39	2	45	1198.724	ppb	11.78303622	1357	50
Ca	44	2	45	-9.844	ppb	-1113.971212	3	25
V	51	2	72	0.916	ppb	157.556851	43	1
Cr	52	2	72	0.301	ppb	158.4379479	20	1
Mn	55	2	72	3.548	ppb	33.00277684	63	0.5
Fe	57	2	72	48.975	ppb	87.20325058	57	25
Co	59	2	72	0.257	ppb	89.4928293	30	0.5
Ni	60	2	72	0.979	ppb	98.63192934	30	1
Cu	63	2	72	2.078	ppb	46.22122045	520	1
Zn	66	2	72	0.147	ppb	1128.188225	17	5
As	75	2	72	-0.082	ppb	0	0	1
Se	78	1	72	-0.013	ppb	0	0	1
Nb	93	2	72	0.253	ppb	44.61697625	53	2
Mo	95	2	115	0.219	ppb	48.03877125	27	0.5
Pd	105	2	115	0.066	ppb	191.5355245	7	1
Ag	107	2	115	0.046	ppb	245.7788679	13	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.196	ppb	-208.661138	10	1
Sb	121	2	115	0.507	ppb	109.3066186	20	0.6
Ba	137	2	115	-0.059	ppb	0	0	0.5
W	182	2	165	0.116	ppb	13.56938521	67	1
Pt	195	2	165	0.004	ppb	1811.618309	33	1
Tl	205	2	165	0.010	ppb	299.8284821	13	0.1
Pb	208	2	165	6.755	ppb	7.538200385	6924	0.5
Th	232	2	165	0.070	ppb	95.7927173	97	1
U	238	2	165	0.015	ppb	158.5040484	20	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4832	11.33	96254	5.02	60	120	IS Failed
Sc (IS)	45	1	HMI H2	937078	0.16	7565071	12.39	60	120	IS Failed
Sc (IS)	45	2	HMI He	17019	2.41	115393	14.75	60	120	IS Failed
Sc (IS)	45	3	No Gas	1745140	1.50	15365161	11.36	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	546293	0.31	4257146	12.83	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	29443	2.43	195325	15.07	60	120	IS Failed
In Internal Standard	115	2	HMI He	104620	3.60	550317	19.01	60	120	IS Failed
Ho-165	165	2	HMI He	902051	2.90	4433489	20.35	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	213WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:11:21-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.083	ppb	-1.59436E-06	0	0.5
Na	23	2	45	59.580	ppb	69.24158819	793	25
Mg	24	2	45	12.727	ppb	275.8818505	153	25
Al	27	2	45	22.019	ppb	95.53600716	10	15
K	39	2	45	1403.894	ppb	11.05781454	1543	50
Ca	44	2	45	157.529	ppb	163.1358428	13	25
V	51	2	72	1.578	ppb	107.1805331	63	1
Cr	52	2	72	0.147	ppb	193.5793033	13	1
Mn	55	2	72	1.465	ppb	132.5893692	37	0.5
Fe	57	2	72	40.574	ppb	93.09544298	50	25
Co	59	2	72	-0.078	ppb	0	0	0.5
Ni	60	2	72	0.889	ppb	127.7684341	27	1
Cu	63	2	72	2.852	ppb	30.89557292	583	1
Zn	66	2	72	-0.773	ppb	-195.5576232	10	5
As	75	2	72	0.046	ppb	480.9184841	1	1
Se	78	1	72	0.190	ppb	92.57118333	3	1
Nb	93	2	72	0.072	ppb	65.16561603	27	2
Mo	95	2	115	-0.126	ppb	-161.4749199	10	0.5
Pd	105	2	115	-0.007	ppb	0	0	1
Ag	107	2	115	-0.019	ppb	0	0	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.197	ppb	-205.9404531	10	1
Sb	121	2	115	0.404	ppb	40.86335872	17	0.6
Ba	137	2	115	0.505	ppb	193.2907578	7	0.5
W	182	2	165	0.110	ppb	103.5539508	67	1
Pt	195	2	165	-0.070	ppb	-45.95943662	7	1
Tl	205	2	165	-0.003	ppb	-802.2396867	7	0.1
Pb	208	2	165	6.783	ppb	13.22483607	7131	0.5
Th	232	2	165	0.042	ppb	128.632943	77	1
U	238	2	165	0.014	ppb	143.2811024	20	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4779	7.67	96254	4.97	60	120	IS Failed
Sc (IS)	45	1	HMI H2	950825	0.52	7565071	12.57	60	120	IS Failed
Sc (IS)	45	2	HMI He	17299	7.19	115393	14.99	60	120	IS Failed
Sc (IS)	45	3	No Gas	1789881	0.69	15365161	11.65	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	552775	0.58	4257146	12.98	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	29603	5.35	195325	15.16	60	120	IS Failed
In Internal Standard	115	2	HMI He	107643	4.39	550317	19.56	60	120	IS Failed
Ho-165	165	2	HMI He	928030	4.94	4433489	20.93	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	214WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:15:11-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	1.403	ppb	183.4001424	3	0.5
Na	23	2	45	79.740	ppb	65.32854808	887	25
Mg	24	2	45	7.123	ppb	199.6348226	140	25
Al	27	2	45	0.000	ppb	#DIV/0!	0	15
K	39	2	45	1323.865	ppb	8.650514931	1500	50
Ca	44	2	45	225.397	ppb	42.12936297	17	25
V	51	2	72	0.520	ppb	41.48047374	33	1
Cr	52	2	72	0.282	ppb	168.7687157	20	1
Mn	55	2	72	2.085	ppb	47.67057137	47	0.5
Fe	57	2	72	23.726	ppb	150.1881742	40	25
Co	59	2	72	0.207	ppb	62.49677851	27	0.5
Ni	60	2	72	0.113	ppb	187.8257413	7	1
Cu	63	2	72	0.656	ppb	202.5934416	420	1
Zn	66	2	72	-0.354	ppb	-937.9418096	13	5
As	75	2	72	-0.082	ppb	0	0	1
Se	78	1	72	-0.013	ppb	0	0	1
Nb	93	2	72	0.108	ppb	39.20326879	33	2
Mo	95	2	115	0.015	ppb	4039.239704	17	0.5
Pd	105	2	115	-0.007	ppb	0	0	1
Ag	107	2	115	-0.019	ppb	0	0	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.121	ppb	-295.878608	13	1
Sb	121	2	115	0.223	ppb	5.667876211	10	0.6
Ba	137	2	115	-0.059	ppb	0	0	0.5
W	182	2	165	0.025	ppb	372.6115869	37	1
Pt	195	2	165	0.062	ppb	77.97364503	57	1
Tl	205	2	165	0.033	ppb	154.9600815	27	0.1
Pb	208	2	165	1.530	ppb	37.25070709	3597	0.5
Th	232	2	165	-0.010	ppb	-399.4183173	37	1
U	238	2	165	0.006	ppb	107.1022856	13	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4945	8.29	96254	5.14	60	120	IS Failed
Sc (IS)	45	1	HMI H2	968677	0.31	7565071	12.80	60	120	IS Failed
Sc (IS)	45	2	HMI He	17469	8.14	115393	15.14	60	120	IS Failed
Sc (IS)	45	3	No Gas	1797609	0.77	15365161	11.70	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	563346	0.71	4257146	13.23	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	30660	4.26	195325	15.70	60	120	IS Failed
In Internal Standard	115	2	HMI He	109001	5.04	550317	19.81	60	120	IS Failed
Ho-165	165	2	HMI He	937126	4.71	4433489	21.14	60	120	IS Failed

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	215WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:19:02-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	168CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.083	ppb	-1.59436E-06	0	0.5
Na	23	2	45	70.260	ppb	34.73349111	853	25
Mg	24	2	45	40.697	ppb	115.5075947	203	25
Al	27	2	45	0.000	ppb	#DIV/0!	0	15
K	39	2	45	1328.037	ppb	4.410762107	1500	50
Ca	44	2	45	179.678	ppb	166.2608291	13	25
V	51	2	72	2.174	ppb	9.924718971	87	1
Cr	52	2	72	-0.182	ppb	-1.44792E-06	0	1
Mn	55	2	72	3.246	ppb	7.287493513	63	0.5
Fe	57	2	72	51.621	ppb	77.70383451	63	25
Co	59	2	72	0.307	ppb	44.92761826	37	0.5
Ni	60	2	72	0.687	ppb	78.74054916	23	1
Cu	63	2	72	-0.130	ppb	-450.0210687	360	1
Zn	66	2	72	-0.883	ppb	-162.5520329	10	5
As	75	2	72	-0.082	ppb	0	0	1
Se	78	1	72	0.185	ppb	185.440515	3	1
Nb	93	2	72	0.127	ppb	81.19386555	37	2
Mo	95	2	115	0.438	ppb	83.44996965	40	0.5
Pd	105	2	115	-0.007	ppb	0	0	1
Ag	107	2	115	-0.019	ppb	0	0	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.305	ppb	109.6035257	33	1
Sb	121	2	115	0.139	ppb	215.497146	7	0.6
Ba	137	2	115	-0.059	ppb	0	0	0.5
W	182	2	165	0.117	ppb	82.31939528	70	1
Pt	195	2	165	-0.089	ppb	0	0	1
Tl	205	2	165	0.003	ppb	637.5547573	10	0.1
Pb	208	2	165	0.750	ppb	55.32929291	3080	0.5
Th	232	2	165	-0.002	ppb	-1477.195174	43	1
U	238	2	165	0.009	ppb	62.61480586	17	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4961	4.58	96254	5.15	60	120	IS Failed
Sc (IS)	45	1	HMI H2	972549	0.26	7565071	12.86	60	120	IS Failed
Sc (IS)	45	2	HMI He	17489	6.31	115393	15.16	60	120	IS Failed
Sc (IS)	45	3	No Gas	1824296	1.72	15365161	11.87	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	573697	1.09	4257146	13.48	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	31308	4.78	195325	16.03	60	120	IS Failed
In Internal Standard	115	2	HMI He	111256	2.89	550317	20.22	60	120	IS Failed
Ho-165	165	2	HMI He	945252	2.09	4433489	21.32	60	120	IS Failed

Calibration Blank Report

Sample Table

Sample Name	icis-4907385
Data File Name	216CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:22:54-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	863	1.95
Li	7	2	HMI He	60	111.11
Li	7	3	No Gas	25712	0.01
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	133	22.73
Na	23	1	HMI H2	12375	0.01
Na	23	2	HMI He	707	3.50
Mg	24	2	HMI He	187	13.56
Al	27	2	HMI He	0	#VALUE!
K	39	2	HMI He	1317	1.42
Ca	44	2	HMI He	7	2598.08
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	30	192.45
Cr	52	2	HMI He	7	2598.08
Mn	55	2	HMI He	40	108.25
Fe	57	2	HMI He	50	279.99
Co	59	2	HMI He	27	81.19
Ni	60	2	HMI He	7	1299.04
Cu	63	2	HMI He	377	2.85
Zn	66	2	HMI He	30	111.11
As	75	2	HMI He	1	13255.49
Se	78	1	HMI H2	0	#VALUE!
Sr	88	2	HMI He	7	2598.08
Zr	90	2	HMI He	10	1000.00
Nb	93	2	HMI He	23	462.23
Mo	95	2	HMI He	37	187.19
Pd	105	2	HMI He	7	2598.08
Ag	107	2	HMI He	0	#VALUE!
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	10	1000.00
Sb	121	2	HMI He	7	1299.04
Ba	137	2	HMI He	7	2598.08
W	182	2	HMI He	63	28.79
Pt	195	2	HMI He	43	162.69
Tl	205	2	HMI He	13	859.23
Pb	208	2	HMI He	3754	0.24
Th	232	2	HMI He	77	35.42
U	238	2	HMI He	17	207.85

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	4713	2.69
Sc (IS)	45	1	HMI H2	983556	0.17
Sc (IS)	45	2	HMI He	17562	5.67
Sc (IS)	45	3	No Gas	1841315	1.96
Ge Internal Standard	72	1	HMI H2	575957	2.29
Ge Internal Standard	72	2	HMI He	30405	2.14
In Internal Standard	115	2	HMI He	109603	1.21
Ho-165	165	2	HMI He	932117	1.24

Calibration Standard Report

Sample Table

Sample Name	ic-4907386
Data File Name	217CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:26:43-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	2577	0.34
Li	7	2	HMI He	180	26.37
Li	7	3	No Gas	102535	0.00
Be	9	1	HMI H2	300	7.78
B	11	1	HMI H2	497	4.89
Na	23	1	HMI H2	750627	0.00
Na	23	2	HMI He	36457	0.00
Mg	24	2	HMI He	16124	0.02
Al	27	2	HMI He	4097	0.05
K	39	1	HMI H2	1741616	0.00
K	39	2	HMI He	10840	0.01
Ca	40	1	HMI H2	1796217	0.00
Ca	44	2	HMI He	577	3.64
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	2967	0.31
Cr	52	2	HMI He	3824	0.28
Mn	55	2	HMI He	1363	0.56
Fe	57	2	HMI He	7672	0.06
Co	59	2	HMI He	8469	0.03
Ni	60	2	HMI He	2710	0.38
Cu	63	2	HMI He	8742	0.10
Zn	66	2	HMI He	627	1.45
As	75	2	HMI He	502	1.18
Se	78	1	HMI H2	1803	0.11
Sr	88	2	HMI He	1557	0.80
Zr	90	2	HMI He	83	33.26
Nb	93	2	HMI He	32127	0.01
Mo	95	2	HMI He	4197	0.21
Pd	105	2	HMI He	8102	0.03
Ag	107	2	HMI He	18264	0.00
Cd	111	2	HMI He	1613	1.31
Sn	120	2	HMI He	4494	0.15
Sb	121	2	HMI He	3497	0.17
Ba	137	2	HMI He	1240	0.17
Nd	146	2	HMI He	6051	0.01
Sm	147	2	HMI He	5338	0.11
Sm	150	2	HMI He	5548	0.13
Gd	156	1	HMI H2	39422	0.00
Gd	157	1	HMI H2	29891	0.00
W	182	2	HMI He	34645	0.00
Pt	195	2	HMI He	36336	0.00
Tl	205	2	HMI He	56425	0.00
Pb	208	2	HMI He	74478	0.00
Th	232	2	HMI He	79751	0.00
U	238	2	HMI He	92743	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4903	3.85	4713	104.02	60	120	
Sc (IS)	45	1	HMI H2	972320	0.76	983556	98.86	60	120	
Sc (IS)	45	2	HMI He	17466	5.27	17562	99.45	60	120	
Sc (IS)	45	3	No Gas	1812140	0.21	1841315	98.42	60	120	
Ge Internal Standard	72	1	HMI H2	565132	0.64	575957	98.12	60	120	
Ge Internal Standard	72	2	HMI He	30715	0.49	30405	101.02	60	120	
In Internal Standard	115	2	HMI He	108644	2.49	109603	99.13	60	120	
Ho-165	165	2	HMI He	932614	0.53	932117	100.05	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	218_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:30:32-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	487.839	ppb	8.744	1717	500	97.6	90	110	
Li	7	2	45	539.524	ppb	30.909	127	500	107.9	90	110	
Li	7	3	45	508.686	ppb	4.470	64857	500	101.7	90	110	
Be	9	1	6	46.673	ppb	37.837	127	50	93.3	90	110	
B	11	1	6	51.078	ppb	46.185	293	50	102.2	90	110	
Na	23	1	45	4977.522	ppb	2.396	384873	5000	99.6	90	110	
Na	23	2	45	4930.903	ppb	6.095	18356	5000	98.6	90	110	
Mg	24	2	45	5138.960	ppb	2.231	8396	5000	102.8	90	110	
Al	27	2	45	5049.455	ppb	16.829	2070	5000	101.0	90	110	
K	39	1	45	4791.308	ppb	2.230	1052208	5000	95.8	90	110	
K	39	2	45	5235.667	ppb	5.768	6308	5000	104.7	90	110	
Ca	40	1	45	4899.444	ppb	0.967	912230	5000	98.0	90	110	
Ca	44	2	45	5651.912	ppb	6.307	330	5000	113.0	90	110	>+\-10%
V	51	2	72	51.504	ppb	13.556	1547	50	103.0	90	110	
Cr	52	2	72	54.519	ppb	9.549	2094	50	109.0	90	110	
Mn	55	2	72	43.989	ppb	17.804	623	50	88.0	90	110	>+\-10%
Fe	57	2	72	4973.506	ppb	12.591	3851	5000	99.5	90	110	
Co	59	2	72	49.987	ppb	10.162	4254	50	100.0	90	110	
Ni	60	2	72	44.809	ppb	13.198	1220	50	89.6	90	110	>+\-10%
Cu	63	2	72	48.595	ppb	5.496	4454	50	97.2	90	110	
Zn	66	2	72	55.148	ppb	18.047	360	50	110.3	90	110	>+\-10%
As	75	2	72	43.662	ppb	12.737	220	50	87.3	90	110	>+\-10%
Se	78	1	72	48.008	ppb	18.971	880	50	96.0	90	110	
Sr	88	2	72	50.841	ppb	8.949	797	50	101.7	90	110	
Zr	90	2	72	0.050	ppb	27479.199	10	50	0.1	90	110	>+\-10%
Nb	93	2	72	100.361	ppb	2.240	16165	100	100.4	90	110	
Mo	95	2	115	51.320	ppb	11.049	2164	50	102.6	90	110	
Pd	105	2	115	53.128	ppb	5.694	4287	50	106.3	90	110	
Ag	107	2	115	49.319	ppb	2.825	8963	50	98.6	90	110	
Cd	111	2	115	45.581	ppb	10.275	733	50	91.2	90	110	
Sn	120	2	115	49.608	ppb	9.814	2224	50	99.2	90	110	
Sb	121	2	115	53.216	ppb	2.997	1854	50	106.4	90	110	
Ba	137	2	115	52.804	ppb	27.522	653	50	105.6	90	110	
W	182	2	165	48.289	ppb	2.923	16686	50	96.6	90	110	
Pt	195	2	165	50.246	ppb	1.506	18194	50	100.5	90	110	
Tl	205	2	165	48.922	ppb	3.428	27485	50	97.8	90	110	
Pb	208	2	165	49.608	ppb	0.577	38664	50	99.2	90	110	
Th	232	2	165	48.963	ppb	3.138	38910	50	97.9	90	110	
U	238	2	165	48.801	ppb	2.058	45066	50	97.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4517	6.88	4713	95.83	60	120	
Sc (IS)	45	1	HMI H2	985572	1.40	983556	100.20	60	120	
Sc (IS)	45	2	HMI He	17476	4.08	17562	99.51	60	120	
Sc (IS)	45	3	No Gas	1819517	0.18	1841315	98.82	60	120	
Ge Internal Standard	72	1	HMI H2	574468	0.25	575957	99.74	60	120	
Ge Internal Standard	72	2	HMI He	30780	0.56	30405	101.24	60	120	
In Internal Standard	115	2	HMI He	108073	1.09	109603	98.60	60	120	
Ho-165	165	2	HMI He	928348	0.38	932117	99.60	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	219_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:34:22-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	21.412	ppb	46.2	27127	10	>RL
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5	
B	11	1	6	12.957	ppb	198.2	183	0.5	>RL
Na	23	1	45	-10.464	ppb	-50.1	11604	25	
Na	23	2	45	-7.367	ppb	-353.4	670	25	
Mg	24	2	45	-16.827	ppb	-220.2	153	25	
Al	27	2	45	0.000	ppb	#DIV/0!	0	15	
K	39	1	45	-18.918	ppb	-302.0	393426	50	
K	39	2	45	285.450	ppb	58.8	1547	50	>RL
Ca	40	1	45	-29.877	ppb	-18.6	34317	50	
Ca	44	2	45	14.676	ppb	1481.9	7	25	
V	51	2	72	0.357	ppb	444.8	40	1	
Cr	52	2	72	0.088	ppb	306.4	10	1	
Mn	55	2	72	0.024	ppb	8537.3	40	0.5	
Fe	57	2	72	17.175	ppb	193.3	63	25	
Co	59	2	72	0.006	ppb	3324.6	27	0.5	
Ni	60	2	72	-0.121	ppb	-179.3	3	1	
Cu	63	2	72	0.052	ppb	1655.5	377	1	
Zn	66	2	72	-3.927	ppb	-50.1	7	5	
As	75	2	72	-0.260	ppb	0.0	0	1	
Se	78	1	72	0.000	ppb	#DIV/0!	0	1	
Sr	88	2	72	0.234	ppb	284.7	10	0.5	
Zr	90	2	72	4.952	ppb	159.7	13	1	>RL
Nb	93	2	72	2.230	ppb	21.5	373	2	>RL
Mo	95	2	115	-0.543	ppb	-67.5	13	0.5	
Pd	105	2	115	0.003	ppb	2350.7	7	1	
Ag	107	2	115	0.019	ppb	173.2	3	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.006	ppb	4002.4	10	1	
Sb	121	2	115	0.703	ppb	126.3	30	0.6	>RL
Ba	137	2	115	-0.530	ppb	0.0	0	0.5	
W	182	2	165	0.194	ppb	38.1	127	1	
Pt	195	2	165	-0.026	ppb	-352.1	33	1	
Tl	205	2	165	0.007	ppb	408.3	17	0.1	
Pb	208	2	165	-0.866	ppb	-17.2	3054	0.5	
Th	232	2	165	0.253	ppb	22.8	270	1	
U	238	2	165	0.004	ppb	454.5	20	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4991	9.37	4713	105.89	60	120	
Sc (IS)	45	1	HMI H2	984730	1.13	983556	100.12	60	120	
Sc (IS)	45	2	HMI He	17119	6.62	17562	97.47	60	120	
Sc (IS)	45	3	No Gas	1822636	0.67	1841315	98.99	60	120	
Ge Internal Standard	72	1	HMI H2	569034	0.78	575957	98.80	60	120	
Ge Internal Standard	72	2	HMI He	30042	1.04	30405	98.81	60	120	
In Internal Standard	115	2	HMI He	105573	2.43	109603	96.32	60	120	
Ho-165	165	2	HMI He	905057	0.92	932117	97.10	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	220LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:38:14-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	26.228	ppb	28.398	27297	50	52.5	70	130	>+/-30%
Be	9	1	6	2.186	ppb	86.628	7	1	218.6	70	130	>+/-30%
Na	23	2	45	78.036	ppb	54.100	940	50	156.1	70	130	>+/-30%
Mg	24	2	45	79.732	ppb	36.816	297	50	159.5	70	130	>+/-30%
Al	27	2	45	17.341	ppb	173.205	7	30	57.8	70	130	>+/-30%
K	39	2	45	214.444	ppb	103.389	1440	100	214.4	70	130	>+/-30%
Ca	44	2	45	-110.892	ppb	0.000	0	50	-221.8	70	130	>+/-30%
V	51	2	72	6.440	ppb	28.036	217	5	128.8	70	130	
Cr	52	2	72	1.848	ppb	54.650	77	2	92.4	70	130	
Mn	55	2	72	1.260	ppb	34.223	57	1	126.0	70	130	
Fe	57	2	72	126.792	ppb	27.105	147	50	253.6	70	130	>+/-30%
Co	59	2	72	0.998	ppb	32.071	110	1	99.8	70	130	
Ni	60	2	72	3.253	ppb	52.647	93	2	162.6	70	130	>+/-30%
Cu	63	2	72	0.081	ppb	439.627	383	2	4.0	70	130	>+/-30%
Zn	66	2	72	10.773	ppb	38.387	93	10	107.7	70	130	
As	75	2	72	2.770	ppb	32.716	15	5	55.4	70	130	>+/-30%
Se	78	1	72	3.615	ppb	41.433	65	5	72.3	70	130	
Sr	88	2	72	2.613	ppb	63.629	47	1	261.3	70	130	>+/-30%
Zr	90	2	72	18.853	ppb	153.905	23	0.5	3770.6	70	130	>+/-30%
Nb	93	2	72	2.430	ppb	15.914	410	2	121.5	70	130	
Mo	95	2	115	1.791	ppb	13.147	110	2	89.6	70	130	
Pd	105	2	115	0.167	ppb	130.827	20	1	16.7	70	130	>+/-30%
Ag	107	2	115	5.143	ppb	6.164	933	5	102.9	70	130	
Cd	111	2	115	2.074	ppb	17.047	33	1	207.4	70	130	>+/-30%
Sn	120	2	115	9.661	ppb	4.417	440	10	96.6	70	130	
Sb	121	2	115	1.732	ppb	58.029	67	2	86.6	70	130	
Ba	137	2	115	0.561	ppb	86.293	13	1	56.1	70	130	>+/-30%
W	182	2	165	5.023	ppb	8.526	1754	1	502.3	70	130	>+/-30%
Pt	195	2	165	0.003	ppb	1450.629	43	1	0.3	70	130	>+/-30%
Tl	205	2	165	1.111	ppb	12.562	623	1	111.1	70	130	
Pb	208	2	165	-0.149	ppb	-250.380	3557	1	-14.9	70	130	>+/-30%
Th	232	2	165	2.087	ppb	7.368	1693	2	104.3	70	130	
U	238	2	165	1.052	ppb	10.785	967	1	105.2	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4866	4.59	4713	103.23	60	120	
Sc (IS)	45	1	HMI H2	970360	0.60	983556	98.66	60	120	
Sc (IS)	45	2	HMI He	16612	1.66	17562	94.59	60	120	
Sc (IS)	45	3	No Gas	1809336	0.91	1841315	98.26	60	120	
Ge Internal Standard	72	1	HMI H2	567470	0.62	575957	98.53	60	120	
Ge Internal Standard	72	2	HMI He	30422	1.71	30405	100.06	60	120	
In Internal Standard	115	2	HMI He	107912	1.00	109603	98.46	60	120	
Ho-165	165	2	HMI He	908190	0.36	932117	97.43	60	120	

Blank Report

Sample Table

Sample Name	MB 280-399906/1-A
Data File Name	221_BLK.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:42:04-07:00
Sample Type	Blank
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Li	7	1	45	-51.813	ppb	-170.8076985	727	0.5
Li	7	2	45	-61.471	ppb	-406.8219707	47	0.5
Li	7	3	45	23.985	ppb	21.3740675	26547	10
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
B	11	1	6	29.890	ppb	114.7881545	243	0.5
Na	23	1	45	256.770	ppb	2.592195088	29698	25
Na	23	2	45	307.652	ppb	34.79854821	1583	25
Mg	24	2	45	35.271	ppb	171.3464767	213	25
Al	27	2	45	9.291	ppb	173.2050808	3	15
K	39	1	45	14350.038	ppb	1.096039774	2217269	50
K	39	2	45	102.269	ppb	200.7865254	1237	50
Ca	40	1	45	298.662	ppb	1.708220316	87213	50
Ca	44	2	45	154.618	ppb	149.0173001	13	25
V	51	2	72	5.915	ppb	38.22423594	173	1
Cr	52	2	72	0.744	ppb	82.91765996	30	1
Mn	55	2	72	1.928	ppb	204.2786188	57	0.5
Fe	57	2	72	54.911	ppb	166.9556554	80	25
Co	59	2	72	-0.179	ppb	-77.88335683	10	0.5
Ni	60	2	72	2.780	ppb	67.43202673	70	1
Cu	63	2	72	4.565	ppb	19.21974354	650	1
Zn	66	2	72	3.466	ppb	65.64144686	43	5
As	75	2	72	0.516	ppb	260.6666206	3	1
Se	78	1	72	0.563	ppb	66.79743765	9	1
Sr	88	2	72	2.595	ppb	28.62809901	40	0.5
Zr	90	2	72	39.970	ppb	140.608388	33	1
Nb	93	2	72	0.925	ppb	34.79297365	147	2
Mo	95	2	115	-0.679	ppb	-48.10151703	7	0.5
Pd	105	2	115	0.111	ppb	199.7512596	13	1
Ag	107	2	115	0.000	ppb	#DIV/0!	0	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	0.917	ppb	164.7820532	43	1
Sb	121	2	115	0.606	ppb	65.5888179	23	0.6
Ba	137	2	115	1.696	ppb	117.1346582	23	0.5
W	182	2	165	0.237	ppb	49.42100172	127	1
Pt	195	2	165	-0.004	ppb	-1009.2681	37	1
Tl	205	2	165	0.038	ppb	197.0286102	30	0.1
Pb	208	2	165	3.925	ppb	24.09516724	5704	0.5
Th	232	2	165	0.316	ppb	40.59864327	287	1
U	238	2	165	0.003	ppb	278.0803949	17	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4898	3.84	4713	103.92	60	120	
Sc (IS)	45	1	HMI H2	925638	0.74	983556	94.11	60	120	
Sc (IS)	45	2	HMI He	15307	3.71	17562	87.16	60	120	
Sc (IS)	45	3	No Gas	1770642	0.23	1841315	96.16	60	120	
Ge Internal Standard	72	1	HMI H2	522308	1.37	575957	90.69	60	120	
Ge Internal Standard	72	2	HMI He	26171	1.32	30405	86.08	60	120	
In Internal Standard	115	2	HMI He	91468	1.59	109603	83.45	60	120	
Ho-165	165	2	HMI He	813760	0.75	932117	87.30	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCS 280-399906/2-A
Data File Name	222LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:45:54-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399906 hot Sb 6020a dod5
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	208.992	208.992	ppb	16.481	577	200	104.5	80	120	
Na	23	2	45	277.479	277.479	ppb	12.917	1407	200	138.7	80	120	NewName Main CR1 Failed
Mg	24	2	45	60.847	60.847	ppb	79.652	233	200000	0.0	80	120	NewName Main CR1 Failed
Al	27	2	45	1795.944	1795.944	ppb	2.626	610	200000	0.9	80	120	NewName Main CR1 Failed
K	39	2	45	198.023	198.023	ppb	149.819	1233	200000	0.1	80	120	NewName Main CR1 Failed
Ca	44	2	45	2331.452	2331.452	ppb	32.108	117	200000	1.2	80	120	NewName Main CR1 Failed
V	51	2	72	187.682	187.682	ppb	3.026	4514	200	93.8	80	120	
Cr	52	2	72	209.488	209.488	ppb	1.508	6518	200	104.7	80	120	
(Cr)	53	2	72	213.278	213.278	ppb	9.919	850	200	106.6	80	120	
Mn	55	2	72	213.506	213.506	ppb	5.937	2334	200	106.8	80	120	
Fe	57	2	72	2113.125	2113.125	ppb	3.447	1353	200000	1.1	80	120	NewName Main CR1 Failed
Co	59	2	72	203.341	203.341	ppb	4.064	13996	200	101.7	80	120	
Ni	60	2	72	205.220	205.220	ppb	5.270	4524	200	102.6	80	120	
Cu	63	2	72	222.075	222.075	ppb	0.474	15431	200	111.0	80	120	
Zn	66	2	72	251.420	251.420	ppb	23.246	1240	200	125.7	80	120	NewName Main CR1 Failed
As	75	2	72	207.467	207.467	ppb	7.883	846	200	103.7	80	120	
Se	78	1	72	189.493	189.493	ppb	7.183	2956	200	94.7	80	120	
(Se)	82	1	72	150.222	150.222	ppb	7.335	1650	200	75.1	80	120	NewName Main CR1 Failed
Nb	93	2	72	0.575	0.575	ppb	63.550	93	400	0.1	80	120	NewName Main CR1 Failed
Mo	95	2	115	220.815	220.815	ppb	5.847	7515	200	110.4	80	120	
Pd	105	2	115	-0.083	-0.083	ppb	0.000	0	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	213.259	213.259	ppb	2.992	31720	200	106.6	80	120	
Cd	111	2	115	220.091	220.091	ppb	10.729	2897	200	110.0	80	120	
(Cd)	114	2	115	210.066	210.066	ppb	4.916	7315	200	105.0	80	120	
Sn	120	2	115	195.657	195.657	ppb	1.417	7148	200	97.8	80	120	
Sb	121	2	115	199.202	199.202	ppb	6.387	5665	200	99.6	80	110	
Ba	137	2	115	221.811	221.811	ppb	2.598	2234	200	110.9	80	120	
W	182	2	165	243.919	243.919	ppb	1.231	71244	200	122.0	80	120	NewName Main CR1 Failed
Pt	195	2	165	0.022	0.022	ppb	230.930	43	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	201.553	201.553	ppb	2.823	95949	200	100.8	80	120	
(Pb)	206	2	165	204.499	204.499	ppb	4.351	30911	200	102.2	80	120	
(Pb)	207	2	165	204.730	204.730	ppb	1.293	27688	200	102.4	80	120	
Pb	208	2	165	208.860	208.860	ppb	0.590	127817	200	104.4	80	120	
Th	232	2	165	192.191	192.191	ppb	1.091	129293	200	96.1	80	120	
U	238	2	165	200.633	200.633	ppb	0.756	157018	200	100.3	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4525	5.51	4713	95.99	60	120	
Sc (IS)	45	1	HMI H2	863522	1.16	983556	87.80	60	120	
Sc (IS)	45	2	HMI He	14446	4.03	17562	82.26	60	120	
Sc (IS)	45	3	No Gas	1713156	0.59	1841315	93.04	60	120	
Ge Internal Standard	72	1	HMI H2	488919	0.99	575957	84.89	60	120	
Ge Internal Standard	72	2	HMI He	25005	3.00	30405	82.24	60	120	
In Internal Standard	115	2	HMI He	88440	0.40	109603	80.69	60	120	
Ho-165	165	2	HMI He	787043	0.98	932117	84.44	60	120	

Laboratory Control Sample (LCS) Report

Sample Table

Sample Name	LCSD 280-399906/3-A
Data File Name	223LCS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:49:48-07:00
Sample Type	LCS-s
Dilution	1
Analyst	Trudell, Lynn-Anne
Comment	399906 hot Sb 6020a dod5
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	FinalConc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	188.456	188.456	ppb	12.622	500	200	94.2	80	120	
Na	23	2	45	324.694	324.694	ppb	15.640	1507	200	162.3	80	120	NewName Main CR1 Failed
Mg	24	2	45	101.511	101.511	ppb	27.468	280	200000	0.1	80	120	NewName Main CR1 Failed
Al	27	2	45	2097.560	2097.560	ppb	11.728	693	200000	1.0	80	120	NewName Main CR1 Failed
K	39	2	45	57.150	57.150	ppb	349.836	1100	200000	0.0	80	120	NewName Main CR1 Failed
Ca	44	2	45	2107.790	2107.790	ppb	45.462	103	200000	1.1	80	120	NewName Main CR1 Failed
V	51	2	72	200.726	200.726	ppb	7.001	4657	200	100.4	80	120	
Cr	52	2	72	213.765	213.765	ppb	3.851	6425	200	106.9	80	120	
(Cr)	53	2	72	228.513	228.513	ppb	5.366	880	200	114.3	80	120	
Mn	55	2	72	225.535	225.535	ppb	4.775	2377	200	112.8	80	120	
Fe	57	2	72	2056.439	2056.439	ppb	10.901	1273	200000	1.0	80	120	NewName Main CR1 Failed
Co	59	2	72	207.417	207.417	ppb	2.745	13789	200	103.7	80	120	
Ni	60	2	72	203.972	203.972	ppb	9.574	4337	200	102.0	80	120	
Cu	63	2	72	214.199	214.199	ppb	3.741	14386	200	107.1	80	120	
Zn	66	2	72	228.260	228.260	ppb	14.798	1093	200	114.1	80	120	
As	75	2	72	195.996	195.996	ppb	10.658	772	200	98.0	80	120	
Se	78	1	72	187.704	187.704	ppb	3.263	2871	200	93.9	80	120	
(Se)	82	1	72	131.063	131.063	ppb	22.738	1460	200	65.5	80	120	NewName Main CR1 Failed
Nb	93	2	72	0.463	0.463	ppb	61.903	77	400	0.1	80	120	NewName Main CR1 Failed
Mo	95	2	115	219.952	219.952	ppb	1.190	7252	200	110.0	80	120	
Pd	105	2	115	0.021	0.021	ppb	431.652	7	200	0.0	80	120	NewName Main CR1 Failed
Ag	107	2	115	215.836	215.836	ppb	0.730	31106	200	107.9	80	120	
Cd	111	2	115	221.107	221.107	ppb	1.614	2820	200	110.6	80	120	
(Cd)	114	2	115	224.457	224.457	ppb	0.898	7572	200	112.2	80	120	
Sn	120	2	115	200.572	200.572	ppb	4.726	7095	200	100.3	80	120	
Sb	121	2	115	205.130	205.130	ppb	4.769	5651	200	102.6	80	110	
Ba	137	2	115	228.457	228.457	ppb	5.451	2227	200	114.2	80	120	
W	182	2	165	241.756	241.756	ppb	1.438	69440	200	120.9	80	120	NewName Main CR1 Failed
Pt	195	2	165	0.024	0.024	ppb	206.978	43	200	0.0	80	120	NewName Main CR1 Failed
Tl	205	2	165	202.040	202.040	ppb	1.380	94598	200	101.0	80	120	
(Pb)	206	2	165	202.829	202.829	ppb	1.465	30160	200	101.4	80	120	
(Pb)	207	2	165	209.073	209.073	ppb	2.079	27795	200	104.5	80	120	
Pb	208	2	165	207.076	207.076	ppb	0.709	124662	200	103.5	80	120	
Th	232	2	165	190.258	190.258	ppb	2.040	125878	200	95.1	80	120	
U	238	2	165	200.411	200.411	ppb	0.642	154265	200	100.2	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	4346	3.60	4713	92.21	60	120	
Sc (IS)	45	1	HMI H2	842570	1.93	983556	85.67	60	120	
Sc (IS)	45	2	HMI He	14053	3.79	17562	80.02	60	120	
Sc (IS)	45	3	No Gas	1728333	1.20	1841315	93.86	60	120	
Ge Internal Standard	72	1	HMI H2	479521	0.54	575957	83.26	60	120	
Ge Internal Standard	72	2	HMI He	24159	1.72	30405	79.46	60	120	
In Internal Standard	115	2	HMI He	85681	2.11	109603	78.17	60	120	
Ho-165	165	2	HMI He	774040	0.85	932117	83.04	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-28-H
Data File Name	224SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:53:37-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	346.255	ppb	346.255	6.45	1210	500000	
Li	7	2	45	89.695	ppb	89.695	355.39	53	500000	
Li	7	3	45	241.786	ppb	241.786	6.85	37686	50000	
Be	9	1	6	14.137	ppb	14.137	33.91	33	2000	
B	11	1	6	133.531	ppb	133.531	10.14	483	2000	
Na	23	1	45	2216.801	ppb	2216.801	2.19	146795	2000	
Na	23	2	45	2080.548	ppb	2080.548	2.51	6158	400000	
Mg	24	2	45	292223.030	ppb	292223.030	3.32	351809	400000	
Al	27	2	45	164279.275	ppb	164279.275	2.10	50895	400000	
K	39	1	45	52378.354	ppb	52378.354	0.66	6229125	400000	
K	39	2	45	40551.402	ppb	40551.402	3.39	30213	400000	
Ca	40	1	45	1688695.033	ppb	1688695.033	0.26	247627816	400000	
Ca	44	2	45	1694182.365	ppb	1694182.365	4.65	73175	400000	
V	51	2	72	405.872	ppb	405.872	2.60	7692	2000	
Cr	52	2	72	359.151	ppb	359.151	5.59	8826	5000	
Mn	55	2	72	5475.986	ppb	5475.986	2.37	46639	10000	
Fe	57	2	72	247512.343	ppb	247512.343	2.93	121417	400000	
Co	59	2	72	81.745	ppb	81.745	8.83	4457	2000	
Ni	60	2	72	220.768	ppb	220.768	4.87	3844	5000	
Cu	63	2	72	442.871	ppb	442.871	2.06	24084	5000	
Zn	66	2	72	953.851	ppb	953.851	2.66	3681	5000	
As	75	2	72	112.978	ppb	112.978	5.55	365	2000	
Se	78	1	72	7.308	ppb	7.308	6.15	95	2000	
Sr	88	2	72	4156.178	ppb	4156.178	2.41	41481	4000	
Zr	90	2	72	9404.045	ppb	9404.045	8.55	4441	1000	>LDR
Nb	93	2	72	7.954	ppb	7.954	9.55	837	200	
Mo	95	2	115	18.871	ppb	18.871	10.90	557	2000	
Pd	105	2	115	0.461	ppb	0.461	118.60	30	100	
Ag	107	2	115	0.939	ppb	0.939	58.90	117	100	
Cd	111	2	115	4.892	ppb	4.892	40.36	53	2000	
Sn	120	2	115	9.108	ppb	9.108	20.94	283	2000	
Sb	121	2	115	18.400	ppb	18.400	14.35	440	1000	
Ba	137	2	115	2180.733	ppb	2180.733	2.01	18227	5000	
W	182	2	165	4.044	ppb	4.044	10.53	1097	100	
Pt	195	2	165	-0.058	ppb	-0.058	-96.79	17	100	
Tl	205	2	165	2.521	ppb	2.521	5.21	1077	2000	
Pb	208	2	165	1553.483	ppb	1553.483	0.35	826769	5000	
Th	232	2	165	88.486	ppb	88.486	1.05	52931	2000	
U	238	2	165	15.712	ppb	15.712	5.52	10938	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	3848	3.96	4713	81.64	60	120	
Sc (IS)	45	1	HMI H2	811323	0.47	983556	82.49	60	120	
Sc (IS)	45	2	HMI He	13179	2.52	17562	75.04	60	120	
Sc (IS)	45	3	No Gas	1552842	1.45	1841315	84.33	60	120	
Ge Internal Standard	72	1	HMI H2	406054	0.43	575957	70.50	60	120	
Ge Internal Standard	72	2	HMI He	19770	1.40	30405	65.02	60	120	
In Internal Standard	115	2	HMI He	73576	1.79	109603	67.13	60	120	
Ho-165	165	2	HMI He	699472	0.86	932117	75.04	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-28-Hsd@5
Data File Name	225SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T05:57:26-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-64.222	ppb	-64.222	-24.85	557	500000	
Li	7	2	45	131.541	ppb	131.541	106.22	57	500000	
Li	7	3	45	42.408	ppb	42.408	25.83	23682	50000	
Be	9	1	6	6.932	ppb	6.932	87.20	13	2000	
B	11	1	6	60.664	ppb	60.664	10.81	237	2000	
Na	23	1	45	450.800	ppb	450.800	2.07	34119	2000	
Na	23	2	45	438.827	ppb	438.827	8.83	1700	400000	
Mg	24	2	45	58415.468	ppb	58415.468	4.23	69636	400000	
Al	27	2	45	30676.798	ppb	30676.798	6.96	9386	400000	
K	39	1	45	11998.848	ppb	11998.848	0.96	1507864	400000	
K	39	2	45	8293.318	ppb	8293.318	6.99	6882	400000	
Ca	40	1	45	353602.744	ppb	353602.744	0.36	46602069	400000	
Ca	44	2	45	351300.302	ppb	351300.302	5.29	15013	400000	
V	51	2	72	79.182	ppb	79.182	16.77	1623	2000	
Cr	52	2	72	69.194	ppb	69.194	3.31	1823	5000	
Mn	55	2	72	1013.034	ppb	1013.034	4.09	9249	10000	
Fe	57	2	72	45963.016	ppb	45963.016	2.53	24144	400000	
Co	59	2	72	17.820	ppb	17.820	6.84	1053	2000	
Ni	60	2	72	45.235	ppb	45.235	13.45	847	5000	
Cu	63	2	72	85.171	ppb	85.171	5.50	5164	5000	
Zn	66	2	72	183.784	ppb	183.784	22.16	777	5000	
As	75	2	72	16.269	ppb	16.269	22.63	57	2000	
Se	78	1	72	1.122	ppb	1.122	55.41	15	2000	
Sr	88	2	72	827.443	ppb	827.443	3.71	8836	4000	
Zr	90	2	72	1804.731	ppb	1804.731	24.08	917	1000	
Nb	93	2	72	1.153	ppb	1.153	30.45	143	200	
Mo	95	2	115	5.013	ppb	5.013	13.40	173	2000	
Pd	105	2	115	-0.024	ppb	-0.024	-420.71	3	100	
Ag	107	2	115	0.129	ppb	0.129	91.49	17	100	
Cd	111	2	115	0.585	ppb	0.585	86.60	7	2000	
Sn	120	2	115	1.356	ppb	1.356	24.00	50	2000	
Sb	121	2	115	3.861	ppb	3.861	0.67	100	1000	
Ba	137	2	115	436.479	ppb	436.479	5.07	3814	5000	
W	182	2	165	0.833	ppb	0.833	26.32	270	100	
Pt	195	2	165	-0.035	ppb	-0.035	-266.41	23	100	
Tl	205	2	165	0.640	ppb	0.640	6.95	287	2000	
Pb	208	2	165	322.021	ppb	322.021	3.38	177383	5000	
Th	232	2	165	18.759	ppb	18.759	5.65	11508	2000	
U	238	2	165	3.199	ppb	3.199	1.99	2287	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	3268	8.69	4713	69.34	60	120	
Sc (IS)	45	1	HMI H2	728835	0.92	983556	74.10	60	120	
Sc (IS)	45	2	HMI He	13039	4.76	17562	74.24	60	120	
Sc (IS)	45	3	No Gas	1501120	0.60	1841315	81.52	60	120	
Ge Internal Standard	72	1	HMI H2	407786	1.31	575957	70.80	60	120	
Ge Internal Standard	72	2	HMI He	21143	1.23	30405	69.54	60	120	
In Internal Standard	115	2	HMI He	76854	0.64	109603	70.12	60	120	
Ho-165	165	2	HMI He	714894	1.81	932117	76.70	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-28-I MS
Data File Name	226SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:01:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	465.838	ppb	465.838	25.48	1207	500000	
Li	7	2	45	233.763	ppb	233.763	328.10	57	500000	
Li	7	3	45	408.377	ppb	408.377	7.62	43195	50000	
Be	9	1	6	189.683	ppb	189.683	20.60	403	2000	
B	11	1	6	311.243	ppb	311.243	19.56	890	2000	
Na	23	1	45	2138.998	ppb	2138.998	3.05	123868	2000	
Na	23	2	45	2120.755	ppb	2120.755	8.45	5201	400000	
Mg	24	2	45	283464.022	ppb	283464.022	2.10	283713	400000	
Al	27	2	45	159166.884	ppb	159166.884	1.81	40997	400000	
K	39	1	45	52380.728	ppb	52380.728	1.31	5434494	400000	
K	39	2	45	40097.552	ppb	40097.552	0.55	24851	400000	
Ca	40	1	45	1641265.798	ppb	1641265.798	1.59	209963510	400000	
Ca	44	2	45	1663000.993	ppb	1663000.993	2.04	59727	400000	
V	51	2	72	602.389	ppb	602.389	3.65	9690	2000	
Cr	52	2	72	580.017	ppb	580.017	1.65	12115	5000	
Mn	55	2	72	5593.549	ppb	5593.549	3.77	40450	10000	
Fe	57	2	72	232261.918	ppb	232261.918	5.39	96735	400000	
Co	59	2	72	281.387	ppb	281.387	4.20	12995	2000	
Ni	60	2	72	403.950	ppb	403.950	13.59	5961	5000	
Cu	63	2	72	602.869	ppb	602.869	1.64	27779	5000	
Zn	66	2	72	1086.245	ppb	1086.245	3.48	3557	5000	
As	75	2	72	334.275	ppb	334.275	2.79	916	2000	
Se	78	1	72	199.009	ppb	199.009	3.51	2239	2000	
Sr	88	2	72	4352.120	ppb	4352.120	6.48	36863	4000	
Zr	90	2	72	19631.858	ppb	19631.858	10.79	7862	1000	>LDR
Nb	93	2	72	4.295	ppb	4.295	20.31	390	200	
Mo	95	2	115	254.557	ppb	254.557	2.93	6021	2000	
Pd	105	2	115	0.423	ppb	0.423	76.68	23	100	
Ag	107	2	115	206.191	ppb	206.191	1.99	21334	100	
Cd	111	2	115	214.812	ppb	214.812	3.06	1967	2000	
Sn	120	2	115	201.348	ppb	201.348	12.06	5111	2000	
Sb	121	2	115	204.318	ppb	204.318	1.62	4041	1000	
Ba	137	2	115	2411.156	ppb	2411.156	4.17	16846	5000	
W	182	2	165	166.299	ppb	166.299	3.58	37127	100	
Pt	195	2	165	0.180	ppb	0.180	47.63	70	100	
Tl	205	2	165	190.438	ppb	190.438	0.97	69275	2000	
Pb	208	2	165	1710.117	ppb	1710.117	0.52	782153	5000	
Th	232	2	165	276.134	ppb	276.134	1.43	141886	2000	
U	238	2	165	212.818	ppb	212.818	0.90	127247	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	3472	5.27	4713	73.65	60	120	
Sc (IS)	45	1	HMI H2	707855	1.41	983556	71.97	60	120	
Sc (IS)	45	2	HMI He	10954	2.81	17562	62.37	60	120	
Sc (IS)	45	3	No Gas	1377267	1.64	1841315	74.80	60	120	
Ge Internal Standard	72	1	HMI H2	352786	1.80	575957	61.25	60	120	
Ge Internal Standard	72	2	HMI He	16798	3.39	30405	55.25	60	120	IS Failed
In Internal Standard	115	2	HMI He	61511	1.41	109603	56.12	60	120	IS Failed
Ho-165	165	2	HMI He	601298	0.85	932117	64.51	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-28-J MSD
Data File Name	227SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:05:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	234.967	ppb	234.967	73.10	757	500000	
Li	7	2	45	467.925	ppb	467.925	84.19	60	500000	
Li	7	3	45	394.417	ppb	394.417	5.57	37549	50000	
Be	9	1	6	246.493	ppb	246.493	26.49	353	2000	
B	11	1	6	318.176	ppb	318.176	25.68	597	2000	
Na	23	1	45	2115.160	ppb	2115.160	2.81	101231	2000	
Na	23	2	45	2339.683	ppb	2339.683	5.29	4611	400000	
Mg	24	2	45	287455.757	ppb	287455.757	2.32	232763	400000	
Al	27	2	45	163108.790	ppb	163108.790	2.96	33976	400000	
K	39	1	45	52981.248	ppb	52981.248	1.04	4536153	400000	
K	39	2	45	41061.910	ppb	41061.910	3.81	20562	400000	
Ca	40	1	45	1631426.703	ppb	1631426.703	0.31	172332984	400000	
Ca	44	2	45	1723579.652	ppb	1723579.652	3.41	50071	400000	
V	51	2	72	634.909	ppb	634.909	7.36	8025	2000	
Cr	52	2	72	611.790	ppb	611.790	9.69	10010	5000	
Mn	55	2	72	6090.134	ppb	6090.134	1.96	34578	10000	
Fe	57	2	72	244754.754	ppb	244754.754	3.26	80033	400000	
Co	59	2	72	290.787	ppb	290.787	1.76	10544	2000	
Ni	60	2	72	427.641	ppb	427.641	5.52	4968	5000	
Cu	63	2	72	636.132	ppb	636.132	2.37	22999	5000	
Zn	66	2	72	1178.216	ppb	1178.216	4.75	3027	5000	
As	75	2	72	346.681	ppb	346.681	8.16	746	2000	
Se	78	1	72	209.065	ppb	209.065	5.23	1935	2000	
Sr	88	2	72	4464.089	ppb	4464.089	8.28	29670	4000	
Zr	90	2	72	20786.763	ppb	20786.763	7.03	6545	1000	>LDR
Nb	93	2	72	4.318	ppb	4.318	23.31	307	200	
Mo	95	2	115	229.760	ppb	229.760	1.72	4434	2000	
Pd	105	2	115	0.094	ppb	0.094	325.72	7	100	
Ag	107	2	115	206.823	ppb	206.823	2.38	17443	100	
Cd	111	2	115	196.558	ppb	196.558	8.58	1467	2000	
Sn	120	2	115	197.892	ppb	197.892	9.41	4101	2000	
Sb	121	2	115	201.838	ppb	201.838	10.24	3257	1000	
Ba	137	2	115	2467.601	ppb	2467.601	3.07	14056	5000	
W	182	2	165	166.196	ppb	166.196	2.22	30814	100	
Pt	195	2	165	0.120	ppb	0.120	64.10	47	100	
Tl	205	2	165	192.486	ppb	192.486	2.00	58167	2000	
Pb	208	2	165	1782.886	ppb	1782.886	0.42	677304	5000	
Th	232	2	165	287.248	ppb	287.248	0.86	122608	2000	
U	238	2	165	218.446	ppb	218.446	1.21	108502	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	2338	13.36	4713	49.61	60	120	IS Failed
Sc (IS)	45	1	HMI H2	584456	0.56	983556	59.42	60	120	IS Failed
Sc (IS)	45	2	HMI He	8863	2.85	17562	50.46	60	120	IS Failed
Sc (IS)	45	3	No Gas	1220979	3.93	1841315	66.31	60	120	
Ge Internal Standard	72	1	HMI H2	290172	0.70	575957	50.38	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	13182	2.68	30405	43.35	60	120	IS Failed
In Internal Standard	115	2	HMI He	50154	1.14	109603	45.76	60	120	IS Failed
Ho-165	165	2	HMI He	499491	0.82	932117	53.59	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-28-Hpds
Data File Name	228SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:08:57-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	273.492	ppb	273.492	35.75	673	500000	
Li	7	2	45	753.619	ppb	753.619	117.12	63	500000	
Li	7	3	45	398.481	ppb	398.481	4.41	32954	50000	
Be	9	1	6	260.365	ppb	260.365	30.08	320	2000	
B	11	1	6	161.851	ppb	161.851	21.41	293	2000	
Na	23	1	45	2152.088	ppb	2152.088	1.67	87050	2000	
Na	23	2	45	2211.187	ppb	2211.187	12.83	3614	400000	
Mg	24	2	45	282730.413	ppb	282730.413	2.93	188921	400000	
Al	27	2	45	163958.595	ppb	163958.595	3.70	28186	400000	
K	39	1	45	54366.480	ppb	54366.480	0.79	3933316	400000	
K	39	2	45	42228.616	ppb	42228.616	4.37	17436	400000	
Ca	40	1	45	1598534.271	ppb	1598534.271	1.09	142869651	400000	
Ca	44	2	45	1687838.631	ppb	1687838.631	3.63	40463	400000	
V	51	2	72	637.864	ppb	637.864	0.30	6762	2000	
Cr	52	2	72	551.416	ppb	551.416	8.89	7579	5000	
Mn	55	2	72	5883.725	ppb	5883.725	3.48	28039	10000	
Fe	57	2	72	245728.887	ppb	245728.887	4.57	67441	400000	
Co	59	2	72	281.852	ppb	281.852	5.89	8576	2000	
Ni	60	2	72	416.604	ppb	416.604	5.39	4064	5000	
Cu	63	2	72	691.660	ppb	691.660	2.64	20973	5000	
Zn	66	2	72	1297.086	ppb	1297.086	6.22	2797	5000	
As	75	2	72	326.013	ppb	326.013	4.55	589	2000	
Se	78	1	72	209.938	ppb	209.938	12.93	1657	2000	
Sr	88	2	72	4450.917	ppb	4450.917	2.69	24869	4000	
Zr	90	2	72	26658.441	ppb	26658.441	3.27	7042	1000	>LDR
Nb	93	2	72	7.585	ppb	7.585	7.36	447	200	
Mo	95	2	115	233.464	ppb	233.464	4.19	3951	2000	
Pd	105	2	115	0.125	ppb	0.125	288.19	7	100	
Ag	107	2	115	49.219	ppb	49.219	12.39	3634	100	
Cd	111	2	115	181.213	ppb	181.213	3.64	1187	2000	
Sn	120	2	115	184.443	ppb	184.443	10.93	3351	2000	
Sb	121	2	115	220.178	ppb	220.178	4.35	3114	1000	
Ba	137	2	115	2359.612	ppb	2359.612	2.36	11788	5000	
W	182	2	165	180.399	ppb	180.399	2.78	28940	100	
Pt	195	2	165	-0.020	ppb	-0.020	-172.98	17	100	
Tl	205	2	165	194.499	ppb	194.499	0.42	50846	2000	
Pb	208	2	165	1718.505	ppb	1718.505	0.54	564867	5000	
Th	232	2	165	285.368	ppb	285.368	1.28	105394	2000	
U	238	2	165	208.013	ppb	208.013	1.40	89387	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	2052	20.91	4713	43.53	60	120	IS Failed
Sc (IS)	45	1	HMI H2	494523	0.83	983556	50.28	60	120	IS Failed
Sc (IS)	45	2	HMI He	7315	3.49	17562	41.65	60	120	IS Failed
Sc (IS)	45	3	No Gas	1064754	0.84	1841315	57.83	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	247464	1.81	575957	42.97	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	11067	2.76	30405	36.40	60	120	IS Failed
In Internal Standard	115	2	HMI He	43973	2.12	109603	40.12	60	120	IS Failed
Ho-165	165	2	HMI He	432150	1.11	932117	46.36	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	229_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:12:48-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	386.949	ppb	32.596	673	500	77.4	90	110	>+\-10%
Li	7	2	45	579.725	ppb	99.743	57	500	115.9	90	110	>+\-10%
Li	7	3	45	474.454	ppb	3.794	33221	500	94.9	90	110	
Be	9	1	6	72.770	ppb	9.365	80	50	145.5	90	110	>+\-10%
B	11	1	6	144.151	ppb	45.906	237	50	288.3	90	110	>+\-10%
Na	23	1	45	4988.674	ppb	0.636	168537	5000	99.8	90	110	
Na	23	2	45	5106.841	ppb	9.311	8052	5000	102.1	90	110	
Mg	24	2	45	4287.051	ppb	13.448	2977	5000	85.7	90	110	>+\-10%
Al	27	2	45	4700.840	ppb	12.007	820	5000	94.0	90	110	
K	39	1	45	6025.592	ppb	0.460	533544	5000	120.5	90	110	>+\-10%
K	39	2	45	6067.450	ppb	3.984	3024	5000	121.3	90	110	>+\-10%
Ca	40	1	45	5397.624	ppb	1.519	437317	5000	108.0	90	110	
Ca	44	2	45	5238.292	ppb	5.561	130	5000	104.8	90	110	
V	51	2	72	49.898	ppb	8.272	623	50	99.8	90	110	
Cr	52	2	72	43.619	ppb	5.573	697	50	87.2	90	110	>+\-10%
Mn	55	2	72	61.272	ppb	30.112	353	50	122.5	90	110	>+\-10%
Fe	57	2	72	5334.506	ppb	11.710	1710	5000	106.7	90	110	
Co	59	2	72	47.106	ppb	17.957	1660	50	94.2	90	110	
Ni	60	2	72	48.747	ppb	12.565	550	50	97.5	90	110	
Cu	63	2	72	56.947	ppb	6.468	2140	50	113.9	90	110	>+\-10%
Zn	66	2	72	55.020	ppb	28.821	150	50	110.0	90	110	>+\-10%
As	75	2	72	54.321	ppb	11.460	114	50	108.6	90	110	
Se	78	1	72	56.077	ppb	7.532	453	50	112.2	90	110	>+\-10%
Sr	88	2	72	50.163	ppb	16.150	327	50	100.3	90	110	
Zr	90	2	72	159.867	ppb	62.585	53	50	319.7	90	110	>+\-10%
Nb	93	2	72	100.909	ppb	1.627	6752	100	100.9	90	110	
Mo	95	2	115	47.315	ppb	10.229	900	50	94.6	90	110	
Pd	105	2	115	57.824	ppb	6.024	2104	50	115.6	90	110	>+\-10%
Ag	107	2	115	52.325	ppb	9.680	4291	50	104.6	90	110	
Cd	111	2	115	56.568	ppb	28.685	410	50	113.1	90	110	>+\-10%
Sn	120	2	115	45.649	ppb	19.200	923	50	91.3	90	110	
Sb	121	2	115	49.224	ppb	13.158	773	50	98.4	90	110	
Ba	137	2	115	59.683	ppb	1.533	333	50	119.4	90	110	>+\-10%
W	182	2	165	47.620	ppb	4.224	7979	50	95.2	90	110	
Pt	195	2	165	51.903	ppb	4.580	9110	50	103.8	90	110	
Tl	205	2	165	53.067	ppb	1.543	14450	50	106.1	90	110	
Pb	208	2	165	51.676	ppb	4.813	19446	50	103.4	90	110	
Th	232	2	165	50.704	ppb	1.226	19530	50	101.4	90	110	
U	238	2	165	51.134	ppb	0.475	22891	50	102.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1808	9.01	4713	38.36	60	120	IS Failed
Sc (IS)	45	1	HMI H2	430559	0.14	983556	43.78	60	120	IS Failed
Sc (IS)	45	2	HMI He	7425	5.46	17562	42.28	60	120	IS Failed
Sc (IS)	45	3	No Gas	971703	0.18	1841315	52.77	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	253496	1.39	575957	44.01	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	12783	3.36	30405	42.04	60	120	IS Failed
In Internal Standard	115	2	HMI He	48743	0.85	109603	44.47	60	120	IS Failed
Ho-165	165	2	HMI He	450044	1.27	932117	48.28	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	230_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:16:40-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	5.599	ppb	312.3	13816	10	
Be	9	1	6	13.309	ppb	88.2	17	0.5	>RL
B	11	1	6	89.643	ppb	27.0	183	0.5	>RL
Na	23	1	45	41.750	ppb	27.4	7062	25	>RL
Na	23	2	45	85.612	ppb	38.9	447	25	>RL
Mg	24	2	45	-20.240	ppb	-255.0	67	25	
Al	27	2	45	53.881	ppb	173.2	10	15	>RL
K	39	1	45	820.735	ppb	9.1	231455	50	>RL
K	39	2	45	1530.070	ppb	11.6	1217	50	>RL
Ca	40	1	45	157.526	ppb	12.3	30824	50	>RL
Ca	44	2	45	-110.892	ppb	0.0	0	25	
V	51	2	72	2.250	ppb	106.3	43	1	>RL
Cr	52	2	72	0.787	ppb	152.2	17	1	
Mn	55	2	72	7.083	ppb	42.7	60	0.5	>RL
Fe	57	2	72	19.766	ppb	292.8	30	25	
Co	59	2	72	0.914	ppb	31.7	47	0.5	>RL
Ni	60	2	72	1.141	ppb	86.4	17	1	>RL
Cu	63	2	72	-0.026	ppb	-5444.7	170	1	
Zn	66	2	72	1.122	ppb	506.0	17	5	
As	75	2	72	0.029	ppb	1714.6	1	1	
Se	78	1	72	0.000	ppb	#DIV/0!	0	1	
Sr	88	2	72	2.450	ppb	2.0	20	0.5	>RL
Zr	90	2	72	6.820	ppb	259.5	7	1	>RL
Nb	93	2	72	0.969	ppb	30.6	80	2	
Mo	95	2	115	-0.057	ppb	-479.4	17	0.5	
Pd	105	2	115	-0.083	ppb	0.0	0	1	
Ag	107	2	115	0.036	ppb	173.2	3	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	0.514	ppb	175.6	17	1	
Sb	121	2	115	0.182	ppb	354.0	7	0.6	
Ba	137	2	115	0.596	ppb	327.2	7	0.5	>RL
W	182	2	165	0.234	ppb	46.8	73	1	
Pt	195	2	165	-0.049	ppb	-160.8	13	1	
Tl	205	2	165	0.021	ppb	370.6	13	0.1	
Pb	208	2	165	-1.451	ppb	-8.0	1383	0.5	
Th	232	2	165	0.242	ppb	21.3	137	1	
U	238	2	165	0.011	ppb	301.7	13	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1971	10.69	4713	41.82	60	120	IS Failed
Sc (IS)	45	1	HMI H2	448472	1.61	983556	45.60	60	120	IS Failed
Sc (IS)	45	2	HMI He	7675	2.45	17562	43.70	60	120	IS Failed
Sc (IS)	45	3	No Gas	972423	0.39	1841315	52.81	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	269925	0.63	575957	46.87	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	13762	1.66	30405	45.26	60	120	IS Failed
In Internal Standard	115	2	HMI He	53388	3.69	109603	48.71	60	120	IS Failed
Ho-165	165	2	HMI He	472295	4.12	932117	50.67	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	231LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:20:31-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	8.552	ppb	176.196	14109	50	17.1	70	130	>+/-30%
Be	9	1	6	2.912	ppb	173.205	3	1	291.2	70	130	>+/-30%
Na	23	2	45	153.747	ppb	26.878	563	50	307.5	70	130	>+/-30%
Mg	24	2	45	-8.413	ppb	-158.232	77	50	-16.8	70	130	>+/-30%
Al	27	2	45	106.908	ppb	46.481	20	30	356.4	70	130	>+/-30%
K	39	2	45	1196.534	ppb	31.068	1100	100	1196.5	70	130	>+/-30%
Ca	44	2	45	13.777	ppb	1567.311	3	50	27.6	70	130	>+/-30%
V	51	2	72	5.079	ppb	51.274	80	5	101.6	70	130	
Cr	52	2	72	1.398	ppb	129.904	27	2	69.9	70	130	>+/-30%
Mn	55	2	72	4.860	ppb	106.371	47	1	486.0	70	130	>+/-30%
Fe	57	2	72	40.373	ppb	83.522	37	50	80.7	70	130	
Co	59	2	72	1.279	ppb	36.311	60	1	127.9	70	130	
Ni	60	2	72	4.990	ppb	138.516	63	2	249.5	70	130	>+/-30%
Cu	63	2	72	2.683	ppb	113.398	270	2	134.1	70	130	>+/-30%
Zn	66	2	72	13.801	ppb	48.625	50	10	138.0	70	130	>+/-30%
As	75	2	72	6.180	ppb	28.870	14	5	123.6	70	130	
Se	78	1	72	3.698	ppb	57.409	32	5	74.0	70	130	
Sr	88	2	72	1.984	ppb	111.013	17	1	198.4	70	130	>+/-30%
Zr	90	2	72	57.586	ppb	121.691	23	0.5	11517.1	70	130	>+/-30%
Nb	93	2	72	1.717	ppb	61.335	133	2	85.8	70	130	
Mo	95	2	115	1.234	ppb	20.152	43	2	61.7	70	130	>+/-30%
Pd	105	2	115	-0.083	ppb	0.000	0	1	-8.3	70	130	>+/-30%
Ag	107	2	115	5.243	ppb	7.591	473	5	104.9	70	130	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	1	0.0	70	130	>+/-30%
Sn	120	2	115	11.788	ppb	13.631	267	10	117.9	70	130	
Sb	121	2	115	3.263	ppb	61.988	60	2	163.2	70	130	>+/-30%
Ba	137	2	115	3.271	ppb	123.762	23	1	327.1	70	130	>+/-30%
W	182	2	165	4.733	ppb	9.846	863	1	473.3	70	130	>+/-30%
Pt	195	2	165	0.043	ppb	130.932	30	1	4.3	70	130	>+/-30%
Tl	205	2	165	1.106	ppb	9.418	323	1	110.6	70	130	
Pb	208	2	165	-0.535	ppb	-100.717	1720	1	-53.5	70	130	>+/-30%
Th	232	2	165	2.582	ppb	11.468	1083	2	129.1	70	130	
U	238	2	165	1.257	ppb	19.819	600	1	125.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1962	4.63	4713	41.63	60	120	IS Failed
Sc (IS)	45	1	HMI H2	459080	0.85	983556	46.68	60	120	IS Failed
Sc (IS)	45	2	HMI He	7832	6.32	17562	44.60	60	120	IS Failed
Sc (IS)	45	3	No Gas	984255	0.20	1841315	53.45	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	271408	0.13	575957	47.12	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	13677	0.86	30405	44.98	60	120	IS Failed
In Internal Standard	115	2	HMI He	53727	1.86	109603	49.02	60	120	IS Failed
Ho-165	165	2	HMI He	473959	2.14	932117	50.85	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-29-D
Data File Name	232SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:24:24-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	140.875	ppb	140.875	28.18	507	500000	
Li	7	2	45	-6.915	ppb	-6.915	-4705.34	23	500000	
Li	7	3	45	237.782	ppb	237.782	12.44	24307	50000	
Be	9	1	6	3.347	ppb	3.347	173.21	3	2000	
B	11	1	6	145.091	ppb	145.091	41.01	247	2000	
Na	23	1	45	2213.038	ppb	2213.038	1.15	81189	2000	
Na	23	2	45	2177.623	ppb	2177.623	1.25	3377	400000	
Mg	24	2	45	284763.969	ppb	284763.969	1.63	180388	400000	
Al	27	2	45	151481.048	ppb	151481.048	1.92	24687	400000	
K	39	1	45	55823.322	ppb	55823.322	1.55	3666287	400000	
K	39	2	45	41486.223	ppb	41486.223	3.71	16251	400000	
Ca	40	1	45	1619177.886	ppb	1619177.886	0.82	131530301	400000	
Ca	44	2	45	1634722.817	ppb	1634722.817	3.47	37156	400000	
V	51	2	72	422.588	ppb	422.588	7.13	3954	2000	
Cr	52	2	72	380.407	ppb	380.407	5.71	4621	5000	
Mn	55	2	72	6073.573	ppb	6073.573	3.82	25546	10000	
Fe	57	2	72	255040.548	ppb	255040.548	2.14	61801	400000	
Co	59	2	72	86.023	ppb	86.023	4.89	2317	2000	
Ni	60	2	72	227.514	ppb	227.514	8.38	1957	5000	
Cu	63	2	72	1321.957	ppb	1321.957	2.16	35273	5000	
Zn	66	2	72	1222.617	ppb	1222.617	8.36	2327	5000	
As	75	2	72	124.153	ppb	124.153	2.82	198	2000	
Se	78	1	72	11.622	ppb	11.622	34.94	83	2000	
Sr	88	2	72	4341.920	ppb	4341.920	3.64	21404	4000	
Zr	90	2	72	9270.578	ppb	9270.578	3.38	2164	1000	>LDR
Nb	93	2	72	7.045	ppb	7.045	28.28	367	200	
Mo	95	2	115	14.511	ppb	14.511	24.45	227	2000	
Pd	105	2	115	0.851	ppb	0.851	95.02	27	100	
Ag	107	2	115	0.930	ppb	0.930	67.42	60	100	
Cd	111	2	115	12.795	ppb	12.795	7.09	73	2000	
Sn	120	2	115	10.050	ppb	10.050	21.01	163	2000	
Sb	121	2	115	104.621	ppb	104.621	15.31	1297	1000	
Ba	137	2	115	2312.251	ppb	2312.251	1.01	10110	5000	
W	182	2	165	3.311	ppb	3.311	25.65	497	100	
Pt	195	2	165	-0.030	ppb	-0.030	-337.01	13	100	
Tl	205	2	165	2.360	ppb	2.360	17.21	553	2000	
Pb	208	2	165	7765.740	ppb	7765.740	0.54	2261265	5000	
Th	232	2	165	93.170	ppb	93.170	0.99	30574	2000	
U	238	2	165	16.968	ppb	16.968	2.60	6482	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1882	12.96	4713	39.93	60	120	IS Failed
Sc (IS)	45	1	HMI H2	449476	1.26	983556	45.70	60	120	IS Failed
Sc (IS)	45	2	HMI He	6932	1.76	17562	39.47	60	120	IS Failed
Sc (IS)	45	3	No Gas	1007894	1.98	1841315	54.74	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	223406	1.24	575957	38.79	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	9765	0.83	30405	32.12	60	120	IS Failed
In Internal Standard	115	2	HMI He	38486	1.00	109603	35.11	60	120	IS Failed
Ho-165	165	2	HMI He	383756	0.99	932117	41.17	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-30-D
Data File Name	233SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:28:14-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	23.784	ppb	23.784	1097.00	343	500000	
Li	7	2	45	-392.920	ppb	-392.920	-43.34	3	500000	
Li	7	3	45	272.457	ppb	272.457	4.79	24394	50000	
Be	9	1	6	14.972	ppb	14.972	113.51	13	2000	
B	11	1	6	122.276	ppb	122.276	25.73	173	2000	
Na	23	1	45	2175.934	ppb	2175.934	1.09	66250	2000	
Na	23	2	45	2483.781	ppb	2483.781	9.61	2704	400000	
Mg	24	2	45	311830.438	ppb	311830.438	8.11	140151	400000	
Al	27	2	45	179361.311	ppb	179361.311	7.67	20746	400000	
K	39	1	45	58423.845	ppb	58423.845	1.56	3172954	400000	
K	39	2	45	49034.483	ppb	49034.483	10.27	13549	400000	
Ca	40	1	45	1633102.247	ppb	1633102.247	1.17	109958532	400000	
Ca	44	2	45	1869295.778	ppb	1869295.778	6.12	30179	400000	
V	51	2	72	446.309	ppb	446.309	2.09	3400	2000	
Cr	52	2	72	385.519	ppb	385.519	2.86	3814	5000	
Mn	55	2	72	6159.318	ppb	6159.318	5.37	21077	10000	
Fe	57	2	72	249668.639	ppb	249668.639	5.02	49206	400000	
Co	59	2	72	82.993	ppb	82.993	7.01	1817	2000	
Ni	60	2	72	236.147	ppb	236.147	2.68	1653	5000	
Cu	63	2	72	554.657	ppb	554.657	5.35	12091	5000	
Zn	66	2	72	1028.147	ppb	1028.147	11.53	1597	5000	
As	75	2	72	116.019	ppb	116.019	7.12	151	2000	
Se	78	1	72	13.910	ppb	13.910	19.42	80	2000	
Sr	88	2	72	4397.422	ppb	4397.422	2.82	17646	4000	
Zr	90	2	72	9876.857	ppb	9876.857	2.18	1877	1000	>LDR
Nb	93	2	72	6.271	ppb	6.271	1.40	267	200	
Mo	95	2	115	19.593	ppb	19.593	7.45	240	2000	
Pd	105	2	115	0.796	ppb	0.796	55.94	20	100	
Ag	107	2	115	0.648	ppb	0.648	62.76	33	100	
Cd	111	2	115	5.806	ppb	5.806	93.69	27	2000	
Sn	120	2	115	6.147	ppb	6.147	45.87	80	2000	
Sb	121	2	115	23.504	ppb	23.504	23.59	233	1000	
Ba	137	2	115	2326.696	ppb	2326.696	4.72	8082	5000	
W	182	2	165	3.362	ppb	3.362	3.43	413	100	
Pt	195	2	165	-0.011	ppb	-0.011	-454.70	13	100	
Tl	205	2	165	2.623	ppb	2.623	6.59	503	2000	
Pb	208	2	165	2386.246	ppb	2386.246	0.93	570248	5000	
Th	232	2	165	89.915	ppb	89.915	4.10	24176	2000	
U	238	2	165	16.499	ppb	16.499	7.16	5164	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1469	2.97	4713	31.16	60	120	IS Failed
Sc (IS)	45	1	HMI H2	372580	1.71	983556	37.88	60	120	IS Failed
Sc (IS)	45	2	HMI He	4938	7.59	17562	28.11	60	120	IS Failed
Sc (IS)	45	3	No Gas	953763	1.45	1841315	51.80	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	180651	1.53	575957	31.37	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	7955	5.52	30405	26.16	60	120	IS Failed
In Internal Standard	115	2	HMI He	30584	1.59	109603	27.90	60	120	IS Failed
Ho-165	165	2	HMI He	314442	0.55	932117	33.73	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-31-D
Data File Name	234SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:32:05-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	12.257	ppb	12.257	414.53	283	500000	
Li	7	2	45	-163.068	ppb	-163.068	-348.57	10	500000	
Li	7	3	45	285.934	ppb	285.934	4.81	25138	50000	
Be	9	1	6	27.585	ppb	27.585	95.46	17	2000	
B	11	1	6	229.810	ppb	229.810	33.10	210	2000	
Na	23	1	45	2233.781	ppb	2233.781	1.55	57397	2000	
Na	23	2	45	2594.475	ppb	2594.475	10.98	2384	400000	
Mg	24	2	45	310949.268	ppb	310949.268	4.38	117970	400000	
Al	27	2	45	161971.693	ppb	161971.693	2.74	15821	400000	
K	39	1	45	59851.477	ppb	59851.477	1.08	2745446	400000	
K	39	2	45	47050.650	ppb	47050.650	6.36	10994	400000	
Ca	40	1	45	1403897.863	ppb	1403897.863	1.12	79926742	400000	
Ca	44	2	45	1522973.605	ppb	1522973.605	4.03	20756	400000	
V	51	2	72	412.058	ppb	412.058	11.54	2520	2000	
Cr	52	2	72	335.750	ppb	335.750	7.26	2667	5000	
Mn	55	2	72	6135.527	ppb	6135.527	1.20	16899	10000	
Fe	57	2	72	252121.092	ppb	252121.092	6.98	39935	400000	
Co	59	2	72	79.909	ppb	79.909	13.41	1407	2000	
Ni	60	2	72	231.118	ppb	231.118	15.59	1297	5000	
Cu	63	2	72	1096.321	ppb	1096.321	6.75	19138	5000	
Zn	66	2	72	1080.141	ppb	1080.141	15.70	1353	5000	
As	75	2	72	113.084	ppb	113.084	5.22	118	2000	
Se	78	1	72	7.010	ppb	7.010	17.68	35	2000	
Sr	88	2	72	4026.061	ppb	4026.061	4.71	12985	4000	
Zr	90	2	72	10314.279	ppb	10314.279	22.37	1567	1000	>LDR
Nb	93	2	72	7.095	ppb	7.095	23.91	243	200	
Mo	95	2	115	12.258	ppb	12.258	18.23	127	2000	
Pd	105	2	115	0.804	ppb	0.804	37.64	17	100	
Ag	107	2	115	1.798	ppb	1.798	47.07	77	100	
Cd	111	2	115	7.173	ppb	7.173	79.19	27	2000	
Sn	120	2	115	11.667	ppb	11.667	27.85	123	2000	
Sb	121	2	115	86.288	ppb	86.288	3.04	700	1000	
Ba	137	2	115	2362.468	ppb	2362.468	2.96	6758	5000	
W	182	2	165	3.994	ppb	3.994	17.10	393	100	
Pt	195	2	165	-0.120	ppb	-0.120	0.00	0	100	
Tl	205	2	165	2.497	ppb	2.497	27.64	387	2000	
Pb	208	2	165	9895.085	ppb	9895.085	0.99	1906580	5000	
Th	232	2	165	90.920	ppb	90.920	0.94	19747	2000	
U	238	2	165	16.001	ppb	16.001	1.98	4046	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1057	10.57	4713	22.42	60	120	IS Failed
Sc (IS)	45	1	HMI H2	314990	0.48	983556	32.03	60	120	IS Failed
Sc (IS)	45	2	HMI He	4157	5.41	17562	23.67	60	120	IS Failed
Sc (IS)	45	3	No Gas	961049	0.87	1841315	52.19	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	155038	0.72	575957	26.92	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	6395	4.24	30405	21.03	60	120	IS Failed
In Internal Standard	115	2	HMI He	25191	2.14	109603	22.98	60	120	IS Failed
Ho-165	165	2	HMI He	253968	1.07	932117	27.25	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-32-D
Data File Name	235SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:35:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-23.260	ppb	-23.260	-675.47	223	500000	
Li	7	2	45	717.361	ppb	717.361	146.97	27	500000	
Li	7	3	45	345.470	ppb	345.470	4.53	28096	50000	
Be	9	1	6	0.000	ppb	0.000	#DIV/0!	0	2000	
B	11	1	6	143.368	ppb	143.368	40.14	140	2000	
Na	23	1	45	2483.625	ppb	2483.625	2.28	53663	2000	
Na	23	2	45	3168.713	ppb	3168.713	28.77	2157	400000	
Mg	24	2	45	342454.162	ppb	342454.162	21.55	98483	400000	
Al	27	2	45	165568.390	ppb	165568.390	19.57	12285	400000	
K	39	1	45	62921.243	ppb	62921.243	1.30	2438380	400000	
K	39	2	45	51246.183	ppb	51246.183	19.32	9093	400000	
Ca	40	1	45	1444450.726	ppb	1444450.726	1.33	69628109	400000	
Ca	44	2	45	1677462.442	ppb	1677462.442	20.47	17349	400000	
V	51	2	72	442.152	ppb	442.152	6.96	2130	2000	
Cr	52	2	72	437.340	ppb	437.340	6.05	2734	5000	
Mn	55	2	72	6751.574	ppb	6751.574	6.84	14617	10000	
Fe	57	2	72	259975.602	ppb	259975.602	6.20	32431	400000	
Co	59	2	72	85.469	ppb	85.469	9.75	1190	2000	
Ni	60	2	72	214.094	ppb	214.094	19.99	943	5000	
Cu	63	2	72	1046.743	ppb	1046.743	3.68	14403	5000	
Zn	66	2	72	1282.820	ppb	1282.820	10.05	1263	5000	
As	75	2	72	143.501	ppb	143.501	25.04	117	2000	
Se	78	1	72	10.333	ppb	10.333	38.35	43	2000	
Sr	88	2	72	4012.825	ppb	4012.825	11.28	10173	4000	
Zr	90	2	72	9645.389	ppb	9645.389	22.33	1157	1000	>LDR
Nb	93	2	72	7.715	ppb	7.715	48.30	207	200	
Mo	95	2	115	22.523	ppb	22.523	23.67	173	2000	
Pd	105	2	115	0.391	ppb	0.391	105.08	7	100	
Ag	107	2	115	1.550	ppb	1.550	24.73	50	100	
Cd	111	2	115	5.848	ppb	5.848	37.47	17	2000	
Sn	120	2	115	11.914	ppb	11.914	33.99	97	2000	
Sb	121	2	115	178.132	ppb	178.132	8.83	1107	1000	
Ba	137	2	115	2787.340	ppb	2787.340	4.32	6115	5000	
W	182	2	165	4.080	ppb	4.080	7.38	330	100	
Pt	195	2	165	-0.078	ppb	-0.078	-92.35	3	100	
Tl	205	2	165	3.148	ppb	3.148	10.18	400	2000	
Pb	208	2	165	14622.441	ppb	14622.441	0.19	2314805	5000	
Th	232	2	165	94.889	ppb	94.889	5.20	16926	2000	
U	238	2	165	16.832	ppb	16.832	7.18	3497	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1025	12.87	4713	21.75	60	120	IS Failed
Sc (IS)	45	1	HMI H2	266714	0.72	983556	27.12	60	120	IS Failed
Sc (IS)	45	2	HMI He	3234	18.83	17562	18.41	60	120	IS Failed
Sc (IS)	45	3	No Gas	979234	0.83	1841315	53.18	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	129132	0.94	575957	22.42	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	5037	5.46	30405	16.57	60	120	IS Failed
In Internal Standard	115	2	HMI He	19337	4.76	109603	17.64	60	120	IS Failed
Ho-165	165	2	HMI He	208692	1.35	932117	22.39	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-33-D
Data File Name	236SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:39:43-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-131.323	ppb	-131.323	-131.14	150	500000	
Li	7	2	45	-201.076	ppb	-201.076	-249.94	7	500000	
Li	7	3	45	364.907	ppb	364.907	5.81	28754	50000	
Be	9	1	6	5.576	ppb	5.576	173.21	3	2000	
B	11	1	6	147.581	ppb	147.581	10.84	130	2000	
Na	23	1	45	2328.573	ppb	2328.573	2.54	44157	2000	
Na	23	2	45	2510.782	ppb	2510.782	20.03	1670	400000	
Mg	24	2	45	271341.393	ppb	271341.393	7.23	74866	400000	
Al	27	2	45	140717.195	ppb	140717.195	9.76	9990	400000	
K	39	1	45	60098.993	ppb	60098.993	0.47	2039750	400000	
K	39	2	45	41463.013	ppb	41463.013	9.09	7082	400000	
Ca	40	1	45	1358815.054	ppb	1358815.054	0.35	57251716	400000	
Ca	44	2	45	1416209.799	ppb	1416209.799	10.49	13996	400000	
V	51	2	72	406.012	ppb	406.012	5.17	1617	2000	
Cr	52	2	72	338.270	ppb	338.270	10.48	1747	5000	
Mn	55	2	72	6632.509	ppb	6632.509	5.58	11861	10000	
Fe	57	2	72	245198.255	ppb	245198.255	3.31	25282	400000	
Co	59	2	72	73.615	ppb	73.615	14.02	843	2000	
Ni	60	2	72	199.867	ppb	199.867	7.30	733	5000	
Cu	63	2	72	1100.149	ppb	1100.149	0.90	12508	5000	
Zn	66	2	72	1093.106	ppb	1093.106	10.08	890	5000	
As	75	2	72	106.746	ppb	106.746	28.58	72	2000	
Se	78	1	72	11.282	ppb	11.282	33.92	40	2000	
Sr	88	2	72	3697.996	ppb	3697.996	7.52	7745	4000	
Zr	90	2	72	7689.905	ppb	7689.905	20.05	760	1000	>LDR
Nb	93	2	72	8.592	ppb	8.592	48.85	187	200	
Mo	95	2	115	26.415	ppb	26.415	46.05	167	2000	
Pd	105	2	115	1.330	ppb	1.330	37.11	17	100	
Ag	107	2	115	1.141	ppb	1.141	71.07	30	100	
Cd	111	2	115	8.684	ppb	8.684	55.08	20	2000	
Sn	120	2	115	17.546	ppb	17.546	60.07	113	2000	
Sb	121	2	115	53.826	ppb	53.826	34.68	273	1000	
Ba	137	2	115	2681.285	ppb	2681.285	4.03	4831	5000	
W	182	2	165	4.113	ppb	4.113	39.64	277	100	
Pt	195	2	165	-0.071	ppb	-0.071	-118.61	3	100	
Tl	205	2	165	2.456	ppb	2.456	1.47	260	2000	
Pb	208	2	165	7745.232	ppb	7745.232	0.19	1019123	5000	
Th	232	2	165	87.786	ppb	87.786	5.65	13013	2000	
U	238	2	165	17.082	ppb	17.082	5.44	2947	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	958	19.48	4713	20.32	60	120	IS Failed
Sc (IS)	45	1	HMI H2	233112	0.78	983556	23.70	60	120	IS Failed
Sc (IS)	45	2	HMI He	3030	8.25	17562	17.25	60	120	IS Failed
Sc (IS)	45	3	No Gas	974028	1.85	1841315	52.90	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	110980	0.64	575957	19.27	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	4159	5.35	30405	13.68	60	120	IS Failed
In Internal Standard	115	2	HMI He	15850	6.65	109603	14.46	60	120	IS Failed
Ho-165	165	2	HMI He	173407	1.46	932117	18.60	60	120	IS Failed

Sample Table

Sample Name	280-104412-A-40-D
Data File Name	237SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:43:31-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	81.052	ppb	81.052	399.87	210	500000	
Li	7	2	45	1129.239	ppb	1129.239	120.35	27	500000	
Li	7	3	45	469.110	ppb	469.110	8.19	33455	50000	
Be	9	1	6	9.397	ppb	9.397	173.21	3	2000	
B	11	1	6	264.030	ppb	264.030	48.48	133	2000	
Na	23	1	45	2519.907	ppb	2519.907	1.43	42116	2000	
Na	23	2	45	2748.247	ppb	2748.247	0.72	1450	400000	
Mg	24	2	45	287285.474	ppb	287285.474	11.30	62490	400000	
Al	27	2	45	166093.625	ppb	166093.625	12.94	9279	400000	
K	39	1	45	69879.038	ppb	69879.038	1.60	2086997	400000	
K	39	2	45	50911.483	ppb	50911.483	18.60	6772	400000	
Ca	40	1	45	1482305.494	ppb	1482305.494	1.20	55315681	400000	
Ca	44	2	45	1510390.095	ppb	1510390.095	14.33	11758	400000	
V	51	2	72	477.388	ppb	477.388	16.51	1510	2000	
Cr	52	2	72	406.941	ppb	406.941	9.67	1683	5000	
Mn	55	2	72	7003.759	ppb	7003.759	7.32	9986	10000	
Fe	57	2	72	272974.962	ppb	272974.962	8.83	22411	400000	
Co	59	2	72	79.160	ppb	79.160	13.91	727	2000	
Ni	60	2	72	252.225	ppb	252.225	15.48	733	5000	
Cu	63	2	72	631.435	ppb	631.435	6.92	5738	5000	
Zn	66	2	72	1030.153	ppb	1030.153	20.72	663	5000	
As	75	2	72	118.360	ppb	118.360	14.06	64	2000	
Se	78	1	72	7.817	ppb	7.817	67.29	24	2000	
Sr	88	2	72	4094.043	ppb	4094.043	4.18	6852	4000	
Zr	90	2	72	11083.271	ppb	11083.271	14.11	880	1000	>LDR
Nb	93	2	72	2.564	ppb	2.564	72.62	47	200	
Mo	95	2	115	33.826	ppb	33.826	40.66	170	2000	
Pd	105	2	115	1.674	ppb	1.674	95.30	17	100	
Ag	107	2	115	0.153	ppb	0.153	173.21	3	100	
Cd	111	2	115	10.315	ppb	10.315	100.77	20	2000	
Sn	120	2	115	4.830	ppb	4.830	61.68	27	2000	
Sb	121	2	115	38.258	ppb	38.258	70.57	157	1000	
Ba	137	2	115	2623.086	ppb	2623.086	6.32	3834	5000	
W	182	2	165	3.280	ppb	3.280	16.90	183	100	
Pt	195	2	165	0.180	ppb	0.180	57.74	17	100	
Tl	205	2	165	2.716	ppb	2.716	24.23	237	2000	
Pb	208	2	165	4141.337	ppb	4141.337	2.63	449072	5000	
Th	232	2	165	99.827	ppb	99.827	4.13	12192	2000	
U	238	2	165	17.523	ppb	17.523	8.93	2490	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	626	16.74	4713	13.28	60	120	IS Failed
Sc (IS)	45	1	HMI H2	206481	1.39	983556	20.99	60	120	IS Failed
Sc (IS)	45	2	HMI He	2400	11.93	17562	13.67	60	120	IS Failed
Sc (IS)	45	3	No Gas	985191	5.85	1841315	53.50	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	96242	1.69	575957	16.71	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	3317	4.79	30405	10.91	60	120	IS Failed
In Internal Standard	115	2	HMI He	12868	3.01	109603	11.74	60	120	IS Failed
Ho-165	165	2	HMI He	142811	0.39	932117	15.32	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-45-D
Data File Name	238SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:47:21-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	149.157	ppb	149.157	52.24	223	500000	
Li	7	2	45	752.294	ppb	752.294	191.93	17	500000	
Li	7	3	45	473.420	ppb	473.420	1.58	30717	50000	
Be	9	1	6	24.741	ppb	24.741	86.63	13	2000	
B	11	1	6	35.779	ppb	35.779	42.67	47	2000	
Na	23	1	45	2412.226	ppb	2412.226	4.41	38288	2000	
Na	23	2	45	3324.079	ppb	3324.079	16.99	1300	400000	
Mg	24	2	45	301178.952	ppb	301178.952	14.48	49618	400000	
Al	27	2	45	153086.938	ppb	153086.938	10.08	6511	400000	
K	39	1	45	65790.767	ppb	65790.767	3.09	1866220	400000	
K	39	2	45	52448.211	ppb	52448.211	9.85	5328	400000	
Ca	40	1	45	1439306.660	ppb	1439306.660	4.44	50881679	400000	
Ca	44	2	45	1738538.043	ppb	1738538.043	13.92	10280	400000	
V	51	2	72	485.167	ppb	485.167	6.04	1320	2000	
Cr	52	2	72	347.377	ppb	347.377	14.66	1220	5000	
Mn	55	2	72	6910.209	ppb	6910.209	12.43	8416	10000	
Fe	57	2	72	241786.451	ppb	241786.451	5.53	17005	400000	
Co	59	2	72	82.347	ppb	82.347	31.59	650	2000	
Ni	60	2	72	203.145	ppb	203.145	9.14	507	5000	
Cu	63	2	72	8120.318	ppb	8120.318	5.96	62678	5000	
Zn	66	2	72	1770.366	ppb	1770.366	13.76	980	5000	
As	75	2	72	176.654	ppb	176.654	32.23	81	2000	
Se	78	1	72	15.244	ppb	15.244	35.35	44	2000	
Sr	88	2	72	3880.540	ppb	3880.540	11.10	5541	4000	
Zr	90	2	72	9428.126	ppb	9428.126	9.01	640	1000	>LDR
Nb	93	2	72	6.865	ppb	6.865	55.97	103	200	
Mo	95	2	115	20.284	ppb	20.284	27.17	87	2000	
Pd	105	2	115	0.729	ppb	0.729	192.86	7	100	
Ag	107	2	115	1.680	ppb	1.680	35.00	30	100	
Cd	111	2	115	10.448	ppb	10.448	33.44	17	2000	
Sn	120	2	115	11.246	ppb	11.246	55.53	50	2000	
Sb	121	2	115	73.316	ppb	73.316	31.90	253	1000	
Ba	137	2	115	2376.618	ppb	2376.618	4.31	2880	5000	
W	182	2	165	3.100	ppb	3.100	49.01	147	100	
Pt	195	2	165	-0.120	ppb	-0.120	0.00	0	100	
Tl	205	2	165	3.257	ppb	3.257	11.42	240	2000	
Pb	208	2	165	8637.588	ppb	8637.588	0.97	792837	5000	
Th	232	2	165	86.263	ppb	86.263	1.20	8926	2000	
U	238	2	165	16.278	ppb	16.278	4.16	1960	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	852	6.24	4713	18.07	60	120	IS Failed
Sc (IS)	45	1	HMI H2	195691	2.62	983556	19.90	60	120	IS Failed
Sc (IS)	45	2	HMI He	1824	12.27	17562	10.38	60	120	IS Failed
Sc (IS)	45	3	No Gas	899702	2.01	1841315	48.86	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	91109	3.74	575957	15.82	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	2839	5.24	30405	9.34	60	120	IS Failed
In Internal Standard	115	2	HMI He	10676	2.85	109603	9.74	60	120	IS Failed
Ho-165	165	2	HMI He	120984	1.77	932117	12.98	60	120	IS Failed

Sample Report

Sample Table

Sample Name	280-104412-A-46-D
Data File Name	239SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:51:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399906 hot Sb 6020a dod5
ISTD Ref FileName	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	61.869	ppb	61.869	145.90	180	500000	
Li	7	2	45	-209.646	ppb	-209.646	-232.64	3	500000	
Li	7	3	45	291.113	ppb	291.113	3.15	24127	50000	
Be	9	1	6	12.186	ppb	12.186	88.61	7	2000	
B	11	1	6	35.634	ppb	35.634	42.91	47	2000	
Na	23	1	45	1599.149	ppb	1599.149	3.17	24420	2000	
Na	23	2	45	1783.954	ppb	1783.954	10.53	680	400000	
Mg	24	2	45	136781.139	ppb	136781.139	5.73	20946	400000	
Al	27	2	45	57058.363	ppb	57058.363	16.85	2247	400000	
K	39	1	45	37169.138	ppb	37169.138	1.40	1014059	400000	
K	39	2	45	21753.979	ppb	21753.979	2.99	2120	400000	
Ca	40	1	45	1748679.898	ppb	1748679.898	0.42	57591699	400000	
Ca	44	2	45	1927696.424	ppb	1927696.424	5.29	10587	400000	
V	51	2	72	301.708	ppb	301.708	25.79	650	2000	
Cr	52	2	72	281.309	ppb	281.309	15.47	787	5000	
Mn	55	2	72	3037.301	ppb	3037.301	10.04	2944	10000	
Fe	57	2	72	125152.679	ppb	125152.679	3.20	6992	400000	
Co	59	2	72	39.083	ppb	39.083	21.37	243	2000	
Ni	60	2	72	149.303	ppb	149.303	20.28	297	5000	
Cu	63	2	72	7624.111	ppb	7624.111	2.86	46736	5000	
Zn	66	2	72	1291.105	ppb	1291.105	8.71	567	5000	
As	75	2	72	130.010	ppb	130.010	24.64	48	2000	
Se	78	1	72	16.929	ppb	16.929	39.12	44	2000	
Sr	88	2	72	6227.801	ppb	6227.801	11.62	7068	4000	
Zr	90	2	72	5388.745	ppb	5388.745	19.75	290	1000	>LDR
Nb	93	2	72	4.939	ppb	4.939	74.47	60	200	
Mo	95	2	115	26.102	ppb	26.102	42.47	97	2000	
Pd	105	2	115	0.412	ppb	0.412	208.01	3	100	
Ag	107	2	115	2.311	ppb	2.311	81.02	37	100	
Cd	111	2	115	12.226	ppb	12.226	91.20	17	2000	
Sn	120	2	115	105.198	ppb	105.198	15.67	403	2000	
Sb	121	2	115	970.725	ppb	970.725	4.49	2894	1000	
Ba	137	2	115	1095.029	ppb	1095.029	18.83	1157	5000	
W	182	2	165	3.628	ppb	3.628	9.67	143	100	
Pt	195	2	165	0.136	ppb	0.136	325.54	10	100	
Tl	205	2	165	1.282	ppb	1.282	26.59	80	2000	
Pb	208	2	165	103956.070	ppb	103956.070	1.98	8000325	5000	>LDR
Th	232	2	165	38.848	ppb	38.848	1.17	3377	2000	
U	238	2	165	15.151	ppb	15.151	9.36	1530	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	845	18.76	4713	17.93	60	120	IS Failed
Sc (IS)	45	1	HMI H2	182219	0.49	983556	18.53	60	120	IS Failed
Sc (IS)	45	2	HMI He	1677	4.23	17562	9.55	60	120	IS Failed
Sc (IS)	45	3	No Gas	914623	1.54	1841315	49.67	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	81385	0.61	575957	14.13	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	2250	1.35	30405	7.40	60	120	IS Failed
In Internal Standard	115	2	HMI He	9286	2.90	109603	8.47	60	120	IS Failed
Ho-165	165	2	HMI He	101502	1.26	932117	10.89	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	240_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:55:02-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	206.671	ppb	31.988	163	500	41.3	90	110	>+\-10%
Li	7	2	45	117.978	ppb	450.477	7	500	23.6	90	110	>+\-10%
Li	7	3	45	774.708	ppb	2.149	33311	500	154.9	90	110	>+\-10%
Be	9	1	6	10.380	ppb	173.205	3	50	20.8	90	110	>+\-10%
B	11	1	6	46.069	ppb	102.332	33	50	92.1	90	110	
Na	23	1	45	5465.671	ppb	0.589	56150	5000	109.3	90	110	
Na	23	2	45	5353.334	ppb	19.962	1870	5000	107.1	90	110	
Mg	24	2	45	3891.200	ppb	9.313	607	5000	77.8	90	110	>+\-10%
Al	27	2	45	4062.637	ppb	23.284	157	5000	81.3	90	110	>+\-10%
K	39	1	45	8924.872	ppb	2.385	215572	5000	178.5	90	110	>+\-10%
K	39	2	45	8978.370	ppb	10.796	937	5000	179.6	90	110	>+\-10%
Ca	40	1	45	5619.148	ppb	2.742	138620	5000	112.4	90	110	>+\-10%
Ca	44	2	45	2399.886	ppb	114.446	13	5000	48.0	90	110	>+\-10%
V	51	2	72	60.942	ppb	18.363	143	50	121.9	90	110	>+\-10%
Cr	52	2	72	55.504	ppb	11.272	167	50	111.0	90	110	>+\-10%
Mn	55	2	72	42.218	ppb	59.826	47	50	84.4	90	110	>+\-10%
Fe	57	2	72	4895.868	ppb	15.109	297	5000	97.9	90	110	
Co	59	2	72	48.506	ppb	16.111	323	50	97.0	90	110	
Ni	60	2	72	40.757	ppb	26.773	87	50	81.5	90	110	>+\-10%
Cu	63	2	72	94.556	ppb	28.805	650	50	189.1	90	110	>+\-10%
Zn	66	2	72	72.457	ppb	66.408	37	50	144.9	90	110	>+\-10%
As	75	2	72	67.948	ppb	5.722	27	50	135.9	90	110	>+\-10%
Se	78	1	72	53.379	ppb	21.279	129	50	106.8	90	110	
Sr	88	2	72	46.510	ppb	54.144	57	50	93.0	90	110	
Zr	90	2	72	217.146	ppb	44.378	13	50	434.3	90	110	>+\-10%
Nb	93	2	72	97.106	ppb	11.659	1223	100	97.1	90	110	
Mo	95	2	115	40.733	ppb	30.655	150	50	81.5	90	110	>+\-10%
Pd	105	2	115	74.483	ppb	22.320	520	50	149.0	90	110	>+\-10%
Ag	107	2	115	61.988	ppb	15.083	980	50	124.0	90	110	>+\-10%
Cd	111	2	115	59.577	ppb	39.397	83	50	119.2	90	110	>+\-10%
Sn	120	2	115	43.335	ppb	46.004	167	50	86.7	90	110	>+\-10%
Sb	121	2	115	32.093	ppb	31.803	97	50	64.2	90	110	>+\-10%
Ba	137	2	115	46.021	ppb	53.547	50	50	92.0	90	110	
W	182	2	165	43.773	ppb	2.012	1643	50	87.5	90	110	>+\-10%
Pt	195	2	165	52.210	ppb	14.141	2050	50	104.4	90	110	
Tl	205	2	165	58.393	ppb	12.279	3557	50	116.8	90	110	>+\-10%
Pb	208	2	165	110.358	ppb	6.993	8841	50	220.7	90	110	>+\-10%
Th	232	2	165	50.961	ppb	9.145	4394	50	101.9	90	110	
U	238	2	165	58.196	ppb	2.119	5835	50	116.4	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	563	14.61	4713	11.95	60	120	IS Failed
Sc (IS)	45	1	HMI H2	131297	0.31	983556	13.35	60	120	IS Failed
Sc (IS)	45	2	HMI He	1667	12.02	17562	9.49	60	120	IS Failed
Sc (IS)	45	3	No Gas	708945	1.68	1841315	38.50	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	76232	3.53	575957	13.24	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	2412	2.40	30405	7.93	60	120	IS Failed
In Internal Standard	115	2	HMI He	9445	6.15	109603	8.62	60	120	IS Failed
Ho-165	165	2	HMI He	100826	1.85	932117	10.82	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	241_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T06:58:53-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	135.930	ppb	18.2	13195	10	>RL
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5	
B	11	1	6	-15.159	ppb	-155.9	13	0.5	
Na	23	1	45	185.867	ppb	13.0	3484	25	>RL
Na	23	2	45	320.386	ppb	23.3	177	25	>RL
Mg	24	2	45	-27.595	ppb	-277.6	13	25	
Al	27	2	45	169.739	ppb	173.2	7	15	>RL
K	39	1	45	2649.816	ppb	3.2	100484	50	>RL
K	39	2	45	4455.202	ppb	19.7	530	50	>RL
Ca	40	1	45	341.237	ppb	1.7	13295	50	>RL
Ca	44	2	45	1121.096	ppb	95.2	7	25	>RL
V	51	2	72	7.158	ppb	99.1	20	1	>RL
Cr	52	2	72	0.801	ppb	212.3	3	1	
Mn	55	2	72	17.576	ppb	129.0	23	0.5	>RL
Fe	57	2	72	141.181	ppb	173.7	13	25	>RL
Co	59	2	72	0.642	ppb	259.0	7	0.5	>RL
Ni	60	2	72	-0.246	ppb	0.0	0	1	
Cu	63	2	72	11.856	ppb	7.9	117	1	>RL
Zn	66	2	72	7.513	ppb	289.9	7	5	>RL
As	75	2	72	2.841	ppb	189.1	1	1	>RL
Se	78	1	72	0.543	ppb	173.2	1	1	
Sr	88	2	72	-0.429	ppb	0.0	0	0.5	
Zr	90	2	72	-13.609	ppb	0.0	0	1	
Nb	93	2	72	2.014	ppb	68.2	30	2	>RL
Mo	95	2	115	-0.868	ppb	0.0	0	0.5	
Pd	105	2	115	-0.083	ppb	0.0	0	1	
Ag	107	2	115	0.000	ppb	#DIV/0!	0	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.222	ppb	0.0	0	1	
Sb	121	2	115	-0.190	ppb	0.0	0	0.6	
Ba	137	2	115	2.355	ppb	212.2	3	0.5	>RL
W	182	2	165	0.632	ppb	44.2	30	1	
Pt	195	2	165	0.410	ppb	111.9	20	1	
Tl	205	2	165	-0.024	ppb	0.0	0	0.1	
Pb	208	2	165	21.299	ppb	3.8	2003	0.5	>RL
Th	232	2	165	0.379	ppb	35.2	40	1	
U	238	2	165	0.086	ppb	209.6	10	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	713	21.46	4713	15.14	60	120	IS Failed
Sc (IS)	45	1	HMI H2	130446	1.15	983556	13.26	60	120	IS Failed
Sc (IS)	45	2	HMI He	1663	1.84	17562	9.47	60	120	IS Failed
Sc (IS)	45	3	No Gas	667414	1.90	1841315	36.25	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	76148	1.84	575957	13.22	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	2614	4.03	30405	8.60	60	120	IS Failed
In Internal Standard	115	2	HMI He	10127	0.56	109603	9.24	60	120	IS Failed
Ho-165	165	2	HMI He	99280	4.04	932117	10.65	60	120	IS Failed

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	242LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T07:02:44-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	216CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	131.849	ppb	11.001	13172	50	263.7	70	130	>+/-30%
Be	9	1	6	23.654	ppb	99.480	10	1	2365.4	70	130	>+/-30%
Na	23	2	45	463.543	ppb	5.670	197	50	927.1	70	130	>+/-30%
Mg	24	2	45	87.365	ppb	140.663	27	50	174.7	70	130	>+/-30%
Al	27	2	45	0.000	ppb	#DIV/0!	0	30	0.0	70	130	>+/-30%
K	39	2	45	5722.152	ppb	13.598	560	100	5722.2	70	130	>+/-30%
Ca	44	2	45	-110.892	ppb	0.000	0	50	-221.8	70	130	>+/-30%
V	51	2	72	7.330	ppb	48.862	20	5	146.6	70	130	>+/-30%
Cr	52	2	72	0.941	ppb	206.491	3	2	47.1	70	130	>+/-30%
Mn	55	2	72	16.185	ppb	105.051	20	1	1618.5	70	130	>+/-30%
Fe	57	2	72	142.073	ppb	160.288	13	50	284.1	70	130	>+/-30%
Co	59	2	72	1.122	ppb	121.889	10	1	112.2	70	130	
Ni	60	2	72	7.997	ppb	130.486	17	2	399.9	70	130	>+/-30%
Cu	63	2	72	11.931	ppb	50.246	110	2	596.6	70	130	>+/-30%
Zn	66	2	72	-5.061	ppb	0.000	0	10	-50.6	70	130	>+/-30%
As	75	2	72	11.112	ppb	16.621	5	5	222.2	70	130	>+/-30%
Se	78	1	72	7.715	ppb	68.990	19	5	154.3	70	130	>+/-30%
Sr	88	2	72	8.137	ppb	107.032	10	1	813.7	70	130	>+/-30%
Zr	90	2	72	-13.609	ppb	0.000	0	0.5	-2721.8	70	130	>+/-30%
Nb	93	2	72	0.849	ppb	127.349	13	2	42.5	70	130	>+/-30%
Mo	95	2	115	0.817	ppb	178.637	7	2	40.8	70	130	>+/-30%
Pd	105	2	115	0.352	ppb	213.868	3	1	35.2	70	130	>+/-30%
Ag	107	2	115	4.648	ppb	55.492	80	5	93.0	70	130	
Cd	111	2	115	2.161	ppb	173.205	3	1	216.1	70	130	>+/-30%
Sn	120	2	115	5.308	ppb	69.112	23	10	53.1	70	130	>+/-30%
Sb	121	2	115	3.835	ppb	119.499	13	2	191.7	70	130	>+/-30%
Ba	137	2	115	-0.530	ppb	0.000	0	1	-53.0	70	130	>+/-30%
W	182	2	165	4.693	ppb	22.037	183	1	469.3	70	130	>+/-30%
Pt	195	2	165	-0.036	ppb	-408.977	3	1	-3.6	70	130	>+/-30%
Tl	205	2	165	1.508	ppb	83.091	93	1	150.8	70	130	>+/-30%
Pb	208	2	165	12.352	ppb	4.938	1360	1	1235.2	70	130	>+/-30%
Th	232	2	165	1.828	ppb	34.973	167	2	91.4	70	130	
U	238	2	165	1.171	ppb	14.339	120	1	117.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	621	19.20	4713	13.17	60	120	IS Failed
Sc (IS)	45	1	HMI H2	130026	0.39	983556	13.22	60	120	IS Failed
Sc (IS)	45	2	HMI He	1447	6.64	17562	8.24	60	120	IS Failed
Sc (IS)	45	3	No Gas	672130	2.05	1841315	36.50	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	75994	0.46	575957	13.19	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	2447	8.42	30405	8.05	60	120	IS Failed
In Internal Standard	115	2	HMI He	10270	0.98	109603	9.37	60	120	IS Failed
Ho-165	165	2	HMI He	101493	1.39	932117	10.89	60	120	IS Failed

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICPMS Data Review Checklist

LIMS Batch Number(s): 400304, 400307	Filename(s): Li122817a b	Instrument ID (circle one): 024 077 078
		Method (circle): 200.8 6020 6020A
Analyst/1st Reviewer/Date:		QC Type (circle): Standard DOD Q4
		DoD Q5 QAPP_____ Other_____
Matrix (circle): Water Solid Leachate		Circle: Total TR PD Dissolved

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune					
1. Tune solution analyzed minimum of 4 times for 6020 or 5 times for 200.8	✓			✓	
2. Tune RSD <5%	✓			✓	
3. Resolution ≤ 0.9 AMU full width at 10% peak height Note: This also satisfies 200.8, 1.0 AMU at 5% peak height	✓			✓	
4. Mass calibration results within ± 0.1 amu of expected value	✓			✓	
B. Calibration/Instrument Run QC					
1. Instrument calibrated per lab SOP?	✓			✓	
2. For multi-point calibrations: r ≥ 0.995 -- |x-intercept| ≤ RL	✓			✓	
3. High Level LDR Check Standard: required by DoD daily if samples analyzed > highest ICAL level -- 90-110% recovery	✓			✓	
4. ICB/CCB: run before samples, 10% frequency, & closing Result < ½ RL (routine), < LOD/2x MDL (DoD or special project)	✓			✓	
5. ICV/CCV: frequency initial, 10%, & closing; 90-110% recovery	✓			✓	
6. ICVL/CCVL: 70-130% recovery (6020A); Not applicable (other)	✓			✓	
7. ICSA/ICSAB: run before samples and every 12 hours ICSA detections for non-spiked <2*RL (<LOD or2x MDL for DoD or special projects) ICSAB for spiked elements 80-120%; *If no, list analytes:*	✓			✓	☐ Results outside limits due to contamination. ☐ Concentration of affected analyte in sample is less than RL ☐ Concentration of affected analyte in sample is more than 10x analyte signal in ICSA.
8. RL-level check standard: CRI : 50-150% (routine) 80-120% recovery (DoD);	✓			✓	
B. Client Sample and QC Sample Results					
1. Samples with target element concentrations > 90% linear range diluted and reanalyzed (200.8)	✓			✓	Comments:
2. Sample IS response: 30-120% of ICB IS (6020) 70-150% of ICB IS (6020A) 60-125% (200.8)	✓			✓	☐ High IS response. Sample(s) rerun at dilution. ☐ Low IS response. Sample(s) rerun at dilution.
C. Preparation/Matrix QC					
1. Method Blank: one per preparation batch result < ½ RL	✓			✓	☐ No analyte > RL in associated samples ☐ Sample results >10x blank ☐ Insufficient sample for reanalysis
2. LCS :one per preparation batch; 80-120% recovery or historical (routine) 85-115% recovery or historical (200.8); project limits (other)	✓			✓	☐ Insufficient sample for reanalysis ☐ LCS %R > QC limits & samples < RL
3. MS/MSD or MS/Dup frequency: a pair per batch (routine); a pair per 10 samples (200.8);	✓			✓	☐ Insufficient sample
4. MS/MSD recovery & RPD: 75-125% recovery or historical (routine); 70-130% recovery (200.8); 20% RPD;	✓			✓	☐ LCS acceptable – matrix effects ☐ Native analyte > 4x spike level ☐ Matrix effect and native analyte > 4x spike

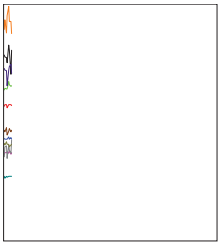
Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
C. Preparation/Matrix QC (continued)					
5. Serial dilution: one per prep batch (6020/6020A) Required if MS/MSD fail (DoD) -- run at 5x dilution of parent sample; ≤ 10% difference.	✓			✓	□ Sample result < 50 x MDL
6. Post digestion spike: one per 6020/6020A batch Required if MS/MSD fail (DoD) 75-125% recovery	✓			✓	
D. Raw Data & TALS Data Entry					
1. TALS Sample List Tab	✓				
a. LIMS Sample IDs / Containers are correct	✓			✓	
b. Method and matrix are correct	✓			✓	
c. Date and time are correct	✓			✓	
d. Dilutions are correct	✓			✓	
e. Correct suffix designated; e.g., DU, (where applicable)	✓			✓	
2. TALS Sample Results Tab	✓				
a. All reported analytes are marked Primary or Secondary	✓			✓	
b. All unused data are marked Rejected or Accepted. Unused data are clearly identified with reason not used	✓			✓	
c. Out of control QC is clearly identified	✓			✓	
d. Any data that has a qualifier is reviewed with appropriate action taken (NCM if needed)	✓			✓	
e. The attached data file includes the filename, instrument, and analyst initials	✓			✓	
3. TALS Worksheet Tab is complete and correct	✓			✓	
4. TALS Reagent Tab is complete and correct	✓			✓	
5. TALS QC Links Tab is correct	✓			✓	
6. TALS Batch Information Screen documentation is complete	✓			✓	
7. TALS Status set to appropriate review level	✓			✓	
E. Final Report and NCMs (2nd level review only)					
1. Were all job/project requirements met?				✓	
2. Results for samples and QC correct on final report?				✓	
3. Are all necessary scanned documents in TALS?				✓	
4. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?				✓	
5. Raw Data PDF attached as document				✓	

Comments: ✓

2nd Reviewer: [signature] Review Date: 12/30/17

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
7	50000	28514	28612.0	0.92
9	50000	32758	32539.5	1.82
59	1E+05	42662	43016.1	1.01
66	2000	1758	1849.7	4.19
70	5000	1894	1923.0	2.46
75	5000	5143	5049.6	2.11
89	2E+05	74684	74230.4	1.30
105	1000	424	384.3	7.00
118	1000	806	779.8	4.84
137	20000	9320	9277.3	2.25
140	2E+05	81567	81208.3	1.55
205	2E+05	53797	53721.7	0.96
6	5000	8380	8351.1	1.97
70/140	2	2.322 %	2.369 %	3.32
156/140	2	1.414 %	1.435 %	3.83

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.00	
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	℃	Plasma Gas	15.0	
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas	0.9	

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-70	V	Cell Entrance	-40	V	Deflect	16.2	V
Extract 2	-165.0	V	Omega Lens	8.6	V	Cell Exit	-58	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		H2 Flow	0.0	mL/min	OctP Bias	-8.0	V	Energy Discrimination	3.0
He Flow	0.0	mL/min	3rd Gas Flow	0	%	OctP RF	200	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-5.0	V
Mass Offset	123	Axis Offset	-0.07			

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

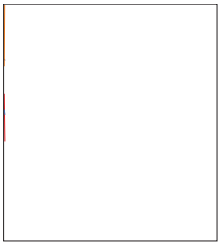
Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	1.79E-4	Pa	Internal Temp	46.3	℃	Forward Power	1550	W
Water RF/WC/IF	1.82	L/min	Reflected Power	6	W			

Current Signal

[HMI He]



Mass Range		Count	Avg. Count	RSD [%]
7	50	21	26.0	27.20
51	200	7	10.5	47.14
63	1000	764	766.7	0.46
66	50	56	46.5	28.89
70	50	47	55.5	21.66
75	20	2	3.5	60.61
78	20	0	1.0	141.42
115	1000	816	848.2	5.34
118	20	21	16.0	44.19
137	200	94	103.0	12.36
140	5000	3530	3644.9	4.47
205	10000	6633	6598.9	0.72
238	20000	10656	10854.7	2.59
70/140	2	1.332 %	1.517 %	17.27
156/140	1	0.198 %	0.099 %	141.42

Integration Time [sec] 0.10

Tune Parameters

Plasma Parameters

Plasma Mode	HMI		Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.23	
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	℃	Plasma Gas	15.0	
RF Matching	1.67	V	Option Gas	0.0	%	Gas Switch	Dilution Gas		Auxiliary Gas	0.9	

Lenses Parameters

Extract 1	0.0	V	Omega Bias	-70	V	Cell Entrance	-40	V	Deflect	2.6	V
Extract 2	-160.0	V	Omega Lens	9.2	V	Cell Exit	-68	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		H2 Flow	0.0	mL/min	OctP Bias	-18.0	V	Energy Discrimination	4.0
He Flow	5.0	mL/min	3rd Gas Flow	0	%	OctP RF	200	V		

Qpole Parameters

Mass Gain	134	Axis Gain	1.0022	QP Bias	-14.0	V
Mass Offset	123	Axis Offset	-0.07			

Torch Axis Parameters

Torch H	0.1	mm	Torch V	-0.2	mm

EM Parameters

Discriminator	4.5	mV	Analog HV	1713	V	Pulse HV	1176	V

Meters

Analyzer Press	3.14E-4	Pa	Internal Temp	47.0	℃	Forward Power	1550	W
Water RF/WC/IF	1.84	L/min	Reflected Power	6	W			

US EPA Tune Check Sample Report

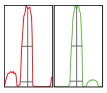
Batch Folder D:\MassHunter Data\Li122917.b
Report Comment
Instrument Name G3281A JP09320047

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	2561	2.61	5.00	
9	8787	2.25	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	2585	2568	2501	2494	2657
9	8874	8898	8926	8444	8792

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	419	7.00	6.9 - 7.1		0.781	0.750	[F]
9	1433	8.95	8.9 - 9.1		0.787	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 60.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.14	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.4	V
Extract 2	-185.0	V	Cell Entrance	-20	V	Plate Bias	-60	V
Omega Bias	-90	V	Cell Exit	-64	V			

 # # Cell Parameters # #

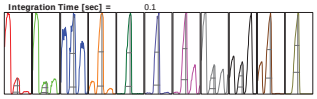
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	4.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	3043	1.75	5.00	
25	447	4.32	5.00	
26	540	3.82	5.00	
59	13437	0.88	5.00	
103	35468	1.06	5.00	
115	4312	2.92	5.00	
205	31767	1.28	5.00	
206	11552	0.83	5.00	
207	10832	0.36	5.00	
208	23255	0.92	5.00	
238	53162	1.08	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	3122	2986	3059	3003	3043
25	462	437	423	443	471
26	565	524	559	521	530
59	13266	13389	13441	13565	13525
103	35311	35079	35213	35892	35845
115	4204	4191	4350	4315	4500
205	31500	31573	31451	31882	32431
206	11470	11566	11713	11503	11509
207	10799	10805	10895	10839	10820
208	22909	23314	23208	23449	23393
238	52798	52325	53577	53610	53499

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	521	24.000	23.9 - 24.1		0.743	0.750	
25	75	25.050	24.9 - 25.1		0.745	0.750	
26	94	26.000	25.9 - 26.1		0.742	0.750	
59	2451	59.000	58.9 - 59.1		0.699	0.750	
103	7014	103.000	102.9 - 103.1		0.695	0.750	
115	862	115.000	114.9 - 115.1		0.699	0.750	
205	6522	204.950	204.9 - 205.1		0.695	0.750	
206	2274	205.950	205.9 - 206.1		0.670	0.750	
207	1907	206.950	206.9 - 207.1		0.661	0.750	
208	4836	207.950	207.9 - 208.1		0.682	0.750	
238	11229	237.900	237.9 - 238.1		0.673	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 283 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.66	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.23	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.2	V	Deflect	2.6	V
Extract 2	-160.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-68	V			

 # # Cell Parameters # #

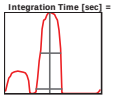
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-18.0	V	He Flow	5.0	mL/min	Energy Discrimination	4.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	true		3rd Gas Flow	0	%			

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	171315	1.26	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	174539	169740	169634	170141	172524

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	28527	6.950	6.9 - 7.1		0.783	0.750	[F]

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 36.9 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.94	L/min	S/C Temp	2	°C
RF Matching	1.67	V	Option Gas	0.0	%	Makeup/Dilution Gas	0.00	L/min
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Gas Switch	Dilution Gas	

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	16.2	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-50	V
Omega Bias	-70	V	Cell Exit	-58	V			

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
OctP Bias	-8.0	V	He Flow	0.0	mL/min	Energy Discrimination	3.0	V
OctP RF	200	V	H2 Flow	0.0	mL/min			
Use Gas	false		3rd Gas Flow	0	%			

Mass	Element Name	Current Value
7	Li	Signal too low
9	Be	0.104744884485376
23	Na	0.114015313422171
24	Mg	0.119652325146693
27	Al	0.123914659515371
39	K	0.125886219561724
45	Sc	0.125946521036376
51	V	0.12807020949933
55	Mn	0.135163091457794
56	Fe	0.127363492043683
59	Co	0.138220720526905
60	Ni	0.140696022283123
63	Cu	0.142819476484081
66	Zn	0.143172395444092
72	Ge	0.141387513547771
75	As	0.140751982951635
77	Se	Signal too low
82	Se	Signal too low
88	Sr	0.142861487967508
89	Y	0.139123571794448
95	Mo	0.141328049139241
100	Ru	0.143850773815886
101	Ru	0.14535877894622
102	Ru	0.144324654857235
104	Ru	0.145006480991106
105	Pd	0.148349679446009

Mass	Element Name	Current Value
106	Pd	0.146832478961716
111	Cd	0.149418998992634
114	Cd	0.149542951296167
115	In	0.149976139457429
118	Sn	0.148173692912517
121	Sb	0.148620417324323
137	Ba	0.148724305153445
175	Lu	0.155732324728244
193	Ir	0.154654402493479
205	Tl	0.156767977309459
208	Pb	0.158338150518479
209	Bi	0.157732166676475
232	Th	0.158316226773776
238	U	0.158463910286069

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	001WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:23:48-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	002WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:27:37-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	003WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:31:26-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	004WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:35:17-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	005WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:39:08-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	006CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:42:57-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	139715	0.00
Li	7	2	HMI He	8439	0.09
Li	7	3	No Gas	10641853	0.00
Be	9	1	HMI H2	17	749.40
B	11	1	HMI H2	1567	0.67
Na	23	1	HMI H2	287249	0.00
Na	23	2	HMI He	11754	0.03
Mg	24	2	HMI He	230	17.32
Al	27	2	HMI He	13	649.52
K	39	2	HMI He	4404	0.05
Ca	44	2	HMI He	13	859.23
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	167	14.99
Cr	52	2	HMI He	120	24.06
Mn	55	2	HMI He	47	106.04
Fe	57	2	HMI He	60	27.78
Co	59	2	HMI He	10	1000.00
Ni	60	2	HMI He	43	162.69
Cu	63	2	HMI He	1417	0.89
Zn	66	2	HMI He	150	4.44
As	75	2	HMI He	8	415.04
Se	78	1	HMI H2	19	477.93
Sr	88	2	HMI He	20	250.00
Zr	90	2	HMI He	87	20.34
Nb	93	2	HMI He	110	8.26
Mo	95	2	HMI He	93	6.63
Pd	105	2	HMI He	10	1000.00
Ag	107	2	HMI He	7	2598.08
Cd	111	2	HMI He	3	5196.15
Sn	120	2	HMI He	190	12.69
Sb	121	2	HMI He	10	1000.00
Ba	137	2	HMI He	7	2598.08
W	182	2	HMI He	170	10.38
Pt	195	2	HMI He	483	4.54
Tl	205	2	HMI He	43	30.75
Pb	208	2	HMI He	6247	0.01
Th	232	2	HMI He	2884	0.20
U	238	2	HMI He	77	35.42

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1192746	1.42
Sc (IS)	45	1	HMI H2	37692563	0.66
Sc (IS)	45	2	HMI He	351151	0.59
Sc (IS)	45	3	No Gas	136569828	0.83
Ge Internal Standard	72	1	HMI H2	18675741	0.60
Ge Internal Standard	72	2	HMI He	520020	0.60
In Internal Standard	115	2	HMI He	1034447	0.97
Ho-165	165	2	HMI He	9372409	1.61

Calibration Blank Report

Sample Table

Sample Name	ic-4908433
Data File Name	007CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:46:49-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	524150	0.00
Li	7	2	HMI He	30857	0.01
Li	7	3	No Gas	37306745	0.00
Be	9	1	HMI H2	33174	0.01
B	11	1	HMI H2	41133	0.00
Na	23	1	HMI H2	35147404	0.00
Na	23	2	HMI He	1209171	0.00
Mg	24	2	HMI He	491660	0.00
Al	27	2	HMI He	86880	0.00
K	39	2	HMI He	150042	0.00
Ca	44	2	HMI He	9763	0.05
Ti	47	2	HMI He	13	859.23
V	51	2	HMI He	63533	0.00
Cr	52	2	HMI He	89145	0.00
Mn	55	2	HMI He	20950	0.03
Fe	57	2	HMI He	153378	0.00
Co	59	2	HMI He	199203	0.00
Ni	60	2	HMI He	60892	0.00
Cu	63	2	HMI He	186226	0.00
Zn	66	2	HMI He	13839	0.00
As	75	2	HMI He	8130	0.00
Se	78	1	HMI H2	43182	0.00
Sr	88	2	HMI He	14033	0.01
Zr	90	2	HMI He	810	2.20
Nb	93	2	HMI He	449537	0.00
Mo	95	2	HMI He	61894	0.01
Pd	105	2	HMI He	124136	0.00
Ag	107	2	HMI He	252312	0.00
Cd	111	2	HMI He	19438	0.01
Sn	120	2	HMI He	41304	0.01
Sb	121	2	HMI He	32893	0.01
Ba	137	2	HMI He	8829	0.02
W	182	2	HMI He	465532	0.00
Pt	195	2	HMI He	524746	0.00
Tl	205	2	HMI He	560997	0.00
Pb	208	2	HMI He	722424	0.00
Th	232	2	HMI He	793013	0.00
U	238	2	HMI He	966015	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1135674	0.82
Sc (IS)	45	1	HMI H2	37042224	0.76
Sc (IS)	45	2	HMI He	340630	1.36
Sc (IS)	45	3	No Gas	127470931	0.37
Ge Internal Standard	72	1	HMI H2	18278013	0.71
Ge Internal Standard	72	2	HMI He	500726	0.85
In Internal Standard	115	2	HMI He	989598	0.52
Ho-165	165	2	HMI He	9180725	0.95

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	icv-4908435
Data File Name	008_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:50:36-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	007CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1140279	0.99	1135674	100.41	60	120	
Sc (IS)	45	1	HMI H2	36412254	0.71	37042224	98.30	60	120	
Sc (IS)	45	2	HMI He	338030	1.48	340630	99.24	60	120	
Sc (IS)	45	3	No Gas	126015408	0.71	127470931	98.86	60	120	
Ge Internal Standard	72	1	HMI H2	18094488	0.50	18278013	99.00	60	120	
Ge Internal Standard	72	2	HMI He	497395	1.23	500726	99.33	60	120	
In Internal Standard	115	2	HMI He	993608	1.19	989598	100.41	60	120	
Ho-165	165	2	HMI He	9131274	0.71	9180725	99.46	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	009WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:54:26-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	007CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1162895	1.34	1135674	102.40	60	120	
Sc (IS)	45	1	HMI H2	36719445	0.25	37042224	99.13	60	120	
Sc (IS)	45	2	HMI He	345557	2.54	340630	101.45	60	120	
Sc (IS)	45	3	No Gas	130956088	0.80	127470931	102.73	60	120	
Ge Internal Standard	72	1	HMI H2	18426960	0.12	18278013	100.81	60	120	
Ge Internal Standard	72	2	HMI He	512455	1.84	500726	102.34	60	120	
In Internal Standard	115	2	HMI He	1018487	2.50	989598	102.92	60	120	
Ho-165	165	2	HMI He	9322497	2.52	9180725	101.54	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	010CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T09:58:15-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	140521	0.00
Li	7	2	HMI He	7699	0.02
Li	7	3	No Gas	10332949	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	1633	0.50
Na	23	1	HMI H2	280993	0.00
Na	23	2	HMI He	11574	0.03
Mg	24	2	HMI He	257	9.27
Al	27	2	HMI He	27	532.40
K	39	2	HMI He	4081	0.10
Ca	44	2	HMI He	23	382.35
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	327	7.10
Cr	52	2	HMI He	163	21.31
Mn	55	2	HMI He	43	30.75
Fe	57	2	HMI He	103	42.23
Co	59	2	HMI He	0	#VALUE!
Ni	60	2	HMI He	30	293.97
Cu	63	2	HMI He	1720	0.33
Zn	66	2	HMI He	200	5.00
As	75	2	HMI He	8	637.76
Se	78	1	HMI H2	15	107.36
Sr	88	2	HMI He	17	549.91
Zr	90	2	HMI He	100	17.33
Nb	93	2	HMI He	3007	0.41
Mo	95	2	HMI He	67	72.33
Pd	105	2	HMI He	30	293.97
Ag	107	2	HMI He	30	111.11
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	203	2.79
Sb	121	2	HMI He	57	47.57
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	320	6.40
Pt	195	2	HMI He	423	2.86
Tl	205	2	HMI He	77	42.82
Pb	208	2	HMI He	6427	0.05
Th	232	2	HMI He	3434	0.17
U	238	2	HMI He	100	26.45

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1167919	1.71
Sc (IS)	45	1	HMI H2	36666939	0.26
Sc (IS)	45	2	HMI He	350429	1.36
Sc (IS)	45	3	No Gas	132551768	2.28
Ge Internal Standard	72	1	HMI H2	18425792	0.15
Ge Internal Standard	72	2	HMI He	513020	1.03
In Internal Standard	115	2	HMI He	1031585	2.04
Ho-165	165	2	HMI He	9315179	1.14

Calibration Standard Report

Sample Table

Sample Name	ic-4908433
Data File Name	011CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:02:07-07:00
Sample Type	CalStd
Level	1
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	516431	0.00
Li	7	2	HMI He	30249	0.01
Li	7	3	No Gas	36881237	0.00
Be	9	1	HMI H2	34212	0.01
B	11	1	HMI H2	41845	0.01
Na	23	1	HMI H2	34906514	0.00
Na	23	2	HMI He	1199510	0.00
Mg	24	2	HMI He	485711	0.00
Al	27	2	HMI He	85622	0.00
K	39	1	HMI H2	39695128	0.00
K	39	2	HMI He	149477	0.00
Ca	40	1	HMI H2	55412109	0.00
Ca	44	2	HMI He	9236	0.03
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	62908	0.00
Cr	52	2	HMI He	86187	0.00
Mn	55	2	HMI He	21170	0.01
Fe	57	2	HMI He	152273	0.00
Co	59	2	HMI He	195752	0.00
Ni	60	2	HMI He	61086	0.00
Cu	63	2	HMI He	181197	0.00
Zn	66	2	HMI He	14253	0.02
As	75	2	HMI He	7939	0.02
Se	78	1	HMI H2	42605	0.01
Sr	88	2	HMI He	13976	0.02
Zr	90	2	HMI He	723	1.21
Nb	93	2	HMI He	450417	0.00
Mo	95	2	HMI He	60303	0.01
Pd	105	2	HMI He	119449	0.00
Ag	107	2	HMI He	250582	0.00
Cd	111	2	HMI He	19208	0.02
Sn	120	2	HMI He	40149	0.01
Sb	121	2	HMI He	32796	0.01
Ba	137	2	HMI He	8706	0.01
Nd	146	2	HMI He	47302	0.01
Sm	147	2	HMI He	41396	0.01
Sm	150	2	HMI He	41850	0.00
Gd	156	1	HMI H2	1134986	0.00
Gd	157	1	HMI H2	867725	0.00
W	182	2	HMI He	460882	0.00
Pt	195	2	HMI He	523779	0.00
Tl	205	2	HMI He	555356	0.00
Pb	208	2	HMI He	712969	0.00
Th	232	2	HMI He	791268	0.00
U	238	2	HMI He	963169	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1121989	1.95	1167919	96.07	60	120	
Sc (IS)	45	1	HMI H2	36480513	1.02	36666939	99.49	60	120	
Sc (IS)	45	2	HMI He	336589	1.29	350429	96.05	60	120	
Sc (IS)	45	3	No Gas	122721362	0.18	132551768	92.58	60	120	
Ge Internal Standard	72	1	HMI H2	18156194	1.06	18425792	98.54	60	120	
Ge Internal Standard	72	2	HMI He	497813	0.69	513020	97.04	60	120	
In Internal Standard	115	2	HMI He	986225	0.18	1031585	95.60	60	120	
Ho-165	165	2	HMI He	9114795	0.47	9315179	97.85	60	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	icv-4908435
Data File Name	012_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:05:55-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1118115	0.89	1167919	95.74	60	120	
Sc (IS)	45	1	HMI H2	35816484	0.47	36666939	97.68	60	120	
Sc (IS)	45	2	HMI He	336300	2.02	350429	95.97	60	120	
Sc (IS)	45	3	No Gas	125390745	1.08	132551768	94.60	60	120	
Ge Internal Standard	72	1	HMI H2	18063086	0.71	18425792	98.03	60	120	
Ge Internal Standard	72	2	HMI He	494690	1.03	513020	96.43	60	120	
In Internal Standard	115	2	HMI He	988916	1.81	1031585	95.86	60	120	
Ho-165	165	2	HMI He	9001191	1.32	9315179	96.63	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	icb-4908432
Data File Name	013_ICB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:10:18-07:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	4.848	ppb	86.4	10260885	10	
Be	9	1	0.000	ppb	#DIV/0!	0	0.5	
B	11	1	1.185	ppb	21.1	2120	0.5	>RL
Na	23	1	-2.000	ppb	-46.7	276249	25	
Na	23	2	-0.094	ppb	-287.4	11614	25	
Mg	24	2	-0.213	ppb	-344.4	247	25	
Al	27	2	-0.770	ppb	-383.7	20	15	
K	39	1	-23.891	ppb	-108.9	7234132	50	
K	39	2	-7.171	ppb	-186.2	3991	50	
Ca	40	1	-6.846	ppb	-5.8	207579	50	
Ca	44	2	-3.723	ppb	-279.6	20	25	
V	51	2	0.314	ppb	36.2	533	1	
Cr	52	2	-0.050	ppb	-81.9	120	1	
Mn	55	2	-0.077	ppb	-68.3	27	0.5	
Fe	57	2	0.603	ppb	326.7	113	25	
Co	59	2	0.013	ppb	42.5	27	0.5	
Ni	60	2	0.037	ppb	151.0	53	1	
Cu	63	2	-0.103	ppb	-147.1	1543	1	
Zn	66	2	-0.422	ppb	-75.2	140	5	
As	75	2	-0.009	ppb	-545.3	7	1	
Se	78	1	0.037	ppb	117.9	31	1	
Sr	88	2	-0.046	ppb	-147.1	10	0.5	
Zr	90	2	-8.331	ppb	-70.0	47	1	
Nb	93	2	1.187	ppb	9.4	5798	2	
Mo	95	2	0.020	ppb	211.0	80	0.5	
Pd	105	2	0.041	ppb	13.0	83	1	
Ag	107	2	0.001	ppb	543.4	33	1	
Cd	111	2	0.049	ppb	99.1	10	0.5	
Sn	120	2	0.031	ppb	324.6	220	1	
Sb	121	2	0.161	ppb	40.5	113	0.6	
Ba	137	2	0.073	ppb	86.6	7	0.5	
W	182	2	0.050	ppb	22.3	560	1	
Pt	195	2	0.006	ppb	181.6	457	1	
Tl	205	2	0.008	ppb	84.9	123	0.1	
Pb	208	2	-0.098	ppb	-42.4	5757	0.5	
Th	232	2	0.084	ppb	79.4	4141	1	
U	238	2	0.004	ppb	116.1	137	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1161647	1.17	1167919	99.46	60	120	
Sc (IS)	45	1	HMI H2	36966141	0.72	36666939	100.82	60	120	
Sc (IS)	45	2	HMI He	351842	1.17	350429	100.40	60	120	
Sc (IS)	45	3	No Gas	129811108	1.26	132551768	97.93	60	120	
Ge Internal Standard	72	1	HMI H2	18396274	0.05	18425792	99.84	60	120	
Ge Internal Standard	72	2	HMI He	517421	0.77	513020	100.86	60	120	
In Internal Standard	115	2	HMI He	1046886	1.77	1031585	101.48	60	120	
Ho-165	165	2	HMI He	9374448	1.20	9315179	100.64	60	120	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	icvl-4908436
Data File Name	014LICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:14:12-07:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	12.912	ppb	24.533	10542871	50	25.8	70	130	>+/-30%
Be	9	1	6	0.971	ppb	32.160	347	1	97.1	70	130	
Na	23	2	45	49.991	ppb	13.817	17499	50	100.0	70	130	>+/-30%
Mg	24	2	45	51.787	ppb	10.795	2830	50	103.6	70	130	
Al	27	2	45	31.150	ppb	12.594	300	30	103.8	70	130	
K	39	2	45	86.000	ppb	30.125	5304	100	86.0	70	130	
Ca	44	2	45	77.418	ppb	46.436	97	50	154.8	70	130	>+/-30%
V	51	2	72	5.015	ppb	0.379	3554	5	100.3	70	130	
Cr	52	2	72	2.204	ppb	9.208	2114	2	110.2	70	130	
Mn	55	2	72	1.289	ppb	36.454	323	1	128.9	70	130	
Fe	57	2	72	50.709	ppb	10.952	897	50	101.4	70	130	
Co	59	2	72	1.051	ppb	4.325	2117	1	105.1	70	130	
Ni	60	2	72	2.093	ppb	12.846	1343	2	104.6	70	130	
Cu	63	2	72	1.858	ppb	7.331	5148	2	92.9	70	130	
Zn	66	2	72	8.670	ppb	12.014	1453	10	86.7	70	130	
As	75	2	72	4.664	ppb	4.926	388	5	93.3	70	130	
Se	78	1	72	5.006	ppb	5.558	2180	5	100.1	70	130	
Sr	88	2	72	0.722	ppb	39.124	120	1	72.2	70	130	
Zr	90	2	72	20.156	ppb	85.042	230	0.5	4031.1	70	130	>+/-30%
Nb	93	2	72	1.420	ppb	3.288	6271	2	71.0	70	130	
Mo	95	2	115	2.299	ppb	7.326	1493	2	114.9	70	130	
Pd	105	2	115	0.003	ppb	776.803	33	1	0.3	70	130	>+/-30%
Ag	107	2	115	5.065	ppb	3.362	13112	5	101.3	70	130	
Cd	111	2	115	0.858	ppb	1.293	170	1	85.8	70	130	
Sn	120	2	115	9.669	ppb	3.748	4184	10	96.7	70	130	
Sb	121	2	115	2.134	ppb	17.956	777	2	106.7	70	130	
Ba	137	2	115	0.857	ppb	38.991	77	1	85.7	70	130	
W	182	2	165	4.882	ppb	1.398	23000	1	488.2	70	130	>+/-30%
Pt	195	2	165	0.053	ppb	38.341	697	1	5.3	70	130	>+/-30%
Tl	205	2	165	1.088	ppb	1.311	6168	1	108.8	70	130	
Pb	208	2	165	0.565	ppb	17.581	10369	1	56.5	70	130	>+/-30%
Th	232	2	165	2.203	ppb	3.078	20902	2	110.2	70	130	
U	238	2	165	1.018	ppb	4.477	9984	1	101.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1172329	1.04	1167919	100.38	60	120	
Sc (IS)	45	1	HMI H2	36981704	0.50	36666939	100.86	60	120	
Sc (IS)	45	2	HMI He	345332	1.28	350429	98.55	60	120	
Sc (IS)	45	3	No Gas	130414301	0.51	132551768	98.39	60	120	
Ge Internal Standard	72	1	HMI H2	18436396	0.64	18425792	100.06	60	120	
Ge Internal Standard	72	2	HMI He	512012	0.44	513020	99.80	60	120	
In Internal Standard	115	2	HMI He	1017018	1.29	1031585	98.59	60	120	
Ho-165	165	2	HMI He	9196973	2.62	9315179	98.73	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	015WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:18:21-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.009	ppb	173.2050808	3	0.5
Na	23	2	45	-1.766	ppb	-140.7247752	11307	25
Mg	24	2	45	0.367	ppb	445.1003851	273	25
Al	27	2	45	4.158	ppb	84.07950251	63	15
K	39	2	45	-17.464	ppb	-91.22194059	3801	50
Ca	44	2	45	10.518	ppb	306.5554551	33	25
V	51	2	72	0.212	ppb	27.74011567	460	1
Cr	52	2	72	0.020	ppb	102.2221102	180	1
Mn	55	2	72	-0.060	ppb	-78.17733128	30	0.5
Fe	57	2	72	1.545	ppb	212.3394442	127	25
Co	59	2	72	0.012	ppb	24.98856523	23	0.5
Ni	60	2	72	-0.010	ppb	-402.8382504	23	1
Cu	63	2	72	-0.231	ppb	-47.85250759	1287	1
Zn	66	2	72	-0.362	ppb	-49.68140412	147	5
As	75	2	72	-0.039	ppb	-155.0969359	5	1
Se	78	1	72	0.003	ppb	801.6680399	16	1
Nb	93	2	72	-0.834	ppb	-2.527497126	1080	2
Mo	95	2	115	0.038	ppb	4.122963512	90	0.5
Pd	105	2	115	0.002	ppb	491.9413377	33	1
Ag	107	2	115	-0.002	ppb	-92.40653689	23	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.126	ppb	-83.76100645	150	1
Sb	121	2	115	-0.029	ppb	-218.1126603	47	0.6
Ba	137	2	115	0.037	ppb	173.2050808	3	0.5
W	182	2	165	0.000	ppb	3948.509767	320	1
Pt	195	2	165	0.014	ppb	86.44274213	497	1
Tl	205	2	165	0.000	ppb	10774.5903	77	0.1
Pb	208	2	165	-0.570	ppb	-0.841364458	2304	0.5
Th	232	2	165	-0.168	ppb	-14.88883312	2070	1
U	238	2	165	-0.005	ppb	-55.54995562	53	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1200835	1.17	1167919	102.82	60	120	
Sc (IS)	45	1	HMI H2	37211938	0.59	36666939	101.49	60	120	
Sc (IS)	45	2	HMI He	348842	0.87	350429	99.55	60	120	
Sc (IS)	45	3	No Gas	140733871	0.71	132551768	106.17	60	120	
Ge Internal Standard	72	1	HMI H2	18429467	0.28	18425792	100.02	60	120	
Ge Internal Standard	72	2	HMI He	510176	0.69	513020	99.45	60	120	
In Internal Standard	115	2	HMI He	1026538	1.10	1031585	99.51	60	120	
Ho-165	165	2	HMI He	9276677	0.85	9315179	99.59	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	016WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:22:09-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	010CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.000	ppb	#DIV/0!	0	0.5
Na	23	2	45	-2.948	ppb	-87.34660169	11174	25
Mg	24	2	45	1.214	ppb	75.35869247	317	25
Al	27	2	45	4.947	ppb	160.7077598	70	15
K	39	2	45	13.579	ppb	171.2646858	4271	50
Ca	44	2	45	-0.260	ppb	-8332.315864	23	25
V	51	2	72	0.034	ppb	432.5322044	350	1
Cr	52	2	72	-0.020	ppb	-166.9532561	147	1
Mn	55	2	72	-0.092	ppb	-29.61927735	23	0.5
Fe	57	2	72	1.256	ppb	226.9531504	123	25
Co	59	2	72	0.002	ppb	173.2050808	3	0.5
Ni	60	2	72	0.027	ppb	126.3398794	47	1
Cu	63	2	72	-0.175	ppb	-69.20140165	1403	1
Zn	66	2	72	-0.601	ppb	-54.59886948	113	5
As	75	2	72	-0.040	ppb	-151.9296091	5	1
Se	78	1	72	-0.006	ppb	-148.6486591	12	1
Nb	93	2	72	-0.871	ppb	-1.409660996	1007	2
Mo	95	2	115	-0.021	ppb	-92.7336126	53	0.5
Pd	105	2	115	-0.003	ppb	-570.1695074	27	1
Ag	107	2	115	0.001	ppb	1054.80409	33	1
Cd	111	2	115	0.034	ppb	173.2050808	7	0.5
Sn	120	2	115	-0.106	ppb	-62.39174725	160	1
Sb	121	2	115	-0.078	ppb	-111.2231632	30	0.6
Ba	137	2	115	0.073	ppb	173.2050808	7	0.5
W	182	2	165	-0.008	ppb	-223.3062006	283	1
Pt	195	2	165	0.000	ppb	8114.798477	427	1
Tl	205	2	165	-0.001	ppb	-613.2004402	70	0.1
Pb	208	2	165	-0.561	ppb	-9.869334237	2384	0.5
Th	232	2	165	-0.219	ppb	-8.778938481	1674	1
U	238	2	165	-0.005	ppb	-34.39399039	50	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1210700	0.26	1167919	103.66	60	120	
Sc (IS)	45	1	HMI H2	37226242	0.23	36666939	101.53	60	120	
Sc (IS)	45	2	HMI He	349246	1.34	350429	99.66	60	120	
Sc (IS)	45	3	No Gas	132105405	1.74	132551768	99.66	60	120	
Ge Internal Standard	72	1	HMI H2	18507777	0.39	18425792	100.44	60	120	
Ge Internal Standard	72	2	HMI He	515503	0.74	513020	100.48	60	120	
In Internal Standard	115	2	HMI He	1035138	1.47	1031585	100.34	60	120	
Ho-165	165	2	HMI He	9350407	0.90	9315179	100.38	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	017CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:25:59-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	141813	0.00
Li	7	2	HMI He	8452	0.03
Li	7	3	No Gas	10378813	0.00
Be	9	1	HMI H2	10	1000.00
B	11	1	HMI H2	2117	0.28
Na	23	1	HMI H2	250140	0.00
Na	23	2	HMI He	10724	0.04
Mg	24	2	HMI He	117	48.92
Al	27	2	HMI He	13	324.76
K	39	2	HMI He	3861	0.15
Ca	44	2	HMI He	7	1299.04
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	390	5.14
Cr	52	2	HMI He	177	34.56
Mn	55	2	HMI He	27	81.19
Fe	57	2	HMI He	33	187.35
Co	59	2	HMI He	0	#VALUE!
Ni	60	2	HMI He	73	65.31
Cu	63	2	HMI He	1500	0.39
Zn	66	2	HMI He	100	26.46
As	75	2	HMI He	11	661.16
Se	78	1	HMI H2	12	481.13
Sr	88	2	HMI He	10	1732.05
Zr	90	2	HMI He	27	214.81
Nb	93	2	HMI He	743	1.64
Mo	95	2	HMI He	27	81.19
Pd	105	2	HMI He	17	749.40
Ag	107	2	HMI He	13	649.52
Cd	111	2	HMI He	3	5196.15
Sn	120	2	HMI He	127	28.11
Sb	121	2	HMI He	27	292.73
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	220	16.14
Pt	195	2	HMI He	453	3.59
Tl	205	2	HMI He	137	17.21
Pb	208	2	HMI He	1777	0.34
Th	232	2	HMI He	1460	0.55
U	238	2	HMI He	63	143.94

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1218010	0.64
Sc (IS)	45	1	HMI H2	37686081	0.77
Sc (IS)	45	2	HMI He	350747	1.20
Sc (IS)	45	3	No Gas	133394481	0.26
Ge Internal Standard	72	1	HMI H2	18699211	0.54
Ge Internal Standard	72	2	HMI He	520822	1.23
In Internal Standard	115	2	HMI He	1041810	1.23
Ho-165	165	2	HMI He	9351780	0.82

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	icv-4908435
Data File Name	019_ICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:33:38-07:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	436.968	ppb	1.377	301119	400	109.2	90	110	
Li	7	2	45	452.196	ppb	3.499	18443	400	113.0	90	110	>+\-10%
Li	7	3	45	417.225	ppb	0.853	20999352	400	104.3	90	110	
Be	9	1	6	38.156	ppb	4.439	13098	40	95.4	90	110	
B	11	1	6	30.962	ppb	3.229	14353	40	77.4	90	110	>+\-10%
Na	23	1	45	4020.443	ppb	0.848	14093011	4000	100.5	90	110	>+\-10%
Na	23	2	45	3861.761	ppb	0.549	477955	4000	96.5	90	110	
Mg	24	2	45	4031.340	ppb	0.114	199379	4000	100.8	90	110	
Al	27	2	45	8079.110	ppb	1.260	70416	4000	202.0	90	110	>+\-10%
K	39	1	45	3903.824	ppb	0.758	19853008	4000	97.6	90	110	
K	39	2	45	3927.344	ppb	0.255	62047	4000	98.2	90	110	
Ca	40	1	45	4041.668	ppb	1.008	22313946	4000	101.0	90	110	
Ca	44	2	45	4132.653	ppb	3.660	3891	4000	103.3	90	110	
V	51	2	72	38.026	ppb	2.769	24397	40	95.1	90	110	
Cr	52	2	72	40.558	ppb	0.135	35413	40	101.4	90	110	
Mn	55	2	72	42.827	ppb	2.913	9173	40	107.1	90	110	
Fe	57	2	72	8151.365	ppb	0.907	125397	4000	203.8	90	110	>+\-10%
Co	59	2	72	40.688	ppb	1.185	80465	40	101.7	90	110	
Ni	60	2	72	40.482	ppb	0.982	25022	40	101.2	90	110	
Cu	63	2	72	40.470	ppb	1.322	74938	40	101.2	90	110	
Zn	66	2	72	39.992	ppb	7.595	5818	40	100.0	90	110	
As	75	2	72	37.610	ppb	1.033	3023	40	94.0	90	110	
Se	78	1	72	40.468	ppb	1.301	17105	40	101.2	90	110	
Sr	88	2	72	39.751	ppb	2.013	5618	40	99.4	90	110	
Zr	90	2	72	7.687	ppb	66.621	80	40	19.2	90	110	>+\-10%
Nb	93	2	72	74.343	ppb	1.799	169586	80	92.9	90	110	
Mo	95	2	115	39.921	ppb	3.064	24485	40	99.8	90	110	
Pd	105	2	115	40.542	ppb	0.819	49238	40	101.4	90	110	
Ag	107	2	115	40.326	ppb	1.232	102730	40	100.8	90	110	
Cd	111	2	115	39.741	ppb	2.773	7762	40	99.4	90	110	
Sn	120	2	115	39.236	ppb	6.702	16095	40	98.1	90	110	
Sb	121	2	115	41.206	ppb	3.251	13756	40	103.0	90	110	
Ba	137	2	115	41.847	ppb	4.487	3704	40	104.6	90	110	
W	182	2	165	78.978	ppb	0.883	368477	40	197.4	90	110	>+\-10%
Pt	195	2	165	38.237	ppb	0.883	203003	40	95.6	90	110	
Tl	205	2	165	40.280	ppb	0.574	226535	40	100.7	90	110	
Pb	208	2	165	40.326	ppb	1.228	292101	40	100.8	90	110	
Th	232	2	165	40.060	ppb	0.859	321722	40	100.2	90	110	
U	238	2	165	39.760	ppb	1.299	387684	40	99.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1125583	2.64	1218010	92.41	60	120	
Sc (IS)	45	1	HMI H2	36257714	0.31	37686081	96.21	60	120	
Sc (IS)	45	2	HMI He	342589	0.83	350747	97.67	60	120	
Sc (IS)	45	3	No Gas	122996038	0.15	133394481	92.20	60	120	
Ge Internal Standard	72	1	HMI H2	18007016	0.79	18699211	96.30	60	120	
Ge Internal Standard	72	2	HMI He	502907	0.49	520822	96.56	60	120	
In Internal Standard	115	2	HMI He	1002611	1.01	1041810	96.24	60	120	
Ho-165	165	2	HMI He	9226355	0.92	9351780	98.66	60	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	icb-4908432
Data File Name	020_ICB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:37:35-07:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	-5.511	ppb	-59.0	9628924	10	
Be	9	1	-0.027	ppb	0.0	0	0.5	
B	11	1	1.128	ppb	35.2	2494	0.5	>RL
Na	23	1	4.935	ppb	3.1	260498	25	
Na	23	2	1.876	ppb	310.7	10834	25	
Mg	24	2	0.434	ppb	132.1	137	25	
Al	27	2	0.772	ppb	294.8	20	15	
K	39	1	10.790	ppb	113.8	7415504	50	
K	39	2	2.242	ppb	1096.7	3851	50	
Ca	40	1	1.393	ppb	11.9	98909	50	
Ca	44	2	21.145	ppb	75.8	27	25	
V	51	2	0.250	ppb	20.8	547	1	
Cr	52	2	-0.095	ppb	-11.7	90	1	
Mn	55	2	-0.029	ppb	-310.0	20	0.5	
Fe	57	2	3.194	ppb	22.2	83	25	
Co	59	2	0.010	ppb	0.5	20	0.5	
Ni	60	2	-0.035	ppb	-118.5	50	1	
Cu	63	2	-0.007	ppb	-516.3	1470	1	
Zn	66	2	-0.083	ppb	-291.0	87	5	
As	75	2	-0.103	ppb	-13.3	3	1	
Se	78	1	0.035	ppb	120.6	27	1	
Sr	88	2	-0.068	ppb	0.0	0	0.5	
Zr	90	2	0.501	ppb	484.7	30	1	
Nb	93	2	2.658	ppb	6.2	6915	2	>RL
Mo	95	2	0.010	ppb	559.5	33	0.5	
Pd	105	2	0.042	ppb	36.7	70	1	
Ag	107	2	0.009	ppb	132.2	37	1	
Cd	111	2	0.017	ppb	340.6	7	0.5	
Sn	120	2	0.076	ppb	96.7	160	1	
Sb	121	2	0.373	ppb	32.9	157	0.6	
Ba	137	2	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	0.086	ppb	23.6	620	1	
Pt	195	2	0.010	ppb	53.3	503	1	
Tl	205	2	0.001	ppb	395.4	143	0.1	
Pb	208	2	0.014	ppb	103.8	1857	0.5	
Th	232	2	0.413	ppb	11.5	4761	1	
U	238	2	0.002	ppb	48.4	87	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1165853	0.52	1218010	95.72	60	120	
Sc (IS)	45	1	HMI H2	36657237	0.40	37686081	97.27	60	120	
Sc (IS)	45	2	HMI He	346848	0.33	350747	98.89	60	120	
Sc (IS)	45	3	No Gas	125739528	0.39	133394481	94.26	60	120	
Ge Internal Standard	72	1	HMI H2	18339833	0.51	18699211	98.08	60	120	
Ge Internal Standard	72	2	HMI He	514743	0.54	520822	98.83	60	120	
In Internal Standard	115	2	HMI He	1049202	0.92	1041810	100.71	60	120	
Ho-165	165	2	HMI He	9256822	0.60	9351780	98.98	60	120	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	icvl-4908436
Data File Name	021LICV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:41:26-07:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	4.471	ppb	90.508	10196593	50	8.9	70	130	>+/-30%
Be	9	1	6	1.110	ppb	7.225	417	1	111.0	70	130	
Na	23	2	45	49.196	ppb	1.346	16985	50	98.4	70	130	>+/-30%
Mg	24	2	45	57.145	ppb	4.488	3037	50	114.3	70	130	
Al	27	2	45	38.061	ppb	25.572	357	30	126.9	70	130	
K	39	2	45	120.992	ppb	16.522	5755	100	121.0	70	130	
Ca	44	2	45	61.932	ppb	68.195	67	50	123.9	70	130	
V	51	2	72	4.922	ppb	8.256	3581	5	98.4	70	130	
Cr	52	2	72	1.945	ppb	2.526	1910	2	97.2	70	130	
Mn	55	2	72	1.111	ppb	4.768	270	1	111.1	70	130	
Fe	57	2	72	61.862	ppb	4.340	1010	50	123.7	70	130	
Co	59	2	72	1.097	ppb	10.515	2227	1	109.7	70	130	
Ni	60	2	72	2.287	ppb	4.668	1520	2	114.3	70	130	
Cu	63	2	72	2.009	ppb	2.736	5234	2	100.5	70	130	
Zn	66	2	72	10.717	ppb	3.179	1673	10	107.2	70	130	
As	75	2	72	4.698	ppb	7.269	397	5	94.0	70	130	
Se	78	1	72	4.899	ppb	8.666	2151	5	98.0	70	130	
Sr	88	2	72	0.922	ppb	8.581	143	1	92.2	70	130	
Zr	90	2	72	17.040	ppb	28.739	150	0.5	3408.1	70	130	>+/-30%
Nb	93	2	72	2.652	ppb	11.526	6922	2	132.6	70	130	>+/-30%
Mo	95	2	115	2.059	ppb	13.446	1340	2	103.0	70	130	
Pd	105	2	115	0.016	ppb	126.310	37	1	1.6	70	130	>+/-30%
Ag	107	2	115	5.158	ppb	1.870	13683	5	103.2	70	130	
Cd	111	2	115	0.985	ppb	10.518	203	1	98.5	70	130	
Sn	120	2	115	10.155	ppb	5.577	4427	10	101.6	70	130	
Sb	121	2	115	2.056	ppb	7.859	740	2	102.8	70	130	
Ba	137	2	115	1.195	ppb	16.180	110	1	119.5	70	130	
W	182	2	165	4.708	ppb	1.787	22847	1	470.8	70	130	>+/-30%
Pt	195	2	165	0.046	ppb	74.885	710	1	4.6	70	130	>+/-30%
Tl	205	2	165	1.058	ppb	2.551	6268	1	105.8	70	130	
Pb	208	2	165	1.199	ppb	5.367	10699	1	119.9	70	130	
Th	232	2	165	2.270	ppb	2.796	20184	2	113.5	70	130	
U	238	2	165	0.999	ppb	1.939	10100	1	99.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1202323	1.07	1218010	98.71	60	120	
Sc (IS)	45	1	HMI H2	37305084	0.51	37686081	98.99	60	120	
Sc (IS)	45	2	HMI He	354195	0.78	350747	100.98	60	120	
Sc (IS)	45	3	No Gas	129407201	1.36	133394481	97.01	60	120	
Ge Internal Standard	72	1	HMI H2	18612833	0.49	18699211	99.54	60	120	
Ge Internal Standard	72	2	HMI He	516390	0.90	520822	99.15	60	120	
In Internal Standard	115	2	HMI He	1043251	1.43	1041810	100.14	60	120	
Ho-165	165	2	HMI He	9507570	0.64	9351780	101.67	60	120	

CRI Report

Sample Table

Sample Name	cri-4908437
Data File Name	022RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:45:15-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	10.747	ppb	31.307	145841	10	107.5	80	120	
Li	7	2	45	6.032	ppb	269.532	8729	10	60.3	80	120	>+\-20%
Li	7	3	45	4.303	ppb	23.943	10389423	10	43.0	80	120	>+\-20%
Be	9	1	6	0.908	ppb	11.190	343	1	90.8	80	120	
B	11	1	6	1.185	ppb	46.998	2607	1	118.5	80	120	
Na	23	1	45	101.803	ppb	1.136	613968	100	101.8	80	120	
Na	23	2	45	94.102	ppb	6.500	22748	100	94.1	80	120	
Mg	24	2	45	97.911	ppb	7.087	5154	100	97.9	80	120	
Al	27	2	45	100.563	ppb	23.640	927	100	100.6	80	120	
K	39	2	45	85.895	ppb	12.124	5248	100	85.9	80	120	
Ca	40	1	45	109.137	ppb	0.763	716609	100	109.1	80	120	
Ca	44	2	45	129.504	ppb	4.993	133	100	129.5	80	120	>+\-20%
V	51	2	72	1.110	ppb	23.721	1103	1	111.0	80	120	
Cr	52	2	72	1.088	ppb	10.515	1143	1	108.8	80	120	
Mn	55	2	72	0.929	ppb	7.541	230	1	92.9	80	120	
Fe	57	2	72	106.613	ppb	5.789	1713	100	106.6	80	120	
Co	59	2	72	1.050	ppb	14.340	2127	1	105.0	80	120	
Ni	60	2	72	0.845	ppb	4.103	607	1	84.5	80	120	
Cu	63	2	72	0.878	ppb	5.398	3120	1	87.8	80	120	
Zn	66	2	72	0.935	ppb	41.077	237	1	93.5	80	120	
As	75	2	72	1.068	ppb	19.769	99	1	106.8	80	120	
Se	78	1	72	0.988	ppb	13.100	445	1	98.8	80	120	
Sr	88	2	72	0.713	ppb	47.549	113	1	71.3	80	120	>+\-20%
Zr	90	2	72	8.351	ppb	43.318	87	1	835.1	80	120	>+\-20%
Nb	93	2	72	1.993	ppb	6.733	5381	2	99.7	80	120	
Mo	95	2	115	1.103	ppb	11.727	727	1	110.3	80	120	
Pd	105	2	115	1.009	ppb	11.023	1287	1	100.9	80	120	
Ag	107	2	115	1.047	ppb	12.396	2780	1	104.7	80	120	
Cd	111	2	115	1.219	ppb	7.803	250	1	121.9	80	120	>+\-20%
Sn	120	2	115	1.233	ppb	6.396	647	1	123.3	80	120	>+\-20%
Sb	121	2	115	0.955	ppb	14.345	357	1	95.5	80	120	
Ba	137	2	115	0.690	ppb	18.102	63	1	69.0	80	120	>+\-20%
W	182	2	165	0.935	ppb	1.108	4704	1	93.5	80	120	
Pt	195	2	165	0.916	ppb	2.750	5448	1	91.6	80	120	
Tl	205	2	165	1.024	ppb	2.208	6058	1	102.4	80	120	
Pb	208	2	165	1.146	ppb	5.797	10282	1	114.6	80	120	
Th	232	2	165	0.816	ppb	3.126	8186	1	81.6	80	120	
U	238	2	165	0.958	ppb	4.503	9667	1	95.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1206413	2.30	1218010	99.05	60	120	
Sc (IS)	45	1	HMI H2	37641978	1.08	37686081	99.88	60	120	
Sc (IS)	45	2	HMI He	356489	0.98	350747	101.64	60	120	
Sc (IS)	45	3	No Gas	131904495	0.16	133394481	98.88	60	120	
Ge Internal Standard	72	1	HMI H2	18688466	0.67	18699211	99.94	60	120	
Ge Internal Standard	72	2	HMI He	515644	1.23	520822	99.01	60	120	
In Internal Standard	115	2	HMI He	1039340	1.28	1041810	99.76	60	120	
Ho-165	165	2	HMI He	9486270	1.08	9351780	101.44	60	120	

CRI Report

Sample Table

Sample Name	cri-
Data File Name	023RLST.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:50:55-07:00
Sample Type	CRI
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-3.176	ppb	-60.203	141717	10	-31.8	80	120	>+\-20%
Li	7	2	45	-25.653	ppb	-56.536	8275	10	-256.5	80	120	>+\-20%
Li	7	3	45	-2.954	ppb	-77.591	10056135	10	-29.5	80	120	>+\-20%
Be	9	1	6	-0.027	ppb	0.000	0	1	-2.7	80	120	>+\-20%
B	11	1	6	0.427	ppb	53.363	2270	1	42.7	80	120	>+\-20%
Na	23	1	45	-1.105	ppb	-71.857	248182	100	-1.1	80	120	>+\-20%
Na	23	2	45	-5.332	ppb	-28.662	10597	100	-5.3	80	120	>+\-20%
Mg	24	2	45	0.270	ppb	284.441	137	100	0.3	80	120	>+\-20%
Al	27	2	45	3.483	ppb	98.847	47	100	3.5	80	120	>+\-20%
K	39	2	45	-0.353	ppb	-3543.902	4057	100	-0.4	80	120	>+\-20%
Ca	40	1	45	0.330	ppb	40.112	96395	100	0.3	80	120	>+\-20%
Ca	44	2	45	6.270	ppb	241.155	13	100	6.3	80	120	>+\-20%
V	51	2	72	0.041	ppb	459.799	430	1	4.1	80	120	>+\-20%
Cr	52	2	72	-0.010	ppb	-1211.804	173	1	-1.0	80	120	>+\-20%
Mn	55	2	72	0.010	ppb	1139.960	30	1	1.0	80	120	>+\-20%
Fe	57	2	72	0.335	ppb	318.376	40	100	0.3	80	120	>+\-20%
Co	59	2	72	0.002	ppb	173.205	3	1	0.2	80	120	>+\-20%
Ni	60	2	72	0.012	ppb	578.188	83	1	1.2	80	120	>+\-20%
Cu	63	2	72	-0.073	ppb	-103.832	1410	1	-7.3	80	120	>+\-20%
Zn	66	2	72	-0.045	ppb	-77.077	97	1	-4.5	80	120	>+\-20%
As	75	2	72	-0.043	ppb	-106.213	8	1	-4.3	80	120	>+\-20%
Se	78	1	72	0.003	ppb	188.703	13	1	0.3	80	120	>+\-20%
Sr	88	2	72	-0.068	ppb	0.000	0	1	-6.8	80	120	>+\-20%
Zr	90	2	72	1.641	ppb	214.036	40	1	164.1	80	120	>+\-20%
Nb	93	2	72	0.060	ppb	99.943	917	2	3.0	80	120	>+\-20%
Mo	95	2	115	0.023	ppb	170.380	43	1	2.3	80	120	>+\-20%
Pd	105	2	115	0.002	ppb	981.343	20	1	0.2	80	120	>+\-20%
Ag	107	2	115	0.002	ppb	439.395	20	1	0.2	80	120	>+\-20%
Cd	111	2	115	1.346	ppb	21.630	293	1	134.6	80	120	>+\-20%
Sn	120	2	115	3.749	ppb	11.524	1817	1	374.9	80	120	>+\-20%
Sb	121	2	115	0.050	ppb	34.715	47	1	5.0	80	120	>+\-20%
Ba	137	2	115	0.820	ppb	21.404	80	1	82.0	80	120	
W	182	2	165	0.000	ppb	4219.524	230	1	0.0	80	120	>+\-20%
Pt	195	2	165	-0.004	ppb	-352.059	447	1	-0.4	80	120	>+\-20%
Tl	205	2	165	-0.013	ppb	-57.346	63	1	-1.3	80	120	>+\-20%
Pb	208	2	165	0.014	ppb	66.237	1950	1	1.4	80	120	>+\-20%
Th	232	2	165	-0.022	ppb	-9.642	1327	1	-2.2	80	120	>+\-20%
U	238	2	165	0.002	ppb	142.808	90	1	0.2	80	120	>+\-20%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1201953	2.59	1218010	98.68	60	120	
Sc (IS)	45	1	HMI H2	37994784	0.59	37686081	100.82	60	120	
Sc (IS)	45	2	HMI He	369342	0.64	350747	105.30	60	120	
Sc (IS)	45	3	No Gas	130349251	0.84	133394481	97.72	60	120	
Ge Internal Standard	72	1	HMI H2	18829151	0.88	18699211	100.69	60	120	
Ge Internal Standard	72	2	HMI He	538637	0.52	520822	103.42	60	120	
In Internal Standard	115	2	HMI He	1104641	1.71	1041810	106.03	60	120	
Ho-165	165	2	HMI He	9712464	0.55	9351780	103.86	60	120	

CRI Report

Sample Table

Sample Name	cri4908438
Data File Name	024_CRI.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:56:04-07:00
Sample Type	AFCRI
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	6	0.151	ppb	56.927	67	0.2	75.5	80	120	AFCRI Main CR1 Failed
Na	23	2	45	55.197	ppb	8.947	18510	20	276.0	80	120	AFCRI Main CR1 Failed
Mg	24	2	45	22.836	ppb	12.268	1340	20	114.2	80	120	
Al	27	2	45	19.725	ppb	23.109	200	20	98.6	80	120	
K	39	2	45	27.978	ppb	28.267	4517	20	139.9	80	120	AFCRI Main CR1 Failed
Ca	44	2	45	55.556	ppb	20.402	63	20	277.8	80	120	AFCRI Main CR1 Failed
V	51	2	72	0.279	ppb	9.852	597	0.2	139.5	80	120	AFCRI Main CR1 Failed
Cr	52	2	72	0.166	ppb	54.670	340	0.2	83.1	80	120	
(Cr)	53	2	72	0.810	ppb	57.757	233	0.2	405.1	80	120	AFCRI Main CR1 Failed
Mn	55	2	72	0.167	ppb	117.980	67	0.2	83.6	80	120	
Fe	57	2	72	24.994	ppb	5.802	450	20	125.0	80	120	AFCRI Main CR1 Failed
Co	59	2	72	0.220	ppb	32.446	470	0.2	110.2	80	120	
Ni	60	2	72	0.280	ppb	38.615	263	0.2	140.0	80	120	AFCRI Main CR1 Failed
Cu	63	2	72	0.818	ppb	15.861	3170	0.2	409.2	80	120	AFCRI Main CR1 Failed
Zn	66	2	72	1.455	ppb	29.242	330	0.2	727.4	80	120	AFCRI Main CR1 Failed
As	75	2	72	0.221	ppb	33.689	31	0.2	110.3	80	120	
Se	78	1	72	0.213	ppb	10.539	108	0.2	106.3	80	120	
(Se)	82	1	72	-0.453	ppb	-109.199	2954	0.2	-226.6	80	120	AFCRI Main CR1 Failed
Nb	93	2	72	0.348	ppb	12.714	1630	0.4	87.0	80	120	
Mo	95	2	115	0.394	ppb	4.728	293	0.2	197.2	80	120	AFCRI Main CR1 Failed
Pd	105	2	115	0.210	ppb	26.008	297	0.2	104.9	80	120	
Ag	107	2	115	0.188	ppb	10.430	540	0.2	94.2	80	120	
Cd	111	2	115	0.124	ppb	100.025	30	0.2	62.0	80	120	AFCRI Main CR1 Failed
(Cd)	114	2	115	0.264	ppb	35.338	150	0.2	132.1	80	120	AFCRI Main CR1 Failed
Sn	120	2	115	0.326	ppb	76.478	280	0.2	163.0	80	120	AFCRI Main CR1 Failed
Sb	121	2	115	0.068	ppb	58.971	53	0.2	34.2	80	120	AFCRI Main CR1 Failed
Ba	137	2	115	0.205	ppb	49.202	20	0.2	102.7	80	120	
W	182	2	165	0.214	ppb	24.750	1287	0.2	106.8	80	120	
Pt	195	2	165	0.187	ppb	17.701	1527	0.2	93.3	80	120	
Tl	205	2	165	0.184	ppb	25.919	1240	0.2	91.8	80	120	
(Pb)	206	2	165	0.329	ppb	22.656	980	0.2	164.7	80	120	AFCRI Main CR1 Failed
(Pb)	207	2	165	0.274	ppb	12.259	780	0.2	137.2	80	120	AFCRI Main CR1 Failed
Pb	208	2	165	0.274	ppb	9.723	3957	0.2	137.2	80	120	AFCRI Main CR1 Failed
Th	232	2	165	0.089	ppb	25.774	2280	0.2	44.4	80	120	AFCRI Main CR1 Failed
U	238	2	165	0.208	ppb	6.164	2214	0.2	103.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1237162	2.37	1218010	101.57	60	120	
Sc (IS)	45	1	HMI H2	39201707	3.40	37686081	104.02	60	120	
Sc (IS)	45	2	HMI He	369747	1.40	350747	105.42	60	120	
Sc (IS)	45	3	No Gas	131798605	0.85	133394481	98.80	60	120	
Ge Internal Standard	72	1	HMI H2	19171154	2.29	18699211	102.52	60	120	
Ge Internal Standard	72	2	HMI He	543486	1.46	520822	104.35	60	120	
In Internal Standard	115	2	HMI He	1099692	0.92	1041810	105.56	60	120	
Ho-165	165	2	HMI He	9797189	2.15	9351780	104.76	60	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA-4905066
Data File Name	025ICSA.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T10:59:53-07:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-11.411	ppb	-19.8	8680008	1	
Be	9	1	6	0.004	ppb	777.5	10	1	
B	11	1	6	0.108	ppb	597.0	1870	1	
Na	23	1	45	97318.535	ppb	0.5	319352962	100000	
K	39	1	45	99378.886	ppb	0.4	311079155	100000	
Ca	40	1	45	97915.619	ppb	0.9	512501752	100000	
V	51	2	72	0.068	ppb	147.4	393	1	
Cr	52	2	72	1.165	ppb	5.0	1110	1	>RL or LOD
Mn	55	2	72	1.308	ppb	23.9	287	1	>RL or LOD
Co	59	2	72	0.036	ppb	16.6	67	1	
Ni	60	2	72	0.098	ppb	122.2	123	1	
Cu	63	2	72	0.386	ppb	19.5	2017	1	
Zn	66	2	72	1.336	ppb	6.6	270	1	>RL or LOD
As	75	2	72	0.041	ppb	526.9	13	1	
Se	78	1	72	0.044	ppb	128.9	28	1	
Sr	88	2	72	1.217	ppb	37.9	170	1	>RL or LOD
Zr	90	2	72	9.421	ppb	32.6	87	1	>RL or LOD
Nb	93	2	72	-0.002	ppb	-3245.0	670	1	
Mo	95	2	115	2067.111	ppb	1.7	1196295	2000	>RL or LOD
Pd	105	2	115	-0.005	ppb	-194.9	10	1	
Ag	107	2	115	0.028	ppb	40.2	80	1	
Cd	111	2	115	0.237	ppb	35.9	47	1	
Sn	120	2	115	0.177	ppb	23.2	183	1	
Sb	121	2	115	0.115	ppb	171.6	60	1	
Ba	137	2	115	0.198	ppb	91.4	17	1	
W	182	2	165	0.201	ppb	17.0	1133	1	
Pt	195	2	165	-0.004	ppb	-66.1	417	1	
Tl	205	2	165	-0.005	ppb	-146.9	107	1	
Pb	208	2	165	0.174	ppb	19.0	2950	1	
Th	232	2	165	0.059	ppb	50.5	1880	1	
U	238	2	165	0.012	ppb	59.5	173	1	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1051326	1.84	1218010	86.32	60	120	
Sc (IS)	45	1	HMI H2	34507284	0.30	37686081	91.57	60	120	
Sc (IS)	45	2	HMI He	326617	1.60	350747	93.12	60	120	
Sc (IS)	45	3	No Gas	115328105	0.54	133394481	86.46	60	120	
Ge Internal Standard	72	1	HMI H2	16652225	0.98	18699211	89.05	60	120	
Ge Internal Standard	72	2	HMI He	472004	0.91	520822	90.63	60	120	
In Internal Standard	115	2	HMI He	947024	1.51	1041810	90.90	60	120	
Ho-165	165	2	HMI He	9060014	0.67	9351780	96.88	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB-4905067
Data File Name	026ICSB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:03:39-07:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	1	45	889.324	ppb	0.884	439089	100	889.3	80	120	
Li	7	2	45	944.269	ppb	5.190	27945	100	944.3	80	120	
Li	7	3	45	888.396	ppb	1.039	32234735	100	888.4	80	120	
Be	9	1	6	96.406	ppb	2.626	29227	100	96.4	80	120	
B	11	1	6	71.808	ppb	1.810	27127	100	71.8	80	120	>+\-20%
Na	23	1	45	102002.437	ppb	0.795	327444415	100	102002.4	80	120	>+\-20%
K	39	1	45	105167.978	ppb	0.604	321660035	100	105168.0	80	120	>+\-20%
Ca	40	1	45	103966.785	ppb	1.251	532356459	100	103966.8	80	120	>+\-20%
V	51	2	72	95.734	ppb	1.260	56533	100	95.7	80	120	
Cr	52	2	72	99.455	ppb	0.277	80444	100	99.5	80	120	
Mn	55	2	72	98.381	ppb	0.988	19548	100	98.4	80	120	
Co	59	2	72	96.563	ppb	0.679	177400	100	96.6	80	120	
Ni	60	2	72	93.495	ppb	2.030	53598	100	93.5	80	120	
Cu	63	2	72	93.923	ppb	0.387	159808	100	93.9	80	120	
Zn	66	2	72	92.339	ppb	3.285	12361	100	92.3	80	120	
As	75	2	72	99.533	ppb	1.914	7416	100	99.5	80	120	
Se	78	1	72	99.009	ppb	1.074	38116	100	99.0	80	120	
Sr	88	2	72	102.149	ppb	3.721	13396	100	102.1	80	120	
Zr	90	2	72	14.686	ppb	53.099	120	100	14.7	80	120	>+\-20%
Nb	93	2	72	138.980	ppb	0.631	293953	100	139.0	80	120	>+\-20%
Mo	95	2	115	2073.872	ppb	0.605	1171804	100	2073.9	80	120	>+\-20%
Pd	105	2	115	91.904	ppb	1.729	102891	100	91.9	80	120	
Ag	107	2	115	93.281	ppb	1.786	219085	100	93.3	80	120	
Cd	111	2	115	96.878	ppb	2.129	17443	100	96.9	80	120	
Sn	120	2	115	93.931	ppb	1.915	35354	100	93.9	80	120	
Sb	121	2	115	103.652	ppb	2.468	31858	100	103.7	80	120	
Ba	137	2	115	97.887	ppb	7.152	7996	100	97.9	80	120	
W	182	2	165	93.994	ppb	0.390	418895	100	94.0	80	120	
Pt	195	2	165	90.072	ppb	1.541	456185	100	90.1	80	120	
Tl	205	2	165	92.864	ppb	0.963	498692	100	92.9	80	120	
Pb	208	2	165	91.456	ppb	0.133	630689	100	91.5	80	120	
Th	232	2	165	95.922	ppb	1.238	734042	100	95.9	80	120	
U	238	2	165	94.798	ppb	1.225	882973	100	94.8	80	120	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	994271	2.05	1218010	81.63	60	120	
Sc (IS)	45	1	HMI H2	33759000	0.70	37686081	89.58	60	120	
Sc (IS)	45	2	HMI He	324399	1.92	350747	92.49	60	120	
Sc (IS)	45	3	No Gas	116934295	0.54	133394481	87.66	60	120	
Ge Internal Standard	72	1	HMI H2	16407983	0.62	18699211	87.75	60	120	
Ge Internal Standard	72	2	HMI He	467219	1.27	520822	89.71	60	120	
In Internal Standard	115	2	HMI He	924534	1.85	1041810	88.74	60	120	
Ho-165	165	2	HMI He	8813575	1.21	9351780	94.24	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	027SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:07:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-1.753	ppb	-1.753	-45.39	132970	500000	
Li	7	2	45	-8.250	ppb	-8.250	-222.38	8112	500000	
Li	7	3	45	-17.079	ppb	-17.079	-7.20	9485697	50000	
Be	9	1	6	0.032	ppb	0.032	92.52	20	2000	
B	11	1	6	-0.043	ppb	-0.043	-251.16	1917	2000	
Na	23	1	45	97.349	ppb	97.349	6.85	564059	2000	
Na	23	2	45	58.128	ppb	58.128	15.38	17602	400000	
Mg	24	2	45	26.158	ppb	26.158	9.37	1413	400000	
Al	27	2	45	29.348	ppb	29.348	34.57	270	400000	
K	39	1	45	-43.688	ppb	-43.688	-24.68	7011208	400000	
K	39	2	45	55.759	ppb	55.759	33.62	4621	400000	
Ca	40	1	45	71.122	ppb	71.122	7.95	471158	400000	
Ca	44	2	45	49.736	ppb	49.736	45.40	53	400000	
V	51	2	72	-0.021	ppb	-0.021	-611.15	370	2000	
Cr	52	2	72	-0.014	ppb	-0.014	-557.19	160	5000	
Mn	55	2	72	-0.059	ppb	-0.059	-91.03	13	10000	
Fe	57	2	72	42.076	ppb	42.076	18.76	690	400000	
Co	59	2	72	0.038	ppb	0.038	8.97	77	2000	
Ni	60	2	72	-0.035	ppb	-0.035	-164.65	50	5000	
Cu	63	2	72	0.119	ppb	0.119	51.39	1693	5000	
Zn	66	2	72	0.307	ppb	0.307	40.97	143	5000	
As	75	2	72	-0.014	ppb	-0.014	-465.45	10	2000	
Se	78	1	72	0.045	ppb	0.045	79.22	31	2000	
Sr	88	2	72	0.071	ppb	0.071	3.67	20	4000	
Zr	90	2	72	1.881	ppb	1.881	124.34	40	1000	
Nb	93	2	72	1.963	ppb	1.963	5.12	5268	200	
Mo	95	2	115	1.011	ppb	1.011	15.92	653	2000	
Pd	105	2	115	0.057	ppb	0.057	20.15	87	100	
Ag	107	2	115	0.013	ppb	0.013	120.04	47	100	
Cd	111	2	115	0.017	ppb	0.017	338.41	7	2000	
Sn	120	2	115	-0.034	ppb	-0.034	-126.35	110	2000	
Sb	121	2	115	-0.008	ppb	-0.008	-417.09	23	1000	
Ba	137	2	115	0.037	ppb	0.037	173.21	3	5000	
W	182	2	165	0.038	ppb	0.038	33.47	393	100	
Pt	195	2	165	0.022	ppb	0.022	44.70	567	100	
Tl	205	2	165	0.017	ppb	0.017	36.01	230	2000	
Pb	208	2	165	0.540	ppb	0.540	7.29	5667	5000	
Th	232	2	165	0.236	ppb	0.236	21.56	3344	2000	
U	238	2	165	0.028	ppb	0.028	24.69	340	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1112754	0.38	1218010	91.36	60	120	
Sc (IS)	45	1	HMI H2	35507868	0.90	37686081	94.22	60	120	
Sc (IS)	45	2	HMI He	344516	1.26	350747	98.22	60	120	
Sc (IS)	45	3	No Gas	128181741	0.25	133394481	96.09	60	120	
Ge Internal Standard	72	1	HMI H2	18068378	0.06	18699211	96.63	60	120	
Ge Internal Standard	72	2	HMI He	511910	1.87	520822	98.29	60	120	
In Internal Standard	115	2	HMI He	1016347	1.41	1041810	97.56	60	120	
Ho-165	165	2	HMI He	9268023	0.24	9351780	99.10	60	120	

Linear Range Sample (LRS) Report

Sample Table

Sample Name	LRA-4861752
Data File Name	028_LR.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:11:12-07:00
Sample Type	LR
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	6	1919.755	ppb	0.822	631282	2000	96.0	90	110	
V	51	2	72	1973.198	ppb	0.667	1171135	2000	98.7	90	110	
Cr	52	2	72	5020.161	ppb	0.825	4096991	5000	100.4	90	110	
(Cr)	53	2	72	5071.083	ppb	1.157	512961	5000	101.4	90	110	
Mn	55	2	72	10536.823	ppb	1.500	2113628	10000	105.4	90	110	
Co	59	2	72	2093.767	ppb	1.564	3888402	2000	104.7	90	110	
Ni	60	2	72	5199.152	ppb	1.383	3009507	5000	104.0	90	110	
Cu	63	2	72	5017.039	ppb	1.160	8557824	5000	100.3	90	110	
Zn	66	2	72	4871.104	ppb	0.750	654390	5000	97.4	90	110	
As	75	2	72	1865.556	ppb	0.242	140349	2000	93.3	90	110	
Se	78	1	72	2031.011	ppb	0.278	808939	2000	101.6	90	110	
(Se)	82	1	72	2001.270	ppb	1.478	356651	2000	100.1	90	110	
Mo	95	2	115	2073.412	ppb	0.663	1199968	2000	103.7	90	110	
Cd	111	2	115	2042.803	ppb	1.115	376693	2000	102.1	90	110	
(Cd)	114	2	115	2040.018	ppb	0.759	997186	2000	102.0	90	110	
Sn	120	2	115	1997.611	ppb	0.618	767844	2000	99.9	90	110	
Sb	121	2	115	1019.446	ppb	0.712	320786	1000	101.9	90	110	
Ba	137	2	115	5096.298	ppb	0.941	425996	5000	101.9	90	110	
Tl	205	2	165	1056.834	ppb	0.421	5597506	2000	52.8	90	110	LRS Main CR1 Failed
(Pb)	206	2	165	5192.428	ppb	0.304	8413642	5000	103.8	90	110	
(Pb)	207	2	165	5165.213	ppb	0.481	7729115	5000	103.3	90	110	
Pb	208	2	165	5160.519	ppb	0.569	35014828	5000	103.2	90	110	
Th	232	2	165	1038.967	ppb	0.292	7829661	2000	51.9	90	110	LRS Main CR1 Failed
U	238	2	165	2081.499	ppb	0.588	19123314	2000	104.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1078681	0.26	1218010	88.56	60	120	
Sc (IS)	45	1	HMI H2	33658903	0.10	37686081	89.31	60	120	
Sc (IS)	45	2	HMI He	316129	0.88	350747	90.13	60	120	
Sc (IS)	45	3	No Gas	115903168	0.97	133394481	86.89	60	120	
Ge Internal Standard	72	1	HMI H2	16979420	0.77	18699211	90.80	60	120	
Ge Internal Standard	72	2	HMI He	472340	1.12	520822	90.69	60	120	
In Internal Standard	115	2	HMI He	946932	0.78	1041810	90.89	60	120	
Ho-165	165	2	HMI He	8694545	0.92	9351780	92.97	60	120	

Sample Report

Sample Table

Sample Name	rinse
Data File Name	029SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:14:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-1.304	ppb	-1.304	-285.31	127437	500000	
Li	7	2	45	8.539	ppb	8.539	111.75	8045	500000	
Li	7	3	45	-12.797	ppb	-12.797	-20.46	8881148	50000	
Be	9	1	6	1.274	ppb	1.274	20.79	423	2000	
B	11	1	6	0.424	ppb	0.424	98.80	2010	2000	
Na	23	1	45	8.511	ppb	8.511	9.31	253077	2000	
Na	23	2	45	4.812	ppb	4.812	68.53	10530	400000	
Mg	24	2	45	5.467	ppb	5.467	56.54	367	400000	
Al	27	2	45	2.112	ppb	2.112	114.67	30	400000	
K	39	1	45	-127.565	ppb	-127.565	-10.43	6458760	400000	
K	39	2	45	-5.347	ppb	-5.347	-362.58	3517	400000	
Ca	40	1	45	23.655	ppb	23.655	0.24	206472	400000	
Ca	44	2	45	34.298	ppb	34.298	95.77	37	400000	
V	51	2	72	0.362	ppb	0.362	19.19	577	2000	
Cr	52	2	72	1.361	ppb	1.361	12.09	1290	5000	
Mn	55	2	72	2.302	ppb	2.302	16.47	493	10000	
Fe	57	2	72	2.664	ppb	2.664	75.18	70	400000	
Co	59	2	72	0.494	ppb	0.494	13.78	930	2000	
Ni	60	2	72	0.930	ppb	0.930	26.13	613	5000	
Cu	63	2	72	1.148	ppb	1.148	19.95	3369	5000	
Zn	66	2	72	1.913	ppb	1.913	6.90	353	5000	
As	75	2	72	0.506	ppb	0.506	109.25	49	2000	
Se	78	1	72	1.292	ppb	1.292	19.14	531	2000	
Sr	88	2	72	-0.019	ppb	-0.019	-452.34	7	4000	
Zr	90	2	72	1.283	ppb	1.283	173.70	33	1000	
Nb	93	2	72	0.082	ppb	0.082	33.17	863	200	
Mo	95	2	115	1.195	ppb	1.195	13.15	733	2000	
Pd	105	2	115	-0.005	ppb	-0.005	-180.95	10	100	
Ag	107	2	115	0.002	ppb	0.002	354.45	17	100	
Cd	111	2	115	0.248	ppb	0.248	42.41	50	2000	
Sn	120	2	115	4.189	ppb	4.189	14.81	1767	2000	
Sb	121	2	115	2.789	ppb	2.789	14.43	923	1000	
Ba	137	2	115	1.051	ppb	1.051	12.17	90	5000	
W	182	2	165	0.005	ppb	0.005	231.85	227	100	
Pt	195	2	165	0.006	ppb	0.006	272.00	453	100	
Tl	205	2	165	0.211	ppb	0.211	29.65	1253	2000	
Pb	208	2	165	1.770	ppb	1.770	11.53	13746	5000	
Th	232	2	165	3.266	ppb	3.266	11.12	26130	2000	
U	238	2	165	0.616	ppb	0.616	21.65	5751	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1064888	1.92	1218010	87.43	60	120	
Sc (IS)	45	1	HMI H2	33990239	1.12	37686081	90.19	60	120	
Sc (IS)	45	2	HMI He	326290	1.53	350747	93.03	60	120	
Sc (IS)	45	3	No Gas	118484048	0.12	133394481	88.82	60	120	
Ge Internal Standard	72	1	HMI H2	17157281	0.92	18699211	91.75	60	120	
Ge Internal Standard	72	2	HMI He	479634	0.88	520822	92.09	60	120	
In Internal Standard	115	2	HMI He	970618	1.14	1041810	93.17	60	120	
Ho-165	165	2	HMI He	8756217	1.02	9351780	93.63	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	030_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:18:47-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	494.952	ppb	2.096	304765	500	99.0	90	110	
Li	7	2	45	507.393	ppb	6.042	18864	500	101.5	90	110	
Li	7	3	45	466.411	ppb	0.809	21371015	500	93.3	90	110	
Be	9	1	6	47.557	ppb	3.474	15614	50	95.1	90	110	
B	11	1	6	47.387	ppb	4.502	20015	50	94.8	90	110	
Na	23	1	45	5087.788	ppb	0.500	16769312	5000	101.8	90	110	
Na	23	2	45	4882.007	ppb	1.357	576300	5000	97.6	90	110	
Mg	24	2	45	5089.690	ppb	1.317	241177	5000	101.8	90	110	
Al	27	2	45	5131.664	ppb	0.371	42865	5000	102.6	90	110	
K	39	1	45	5061.073	ppb	1.453	22244959	5000	101.2	90	110	
K	39	2	45	5121.210	ppb	0.754	76441	5000	102.4	90	110	
Ca	40	1	45	5093.758	ppb	0.369	26516103	5000	101.9	90	110	
Ca	44	2	45	5162.248	ppb	7.800	4657	5000	103.2	90	110	
V	51	2	72	48.402	ppb	3.128	29636	50	96.8	90	110	
Cr	52	2	72	50.641	ppb	1.908	42298	50	101.3	90	110	
Mn	55	2	72	50.614	ppb	5.032	10377	50	101.2	90	110	
Fe	57	2	72	5069.113	ppb	0.338	74687	5000	101.4	90	110	
Co	59	2	72	50.997	ppb	0.637	96571	50	102.0	90	110	
Ni	60	2	72	49.077	ppb	1.314	29031	50	98.2	90	110	
Cu	63	2	72	50.524	ppb	2.071	89234	50	101.0	90	110	
Zn	66	2	72	48.584	ppb	5.799	6745	50	97.2	90	110	
As	75	2	72	49.249	ppb	2.288	3788	50	98.5	90	110	
Se	78	1	72	50.954	ppb	1.235	20558	50	101.9	90	110	
Sr	88	2	72	51.979	ppb	4.075	7032	50	104.0	90	110	
Zr	90	2	72	60.636	ppb	33.296	433	50	121.3	90	110	>+\-10%
Nb	93	2	72	96.969	ppb	1.255	211601	100	97.0	90	110	
Mo	95	2	115	50.207	ppb	1.799	29843	50	100.4	90	110	
Pd	105	2	115	50.213	ppb	1.358	59106	50	100.4	90	110	
Ag	107	2	115	49.939	ppb	0.922	123308	50	99.9	90	110	
Cd	111	2	115	50.599	ppb	5.199	9576	50	101.2	90	110	
Sn	120	2	115	52.823	ppb	4.862	20957	50	105.6	90	110	
Sb	121	2	115	52.524	ppb	1.895	16986	50	105.0	90	110	
Ba	137	2	115	51.199	ppb	8.293	4394	50	102.4	90	110	
W	182	2	165	50.592	ppb	1.410	226593	50	101.2	90	110	
Pt	195	2	165	49.896	ppb	0.862	254086	50	99.8	90	110	
Tl	205	2	165	51.423	ppb	1.311	277482	50	102.8	90	110	
Pb	208	2	165	51.648	ppb	1.752	358517	50	103.3	90	110	
Th	232	2	165	53.280	ppb	1.394	410167	50	106.6	90	110	
U	238	2	165	50.696	ppb	1.080	474368	50	101.4	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1076925	2.35	1218010	88.42	60	120	
Sc (IS)	45	1	HMI H2	34215524	0.98	37686081	90.79	60	120	
Sc (IS)	45	2	HMI He	328303	1.28	350747	93.60	60	120	
Sc (IS)	45	3	No Gas	117629905	1.19	133394481	88.18	60	120	
Ge Internal Standard	72	1	HMI H2	17190102	0.89	18699211	91.93	60	120	
Ge Internal Standard	72	2	HMI He	481588	1.16	520822	92.47	60	120	
In Internal Standard	115	2	HMI He	971812	0.80	1041810	93.28	60	120	
Ho-165	165	2	HMI He	8854286	0.88	9351780	94.68	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	031_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:22:35-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-9.483	ppb	-14.2	9207616	10	
Be	9	1	6	0.073	ppb	49.0	33	0.5	
B	11	1	6	0.646	ppb	65.4	2167	0.5	>RL
Na	23	1	45	3.460	ppb	15.6	243102	25	
Na	23	2	45	-2.197	ppb	-290.8	9830	25	
Mg	24	2	45	2.255	ppb	27.5	217	25	
Al	27	2	45	5.641	ppb	83.9	60	15	
K	39	1	45	-96.743	ppb	-17.0	6726810	50	
K	39	2	45	-8.794	ppb	-145.9	3504	50	
Ca	40	1	45	1.144	ppb	13.5	92854	50	
Ca	44	2	45	11.577	ppb	199.1	17	25	
V	51	2	72	0.018	ppb	461.3	377	1	
Cr	52	2	72	-0.031	ppb	-111.5	140	1	
Mn	55	2	72	0.168	ppb	48.5	60	0.5	
Fe	57	2	72	5.912	ppb	40.0	120	25	
Co	59	2	72	0.017	ppb	70.2	33	0.5	
Ni	60	2	72	0.002	ppb	735.7	70	1	
Cu	63	2	72	-0.124	ppb	-39.2	1190	1	
Zn	66	2	72	0.641	ppb	21.7	183	5	
As	75	2	72	0.025	ppb	293.1	12	1	
Se	78	1	72	0.090	ppb	57.4	48	1	
Sr	88	2	72	-0.044	ppb	-95.4	3	0.5	
Zr	90	2	72	0.229	ppb	974.8	27	1	
Nb	93	2	72	1.727	ppb	8.3	4514	2	
Mo	95	2	115	0.084	ppb	29.7	77	0.5	
Pd	105	2	115	0.020	ppb	39.5	40	1	
Ag	107	2	115	0.010	ppb	89.0	37	1	
Cd	111	2	115	0.036	ppb	146.1	10	0.5	
Sn	120	2	115	0.497	ppb	76.3	320	1	
Sb	121	2	115	0.547	ppb	34.5	207	0.6	
Ba	137	2	115	0.038	ppb	173.2	3	0.5	
W	182	2	165	0.039	ppb	19.8	390	1	
Pt	195	2	165	0.020	ppb	107.5	543	1	
Tl	205	2	165	0.028	ppb	38.9	287	0.1	
Pb	208	2	165	0.095	ppb	51.0	2394	0.5	
Th	232	2	165	0.418	ppb	7.7	4691	1	
U	238	2	165	0.031	ppb	10.2	360	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1101401	1.81	1218010	90.43	60	120	
Sc (IS)	45	1	HMI H2	34899195	0.95	37686081	92.60	60	120	
Sc (IS)	45	2	HMI He	329809	0.54	350747	94.03	60	120	
Sc (IS)	45	3	No Gas	121643245	0.47	133394481	91.19	60	120	
Ge Internal Standard	72	1	HMI H2	17408512	0.14	18699211	93.10	60	120	
Ge Internal Standard	72	2	HMI He	489282	0.87	520822	93.94	60	120	
In Internal Standard	115	2	HMI He	993400	1.55	1041810	95.35	60	120	
Ho-165	165	2	HMI He	9050329	0.52	9351780	96.78	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	032LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:26:26-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	3.458	ppb	167.647	9591482	50	6.9	70	130	>+/-30%
Be	9	1	6	0.974	ppb	39.292	347	1	97.4	70	130	
Na	23	2	45	49.919	ppb	5.797	16028	50	99.8	70	130	
Mg	24	2	45	50.998	ppb	9.695	2557	50	102.0	70	130	
Al	27	2	45	37.543	ppb	9.175	330	30	125.1	70	130	
K	39	2	45	74.859	ppb	20.896	4737	100	74.9	70	130	
Ca	44	2	45	66.261	ppb	34.968	67	50	132.5	70	130	>+/-30%
V	51	2	72	4.757	ppb	4.416	3284	5	95.1	70	130	
Cr	52	2	72	2.237	ppb	1.981	2054	2	111.9	70	130	
Mn	55	2	72	0.925	ppb	49.525	217	1	92.5	70	130	
Fe	57	2	72	54.596	ppb	18.462	847	50	109.2	70	130	
Co	59	2	72	1.003	ppb	3.395	1927	1	100.3	70	130	
Ni	60	2	72	1.901	ppb	3.216	1207	2	95.1	70	130	
Cu	63	2	72	2.009	ppb	2.769	4951	2	100.4	70	130	
Zn	66	2	72	11.040	ppb	8.148	1627	10	110.4	70	130	
As	75	2	72	4.559	ppb	10.197	365	5	91.2	70	130	
Se	78	1	72	5.333	ppb	5.095	2215	5	106.7	70	130	
Sr	88	2	72	1.368	ppb	26.780	197	1	136.8	70	130	>+/-30%
Zr	90	2	72	15.350	ppb	34.379	130	0.5	3070.0	70	130	>+/-30%
Nb	93	2	72	1.871	ppb	6.438	4828	2	93.6	70	130	
Mo	95	2	115	2.047	ppb	6.666	1270	2	102.4	70	130	
Pd	105	2	115	0.017	ppb	169.997	37	1	1.7	70	130	>+/-30%
Ag	107	2	115	4.979	ppb	3.919	12598	5	99.6	70	130	
Cd	111	2	115	0.913	ppb	19.903	180	1	91.3	70	130	
Sn	120	2	115	10.327	ppb	2.480	4291	10	103.3	70	130	
Sb	121	2	115	2.505	ppb	5.191	853	2	125.2	70	130	
Ba	137	2	115	1.102	ppb	26.627	97	1	110.2	70	130	
W	182	2	165	4.747	ppb	2.695	21939	1	474.7	70	130	>+/-30%
Pt	195	2	165	0.016	ppb	171.301	523	1	1.6	70	130	>+/-30%
Tl	205	2	165	1.077	ppb	7.052	6071	1	107.7	70	130	
Pb	208	2	165	1.239	ppb	9.509	10482	1	123.9	70	130	
Th	232	2	165	2.405	ppb	1.508	20291	2	120.3	70	130	
U	238	2	165	0.999	ppb	6.011	9620	1	99.9	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1135189	0.31	1218010	93.20	60	120	
Sc (IS)	45	1	HMI H2	35264167	0.94	37686081	93.57	60	120	
Sc (IS)	45	2	HMI He	332495	1.14	350747	94.80	60	120	
Sc (IS)	45	3	No Gas	122074038	0.79	133394481	91.51	60	120	
Ge Internal Standard	72	1	HMI H2	17612733	0.60	18699211	94.19	60	120	
Ge Internal Standard	72	2	HMI He	488490	1.01	520822	93.79	60	120	
In Internal Standard	115	2	HMI He	994782	0.90	1041810	95.49	60	120	
Ho-165	165	2	HMI He	9056591	0.41	9351780	96.84	60	120	

Sample Report

Sample Table

Sample Name	280-104320-J-6-B
Data File Name	033SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:30:15-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	1.241	ppb	1.241	440.63	134514	500000	
Li	7	2	45	7.750	ppb	7.750	300.69	8316	500000	
Li	7	3	45	9.786	ppb	9.786	9.95	10119816	50000	
Be	9	1	6	-0.017	ppb	-0.017	-101.22	3	2000	
B	11	1	6	29.570	ppb	29.570	4.91	13475	2000	
Na	23	1	45	14428.295	ppb	14428.295	0.31	49085581	2000	>LDR
Na	23	2	45	14431.203	ppb	14431.203	0.83	1734100	400000	
Mg	24	2	45	31534.464	ppb	31534.464	1.10	1538033	400000	
Al	27	2	45	14.030	ppb	14.030	30.05	133	400000	
K	39	1	45	1192.498	ppb	1192.498	1.37	10941006	400000	
K	39	2	45	2219.188	ppb	2219.188	2.88	36217	400000	
Ca	40	1	45	98629.069	ppb	98629.069	0.58	533007672	400000	
Ca	44	2	45	94449.687	ppb	94449.687	0.71	87582	400000	
V	51	2	72	-0.278	ppb	-0.278	-53.11	197	2000	
Cr	52	2	72	0.257	ppb	0.257	54.24	387	5000	
Mn	55	2	72	92.620	ppb	92.620	1.78	19495	10000	
Fe	57	2	72	535.973	ppb	535.973	2.69	8145	400000	
Co	59	2	72	2.261	ppb	2.261	6.36	4401	2000	
Ni	60	2	72	6.683	ppb	6.683	1.61	4124	5000	
Cu	63	2	72	0.019	ppb	0.019	141.68	1460	5000	
Zn	66	2	72	3.322	ppb	3.322	17.03	563	5000	
As	75	2	72	12.525	ppb	12.525	2.98	998	2000	
Se	78	1	72	0.037	ppb	0.037	65.56	27	2000	
Sr	88	2	72	293.433	ppb	293.433	1.09	40759	4000	
Zr	90	2	72	14.678	ppb	14.678	104.02	127	1000	
Nb	93	2	72	0.217	ppb	0.217	20.54	1193	200	
Mo	95	2	115	1.108	ppb	1.108	29.43	690	2000	
Pd	105	2	115	0.003	ppb	0.003	487.10	20	100	
Ag	107	2	115	0.014	ppb	0.014	72.93	47	100	
Cd	111	2	115	0.019	ppb	0.019	162.40	7	2000	
Sn	120	2	115	0.510	ppb	0.510	11.64	323	2000	
Sb	121	2	115	0.708	ppb	0.708	6.55	257	1000	
Ba	137	2	115	38.706	ppb	38.706	2.95	3360	5000	
W	182	2	165	0.064	ppb	0.064	45.93	503	100	
Pt	195	2	165	0.018	ppb	0.018	205.18	533	100	
Tl	205	2	165	0.153	ppb	0.153	10.93	970	2000	
Pb	208	2	165	0.456	ppb	0.456	16.71	4914	5000	
Th	232	2	165	0.491	ppb	0.491	7.88	5241	2000	
U	238	2	165	0.129	ppb	0.129	6.05	1287	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1099445	0.39	1218010	90.27	60	120	
Sc (IS)	45	1	HMI H2	35627867	1.10	37686081	94.54	60	120	
Sc (IS)	45	2	HMI He	338037	0.90	350747	96.38	60	120	
Sc (IS)	45	3	No Gas	126522755	1.44	133394481	94.85	60	120	
Ge Internal Standard	72	1	HMI H2	17562832	0.58	18699211	93.92	60	120	
Ge Internal Standard	72	2	HMI He	494979	0.95	520822	95.04	60	120	
In Internal Standard	115	2	HMI He	983333	0.94	1041810	94.39	60	120	
Ho-165	165	2	HMI He	9014011	1.85	9351780	96.39	60	120	

Sample Report

Sample Table

Sample Name	280-104320-J-7-B
Data File Name	034SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:34:03-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	11.298	ppb	11.298	32.80	138960	500000	
Li	7	2	45	23.167	ppb	23.167	28.00	8782	500000	
Li	7	3	45	13.947	ppb	13.947	29.69	10395282	50000	
Be	9	1	6	-0.027	ppb	-0.027	0.00	0	2000	
B	11	1	6	30.351	ppb	30.351	8.12	13939	2000	
Na	23	1	45	14909.546	ppb	14909.546	0.75	50974781	2000	>LDR
Na	23	2	45	14666.280	ppb	14666.280	1.72	1787053	400000	
Mg	24	2	45	32522.540	ppb	32522.540	0.57	1608844	400000	
Al	27	2	45	13.815	ppb	13.815	22.34	133	400000	
K	39	1	45	1235.223	ppb	1235.223	0.90	11133029	400000	
K	39	2	45	2192.877	ppb	2192.877	2.93	36337	400000	
Ca	40	1	45	102491.097	ppb	102491.097	1.47	556700498	400000	
Ca	44	2	45	96465.932	ppb	96465.932	1.32	90714	400000	
V	51	2	72	-0.261	ppb	-0.261	-49.79	210	2000	
Cr	52	2	72	0.179	ppb	0.179	58.01	323	5000	
Mn	55	2	72	94.601	ppb	94.601	2.18	20065	10000	
Fe	57	2	72	610.741	ppb	610.741	5.55	9346	400000	
Co	59	2	72	2.158	ppb	2.158	6.25	4234	2000	
Ni	60	2	72	6.698	ppb	6.698	2.00	4164	5000	
Cu	63	2	72	-0.111	ppb	-0.111	-37.30	1237	5000	
Zn	66	2	72	2.119	ppb	2.119	12.48	397	5000	
As	75	2	72	13.807	ppb	13.807	7.26	1108	2000	
Se	78	1	72	0.037	ppb	0.037	143.99	27	2000	
Sr	88	2	72	303.971	ppb	303.971	0.88	42547	4000	
Zr	90	2	72	11.084	ppb	11.084	30.91	103	1000	
Nb	93	2	72	0.106	ppb	0.106	37.53	950	200	
Mo	95	2	115	0.933	ppb	0.933	28.47	593	2000	
Pd	105	2	115	-0.011	ppb	-0.011	-45.48	3	100	
Ag	107	2	115	0.000	ppb	0.000	901.68	13	100	
Cd	111	2	115	-0.016	ppb	-0.016	0.00	0	2000	
Sn	120	2	115	0.574	ppb	0.574	18.62	353	2000	
Sb	121	2	115	0.638	ppb	0.638	13.26	237	1000	
Ba	137	2	115	41.831	ppb	41.831	5.36	3674	5000	
W	182	2	165	0.083	ppb	0.083	30.57	597	100	
Pt	195	2	165	-0.017	ppb	-0.017	-80.62	350	100	
Tl	205	2	165	0.061	ppb	0.061	26.95	470	2000	
Pb	208	2	165	0.279	ppb	0.279	13.21	3704	5000	
Th	232	2	165	0.242	ppb	0.242	6.61	3324	2000	
U	238	2	165	0.139	ppb	0.139	12.48	1393	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1113026	1.64	1218010	91.38	60	120	
Sc (IS)	45	1	HMI H2	35810800	0.31	37686081	95.02	60	120	
Sc (IS)	45	2	HMI He	342855	1.46	350747	97.75	60	120	
Sc (IS)	45	3	No Gas	128476878	0.12	133394481	96.31	60	120	
Ge Internal Standard	72	1	HMI H2	17668048	0.45	18699211	94.49	60	120	
Ge Internal Standard	72	2	HMI He	498824	1.11	520822	95.78	60	120	
In Internal Standard	115	2	HMI He	995354	1.37	1041810	95.54	60	120	
Ho-165	165	2	HMI He	9094821	2.49	9351780	97.25	60	120	

Sample Report

Sample Table

Sample Name	280-104320-J-8-B
Data File Name	035SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:37:51-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	3.747	ppb	3.747	126.62	138742	500000	
Li	7	2	45	2.687	ppb	2.687	242.36	8509	500000	
Li	7	3	45	10.673	ppb	10.673	40.42	10345220	50000	
Be	9	1	6	0.002	ppb	0.002	2493.40	10	2000	
B	11	1	6	30.599	ppb	30.599	2.72	14283	2000	
Na	23	1	45	11805.032	ppb	11805.032	1.32	41179062	2000	>LDR
Na	23	2	45	11719.670	ppb	11719.670	3.81	1461321	400000	
Mg	24	2	45	23537.899	ppb	23537.899	6.57	1189125	400000	
Al	27	2	45	7.074	ppb	7.074	37.64	77	400000	
K	39	1	45	925.245	ppb	925.245	1.22	10341544	400000	
K	39	2	45	1969.251	ppb	1969.251	4.88	33732	400000	
Ca	40	1	45	79385.724	ppb	79385.724	0.69	439428447	400000	
Ca	44	2	45	75037.059	ppb	75037.059	5.18	72084	400000	
V	51	2	72	-0.269	ppb	-0.269	-23.81	210	2000	
Cr	52	2	72	0.256	ppb	0.256	56.72	397	5000	
Mn	55	2	72	490.982	ppb	490.982	3.22	106443	10000	
Fe	57	2	72	1422.640	ppb	1422.640	6.76	22225	400000	
Co	59	2	72	0.166	ppb	0.166	28.63	333	2000	
Ni	60	2	72	0.463	ppb	0.463	41.22	360	5000	
Cu	63	2	72	0.077	ppb	0.077	195.61	1613	5000	
Zn	66	2	72	1.319	ppb	1.319	25.95	290	5000	
As	75	2	72	7.320	ppb	7.320	12.38	605	2000	
Se	78	1	72	-0.002	ppb	-0.002	-757.73	11	2000	
Sr	88	2	72	201.496	ppb	201.496	4.44	28852	4000	
Zr	90	2	72	10.216	ppb	10.216	65.29	100	1000	
Nb	93	2	72	0.064	ppb	0.064	12.47	877	200	
Mo	95	2	115	1.110	ppb	1.110	16.78	717	2000	
Pd	105	2	115	-0.008	ppb	-0.008	-120.69	7	100	
Ag	107	2	115	0.006	ppb	0.006	174.31	30	100	
Cd	111	2	115	0.000	ppb	0.000	41822.33	3	2000	
Sn	120	2	115	0.353	ppb	0.353	33.14	270	2000	
Sb	121	2	115	0.239	ppb	0.239	104.52	107	1000	
Ba	137	2	115	94.567	ppb	94.567	9.12	8456	5000	
W	182	2	165	0.088	ppb	0.088	11.40	637	100	
Pt	195	2	165	0.010	ppb	0.010	84.51	507	100	
Tl	205	2	165	0.008	ppb	0.008	158.20	183	2000	
Pb	208	2	165	0.242	ppb	0.242	17.97	3537	5000	
Th	232	2	165	0.138	ppb	0.138	10.12	2577	2000	
U	238	2	165	0.378	ppb	0.378	1.08	3794	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1131759	0.86	1218010	92.92	60	120	
Sc (IS)	45	1	HMI H2	36492209	0.32	37686081	96.83	60	120	
Sc (IS)	45	2	HMI He	350607	3.51	350747	99.96	60	120	
Sc (IS)	45	3	No Gas	129027815	1.15	133394481	96.73	60	120	
Ge Internal Standard	72	1	HMI H2	17947030	0.50	18699211	95.98	60	120	
Ge Internal Standard	72	2	HMI He	510561	2.27	520822	98.03	60	120	
In Internal Standard	115	2	HMI He	1014787	3.30	1041810	97.41	60	120	
Ho-165	165	2	HMI He	9341332	1.95	9351780	99.89	60	120	

Sample Report

Sample Table

Sample Name	280-104320-A-12-B
Data File Name	036SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:41:38-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-9.135	ppb	-9.135	-53.59	134588	500000	
Li	7	2	45	6.142	ppb	6.142	158.73	8572	500000	
Li	7	3	45	-5.711	ppb	-5.711	-54.02	9917540	50000	
Be	9	1	6	0.012	ppb	0.012	383.11	13	2000	
B	11	1	6	56.598	ppb	56.598	4.98	24988	2000	
Na	23	1	45	9098.446	ppb	9098.446	2.67	31964100	2000	
Na	23	2	45	9381.400	ppb	9381.400	1.51	1170816	400000	
Mg	24	2	45	35474.565	ppb	35474.565	1.52	1791055	400000	
Al	27	2	45	11.928	ppb	11.928	55.50	120	400000	
K	39	1	45	-2.037	ppb	-2.037	-1214.82	7380877	400000	
K	39	2	45	1134.959	ppb	1134.959	0.88	21053	400000	
Ca	40	1	45	75266.297	ppb	75266.297	3.34	418844194	400000	
Ca	44	2	45	72267.866	ppb	72267.866	2.30	69384	400000	
V	51	2	72	-0.272	ppb	-0.272	-34.23	207	2000	
Cr	52	2	72	0.558	ppb	0.558	18.60	663	5000	
Mn	55	2	72	0.464	ppb	0.464	39.29	127	10000	
Fe	57	2	72	35.375	ppb	35.375	4.99	583	400000	
Co	59	2	72	0.018	ppb	0.018	83.02	37	2000	
Ni	60	2	72	0.265	ppb	0.265	14.84	237	5000	
Cu	63	2	72	0.368	ppb	0.368	5.47	2144	5000	
Zn	66	2	72	0.960	ppb	0.960	43.20	237	5000	
As	75	2	72	0.446	ppb	0.446	52.04	47	2000	
Se	78	1	72	0.720	ppb	0.720	22.25	315	2000	
Sr	88	2	72	205.890	ppb	205.890	1.02	29423	4000	
Zr	90	2	72	9.429	ppb	9.429	38.80	93	1000	
Nb	93	2	72	-0.054	ppb	-0.054	-59.61	603	200	
Mo	95	2	115	1.067	ppb	1.067	21.75	683	2000	
Pd	105	2	115	-0.008	ppb	-0.008	-61.09	7	100	
Ag	107	2	115	0.011	ppb	0.011	75.71	40	100	
Cd	111	2	115	-0.016	ppb	-0.016	0.00	0	2000	
Sn	120	2	115	0.808	ppb	0.808	30.56	453	2000	
Sb	121	2	115	3.490	ppb	3.490	10.33	1193	1000	
Ba	137	2	115	39.080	ppb	39.080	2.15	3477	5000	
W	182	2	165	0.048	ppb	0.048	22.98	447	100	
Pt	195	2	165	0.004	ppb	0.004	348.01	473	100	
Tl	205	2	165	0.010	ppb	0.010	76.64	197	2000	
Pb	208	2	165	103.150	ppb	103.150	0.56	757064	5000	
Th	232	2	165	0.056	ppb	0.056	18.96	1920	2000	
U	238	2	165	1.790	ppb	1.790	0.47	17808	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1142759	1.30	1218010	93.82	60	120	
Sc (IS)	45	1	HMI H2	36695974	1.28	37686081	97.37	60	120	
Sc (IS)	45	2	HMI He	349938	1.26	350747	99.77	60	120	
Sc (IS)	45	3	No Gas	129585541	0.37	133394481	97.14	60	120	
Ge Internal Standard	72	1	HMI H2	17945540	0.24	18699211	95.97	60	120	
Ge Internal Standard	72	2	HMI He	509174	1.16	520822	97.76	60	120	
In Internal Standard	115	2	HMI He	1007760	1.78	1041810	96.73	60	120	
Ho-165	165	2	HMI He	9382832	0.49	9351780	100.33	60	120	

Sample Report

Sample Table

Sample Name	280-104320-A-13-B
Data File Name	037SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:45:25-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-4.314	ppb	-4.314	-172.67	134548	500000	
Li	7	2	45	2.159	ppb	2.159	578.83	8456	500000	
Li	7	3	45	-3.731	ppb	-3.731	-99.30	9788512	50000	
Be	9	1	6	0.022	ppb	0.022	277.20	17	2000	
B	11	1	6	39.983	ppb	39.983	6.26	17742	2000	
Na	23	1	45	9278.368	ppb	9278.368	0.47	32144901	2000	
Na	23	2	45	9210.200	ppb	9210.200	1.01	1145594	400000	
Mg	24	2	45	15686.436	ppb	15686.436	2.23	789366	400000	
Al	27	2	45	19.912	ppb	19.912	25.85	190	400000	
K	39	1	45	545.156	ppb	545.156	1.82	9034850	400000	
K	39	2	45	1645.053	ppb	1645.053	2.66	28690	400000	
Ca	40	1	45	61590.469	ppb	61590.469	0.20	338088168	400000	
Ca	44	2	45	59742.347	ppb	59742.347	3.34	57158	400000	
V	51	2	72	-0.242	ppb	-0.242	-29.83	227	2000	
Cr	52	2	72	0.193	ppb	0.193	38.72	343	5000	
Mn	55	2	72	173.690	ppb	173.690	2.07	37701	10000	
Fe	57	2	72	804.317	ppb	804.317	5.88	12595	400000	
Co	59	2	72	0.148	ppb	0.148	19.48	297	2000	
Ni	60	2	72	0.216	ppb	0.216	28.87	207	5000	
Cu	63	2	72	-0.031	ppb	-0.031	-309.29	1413	5000	
Zn	66	2	72	1.872	ppb	1.872	13.30	370	5000	
As	75	2	72	13.021	ppb	13.021	2.94	1070	2000	
Se	78	1	72	0.023	ppb	0.023	124.15	21	2000	
Sr	88	2	72	228.562	ppb	228.562	1.68	32752	4000	
Zr	90	2	72	7.975	ppb	7.975	10.49	83	1000	
Nb	93	2	72	-0.074	ppb	-0.074	-102.61	560	200	
Mo	95	2	115	1.920	ppb	1.920	11.63	1213	2000	
Pd	105	2	115	0.000	ppb	0.000	9126.68	17	100	
Ag	107	2	115	-0.002	ppb	-0.002	-91.47	7	100	
Cd	111	2	115	0.001	ppb	0.001	5115.29	3	2000	
Sn	120	2	115	0.146	ppb	0.146	43.31	183	2000	
Sb	121	2	115	0.131	ppb	0.131	82.59	70	1000	
Ba	137	2	115	119.542	ppb	119.542	6.06	10680	5000	
W	182	2	165	0.041	ppb	0.041	73.05	410	100	
Pt	195	2	165	-0.001	ppb	-0.001	-1294.91	447	100	
Tl	205	2	165	-0.004	ppb	-0.004	-214.83	113	2000	
Pb	208	2	165	0.311	ppb	0.311	11.39	4030	5000	
Th	232	2	165	0.073	ppb	0.073	30.80	2044	2000	
U	238	2	165	0.188	ppb	0.188	11.27	1914	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1111557	0.73	1218010	91.26	60	120	
Sc (IS)	45	1	HMI H2	36185642	0.57	37686081	96.02	60	120	
Sc (IS)	45	2	HMI He	348769	1.25	350747	99.44	60	120	
Sc (IS)	45	3	No Gas	127176845	1.41	133394481	95.34	60	120	
Ge Internal Standard	72	1	HMI H2	17951784	0.45	18699211	96.00	60	120	
Ge Internal Standard	72	2	HMI He	510650	0.70	520822	98.05	60	120	
In Internal Standard	115	2	HMI He	1012409	0.75	1041810	97.18	60	120	
Ho-165	165	2	HMI He	9315661	0.23	9351780	99.61	60	120	

Sample Table

Sample Name	280-104320-E-14-B
Data File Name	038SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:49:13-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-7.824	ppb	-7.824	-30.22	132378	500000	
Li	7	2	45	-6.782	ppb	-6.782	-246.96	8199	500000	
Li	7	3	45	-6.886	ppb	-6.886	-24.19	9504119	50000	
Be	9	1	6	-0.007	ppb	-0.007	-467.21	7	2000	
B	11	1	6	6.137	ppb	6.137	9.32	4331	2000	
Na	23	1	45	4157.573	ppb	4157.573	0.32	14444631	2000	
Na	23	2	45	4029.414	ppb	4029.414	1.53	504173	400000	
Mg	24	2	45	10650.315	ppb	10650.315	1.53	532830	400000	
Al	27	2	45	8.715	ppb	8.715	47.13	90	400000	
K	39	1	45	-470.791	ppb	-470.791	-3.39	5737948	400000	
K	39	2	45	676.676	ppb	676.676	2.37	13976	400000	
Ca	40	1	45	31961.426	ppb	31961.426	0.81	174376924	400000	
Ca	44	2	45	30260.708	ppb	30260.708	2.93	28781	400000	
V	51	2	72	-0.130	ppb	-0.130	-57.94	297	2000	
Cr	52	2	72	0.340	ppb	0.340	20.91	470	5000	
Mn	55	2	72	287.855	ppb	287.855	0.90	62039	10000	
Fe	57	2	72	4279.340	ppb	4279.340	1.71	66411	400000	
Co	59	2	72	0.423	ppb	0.423	21.92	843	2000	
Ni	60	2	72	2.608	ppb	2.608	16.78	1693	5000	
Cu	63	2	72	0.312	ppb	0.312	39.63	2034	5000	
Zn	66	2	72	1.101	ppb	1.101	48.11	257	5000	
As	75	2	72	1.904	ppb	1.904	4.20	165	2000	
Se	78	1	72	0.062	ppb	0.062	79.04	37	2000	
Sr	88	2	72	40.582	ppb	40.582	1.65	5785	4000	
Zr	90	2	72	11.350	ppb	11.350	47.57	107	1000	
Nb	93	2	72	-0.065	ppb	-0.065	-24.86	577	200	
Mo	95	2	115	0.124	ppb	0.124	20.51	103	2000	
Pd	105	2	115	-0.008	ppb	-0.008	-118.43	7	100	
Ag	107	2	115	0.001	ppb	0.001	573.74	17	100	
Cd	111	2	115	0.034	ppb	0.034	256.62	10	2000	
Sn	120	2	115	0.271	ppb	0.271	74.81	237	2000	
Sb	121	2	115	0.110	ppb	0.110	133.48	63	1000	
Ba	137	2	115	18.417	ppb	18.417	5.45	1660	5000	
W	182	2	165	0.050	ppb	0.050	36.07	450	100	
Pt	195	2	165	-0.004	ppb	-0.004	-188.46	427	100	
Tl	205	2	165	-0.001	ppb	-0.001	-782.87	130	2000	
Pb	208	2	165	0.278	ppb	0.278	12.91	3770	5000	
Th	232	2	165	0.028	ppb	0.028	60.80	1670	2000	
U	238	2	165	0.007	ppb	0.007	9.55	133	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1103760	2.30	1218010	90.62	60	120	
Sc (IS)	45	1	HMI H2	35956725	0.31	37686081	95.41	60	120	
Sc (IS)	45	2	HMI He	346674	0.38	350747	98.84	60	120	
Sc (IS)	45	3	No Gas	124611725	1.04	133394481	93.42	60	120	
Ge Internal Standard	72	1	HMI H2	17745401	0.42	18699211	94.90	60	120	
Ge Internal Standard	72	2	HMI He	507203	0.65	520822	97.39	60	120	
In Internal Standard	115	2	HMI He	1021393	0.72	1041810	98.04	60	120	
Ho-165	165	2	HMI He	9274541	0.80	9351780	99.17	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-15-B
Data File Name	039SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:53:02-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-8.867	ppb	-8.867	-55.36	134277	500000	
Li	7	2	45	3.486	ppb	3.486	267.28	8409	500000	
Li	7	3	45	-3.820	ppb	-3.820	-148.44	9598212	50000	
Be	9	1	6	0.042	ppb	0.042	80.30	23	2000	
B	11	1	6	29.490	ppb	29.490	5.75	13512	2000	
Na	23	1	45	4793.929	ppb	4793.929	3.17	16902775	2000	
Na	23	2	45	4789.620	ppb	4789.620	0.62	595545	400000	
Mg	24	2	45	18186.096	ppb	18186.096	0.79	907094	400000	
Al	27	2	45	17.073	ppb	17.073	31.22	163	400000	
K	39	1	45	232.365	ppb	232.365	28.95	8117060	400000	
K	39	2	45	1458.457	ppb	1458.457	3.94	25642	400000	
Ca	40	1	45	67772.292	ppb	67772.292	4.96	375874754	400000	
Ca	44	2	45	67754.797	ppb	67754.797	1.74	64239	400000	
V	51	2	72	-0.240	ppb	-0.240	-21.29	230	2000	
Cr	52	2	72	0.253	ppb	0.253	44.13	400	5000	
Mn	55	2	72	466.705	ppb	466.705	1.76	101977	10000	
Fe	57	2	72	2533.640	ppb	2533.640	2.89	39879	400000	
Co	59	2	72	0.402	ppb	0.402	14.35	813	2000	
Ni	60	2	72	0.409	ppb	0.409	8.85	330	5000	
Cu	63	2	72	0.562	ppb	0.562	5.03	2527	5000	
Zn	66	2	72	1.902	ppb	1.902	21.80	377	5000	
As	75	2	72	15.423	ppb	15.423	5.19	1275	2000	
Se	78	1	72	0.039	ppb	0.039	108.70	28	2000	
Sr	88	2	72	144.852	ppb	144.852	3.57	20910	4000	
Zr	90	2	72	32.786	ppb	32.786	19.13	263	1000	
Nb	93	2	72	-0.082	ppb	-0.082	-48.27	543	200	
Mo	95	2	115	0.644	ppb	0.644	18.21	430	2000	
Pd	105	2	115	-0.011	ppb	-0.011	-43.32	3	100	
Ag	107	2	115	0.012	ppb	0.012	36.38	43	100	
Cd	111	2	115	-0.016	ppb	-0.016	0.00	0	2000	
Sn	120	2	115	0.277	ppb	0.277	26.42	240	2000	
Sb	121	2	115	0.196	ppb	0.196	85.98	93	1000	
Ba	137	2	115	59.613	ppb	59.613	5.29	5401	5000	
W	182	2	165	0.062	ppb	0.062	12.90	520	100	
Pt	195	2	165	0.019	ppb	0.019	286.48	563	100	
Tl	205	2	165	-0.014	ppb	-0.014	-0.75	60	2000	
Pb	208	2	165	0.932	ppb	0.932	4.87	8695	5000	
Th	232	2	165	0.010	ppb	0.010	328.40	1567	2000	
U	238	2	165	0.188	ppb	0.188	3.85	1944	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1106274	3.25	1218010	90.83	60	120	
Sc (IS)	45	1	HMI H2	36586022	2.04	37686081	97.08	60	120	
Sc (IS)	45	2	HMI He	345647	0.68	350747	98.55	60	120	
Sc (IS)	45	3	No Gas	124736128	1.18	133394481	93.51	60	120	
Ge Internal Standard	72	1	HMI H2	17970509	1.87	18699211	96.10	60	120	
Ge Internal Standard	72	2	HMI He	514403	1.61	520822	98.77	60	120	
In Internal Standard	115	2	HMI He	1026097	1.65	1041810	98.49	60	120	
Ho-165	165	2	HMI He	9478446	0.97	9351780	101.35	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-16-B
Data File Name	040SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T11:56:51-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	10.108	ppb	10.108	73.66	137170	500000	
Li	7	2	45	21.575	ppb	21.575	68.07	8716	500000	
Li	7	3	45	15.732	ppb	15.732	5.26	9797184	50000	
Be	9	1	6	0.095	ppb	0.095	54.63	40	2000	
B	11	1	6	58.991	ppb	58.991	10.14	24374	2000	
Na	23	1	45	4476.197	ppb	4476.197	6.28	15353310	2000	
Na	23	2	45	4175.300	ppb	4175.300	0.62	514397	400000	
Mg	24	2	45	39003.568	ppb	39003.568	1.36	1922338	400000	
Al	27	2	45	2435.257	ppb	2435.257	4.35	21170	400000	
K	39	1	45	637.820	ppb	637.820	21.10	9160229	400000	
K	39	2	45	1689.520	ppb	1689.520	1.01	28757	400000	
Ca	40	1	45	87127.508	ppb	87127.508	8.23	469999233	400000	
Ca	44	2	45	79646.976	ppb	79646.976	0.96	74628	400000	
V	51	2	72	3.424	ppb	3.424	1.34	2557	2000	
Cr	52	2	72	4.629	ppb	4.629	11.52	4224	5000	
Mn	55	2	72	119.605	ppb	119.605	2.07	25746	10000	
Fe	57	2	72	5246.760	ppb	5246.760	0.93	81275	400000	
Co	59	2	72	2.137	ppb	2.137	4.01	4254	2000	
Ni	60	2	72	5.248	ppb	5.248	6.56	3327	5000	
Cu	63	2	72	4.235	ppb	4.235	2.60	9203	5000	
Zn	66	2	72	14.324	ppb	14.324	0.98	2160	5000	
As	75	2	72	1.445	ppb	1.445	19.25	127	2000	
Se	78	1	72	0.700	ppb	0.700	18.54	304	2000	
Sr	88	2	72	191.339	ppb	191.339	3.78	27185	4000	
Zr	90	2	72	95.886	ppb	95.886	6.71	707	1000	
Nb	93	2	72	-0.071	ppb	-0.071	-49.33	560	200	
Mo	95	2	115	0.679	ppb	0.679	13.95	440	2000	
Pd	105	2	115	-0.002	ppb	-0.002	-847.15	13	100	
Ag	107	2	115	0.009	ppb	0.009	105.52	37	100	
Cd	111	2	115	0.035	ppb	0.035	252.51	10	2000	
Sn	120	2	115	0.201	ppb	0.201	62.65	203	2000	
Sb	121	2	115	0.174	ppb	0.174	27.57	83	1000	
Ba	137	2	115	40.260	ppb	40.260	4.28	3554	5000	
W	182	2	165	0.024	ppb	0.024	24.08	333	100	
Pt	195	2	165	-0.009	ppb	-0.009	-107.59	407	100	
Tl	205	2	165	0.035	ppb	0.035	33.62	337	2000	
Pb	208	2	165	2.584	ppb	2.584	1.71	20596	5000	
Th	232	2	165	0.837	ppb	0.837	3.97	8229	2000	
U	238	2	165	1.149	ppb	1.149	4.19	11391	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1072360	1.25	1218010	88.04	60	120	
Sc (IS)	45	1	HMI H2	35485842	4.96	37686081	94.16	60	120	
Sc (IS)	45	2	HMI He	341592	0.57	350747	97.39	60	120	
Sc (IS)	45	3	No Gas	120492228	0.28	133394481	90.33	60	120	
Ge Internal Standard	72	1	HMI H2	17721502	4.94	18699211	94.77	60	120	
Ge Internal Standard	72	2	HMI He	506370	0.88	520822	97.23	60	120	
In Internal Standard	115	2	HMI He	999898	1.31	1041810	95.98	60	120	
Ho-165	165	2	HMI He	9334159	1.08	9351780	99.81	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	041_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:00:38-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	492.123	ppb	2.041	308868	500	98.4	90	110	
Li	7	2	45	511.068	ppb	5.388	19541	500	102.2	90	110	
Li	7	3	45	466.259	ppb	0.533	20600090	500	93.3	90	110	
Be	9	1	6	48.310	ppb	1.531	15887	50	96.6	90	110	
B	11	1	6	48.015	ppb	2.167	20292	50	96.0	90	110	
Na	23	1	45	5106.097	ppb	0.655	17112000	5000	102.1	90	110	
Na	23	2	45	4904.706	ppb	0.931	597232	5000	98.1	90	110	
Mg	24	2	45	5147.057	ppb	1.640	251583	5000	102.9	90	110	
Al	27	2	45	5230.239	ppb	2.739	45060	5000	104.6	90	110	
K	39	1	45	4867.708	ppb	0.582	22023514	5000	97.4	90	110	
K	39	2	45	5075.891	ppb	1.568	78176	5000	101.5	90	110	
Ca	40	1	45	5099.338	ppb	0.618	26991305	5000	102.0	90	110	
Ca	44	2	45	5092.130	ppb	2.971	4737	5000	101.8	90	110	
V	51	2	72	49.499	ppb	2.839	31448	50	99.0	90	110	
Cr	52	2	72	50.800	ppb	2.841	44032	50	101.6	90	110	
Mn	55	2	72	50.371	ppb	5.186	10714	50	100.7	90	110	
Fe	57	2	72	5163.557	ppb	1.182	78959	5000	103.3	90	110	
Co	59	2	72	50.385	ppb	1.375	99027	50	100.8	90	110	
Ni	60	2	72	49.075	ppb	4.249	30133	50	98.1	90	110	
Cu	63	2	72	50.555	ppb	0.636	92692	50	101.1	90	110	
Zn	66	2	72	48.901	ppb	4.801	7052	50	97.8	90	110	
As	75	2	72	50.236	ppb	3.349	4010	50	100.5	90	110	
Se	78	1	72	51.242	ppb	0.772	20889	50	102.5	90	110	
Sr	88	2	72	50.202	ppb	5.779	7052	50	100.4	90	110	
Zr	90	2	72	64.283	ppb	10.841	477	50	128.6	90	110	>+\-10%
Nb	93	2	72	94.058	ppb	0.854	213100	100	94.1	90	110	
Mo	95	2	115	52.245	ppb	0.792	32351	50	104.5	90	110	
Pd	105	2	115	51.419	ppb	2.576	63044	50	102.8	90	110	
Ag	107	2	115	50.396	ppb	2.712	129607	50	100.8	90	110	
Cd	111	2	115	49.794	ppb	4.880	9820	50	99.6	90	110	
Sn	120	2	115	51.777	ppb	4.007	21394	50	103.6	90	110	
Sb	121	2	115	52.949	ppb	1.111	17837	50	105.9	90	110	
Ba	137	2	115	51.848	ppb	8.293	4631	50	103.7	90	110	
W	182	2	165	49.470	ppb	1.302	233817	50	98.9	90	110	
Pt	195	2	165	50.052	ppb	0.763	268957	50	100.1	90	110	
Tl	205	2	165	50.953	ppb	0.578	290139	50	101.9	90	110	
Pb	208	2	165	51.414	ppb	0.429	376637	50	102.8	90	110	
Th	232	2	165	49.529	ppb	0.433	402483	50	99.1	90	110	
U	238	2	165	50.319	ppb	0.064	496865	50	100.6	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1078120	2.54	1218010	88.51	60	120	
Sc (IS)	45	1	HMI H2	34790676	0.53	37686081	92.32	60	120	
Sc (IS)	45	2	HMI He	338660	1.10	350747	96.55	60	120	
Sc (IS)	45	3	No Gas	113403968	0.37	133394481	85.01	60	120	
Ge Internal Standard	72	1	HMI H2	17368661	0.60	18699211	92.88	60	120	
Ge Internal Standard	72	2	HMI He	499898	1.83	520822	95.98	60	120	
In Internal Standard	115	2	HMI He	1012419	1.50	1041810	97.18	60	120	
Ho-165	165	2	HMI He	9343162	0.45	9351780	99.91	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	042_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:04:27-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-9.308	ppb	-50.2	8769809	10	
Be	9	1	6	0.063	ppb	49.5	30	0.5	
B	11	1	6	0.633	ppb	107.3	2160	0.5	>RL
Na	23	1	45	0.050	ppb	1135.7	229652	25	
Na	23	2	45	-2.955	ppb	-162.1	10077	25	
Mg	24	2	45	3.318	ppb	27.2	277	25	
Al	27	2	45	8.113	ppb	64.3	83	15	
K	39	1	45	-162.718	ppb	-14.3	6462184	50	
K	39	2	45	-28.331	ppb	-90.6	3337	50	
Ca	40	1	45	6.891	ppb	6.9	122122	50	
Ca	44	2	45	28.614	ppb	93.1	33	25	>RL
V	51	2	72	0.197	ppb	139.1	503	1	
Cr	52	2	72	-0.013	ppb	-271.8	160	1	
Mn	55	2	72	0.002	ppb	2077.6	27	0.5	
Fe	57	2	72	3.928	ppb	94.5	93	25	
Co	59	2	72	0.027	ppb	77.4	53	0.5	
Ni	60	2	72	-0.039	ppb	-47.5	47	1	
Cu	63	2	72	-0.187	ppb	-48.7	1117	1	
Zn	66	2	72	0.182	ppb	167.8	123	5	
As	75	2	72	-0.037	ppb	-118.4	8	1	
Se	78	1	72	0.058	ppb	43.1	35	1	
Sr	88	2	72	-0.068	ppb	0.0	0	0.5	
Zr	90	2	72	5.807	ppb	136.2	67	1	>RL
Nb	93	2	72	1.998	ppb	1.2	5304	2	
Mo	95	2	115	0.099	ppb	69.6	90	0.5	
Pd	105	2	115	0.005	ppb	389.3	23	1	
Ag	107	2	115	0.011	ppb	52.2	43	1	
Cd	111	2	115	-0.016	ppb	0.0	0	0.5	
Sn	120	2	115	0.116	ppb	118.4	177	1	
Sb	121	2	115	0.404	ppb	47.6	167	0.6	
Ba	137	2	115	0.181	ppb	92.1	17	0.5	
W	182	2	165	0.053	ppb	24.3	480	1	
Pt	195	2	165	0.001	ppb	1248.2	470	1	
Tl	205	2	165	0.000	ppb	-1440.7	137	0.1	
Pb	208	2	165	-0.017	ppb	-87.0	1693	0.5	
Th	232	2	165	0.346	ppb	31.2	4361	1	
U	238	2	165	0.020	ppb	31.3	270	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1100688	1.34	1218010	90.37	60	120	
Sc (IS)	45	1	HMI H2	34575865	0.42	37686081	91.75	60	120	
Sc (IS)	45	2	HMI He	341292	0.60	350747	97.30	60	120	
Sc (IS)	45	3	No Gas	115799692	0.34	133394481	86.81	60	120	
Ge Internal Standard	72	1	HMI H2	17334053	0.64	18699211	92.70	60	120	
Ge Internal Standard	72	2	HMI He	507451	1.93	520822	97.43	60	120	
In Internal Standard	115	2	HMI He	1044610	0.98	1041810	100.27	60	120	
Ho-165	165	2	HMI He	9563678	0.62	9351780	102.27	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	043LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:08:18-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-2.446	ppb	-65.270	8876129	50	-4.9	70	130	>+/-30%
Be	9	1	6	0.850	ppb	43.913	293	1	85.0	70	130	
Na	23	2	45	43.848	ppb	13.685	15981	50	87.7	70	130	
Mg	24	2	45	55.324	ppb	6.940	2884	50	110.6	70	130	
Al	27	2	45	32.869	ppb	17.447	303	30	109.6	70	130	
K	39	2	45	66.451	ppb	42.119	4814	100	66.5	70	130	>+/-30%
Ca	44	2	45	77.092	ppb	58.939	80	50	154.2	70	130	>+/-30%
V	51	2	72	5.239	ppb	12.426	3734	5	104.8	70	130	
Cr	52	2	72	2.053	ppb	5.254	1980	2	102.7	70	130	
Mn	55	2	72	1.217	ppb	40.171	290	1	121.7	70	130	
Fe	57	2	72	61.680	ppb	12.612	993	50	123.4	70	130	
Co	59	2	72	1.165	ppb	9.916	2334	1	116.5	70	130	
Ni	60	2	72	2.203	ppb	13.169	1447	2	110.1	70	130	
Cu	63	2	72	1.827	ppb	5.199	4831	2	91.4	70	130	
Zn	66	2	72	9.880	ppb	2.964	1530	10	98.8	70	130	
As	75	2	72	4.606	ppb	17.588	385	5	92.1	70	130	
Se	78	1	72	5.185	ppb	3.244	2136	5	103.7	70	130	
Sr	88	2	72	0.888	ppb	17.817	137	1	88.8	70	130	
Zr	90	2	72	13.603	ppb	16.334	123	0.5	2720.6	70	130	>+/-30%
Nb	93	2	72	1.647	ppb	10.364	4517	2	82.3	70	130	
Mo	95	2	115	2.139	ppb	10.844	1400	2	106.9	70	130	
Pd	105	2	115	0.026	ppb	80.142	50	1	2.6	70	130	>+/-30%
Ag	107	2	115	5.096	ppb	2.274	13623	5	101.9	70	130	
Cd	111	2	115	1.223	ppb	30.557	253	1	122.3	70	130	
Sn	120	2	115	9.930	ppb	2.034	4364	10	99.3	70	130	
Sb	121	2	115	2.007	ppb	27.698	727	2	100.3	70	130	
Ba	137	2	115	1.546	ppb	16.492	143	1	154.6	70	130	>+/-30%
W	182	2	165	4.801	ppb	2.827	23678	1	480.1	70	130	>+/-30%
Pt	195	2	165	0.041	ppb	73.201	693	1	4.1	70	130	>+/-30%
Tl	205	2	165	0.994	ppb	6.490	5991	1	99.4	70	130	
Pb	208	2	165	1.142	ppb	3.580	10452	1	114.2	70	130	
Th	232	2	165	2.080	ppb	5.870	18926	2	104.0	70	130	
U	238	2	165	1.038	ppb	3.303	10664	1	103.8	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1097430	2.33	1218010	90.10	60	120	
Sc (IS)	45	1	HMI H2	34752128	0.64	37686081	92.21	60	120	
Sc (IS)	45	2	HMI He	346950	0.65	350747	98.92	60	120	
Sc (IS)	45	3	No Gas	114882805	0.62	133394481	86.12	60	120	
Ge Internal Standard	72	1	HMI H2	17474116	0.42	18699211	93.45	60	120	
Ge Internal Standard	72	2	HMI He	509615	0.71	520822	97.85	60	120	
In Internal Standard	115	2	HMI He	1050990	0.79	1041810	100.88	60	120	
Ho-165	165	2	HMI He	9667424	1.59	9351780	103.38	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	044LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:13:35-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-0.971	ppb	-306.759	8992796	50	-1.9	70	130	>+/-30%
Be	9	1	6	0.855	ppb	17.789	297	1	85.5	70	130	
Na	23	2	45	39.882	ppb	8.652	15894	50	79.8	70	130	
Mg	24	2	45	56.703	ppb	10.513	3030	50	113.4	70	130	
Al	27	2	45	30.136	ppb	34.378	287	30	100.5	70	130	
K	39	2	45	52.587	ppb	41.502	4724	100	52.6	70	130	>+/-30%
Ca	44	2	45	71.500	ppb	42.848	77	50	143.0	70	130	>+/-30%
V	51	2	72	5.179	ppb	5.977	3777	5	103.6	70	130	
Cr	52	2	72	2.040	ppb	5.603	2014	2	102.0	70	130	
Mn	55	2	72	1.098	ppb	12.754	270	1	109.8	70	130	
Fe	57	2	72	55.941	ppb	15.522	923	50	111.9	70	130	
Co	59	2	72	1.089	ppb	8.963	2230	1	108.9	70	130	
Ni	60	2	72	1.823	ppb	4.632	1237	2	91.1	70	130	
Cu	63	2	72	1.850	ppb	6.738	4981	2	92.5	70	130	
Zn	66	2	72	10.035	ppb	17.129	1587	10	100.4	70	130	
As	75	2	72	4.706	ppb	10.016	401	5	94.1	70	130	
Se	78	1	72	5.497	ppb	2.684	2272	5	109.9	70	130	
Sr	88	2	72	0.569	ppb	33.680	93	1	56.9	70	130	>+/-30%
Zr	90	2	72	6.412	ppb	70.904	73	0.5	1282.4	70	130	>+/-30%
Nb	93	2	72	0.395	ppb	11.379	1673	2	19.8	70	130	>+/-30%
Mo	95	2	115	1.944	ppb	11.400	1310	2	97.2	70	130	
Pd	105	2	115	-0.003	ppb	-380.174	13	1	-0.3	70	130	>+/-30%
Ag	107	2	115	4.920	ppb	3.717	13516	5	98.4	70	130	
Cd	111	2	115	0.839	ppb	31.374	180	1	83.9	70	130	
Sn	120	2	115	9.764	ppb	1.461	4411	10	97.6	70	130	
Sb	121	2	115	1.919	ppb	10.412	717	2	95.9	70	130	
Ba	137	2	115	1.332	ppb	55.834	127	1	133.2	70	130	>+/-30%
W	182	2	165	4.844	ppb	2.315	24156	1	484.4	70	130	>+/-30%
Pt	195	2	165	0.021	ppb	58.166	590	1	2.1	70	130	>+/-30%
Tl	205	2	165	1.104	ppb	3.404	6715	1	110.4	70	130	
Pb	208	2	165	1.086	ppb	9.186	10132	1	108.6	70	130	
Th	232	2	165	1.976	ppb	2.678	18261	2	98.8	70	130	
U	238	2	165	1.023	ppb	2.669	10631	1	102.3	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1104265	2.17	1218010	90.66	60	120	
Sc (IS)	45	1	HMI H2	35022517	0.33	37686081	92.93	60	120	
Sc (IS)	45	2	HMI He	355833	0.87	350747	101.45	60	120	
Sc (IS)	45	3	No Gas	115900902	0.37	133394481	86.89	60	120	
Ge Internal Standard	72	1	HMI H2	17532864	0.35	18699211	93.76	60	120	
Ge Internal Standard	72	2	HMI He	520998	1.39	520822	100.03	60	120	
In Internal Standard	115	2	HMI He	1079947	1.04	1041810	103.66	60	120	
Ho-165	165	2	HMI He	9772005	1.54	9351780	104.49	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	045WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:19:02-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.017	ppb	-101.5896479	3	0.5
Na	23	2	45	-7.195	ppb	-24.86177846	10023	25
Mg	24	2	45	3.660	ppb	56.41275975	307	25
Al	27	2	45	6.560	ppb	18.85092952	73	15
K	39	2	45	-44.506	ppb	-38.26043322	3244	50
Ca	44	2	45	27.177	ppb	58.22004791	33	25
V	51	2	72	-0.008	ppb	-950.2044672	387	1
Cr	52	2	72	-0.013	ppb	-806.3244447	167	1
Mn	55	2	72	-0.060	ppb	-114.5964964	13	0.5
Fe	57	2	72	3.515	ppb	30.4165683	90	25
Co	59	2	72	0.005	ppb	100.3767937	10	0.5
Ni	60	2	72	-0.052	ppb	-79.19144369	40	1
Cu	63	2	72	-0.122	ppb	-39.51452694	1280	1
Zn	66	2	72	0.172	ppb	122.2302064	127	5
As	75	2	72	-0.079	ppb	-95.90945214	5	1
Se	78	1	72	0.040	ppb	95.33520438	28	1
Nb	93	2	72	-0.150	ppb	-19.89417796	393	2
Mo	95	2	115	0.028	ppb	113.8538664	47	0.5
Pd	105	2	115	0.004	ppb	359.3775496	23	1
Ag	107	2	115	0.000	ppb	-1051.816646	13	1
Cd	111	2	115	0.015	ppb	361.6379733	7	0.5
Sn	120	2	115	0.121	ppb	136.4262739	187	1
Sb	121	2	115	0.005	ppb	509.3187365	30	0.6
Ba	137	2	115	0.103	ppb	173.2050808	10	0.5
W	182	2	165	-0.005	ppb	-79.7545805	207	1
Pt	195	2	165	-0.026	ppb	-8.358416439	327	1
Tl	205	2	165	-0.011	ppb	-148.1822288	80	0.1
Pb	208	2	165	0.011	ppb	192.6436389	1943	0.5
Th	232	2	165	-0.091	ppb	-10.00785608	757	1
U	238	2	165	0.005	ppb	66.96661543	113	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1087419	0.76	1218010	89.28	60	120	
Sc (IS)	45	1	HMI H2	35330068	1.05	37686081	93.75	60	120	
Sc (IS)	45	2	HMI He	357603	1.00	350747	101.95	60	120	
Sc (IS)	45	3	No Gas	115348645	0.79	133394481	86.47	60	120	
Ge Internal Standard	72	1	HMI H2	17615739	0.35	18699211	94.21	60	120	
Ge Internal Standard	72	2	HMI He	524361	0.81	520822	100.68	60	120	
In Internal Standard	115	2	HMI He	1091423	1.12	1041810	104.76	60	120	
Ho-165	165	2	HMI He	9807458	1.10	9351780	104.87	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	046WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:22:52-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.027	ppb	-1.72259E-06	0	0.5
Na	23	2	45	-7.251	ppb	-42.81367627	9656	25
Mg	24	2	45	3.720	ppb	21.30681195	300	25
Al	27	2	45	5.383	ppb	74.73692278	60	15
K	39	2	45	-23.543	ppb	-123.2122731	3437	50
Ca	44	2	45	7.300	ppb	88.99890914	13	25
V	51	2	72	0.140	ppb	65.46900477	470	1
Cr	52	2	72	-0.063	ppb	-70.62245963	117	1
Mn	55	2	72	0.033	ppb	212.632549	33	0.5
Fe	57	2	72	6.682	ppb	21.61086747	137	25
Co	59	2	72	0.008	ppb	35.47980424	17	0.5
Ni	60	2	72	-0.109	ppb	-8.346686416	3	1
Cu	63	2	72	-0.127	ppb	-113.6135847	1233	1
Zn	66	2	72	0.220	ppb	82.75089471	130	5
As	75	2	72	-0.054	ppb	-53.11049541	7	1
Se	78	1	72	-0.008	ppb	-123.2135297	8	1
Nb	93	2	72	-0.141	ppb	-14.01467659	403	2
Mo	95	2	115	0.041	ppb	44.02397271	53	0.5
Pd	105	2	115	-0.003	ppb	-319.4938082	13	1
Ag	107	2	115	-0.001	ppb	-296.492287	10	1
Cd	111	2	115	-0.016	ppb	0	0	0.5
Sn	120	2	115	-0.027	ppb	-204.9409013	117	1
Sb	121	2	115	0.000	ppb	-15428.39986	27	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.006	ppb	121.6037809	253	1
Pt	195	2	165	-0.012	ppb	-118.5496548	400	1
Tl	205	2	165	-0.013	ppb	-15.12809762	63	0.1
Pb	208	2	165	0.034	ppb	74.45642835	2077	0.5
Th	232	2	165	-0.087	ppb	-17.175525	777	1
U	238	2	165	0.002	ppb	144.7636479	87	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1114619	1.54	1218010	91.51	60	120	
Sc (IS)	45	1	HMI H2	34915702	0.26	37686081	92.65	60	120	
Sc (IS)	45	2	HMI He	344920	2.25	350747	98.34	60	120	
Sc (IS)	45	3	No Gas	114549895	1.04	133394481	85.87	60	120	
Ge Internal Standard	72	1	HMI H2	17554980	0.34	18699211	93.88	60	120	
Ge Internal Standard	72	2	HMI He	509765	1.28	520822	97.88	60	120	
In Internal Standard	115	2	HMI He	1050803	1.67	1041810	100.86	60	120	
Ho-165	165	2	HMI He	9588315	1.04	9351780	102.53	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	047WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:26:40-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	0.022	ppb	203.0622868	17	0.5
Na	23	2	45	-4.329	ppb	-47.775061	9916	25
Mg	24	2	45	2.843	ppb	28.35229684	253	25
Al	27	2	45	4.267	ppb	47.34857354	50	15
K	39	2	45	-28.092	ppb	-4.877105963	3340	50
Ca	44	2	45	18.286	ppb	150.1866909	23	25
V	51	2	72	0.149	ppb	93.35769904	473	1
Cr	52	2	72	-0.025	ppb	-202.1494968	150	1
Mn	55	2	72	0.020	ppb	418.057925	30	0.5
Fe	57	2	72	6.734	ppb	21.83831843	137	25
Co	59	2	72	0.000	ppb	#DIV/0!	0	0.5
Ni	60	2	72	-0.050	ppb	-1.484527436	40	1
Cu	63	2	72	-0.077	ppb	-93.43471278	1317	1
Zn	66	2	72	0.388	ppb	54.30500736	153	5
As	75	2	72	-0.118	ppb	-23.97178212	1	1
Se	78	1	72	-0.008	ppb	-126.2149803	8	1
Nb	93	2	72	-0.162	ppb	-23.28642767	353	2
Mo	95	2	115	0.057	ppb	93.988867	63	0.5
Pd	105	2	115	0.008	ppb	310.6216603	27	1
Ag	107	2	115	-0.003	ppb	-168.8678283	7	1
Cd	111	2	115	-0.016	ppb	0	0	0.5
Sn	120	2	115	0.141	ppb	88.81842701	187	1
Sb	121	2	115	-0.019	ppb	-306.7469745	20	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.001	ppb	819.7388783	230	1
Pt	195	2	165	-0.004	ppb	-181.5143029	443	1
Tl	205	2	165	-0.015	ppb	-47.16100685	50	0.1
Pb	208	2	165	0.006	ppb	345.5363509	1863	0.5
Th	232	2	165	-0.092	ppb	-25.33716766	737	1
U	238	2	165	0.001	ppb	59.37399709	80	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1103803	0.85	1218010	90.62	60	120	
Sc (IS)	45	1	HMI H2	34914968	0.24	37686081	92.65	60	120	
Sc (IS)	45	2	HMI He	341354	1.74	350747	97.32	60	120	
Sc (IS)	45	3	No Gas	114936152	0.76	133394481	86.16	60	120	
Ge Internal Standard	72	1	HMI H2	17498128	0.42	18699211	93.58	60	120	
Ge Internal Standard	72	2	HMI He	505958	1.16	520822	97.15	60	120	
In Internal Standard	115	2	HMI He	1040718	1.36	1041810	99.90	60	120	
Ho-165	165	2	HMI He	9572343	1.46	9351780	102.36	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	048WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:30:28-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	017CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.027	ppb	-1.72259E-06	0	0.5
Na	23	2	45	-3.797	ppb	-192.1796044	9990	25
Mg	24	2	45	3.933	ppb	27.56249479	307	25
Al	27	2	45	4.264	ppb	54.18391827	50	15
K	39	2	45	-18.052	ppb	-34.06712171	3491	50
Ca	44	2	45	43.229	ppb	80.53912131	47	25
V	51	2	72	-0.132	ppb	-18.75713114	293	1
Cr	52	2	72	-0.039	ppb	-166.0019646	137	1
Mn	55	2	72	0.003	ppb	5169.701144	27	0.5
Fe	57	2	72	6.779	ppb	44.17533739	137	25
Co	59	2	72	0.003	ppb	86.61412601	7	0.5
Ni	60	2	72	-0.077	ppb	-12.39582586	23	1
Cu	63	2	72	-0.126	ppb	-138.449424	1227	1
Zn	66	2	72	0.372	ppb	96.87130251	150	5
As	75	2	72	-0.021	ppb	-126.3539368	9	1
Se	78	1	72	-0.004	ppb	-460.7241965	9	1
Nb	93	2	72	-0.141	ppb	-9.233829507	400	2
Mo	95	2	115	0.027	ppb	241.8349159	43	0.5
Pd	105	2	115	0.002	ppb	844.6872985	20	1
Ag	107	2	115	0.003	ppb	293.9354734	20	1
Cd	111	2	115	0.017	ppb	339.1711991	7	0.5
Sn	120	2	115	-0.063	ppb	-97.21337147	100	1
Sb	121	2	115	0.058	ppb	209.0299594	47	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	-0.016	ppb	-52.64256465	150	1
Pt	195	2	165	0.009	ppb	254.7112012	517	1
Tl	205	2	165	-0.015	ppb	-0.135054966	50	0.1
Pb	208	2	165	0.004	ppb	200.2665399	1857	0.5
Th	232	2	165	-0.113	ppb	-13.77947649	560	1
U	238	2	165	0.000	ppb	2865.099937	67	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1106208	0.69	1218010	90.82	60	120	
Sc (IS)	45	1	HMI H2	35121554	0.16	37686081	93.20	60	120	
Sc (IS)	45	2	HMI He	341531	1.53	350747	97.37	60	120	
Sc (IS)	45	3	No Gas	114862895	0.66	133394481	86.11	60	120	
Ge Internal Standard	72	1	HMI H2	17472792	0.72	18699211	93.44	60	120	
Ge Internal Standard	72	2	HMI He	504647	1.27	520822	96.89	60	120	
In Internal Standard	115	2	HMI He	1038166	0.88	1041810	99.65	60	120	
Ho-165	165	2	HMI He	9607637	0.24	9351780	102.74	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	049CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:34:16-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	129110	0.00
Li	7	2	HMI He	8606	0.03
Li	7	3	No Gas	8823531	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	1430	0.48
Na	23	1	HMI H2	205099	0.00
Na	23	2	HMI He	9166	0.11
Mg	24	2	HMI He	190	16.85
Al	27	2	HMI He	27	214.81
K	39	2	HMI He	3244	0.11
Ca	44	2	HMI He	43	240.14
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	397	8.10
Cr	52	2	HMI He	137	29.49
Mn	55	2	HMI He	20	866.03
Fe	57	2	HMI He	33	274.95
Co	59	2	HMI He	7	2598.08
Ni	60	2	HMI He	33	187.35
Cu	63	2	HMI He	1180	0.95
Zn	66	2	HMI He	113	32.42
As	75	2	HMI He	7	438.20
Se	78	1	HMI H2	13	468.37
Sr	88	2	HMI He	7	2598.08
Zr	90	2	HMI He	47	115.56
Nb	93	2	HMI He	243	6.83
Mo	95	2	HMI He	10	1000.00
Pd	105	2	HMI He	20	433.01
Ag	107	2	HMI He	7	1299.04
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	110	8.27
Sb	121	2	HMI He	40	108.25
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	170	13.84
Pt	195	2	HMI He	467	3.32
Tl	205	2	HMI He	67	135.62
Pb	208	2	HMI He	1940	0.61
Th	232	2	HMI He	587	2.33
U	238	2	HMI He	50	105.83

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1123048	1.61
Sc (IS)	45	1	HMI H2	34777119	0.77
Sc (IS)	45	2	HMI He	335006	1.38
Sc (IS)	45	3	No Gas	115149462	0.82
Ge Internal Standard	72	1	HMI H2	17507531	0.82
Ge Internal Standard	72	2	HMI He	500650	0.73
In Internal Standard	115	2	HMI He	1020176	1.28
Ho-165	165	2	HMI He	9578728	0.92

Calibration Standard Report

Sample Table

Sample Name	ic-4908433
Data File Name	050CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:38:05-07:00
Sample Type	CalStd
Level	1
Dilution	1
Comment	
ISTD Ref File Name	049CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	479591	0.00
Li	7	2	HMI He	30656	0.01
Li	7	3	No Gas	32966377	0.00
Be	9	1	HMI H2	30900	0.01
B	11	1	HMI H2	38180	0.01
Na	23	1	HMI H2	32834494	0.00
Na	23	2	HMI He	1187899	0.00
Mg	24	2	HMI He	487954	0.00
Al	27	2	HMI He	85256	0.00
K	39	1	HMI H2	37179628	0.00
K	39	2	HMI He	144931	0.00
Ca	40	1	HMI H2	51851056	0.00
Ca	44	2	HMI He	9349	0.09
Ti	47	2	HMI He	3	5196.15
V	51	2	HMI He	61105	0.00
Cr	52	2	HMI He	85484	0.00
Mn	55	2	HMI He	20980	0.01
Fe	57	2	HMI He	151778	0.00
Co	59	2	HMI He	194727	0.00
Ni	60	2	HMI He	60440	0.00
Cu	63	2	HMI He	176668	0.00
Zn	66	2	HMI He	13816	0.03
As	75	2	HMI He	7713	0.05
Se	78	1	HMI H2	40700	0.00
Sr	88	2	HMI He	14333	0.03
Zr	90	2	HMI He	507	2.35
Nb	93	2	HMI He	444548	0.00
Mo	95	2	HMI He	63230	0.00
Pd	105	2	HMI He	120634	0.00
Ag	107	2	HMI He	253975	0.00
Cd	111	2	HMI He	19649	0.01
Sn	120	2	HMI He	41321	0.01
Sb	121	2	HMI He	33153	0.02
Ba	137	2	HMI He	8823	0.06
Nd	146	2	HMI He	48465	0.01
Sm	147	2	HMI He	42609	0.00
Sm	150	2	HMI He	41984	0.01
Gd	156	1	HMI H2	1113862	0.00
Gd	157	1	HMI H2	850984	0.00
W	182	2	HMI He	472545	0.00
Pt	195	2	HMI He	536925	0.00
Tl	205	2	HMI He	570880	0.00
Pb	208	2	HMI He	729051	0.00
Th	232	2	HMI He	804323	0.00
U	238	2	HMI He	982401	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1061080	1.22	1123048	94.48	60	120	
Sc (IS)	45	1	HMI H2	34165429	0.78	34777119	98.24	60	120	
Sc (IS)	45	2	HMI He	331379	0.87	335006	98.92	60	120	
Sc (IS)	45	3	No Gas	113734038	0.38	115149462	98.77	60	120	
Ge Internal Standard	72	1	HMI H2	16921216	0.79	17507531	96.65	60	120	
Ge Internal Standard	72	2	HMI He	490012	1.78	500650	97.88	60	120	
In Internal Standard	115	2	HMI He	995293	2.20	1020176	97.56	60	120	
Ho-165	165	2	HMI He	9389862	0.54	9578728	98.03	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	051_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:41:52-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	049CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-43491.778	ppb	-5.416	310007	500	-8698.4	90	110	>+\-10%
Li	7	2	45	12310.976	ppb	2.425	20128	500	2462.2	90	110	>+\-10%
Li	7	3	45	-9907.479	ppb	-0.358	21300858	500	-1981.5	90	110	>+\-10%
Be	9	1	6	-1131.629	ppb	-4.192	15073	50	-2263.3	90	110	>+\-10%
B	11	1	6	-1298.227	ppb	-1.662	20862	50	-2596.5	90	110	>+\-10%
Na	23	1	45	1153379.503	ppb	4.709	16935508	5000	23067.6	90	110	>+\-10%
Na	23	2	45	861220.497	ppb	0.829	594052	5000	17224.4	90	110	>+\-10%
Mg	24	2	45	249078.776	ppb	0.729	250169	5000	4981.6	90	110	>+\-10%
Al	27	2	45	437296.018	ppb	0.842	43783	5000	8745.9	90	110	>+\-10%
K	39	1	45	81677990.269	ppb	5.222	22112734	5000	1633559.8	90	110	>+\-10%
K	39	2	45	-309746.871	ppb	-2.348	76646	5000	-6194.9	90	110	>+\-10%
Ca	40	1	45	-5627364.905	ppb	-5.051	26367386	5000	-112547.3	90	110	>+\-10%
Ca	44	2	45	174171.671	ppb	7.986	4974	5000	3483.4	90	110	>+\-10%
Ti	47	2	45	2.926	ppb	5745.739	3	50	5.9	90	110	>+\-10%
V	51	2	72	-3695.243	ppb	-0.875	32284	50	-7390.5	90	110	>+\-10%
Cr	52	2	72	6440.611	ppb	1.244	43397	50	12881.2	90	110	>+\-10%
Mn	55	2	72	7357.240	ppb	3.692	10624	50	14714.5	90	110	>+\-10%
Fe	57	2	72	389895.247	ppb	1.826	77984	5000	7797.9	90	110	>+\-10%
Co	59	2	72	4759.364	ppb	1.345	97975	50	9518.7	90	110	>+\-10%
Ni	60	2	72	9361.549	ppb	0.985	30070	50	18723.1	90	110	>+\-10%
Cu	63	2	72	-5328.803	ppb	-1.831	91569	50	-10657.6	90	110	>+\-10%
Zn	66	2	72	-3126.399	ppb	-3.649	7375	50	-6252.8	90	110	>+\-10%
As	75	2	72	-3617.755	ppb	-2.439	4072	50	-7235.5	90	110	>+\-10%
Se	78	1	72	2062.000	ppb	2.244	20788	50	4124.0	90	110	>+\-10%
Sr	88	2	72	1224.423	ppb	7.245	7379	50	2448.8	90	110	>+\-10%
Zr	90	2	72	-60.998	ppb	-48.514	390	50	-122.0	90	110	>+\-10%
Nb	93	2	72	35515.269	ppb	1.718	223051	100	35515.3	90	110	>+\-10%
Mo	95	2	115	1349.568	ppb	0.397	31640	50	2699.1	90	110	>+\-10%
Pd	105	2	115	40002.465	ppb	3.053	63023	50	80004.9	90	110	>+\-10%
Ag	107	2	115	10765.064	ppb	1.824	130179	50	21530.1	90	110	>+\-10%
Cd	111	2	115	3742.165	ppb	2.511	9743	50	7484.3	90	110	>+\-10%
Sn	120	2	115	2572.524	ppb	2.640	21221	50	5145.0	90	110	>+\-10%
Sb	121	2	115	18807.102	ppb	2.824	17640	50	37614.2	90	110	>+\-10%
Ba	137	2	115	13047.912	ppb	4.559	4397	50	26095.8	90	110	>+\-10%
W	182	2	165	-10535.631	ppb	-0.577	235142	50	-21071.3	90	110	>+\-10%
Pt	195	2	165	-10068.925	ppb	-2.348	268948	50	-20137.9	90	110	>+\-10%
Tl	205	2	165	-22330.418	ppb	-1.237	290874	50	-44660.8	90	110	>+\-10%
Pb	208	2	165	-6476.925	ppb	-0.562	374524	50	-12953.9	90	110	>+\-10%
Th	232	2	165	-3654.650	ppb	-1.012	407946	50	-7309.3	90	110	>+\-10%
U	238	2	165	-4911.292	ppb	-0.938	495549	50	-9822.6	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1104086	1.51	1123048	98.31	60	120	
Sc (IS)	45	1	HMI H2	35113257	2.95	34777119	100.97	60	120	
Sc (IS)	45	2	HMI He	337604	0.41	335006	100.78	60	120	
Sc (IS)	45	3	No Gas	115708708	0.42	115149462	100.49	60	120	
Ge Internal Standard	72	1	HMI H2	17524586	3.12	17507531	100.10	60	120	
Ge Internal Standard	72	2	HMI He	501478	0.28	500650	100.17	60	120	
In Internal Standard	115	2	HMI He	1016843	1.11	1020176	99.67	60	120	
Ho-165	165	2	HMI He	9393193	1.26	9578728	98.06	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	052_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:46:16-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	049CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-18992.809	ppb	-0.3	15446943	10	
Be	9	1	6	-2130.550	ppb	0.0	3	0.5	
B	11	1	6	-2604.063	ppb	-0.5	1910	0.5	
Na	23	1	45	2302627.043	ppb	0.0	220501	25	>RL
Na	23	2	45	1679200.647	ppb	0.1	10060	25	>RL
Mg	24	2	45	501235.625	ppb	0.0	200	25	>RL
Al	27	2	45	881142.881	ppb	0.1	67	15	>RL
K	39	1	45	161176789.318	ppb	1.3	6621783	50	>RL
K	39	2	45	-631798.195	ppb	-0.3	3237	50	
Ca	40	1	45	-11133729.093	ppb	0.0	76629	50	
Ca	44	2	45	364377.188	ppb	0.0	3	25	>RL
Ti	47	2	45	-47.280	ppb	-539.5	7	0.5	
V	51	2	72	-7600.914	ppb	-0.2	323	1	
Cr	52	2	72	12762.734	ppb	0.1	127	1	>RL
Mn	55	2	72	14542.008	ppb	0.0	33	0.5	>RL
Fe	57	2	72	782039.449	ppb	0.1	177	25	>RL
Co	59	2	72	9358.495	ppb	0.0	47	0.5	>RL
Ni	60	2	72	18193.521	ppb	0.1	80	1	>RL
Cu	63	2	72	-10688.821	ppb	-0.8	2180	1	
Zn	66	2	72	-6483.051	ppb	-0.3	133	5	
As	75	2	72	-7464.974	ppb	0.0	11	1	
Se	78	1	72	4066.807	ppb	0.0	32	1	>RL
Sr	88	2	72	2462.704	ppb	0.0	3	0.5	>RL
Zr	90	2	72	-206.643	ppb	-7.9	97	1	
Nb	93	2	72	68983.099	ppb	0.1	5084	2	>RL
Mo	95	2	115	2642.004	ppb	0.0	67	0.5	>RL
Pd	105	2	115	81808.591	ppb	0.0	37	1	>RL
Ag	107	2	115	21592.362	ppb	0.0	83	1	>RL
Cd	111	2	115	7268.336	ppb	0.0	0	0.5	>RL
Sn	120	2	115	5149.561	ppb	0.2	237	1	>RL
Sb	121	2	115	39093.837	ppb	0.1	120	0.6	>RL
Ba	137	2	115	25470.098	ppb	0.0	3	0.5	>RL
W	182	2	165	-20945.786	ppb	0.0	497	1	
Pt	195	2	165	-20153.092	ppb	0.0	530	1	
Tl	205	2	165	-45499.335	ppb	0.0	220	0.1	
Pb	208	2	165	-13287.786	ppb	0.0	1677	0.5	
Th	232	2	165	-7368.220	ppb	-0.2	5935	1	
U	238	2	165	-9905.864	ppb	0.0	207	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1122791	5.29	1123048	99.98	60	120	
Sc (IS)	45	1	HMI H2	36012769	6.53	34777119	103.55	60	120	
Sc (IS)	45	2	HMI He	394561	19.18	335006	117.78	60	120	
Sc (IS)	45	3	No Gas	177338577	3.00	115149462	154.01	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	17780131	5.84	17507531	101.56	60	120	
Ge Internal Standard	72	2	HMI He	583742	18.85	500650	116.60	60	120	
In Internal Standard	115	2	HMI He	1194740	18.88	1020176	117.11	60	120	
Ho-165	165	2	HMI He	10950915	18.45	9578728	114.33	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	053WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:52:10-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	049CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-2130.776	ppb	0	0	0.5
Na	23	2	45	1677755.924	ppb	0.011059105	9893	25
Mg	24	2	45	501167.112	ppb	0.01201486	237	25
Al	27	2	45	881294.925	ppb	0.017287133	37	15
K	39	2	45	-629575.004	ppb	-0.190649235	3395	50
Ca	44	2	45	363596.895	ppb	0.259771149	23	25
V	51	2	72	-7573.249	ppb	-0.134095714	523	1
Cr	52	2	72	12757.202	ppb	0.050632639	143	1
Mn	55	2	72	14540.926	ppb	0.12166391	30	0.5
Fe	57	2	72	782235.092	ppb	0.003602511	107	25
Co	59	2	72	9359.722	ppb	0.005704372	13	0.5
Ni	60	2	72	18190.397	ppb	0.063769949	80	1
Cu	63	2	72	-10712.663	ppb	-0.054518022	1393	1
Zn	66	2	72	-6458.341	ppb	-0.346598047	167	5
As	75	2	72	-7467.832	ppb	-0.056659283	7	1
Se	78	1	72	4067.889	ppb	0.028866807	20	1
Nb	93	2	72	69367.960	ppb	0.030644811	1940	2
Mo	95	2	115	2642.645	ppb	0.037964912	43	0.5
Pd	105	2	115	81818.431	ppb	0.016401718	17	1
Ag	107	2	115	21594.545	ppb	0.007442708	40	1
Cd	111	2	115	7264.841	ppb	0.047956154	10	0.5
Sn	120	2	115	5162.764	ppb	0.023854806	90	1
Sb	121	2	115	39168.172	ppb	0.086745293	43	0.6
Ba	137	2	115	25422.548	ppb	0.186207991	20	0.5
W	182	2	165	-20954.414	ppb	-0.010901343	237	1
Pt	195	2	165	-20151.375	ppb	-0.003576035	510	1
Tl	205	2	165	-45505.771	ppb	-0.005004483	100	0.1
Pb	208	2	165	-13281.420	ppb	-0.032565728	1810	0.5
Th	232	2	165	-7402.469	ppb	-0.027474422	1250	1
U	238	2	165	-9906.807	ppb	-0.002577034	80	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1102832	2.03	1123048	98.20	60	120	
Sc (IS)	45	1	HMI H2	34501574	0.98	34777119	99.21	60	120	
Sc (IS)	45	2	HMI He	343623	0.18	335006	102.57	60	120	
Sc (IS)	45	3	No Gas	113201658	1.07	115149462	98.31	60	120	
Ge Internal Standard	72	1	HMI H2	17238805	0.35	17507531	98.47	60	120	
Ge Internal Standard	72	2	HMI He	509037	0.13	500650	101.68	60	120	
In Internal Standard	115	2	HMI He	1052616	0.45	1020176	103.18	60	120	
Ho-165	165	2	HMI He	9511834	1.36	9578728	99.30	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	054WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:56:02-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	049CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-2129.664	ppb	-0.018107333	17	0.5
Na	23	2	45	1676778.152	ppb	0.003937074	10320	25
Mg	24	2	45	501153.542	ppb	0.005356482	243	25
Al	27	2	45	881216.884	ppb	0.006188245	43	15
K	39	2	45	-629999.970	ppb	-0.064520259	3207	50
Ca	44	2	45	363191.920	ppb	0.24069112	33	25
V	51	2	72	-7584.387	ppb	-0.055363824	420	1
Cr	52	2	72	12754.646	ppb	0.065588633	157	1
Mn	55	2	72	14544.955	ppb	0.054940327	23	0.5
Fe	57	2	72	782136.589	ppb	0.003243985	123	25
Co	59	2	72	9359.865	ppb	0.008765168	10	0.5
Ni	60	2	72	18200.680	ppb	0.025595421	43	1
Cu	63	2	72	-10724.199	ppb	-0.06312341	1167	1
Zn	66	2	72	-6485.976	ppb	-0.17803484	103	5
As	75	2	72	-7472.064	ppb	-0.024916154	2	1
Se	78	1	72	4068.122	ppb	0.040888671	17	1
Nb	93	2	72	69465.606	ppb	0.01808224	1260	2
Mo	95	2	115	2641.896	ppb	0.031996464	60	0.5
Pd	105	2	115	81815.893	ppb	0.013969785	20	1
Ag	107	2	115	21594.692	ppb	0.009864469	37	1
Cd	111	2	115	7267.133	ppb	0.028665609	3	0.5
Sn	120	2	115	5152.953	ppb	0.077440397	167	1
Sb	121	2	115	39170.222	ppb	0.028425918	40	0.6
Ba	137	2	115	25458.281	ppb	0.064394389	7	0.5
W	182	2	165	-20953.486	ppb	-0.00899238	253	1
Pt	195	2	165	-20154.151	ppb	-0.006573566	427	1
Tl	205	2	165	-45507.222	ppb	-0.010958726	80	0.1
Pb	208	2	165	-13279.300	ppb	-0.02892236	1893	0.5
Th	232	2	165	-7404.869	ppb	-0.002649834	967	1
U	238	2	165	-9906.823	ppb	-0.00258308	77	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1096837	0.81	1123048	97.67	60	120	
Sc (IS)	45	1	HMI H2	34012020	0.70	34777119	97.80	60	120	
Sc (IS)	45	2	HMI He	334370	1.33	335006	99.81	60	120	
Sc (IS)	45	3	No Gas	113935535	1.57	115149462	98.95	60	120	
Ge Internal Standard	72	1	HMI H2	16970499	0.14	17507531	96.93	60	120	
Ge Internal Standard	72	2	HMI He	496180	0.89	500650	99.11	60	120	
In Internal Standard	115	2	HMI He	1015163	1.12	1020176	99.51	60	120	
Ho-165	165	2	HMI He	9330183	0.55	9578728	97.41	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	055CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T12:59:52-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	127586	0.00
Li	7	2	HMI He	8656	0.03
Li	7	3	No Gas	8925541	0.00
Be	9	1	HMI H2	13	859.23
B	11	1	HMI H2	1623	0.68
Na	23	1	HMI H2	272862	0.00
Na	23	2	HMI He	11407	0.03
Mg	24	2	HMI He	137	26.41
Al	27	2	HMI He	23	280.57
K	39	2	HMI He	3510	0.29
Ca	44	2	HMI He	13	859.23
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	300	5.77
Cr	52	2	HMI He	113	19.59
Mn	55	2	HMI He	23	382.35
Fe	57	2	HMI He	67	25.98
Co	59	2	HMI He	3	5196.15
Ni	60	2	HMI He	60	48.11
Cu	63	2	HMI He	1457	0.20
Zn	66	2	HMI He	220	10.93
As	75	2	HMI He	8	637.76
Se	78	1	HMI H2	20	173.21
Sr	88	2	HMI He	0	#VALUE!
Zr	90	2	HMI He	53	234.07
Nb	93	2	HMI He	773	2.28
Mo	95	2	HMI He	43	162.69
Pd	105	2	HMI He	7	2598.08
Ag	107	2	HMI He	7	1299.04
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	200	13.23
Sb	121	2	HMI He	47	185.58
Ba	137	2	HMI He	0	#VALUE!
W	182	2	HMI He	217	7.48
Pt	195	2	HMI He	523	1.12
Tl	205	2	HMI He	60	55.56
Pb	208	2	HMI He	1603	0.16
Th	232	2	HMI He	610	0.97
U	238	2	HMI He	60	100.15

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	1110102	1.69
Sc (IS)	45	1	HMI H2	33924373	1.18
Sc (IS)	45	2	HMI He	328850	1.99
Sc (IS)	45	3	No Gas	114636782	0.29
Ge Internal Standard	72	1	HMI H2	17028246	0.43
Ge Internal Standard	72	2	HMI He	488265	0.52
In Internal Standard	115	2	HMI He	997863	0.58
Ho-165	165	2	HMI He	9229532	1.00

Calibration Standard Report

Sample Table

Sample Name	ic-4908433
Data File Name	056CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:03:41-07:00
Sample Type	CalStd
Level	1
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	475244	0.00
Li	7	2	HMI He	30646	0.00
Li	7	3	No Gas	33055248	0.00
Be	9	1	HMI H2	30212	0.00
B	11	1	HMI H2	38364	0.00
Na	23	1	HMI H2	32461461	0.00
Na	23	2	HMI He	1170478	0.00
Mg	24	2	HMI He	475658	0.00
Al	27	2	HMI He	83400	0.00
K	39	1	HMI H2	36244356	0.00
K	39	2	HMI He	142668	0.00
Ca	40	1	HMI H2	50572914	0.00
Ca	44	2	HMI He	8869	0.07
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	60349	0.00
Cr	52	2	HMI He	83404	0.00
Mn	55	2	HMI He	19945	0.02
Fe	57	2	HMI He	149598	0.00
Co	59	2	HMI He	188518	0.00
Ni	60	2	HMI He	57417	0.00
Cu	63	2	HMI He	171192	0.00
Zn	66	2	HMI He	13596	0.00
As	75	2	HMI He	7534	0.00
Se	78	1	HMI H2	39883	0.00
Sr	88	2	HMI He	13893	0.05
Zr	90	2	HMI He	450	5.13
Nb	93	2	HMI He	434709	0.00
Mo	95	2	HMI He	59707	0.00
Pd	105	2	HMI He	119087	0.00
Ag	107	2	HMI He	247379	0.00
Cd	111	2	HMI He	18945	0.02
Sn	120	2	HMI He	39410	0.00
Sb	121	2	HMI He	32672	0.01
Ba	137	2	HMI He	8813	0.07
Nd	146	2	HMI He	47429	0.01
Sm	147	2	HMI He	41577	0.01
Sm	150	2	HMI He	41387	0.01
Gd	156	1	HMI H2	1090503	0.00
Gd	157	1	HMI H2	829080	0.00
W	182	2	HMI He	467009	0.00
Pt	195	2	HMI He	525550	0.00
Tl	205	2	HMI He	560241	0.00
Pb	208	2	HMI He	710115	0.00
Th	232	2	HMI He	782439	0.00
U	238	2	HMI He	954009	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1079707	1.67	1110102	97.26	60	120	
Sc (IS)	45	1	HMI H2	33899037	0.39	33924373	99.93	60	120	
Sc (IS)	45	2	HMI He	325683	2.34	328850	99.04	60	120	
Sc (IS)	45	3	No Gas	113242705	0.91	114636782	98.78	60	120	
Ge Internal Standard	72	1	HMI H2	16771741	0.51	17028246	98.49	60	120	
Ge Internal Standard	72	2	HMI He	477528	1.33	488265	97.80	60	120	
In Internal Standard	115	2	HMI He	976096	1.42	997863	97.82	60	120	
Ho-165	165	2	HMI He	9192700	0.79	9229532	99.60	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	057_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:07:29-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-36967.048	ppb	-1.578	304413	500	-7393.4	90	110	>+\-10%
Li	7	2	45	8103.351	ppb	4.577	19711	500	1620.7	90	110	>+\-10%
Li	7	3	45	-12264.746	ppb	-1.111	21441380	500	-2452.9	90	110	>+\-10%
Be	9	1	6	-542.900	ppb	-3.544	15651	50	-1085.8	90	110	>+\-10%
B	11	1	6	-980.559	ppb	-4.835	19818	50	-1961.1	90	110	>+\-10%
Na	23	1	45	7000003.835	ppb	0.523	16766747	5000	140000.1	90	110	>+\-10%
Na	23	2	45	607282.853	ppb	1.017	586869	5000	12145.7	90	110	>+\-10%
Mg	24	2	45	400037.620	ppb	1.648	247412	5000	8000.8	90	110	>+\-10%
Al	27	2	45	731531.665	ppb	0.896	42938	5000	14630.6	90	110	>+\-10%
K	39	1	45	-226677.720	ppb	-1.535	21790673	5000	-4533.6	90	110	>+\-10%
K	39	2	45	-341026.136	ppb	-0.402	75870	5000	-6820.5	90	110	>+\-10%
Ca	40	1	45	-263638.788	ppb	-0.649	26450493	5000	-5272.8	90	110	>+\-10%
Ca	44	2	45	-593267.852	ppb	-5.978	4464	5000	-11865.4	90	110	>+\-10%
V	51	2	72	271897.247	ppb	1.581	30433	50	543794.5	90	110	>+\-10%
Cr	52	2	72	5581.281	ppb	1.495	42485	50	11162.6	90	110	>+\-10%
Mn	55	2	72	-2735.014	ppb	-2.666	10267	50	-5470.0	90	110	>+\-10%
Fe	57	2	72	210289.872	ppb	2.675	76240	5000	4205.8	90	110	>+\-10%
Co	59	2	72	12686.309	ppb	1.615	94604	50	25372.6	90	110	>+\-10%
Ni	60	2	72	-2434.909	ppb	-2.738	29499	50	-4869.8	90	110	>+\-10%
Cu	63	2	72	-3195.532	ppb	-2.196	89384	50	-6391.1	90	110	>+\-10%
Zn	66	2	72	-8866.448	ppb	-4.162	6992	50	-17732.9	90	110	>+\-10%
As	75	2	72	-4696.251	ppb	-2.342	3811	50	-9392.5	90	110	>+\-10%
Se	78	1	72	3738.139	ppb	1.899	20413	50	7476.3	90	110	>+\-10%
Sr	88	2	72	1416.421	ppb	2.991	7172	50	2832.8	90	110	>+\-10%
Zr	90	2	72	-23.208	ppb	-142.049	400	50	-46.4	90	110	>+\-10%
Nb	93	2	72	16527.597	ppb	0.741	218160	100	16527.6	90	110	>+\-10%
Mo	95	2	115	87498.245	ppb	1.730	31146	50	174996.5	90	110	>+\-10%
Pd	105	2	115	6981.939	ppb	0.497	60157	50	13963.9	90	110	>+\-10%
Ag	107	2	115	-19679.477	ppb	-1.186	125517	50	-39359.0	90	110	>+\-10%
Cd	111	2	115	-14076.258	ppb	-1.441	9900	50	-28152.5	90	110	>+\-10%
Sn	120	2	115	-5746.872	ppb	-5.295	21451	50	-11493.7	90	110	>+\-10%
Sb	121	2	115	7619.608	ppb	1.189	16916	50	15239.2	90	110	>+\-10%
Ba	137	2	115	2240.514	ppb	0.251	4457	50	4481.0	90	110	>+\-10%
W	182	2	165	10753.783	ppb	1.349	231335	50	21507.6	90	110	>+\-10%
Pt	195	2	165	-9573.115	ppb	-1.659	264431	50	-19146.2	90	110	>+\-10%
Tl	205	2	165	288211.639	ppb	1.062	285358	50	576423.3	90	110	>+\-10%
Pb	208	2	165	-3818.404	ppb	-1.190	366032	50	-7636.8	90	110	>+\-10%
Th	232	2	165	-2426.626	ppb	-1.093	402370	50	-4853.3	90	110	>+\-10%
U	238	2	165	-2691.872	ppb	-0.717	483727	50	-5383.7	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1088963	0.51	1110102	98.10	60	120	
Sc (IS)	45	1	HMI H2	34117986	0.08	33924373	100.57	60	120	
Sc (IS)	45	2	HMI He	331063	1.71	328850	100.67	60	120	
Sc (IS)	45	3	No Gas	115203812	0.40	114636782	100.49	60	120	
Ge Internal Standard	72	1	HMI H2	17070813	0.34	17028246	100.25	60	120	
Ge Internal Standard	72	2	HMI He	484311	1.54	488265	99.19	60	120	
In Internal Standard	115	2	HMI He	992115	1.37	997863	99.42	60	120	
Ho-165	165	2	HMI He	9167039	1.06	9229532	99.32	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	058_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:11:36-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-2.242	ppb	-204.2	8938772	10	
Be	9	1	6	0.011	ppb	332.6	17	0.5	
B	11	1	6	1.315	ppb	30.3	2127	0.5	>RL
Na	23	1	45	-17.013	ppb	-4.2	220645	25	
Na	23	2	45	-18.817	ppb	-18.7	9413	25	
Mg	24	2	45	1.101	ppb	89.2	193	25	
Al	27	2	45	-0.813	ppb	-218.7	17	15	
K	39	1	45	-16.879	ppb	-72.3	6471622	50	
K	39	2	45	-31.677	ppb	-52.9	3137	50	
Ca	40	1	45	-14.409	ppb	-4.5	78608	50	
Ca	44	2	45	-0.401	ppb	-4185.2	13	25	
V	51	2	72	0.255	ppb	57.2	463	1	
Cr	52	2	72	0.118	ppb	19.6	217	1	
Mn	55	2	72	0.015	ppb	838.0	27	0.5	
Fe	57	2	72	3.812	ppb	83.7	127	25	
Co	59	2	72	0.005	ppb	116.0	13	0.5	
Ni	60	2	72	-0.046	ppb	-41.1	33	1	
Cu	63	2	72	-0.097	ppb	-24.8	1307	1	
Zn	66	2	72	-0.360	ppb	-108.3	173	5	
As	75	2	72	-0.010	ppb	-854.1	7	1	
Se	78	1	72	-0.007	ppb	-215.2	17	1	
Sr	88	2	72	0.070	ppb	100.6	10	0.5	
Zr	90	2	72	-5.919	ppb	-122.0	30	1	
Nb	93	2	72	1.838	ppb	7.8	4918	2	
Mo	95	2	115	0.015	ppb	59.3	53	0.5	
Pd	105	2	115	0.043	ppb	48.8	60	1	
Ag	107	2	115	0.017	ppb	39.2	50	1	
Cd	111	2	115	0.034	ppb	173.2	7	0.5	
Sn	120	2	115	-0.104	ppb	-65.9	160	1	
Sb	121	2	115	0.304	ppb	24.4	150	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.049	ppb	34.2	453	1	
Pt	195	2	165	-0.009	ppb	-155.1	483	1	
Tl	205	2	165	0.022	ppb	6.9	190	0.1	
Pb	208	2	165	-0.039	ppb	-12.4	1353	0.5	
Th	232	2	165	0.298	ppb	5.7	3000	1	
U	238	2	165	0.014	ppb	65.2	200	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1112125	0.69	1110102	100.18	60	120	
Sc (IS)	45	1	HMI H2	34322989	0.99	33924373	101.18	60	120	
Sc (IS)	45	2	HMI He	336157	0.57	328850	102.22	60	120	
Sc (IS)	45	3	No Gas	115523902	0.62	114636782	100.77	60	120	
Ge Internal Standard	72	1	HMI H2	17222970	0.82	17028246	101.14	60	120	
Ge Internal Standard	72	2	HMI He	495196	0.88	488265	101.42	60	120	
In Internal Standard	115	2	HMI He	1008468	1.06	997863	101.06	60	120	
Ho-165	165	2	HMI He	9403118	0.65	9229532	101.88	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	059LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:16:40-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	11.015	ppb	18.540	9082419	50	22.0	70	130	>+/-30%
Be	9	1	6	0.809	ppb	9.955	263	1	80.9	70	130	
Na	23	2	45	33.387	ppb	3.376	15707	50	66.8	70	130	>+/-30%
Mg	24	2	45	53.603	ppb	4.400	2780	50	107.2	70	130	
Al	27	2	45	37.397	ppb	6.150	347	30	124.7	70	130	
K	39	2	45	69.366	ppb	6.216	4604	100	69.4	70	130	>+/-30%
Ca	44	2	45	94.007	ppb	50.298	100	50	188.0	70	130	>+/-30%
V	51	2	72	4.722	ppb	2.705	3247	5	94.4	70	130	
Cr	52	2	72	1.945	ppb	13.247	1797	2	97.2	70	130	
Mn	55	2	72	1.644	ppb	8.206	363	1	164.4	70	130	>+/-30%
Fe	57	2	72	49.774	ppb	6.214	840	50	99.5	70	130	
Co	59	2	72	1.009	ppb	13.132	1977	1	100.9	70	130	
Ni	60	2	72	2.341	ppb	12.061	1453	2	117.0	70	130	
Cu	63	2	72	1.850	ppb	3.038	4737	2	92.5	70	130	
Zn	66	2	72	10.377	ppb	9.287	1663	10	103.8	70	130	
As	75	2	72	5.020	ppb	9.666	400	5	100.4	70	130	
Se	78	1	72	4.696	ppb	9.032	1920	5	93.9	70	130	
Sr	88	2	72	1.111	ppb	37.592	160	1	111.1	70	130	
Zr	90	2	72	6.985	ppb	168.808	83	0.5	1397.1	70	130	>+/-30%
Nb	93	2	72	1.652	ppb	2.773	4504	2	82.6	70	130	
Mo	95	2	115	1.963	ppb	8.812	1273	2	98.1	70	130	
Pd	105	2	115	0.002	ppb	556.095	10	1	0.2	70	130	>+/-30%
Ag	107	2	115	4.945	ppb	3.426	12842	5	98.9	70	130	
Cd	111	2	115	0.872	ppb	8.788	173	1	87.2	70	130	
Sn	120	2	115	9.788	ppb	1.663	4234	10	97.9	70	130	
Sb	121	2	115	2.197	ppb	9.559	800	2	109.8	70	130	
Ba	137	2	115	1.153	ppb	39.041	107	1	115.3	70	130	
W	182	2	165	4.812	ppb	3.057	23251	1	481.2	70	130	>+/-30%
Pt	195	2	165	0.016	ppb	89.088	620	1	1.6	70	130	>+/-30%
Tl	205	2	165	1.039	ppb	6.332	6028	1	103.9	70	130	
Pb	208	2	165	1.152	ppb	1.313	10005	1	115.2	70	130	
Th	232	2	165	2.205	ppb	0.722	18302	2	110.3	70	130	
U	238	2	165	1.071	ppb	5.511	10534	1	107.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1104248	1.60	1110102	99.47	60	120	
Sc (IS)	45	1	HMI H2	34466993	0.73	33924373	101.60	60	120	
Sc (IS)	45	2	HMI He	337239	0.34	328850	102.55	60	120	
Sc (IS)	45	3	No Gas	113224908	0.40	114636782	98.77	60	120	
Ge Internal Standard	72	1	HMI H2	17020192	0.43	17028246	99.95	60	120	
Ge Internal Standard	72	2	HMI He	495430	0.73	488265	101.47	60	120	
In Internal Standard	115	2	HMI He	1024245	0.10	997863	102.64	60	120	
Ho-165	165	2	HMI He	9425028	0.14	9229532	102.12	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-17-B
Data File Name	060SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:20:51-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.241	ppb	5.241	115.08	130170	500000	
Li	7	2	45	-26.056	ppb	-26.056	-7.29	8282	500000	
Li	7	3	45	7.292	ppb	7.292	42.68	9072697	50000	
Be	9	1	6	-0.008	ppb	-0.008	-413.38	10	2000	
B	11	1	6	18.423	ppb	18.423	5.86	8085	2000	
Na	23	1	45	4931.865	ppb	4931.865	0.66	16254590	2000	
Na	23	2	45	4704.559	ppb	4704.559	2.31	576246	400000	
Mg	24	2	45	30890.535	ppb	30890.535	2.16	1521268	400000	
Al	27	2	45	20.770	ppb	20.770	31.16	203	400000	
K	39	1	45	433.364	ppb	433.364	4.20	7784947	400000	
K	39	2	45	1344.878	ppb	1344.878	3.50	22979	400000	
Ca	40	1	45	97810.089	ppb	97810.089	0.35	496595793	400000	
Ca	44	2	45	91216.185	ppb	91216.185	2.79	83584	400000	
V	51	2	72	-0.073	ppb	-0.073	-99.68	260	2000	
Cr	52	2	72	0.512	ppb	0.512	28.16	560	5000	
Mn	55	2	72	198.660	ppb	198.660	1.56	41265	10000	
Fe	57	2	72	63.257	ppb	63.257	14.56	1053	400000	
Co	59	2	72	0.136	ppb	0.136	10.06	270	2000	
Ni	60	2	72	0.495	ppb	0.495	37.27	357	5000	
Cu	63	2	72	0.497	ppb	0.497	44.33	2364	5000	
Zn	66	2	72	0.831	ppb	0.831	37.97	340	5000	
As	75	2	72	0.173	ppb	0.173	28.67	22	2000	
Se	78	1	72	0.020	ppb	0.020	49.18	28	2000	
Sr	88	2	72	120.825	ppb	120.825	4.96	17483	4000	
Zr	90	2	72	14.980	ppb	14.980	186.64	117	1000	
Nb	93	2	72	0.299	ppb	0.299	11.17	1463	200	
Mo	95	2	115	0.270	ppb	0.270	11.10	210	2000	
Pd	105	2	115	0.011	ppb	0.011	74.37	20	100	
Ag	107	2	115	0.012	ppb	0.012	37.30	37	100	
Cd	111	2	115	0.034	ppb	0.034	173.21	7	2000	
Sn	120	2	115	0.062	ppb	0.062	296.95	227	2000	
Sb	121	2	115	0.067	ppb	0.067	200.30	70	1000	
Ba	137	2	115	15.807	ppb	15.807	9.75	1437	5000	
W	182	2	165	0.100	ppb	0.100	13.13	703	100	
Pt	195	2	165	-0.004	ppb	-0.004	-891.60	517	100	
Tl	205	2	165	0.023	ppb	0.023	44.03	197	2000	
Pb	208	2	165	0.256	ppb	0.256	14.50	3514	5000	
Th	232	2	165	0.294	ppb	0.294	0.96	2994	2000	
U	238	2	165	1.908	ppb	1.908	4.78	18829	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1044696	1.24	1110102	94.11	60	120	
Sc (IS)	45	1	HMI H2	34123159	0.30	33924373	100.59	60	120	
Sc (IS)	45	2	HMI He	337192	1.00	328850	102.54	60	120	
Sc (IS)	45	3	No Gas	114241708	0.68	114636782	99.66	60	120	
Ge Internal Standard	72	1	HMI H2	16949319	0.63	17028246	99.54	60	120	
Ge Internal Standard	72	2	HMI He	497554	0.14	488265	101.90	60	120	
In Internal Standard	115	2	HMI He	1007060	0.98	997863	100.92	60	120	
Ho-165	165	2	HMI He	9478030	0.48	9229532	102.69	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-18-B
Data File Name	061SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:24:39-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.266	ppb	5.266	128.26	126734	500000	
Li	7	2	45	-23.302	ppb	-23.302	-145.47	8372	500000	
Li	7	3	45	3.910	ppb	3.910	157.15	8939290	50000	
Be	9	1	6	-0.020	ppb	-0.020	-197.20	7	2000	
B	11	1	6	81.134	ppb	81.134	3.37	30242	2000	
Na	23	1	45	5550.255	ppb	5550.255	0.47	17774277	2000	
Na	23	2	45	5055.616	ppb	5055.616	1.20	620723	400000	
Mg	24	2	45	22751.491	ppb	22751.491	0.30	1124827	400000	
Al	27	2	45	220.903	ppb	220.903	9.25	1937	400000	
K	39	1	45	-26.743	ppb	-26.743	-64.77	6234851	400000	
K	39	2	45	870.764	ppb	870.764	7.30	16205	400000	
Ca	40	1	45	72939.992	ppb	72939.992	1.05	360553288	400000	
Ca	44	2	45	65898.883	ppb	65898.883	0.90	60629	400000	
V	51	2	72	0.138	ppb	0.138	114.52	390	2000	
Cr	52	2	72	0.565	ppb	0.565	18.00	603	5000	
Mn	55	2	72	892.907	ppb	892.907	2.10	184692	10000	
Fe	57	2	72	405.802	ppb	405.802	4.82	6365	400000	
Co	59	2	72	2.959	ppb	2.959	5.88	5791	2000	
Ni	60	2	72	1.264	ppb	1.264	10.84	813	5000	
Cu	63	2	72	1.138	ppb	1.138	2.92	3484	5000	
Zn	66	2	72	2.253	ppb	2.253	24.82	537	5000	
As	75	2	72	0.307	ppb	0.307	56.54	32	2000	
Se	78	1	72	0.083	ppb	0.083	67.81	52	2000	
Sr	88	2	72	99.448	ppb	99.448	2.65	14336	4000	
Zr	90	2	72	791.545	ppb	791.545	7.21	3324	1000	
Nb	93	2	72	0.172	ppb	0.172	29.72	1173	200	
Mo	95	2	115	1.918	ppb	1.918	5.65	1223	2000	
Pd	105	2	115	0.000	ppb	0.000	-6154.61	7	100	
Ag	107	2	115	0.009	ppb	0.009	87.44	30	100	
Cd	111	2	115	0.102	ppb	0.102	1.86	20	2000	
Sn	120	2	115	-0.113	ppb	-0.113	-49.11	157	2000	
Sb	121	2	115	-0.002	ppb	-0.002	-2881.37	47	1000	
Ba	137	2	115	24.903	ppb	24.903	3.69	2264	5000	
W	182	2	165	0.054	ppb	0.054	38.37	473	100	
Pt	195	2	165	0.006	ppb	0.006	346.87	560	100	
Tl	205	2	165	0.034	ppb	0.034	31.28	253	2000	
Pb	208	2	165	0.716	ppb	0.716	3.23	6771	5000	
Th	232	2	165	0.237	ppb	0.237	9.00	2497	2000	
U	238	2	165	0.650	ppb	0.650	5.61	6348	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1039167	1.53	1110102	93.61	60	120	
Sc (IS)	45	1	HMI H2	33218976	0.26	33924373	97.92	60	120	
Sc (IS)	45	2	HMI He	338452	1.26	328850	102.92	60	120	
Sc (IS)	45	3	No Gas	113601212	0.76	114636782	99.10	60	120	
Ge Internal Standard	72	1	HMI H2	16529521	0.37	17028246	97.07	60	120	
Ge Internal Standard	72	2	HMI He	495634	0.99	488265	101.51	60	120	
In Internal Standard	115	2	HMI He	1006294	1.86	997863	100.84	60	120	
Ho-165	165	2	HMI He	9328302	0.60	9229532	101.07	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-20-B
Data File Name	062SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:28:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	16.056	ppb	16.056	25.65	131003	500000	
Li	7	2	45	-6.164	ppb	-6.164	-327.80	8542	500000	
Li	7	3	45	9.935	ppb	9.935	42.73	9061446	50000	
Be	9	1	6	-0.008	ppb	-0.008	-447.51	10	2000	
B	11	1	6	65.022	ppb	65.022	4.72	24207	2000	
Na	23	1	45	10950.168	ppb	10950.168	0.16	34966869	2000	>LDR
Na	23	2	45	11032.328	ppb	11032.328	2.80	1306385	400000	
Mg	24	2	45	31644.579	ppb	31644.579	0.51	1524243	400000	
Al	27	2	45	5.149	ppb	5.149	13.74	67	400000	
K	39	1	45	2483.174	ppb	2483.174	1.89	13626801	400000	
K	39	2	45	3503.797	ppb	3503.797	1.22	52901	400000	
Ca	40	1	45	112736.781	ppb	112736.781	0.56	559736858	400000	
Ca	44	2	45	106929.963	ppb	106929.963	1.32	95831	400000	
V	51	2	72	-0.149	ppb	-0.149	-27.90	207	2000	
Cr	52	2	72	0.183	ppb	0.183	62.88	267	5000	
Mn	55	2	72	105.885	ppb	105.885	3.74	21417	10000	
Fe	57	2	72	959.544	ppb	959.544	0.76	14616	400000	
Co	59	2	72	0.063	ppb	0.063	29.33	123	2000	
Ni	60	2	72	0.115	ppb	0.115	17.37	127	5000	
Cu	63	2	72	-0.119	ppb	-0.119	-97.17	1240	5000	
Zn	66	2	72	-0.035	ppb	-0.035	-1622.75	213	5000	
As	75	2	72	1.474	ppb	1.474	14.94	120	2000	
Se	78	1	72	-0.016	ppb	-0.016	-206.00	13	2000	
Sr	88	2	72	344.819	ppb	344.819	4.21	48559	4000	
Zr	90	2	72	28.970	ppb	28.970	22.47	170	1000	
Nb	93	2	72	0.018	ppb	0.018	246.44	807	200	
Mo	95	2	115	0.779	ppb	0.779	25.73	510	2000	
Pd	105	2	115	0.011	ppb	0.011	0.48	20	100	
Ag	107	2	115	0.009	ppb	0.009	43.07	30	100	
Cd	111	2	115	0.035	ppb	0.035	173.21	7	2000	
Sn	120	2	115	-0.051	ppb	-0.051	-204.28	177	2000	
Sb	121	2	115	-0.049	ppb	-0.049	-223.41	30	1000	
Ba	137	2	115	22.391	ppb	22.391	7.02	1984	5000	
W	182	2	165	0.057	ppb	0.057	23.35	480	100	
Pt	195	2	165	0.002	ppb	0.002	1024.08	533	100	
Tl	205	2	165	0.003	ppb	0.003	171.47	77	2000	
Pb	208	2	165	0.132	ppb	0.132	31.85	2524	5000	
Th	232	2	165	0.100	ppb	0.100	6.44	1390	2000	
U	238	2	165	0.089	ppb	0.089	16.19	903	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1025144	1.14	1110102	92.35	60	120	
Sc (IS)	45	1	HMI H2	33371274	0.58	33924373	98.37	60	120	
Sc (IS)	45	2	HMI He	329757	0.80	328850	100.28	60	120	
Sc (IS)	45	3	No Gas	113293802	0.64	114636782	98.83	60	120	
Ge Internal Standard	72	1	HMI H2	16691729	0.60	17028246	98.02	60	120	
Ge Internal Standard	72	2	HMI He	484239	0.11	488265	99.18	60	120	
In Internal Standard	115	2	HMI He	981089	0.32	997863	98.32	60	120	
Ho-165	165	2	HMI He	9172680	0.33	9229532	99.38	60	120	

Sample Report

Sample Table

Sample Name	280-104320-G-21-B
Data File Name	063SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:32:17-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	43.370	ppb	43.370	50.53	170829	500000	
Li	7	2	45	-16.298	ppb	-16.298	-53.34	8636	500000	
Li	7	3	45	-0.542	ppb	-0.542	-199.13	8761844	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	2.633	ppb	2.633	32.70	3404	2000	
Na	23	1	45	2079.027	ppb	2079.027	28.24	8167776	2000	
Na	23	2	45	10529.915	ppb	10529.915	15.00	1289223	400000	
Mg	24	2	45	29945.863	ppb	29945.863	15.24	1490912	400000	
Al	27	2	45	9.654	ppb	9.654	61.38	110	400000	
K	39	1	45	-835.744	ppb	-835.744	-12.64	4722172	400000	
K	39	2	45	1754.929	ppb	1754.929	10.74	29252	400000	
Ca	40	1	45	15507.772	ppb	15507.772	27.00	91908614	400000	
Ca	44	2	45	75031.461	ppb	75031.461	16.28	69498	400000	
V	51	2	72	-0.126	ppb	-0.126	-152.69	230	2000	
Cr	52	2	72	0.086	ppb	0.086	10.28	193	5000	
Mn	55	2	72	224.686	ppb	224.686	17.07	47255	10000	
Fe	57	2	72	1625.956	ppb	1625.956	14.76	25736	400000	
Co	59	2	72	0.252	ppb	0.252	12.54	507	2000	
Ni	60	2	72	0.207	ppb	0.207	61.45	187	5000	
Cu	63	2	72	-0.161	ppb	-0.161	-34.75	1223	5000	
Zn	66	2	72	-0.636	ppb	-0.636	-128.13	137	5000	
As	75	2	72	9.809	ppb	9.809	16.40	788	2000	
Se	78	1	72	-0.014	ppb	-0.014	-221.25	17	2000	
Sr	88	2	72	127.010	ppb	127.010	14.41	18621	4000	
Zr	90	2	72	27.930	ppb	27.930	10.39	173	1000	
Nb	93	2	72	0.134	ppb	0.134	52.19	1113	200	
Mo	95	2	115	0.613	ppb	0.613	33.84	423	2000	
Pd	105	2	115	0.013	ppb	0.013	40.57	23	100	
Ag	107	2	115	0.010	ppb	0.010	56.61	33	100	
Cd	111	2	115	0.016	ppb	0.016	173.21	3	2000	
Sn	120	2	115	-0.103	ppb	-0.103	-98.39	163	2000	
Sb	121	2	115	-0.025	ppb	-0.025	-300.43	40	1000	
Ba	137	2	115	41.644	ppb	41.644	13.35	3827	5000	
W	182	2	165	0.031	ppb	0.031	22.30	373	100	
Pt	195	2	165	0.000	ppb	0.000	-7820.22	537	100	
Tl	205	2	165	-0.002	ppb	-0.002	-316.27	53	2000	
Pb	208	2	165	0.241	ppb	0.241	12.28	3417	5000	
Th	232	2	165	0.087	ppb	0.087	31.52	1340	2000	
U	238	2	165	0.825	ppb	0.825	16.81	8176	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1451658	8.77	1110102	130.77	60	120	IS Failed
Sc (IS)	45	1	HMI H2	40829895	14.77	33924373	120.36	60	120	IS Failed
Sc (IS)	45	2	HMI He	342151	3.93	328850	104.04	60	120	
Sc (IS)	45	3	No Gas	112701698	0.70	114636782	98.31	60	120	
Ge Internal Standard	72	1	HMI H2	20713950	12.73	17028246	121.64	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	506130	4.09	488265	103.66	60	120	
In Internal Standard	115	2	HMI He	1020256	3.62	997863	102.24	60	120	
Ho-165	165	2	HMI He	9516819	3.93	9229532	103.11	60	120	

Sample Report

Sample Table

Sample Name	280-104320-A-22-B
Data File Name	064SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:36:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-12.929	ppb	-12.929	-42.43	122657	500000	
Li	7	2	45	-34.898	ppb	-34.898	-16.15	8249	500000	
Li	7	3	45	-17.654	ppb	-17.654	-15.41	8373819	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	66.021	ppb	66.021	5.18	25014	2000	
Na	23	1	45	4089.019	ppb	4089.019	1.13	13397696	2000	
Na	23	2	45	3781.834	ppb	3781.834	1.10	475241	400000	
Mg	24	2	45	8912.820	ppb	8912.820	1.64	448212	400000	
Al	27	2	45	13.176	ppb	13.176	55.00	140	400000	
K	39	1	45	155.036	ppb	155.036	24.07	6884956	400000	
K	39	2	45	1080.715	ppb	1080.715	5.15	19578	400000	
Ca	40	1	45	62161.081	ppb	62161.081	1.59	312707095	400000	
Ca	44	2	45	57599.586	ppb	57599.586	1.95	53892	400000	
V	51	2	72	0.638	ppb	0.638	24.37	713	2000	
Cr	52	2	72	0.159	ppb	0.159	29.79	257	5000	
Mn	55	2	72	8.742	ppb	8.742	8.74	1860	10000	
Fe	57	2	72	52.526	ppb	52.526	7.69	897	400000	
Co	59	2	72	0.156	ppb	0.156	3.68	313	2000	
Ni	60	2	72	0.416	ppb	0.416	13.88	313	5000	
Cu	63	2	72	0.375	ppb	0.375	9.53	2174	5000	
Zn	66	2	72	0.259	ppb	0.259	158.29	263	5000	
As	75	2	72	0.318	ppb	0.318	38.89	33	2000	
Se	78	1	72	0.928	ppb	0.928	13.95	391	2000	
Sr	88	2	72	156.866	ppb	156.866	4.59	22963	4000	
Zr	90	2	72	16.251	ppb	16.251	17.04	123	1000	
Nb	93	2	72	-0.048	ppb	-0.048	-190.10	687	200	
Mo	95	2	115	0.003	ppb	0.003	1849.85	47	2000	
Pd	105	2	115	0.005	ppb	0.005	179.67	13	100	
Ag	107	2	115	0.006	ppb	0.006	70.34	23	100	
Cd	111	2	115	0.050	ppb	0.050	99.37	10	2000	
Sn	120	2	115	0.313	ppb	0.313	18.37	333	2000	
Sb	121	2	115	0.065	ppb	0.065	93.41	70	1000	
Ba	137	2	115	18.124	ppb	18.124	8.36	1673	5000	
W	182	2	165	0.095	ppb	0.095	14.73	677	100	
Pt	195	2	165	-0.006	ppb	-0.006	-178.49	503	100	
Tl	205	2	165	0.004	ppb	0.004	72.24	83	2000	
Pb	208	2	165	0.414	ppb	0.414	7.59	4657	5000	
Th	232	2	165	0.073	ppb	0.073	35.58	1213	2000	
U	238	2	165	0.608	ppb	0.608	6.42	6025	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1044031	1.30	1110102	94.05	60	120	
Sc (IS)	45	1	HMI H2	33809024	1.34	33924373	99.66	60	120	
Sc (IS)	45	2	HMI He	344190	0.86	328850	104.66	60	120	
Sc (IS)	45	3	No Gas	113043042	1.13	114636782	98.61	60	120	
Ge Internal Standard	72	1	HMI H2	16817790	0.83	17028246	98.76	60	120	
Ge Internal Standard	72	2	HMI He	503376	0.06	488265	103.09	60	120	
In Internal Standard	115	2	HMI He	1021980	1.03	997863	102.42	60	120	
Ho-165	165	2	HMI He	9451595	0.59	9229532	102.41	60	120	

Sample Table

Sample Name	280-104320-A-23-B
Data File Name	065SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:39:55-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-10.035	ppb	-10.035	-28.55	121584	500000	
Li	7	2	45	-34.051	ppb	-34.051	-32.07	8079	500000	
Li	7	3	45	-20.708	ppb	-20.708	-26.15	8252463	50000	
Be	9	1	6	0.004	ppb	0.004	1874.78	13	2000	
B	11	1	6	12.370	ppb	12.370	6.01	5868	2000	
Na	23	1	45	50670.177	ppb	50670.177	1.09	160187908	2000	>LDR
Na	23	2	45	47983.430	ppb	47983.430	2.22	5755626	400000	
Mg	24	2	45	20708.634	ppb	20708.634	1.99	1017433	400000	
Al	27	2	45	48.775	ppb	48.775	11.21	443	400000	
K	39	1	45	446.883	ppb	446.883	4.24	7622508	400000	
K	39	2	45	1365.712	ppb	1365.712	5.46	23219	400000	
Ca	40	1	45	69166.602	ppb	69166.602	0.14	342104755	400000	
Ca	44	2	45	63316.119	ppb	63316.119	2.93	57877	400000	
V	51	2	72	0.014	ppb	0.014	459.58	317	2000	
Cr	52	2	72	0.397	ppb	0.397	11.37	463	5000	
Mn	55	2	72	129.274	ppb	129.274	2.74	27045	10000	
Fe	57	2	72	4081.252	ppb	4081.252	1.82	64079	400000	
Co	59	2	72	0.826	ppb	0.826	7.15	1637	2000	
Ni	60	2	72	1.144	ppb	1.144	9.81	750	5000	
Cu	63	2	72	0.280	ppb	0.280	50.18	1994	5000	
Zn	66	2	72	1.457	ppb	1.457	36.15	430	5000	
As	75	2	72	3.582	ppb	3.582	5.09	291	2000	
Se	78	1	72	0.933	ppb	0.933	22.79	387	2000	
Sr	88	2	72	84.276	ppb	84.276	3.78	12278	4000	
Zr	90	2	72	13.192	ppb	13.192	110.08	110	1000	
Nb	93	2	72	-0.069	ppb	-0.069	-34.86	637	200	
Mo	95	2	115	-0.007	ppb	-0.007	-477.72	40	2000	
Pd	105	2	115	0.008	ppb	0.008	210.97	17	100	
Ag	107	2	115	0.035	ppb	0.035	17.46	97	100	
Cd	111	2	115	0.017	ppb	0.017	173.21	3	2000	
Sn	120	2	115	-0.081	ppb	-0.081	-111.01	170	2000	
Sb	121	2	115	-0.101	ppb	-0.101	-45.39	13	1000	
Ba	137	2	115	10.952	ppb	10.952	8.26	1003	5000	
W	182	2	165	0.042	ppb	0.042	39.43	420	100	
Pt	195	2	165	-0.011	ppb	-0.011	-84.53	473	100	
Tl	205	2	165	0.012	ppb	0.012	90.75	130	2000	
Pb	208	2	165	0.269	ppb	0.269	14.03	3587	5000	
Th	232	2	165	0.059	ppb	0.059	34.84	1097	2000	
U	238	2	165	0.617	ppb	0.617	8.22	6095	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1033145	1.12	1110102	93.07	60	120	
Sc (IS)	45	1	HMI H2	33237990	0.79	33924373	97.98	60	120	
Sc (IS)	45	2	HMI He	336427	2.10	328850	102.30	60	120	
Sc (IS)	45	3	No Gas	112399575	0.81	114636782	98.05	60	120	
Ge Internal Standard	72	1	HMI H2	16551327	0.76	17028246	97.20	60	120	
Ge Internal Standard	72	2	HMI He	500890	0.81	488265	102.59	60	120	
In Internal Standard	115	2	HMI He	1013860	1.42	997863	101.60	60	120	
Ho-165	165	2	HMI He	9423398	1.07	9229532	102.10	60	120	

Sample Table

Sample Name	280-104320-A-24-B
Data File Name	066SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:43:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.209	ppb	5.209	81.01	131284	500000	
Li	7	2	45	-26.060	ppb	-26.060	-102.02	8662	500000	
Li	7	3	45	-10.959	ppb	-10.959	-40.41	8577949	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	299.522	ppb	299.522	2.35	107670	2000	
Na	23	1	45	11395.754	ppb	11395.754	1.57	37513070	2000	>LDR
Na	23	2	45	11206.656	ppb	11206.656	2.90	1419604	400000	
Mg	24	2	45	12796.745	ppb	12796.745	2.16	659691	400000	
Al	27	2	45	11.552	ppb	11.552	66.43	130	400000	
K	39	1	45	4190.035	ppb	4190.035	1.72	19216512	400000	
K	39	2	45	5101.441	ppb	5101.441	2.73	80697	400000	
Ca	40	1	45	30893.171	ppb	30893.171	1.89	158277054	400000	
Ca	44	2	45	32730.789	ppb	32730.789	2.26	31415	400000	
V	51	2	72	-0.099	ppb	-0.099	-101.67	253	2000	
Cr	52	2	72	0.167	ppb	0.167	43.97	270	5000	
Mn	55	2	72	0.783	ppb	0.783	14.34	193	10000	
Fe	57	2	72	20.781	ppb	20.781	23.10	407	400000	
Co	59	2	72	0.013	ppb	0.013	36.59	30	2000	
Ni	60	2	72	0.901	ppb	0.901	25.62	623	5000	
Cu	63	2	72	0.198	ppb	0.198	78.05	1904	5000	
Zn	66	2	72	5.383	ppb	5.383	14.24	1010	5000	
As	75	2	72	-0.022	ppb	-0.022	-235.32	7	2000	
Se	78	1	72	0.418	ppb	0.418	10.63	192	2000	
Sr	88	2	72	546.745	ppb	546.745	1.56	82043	4000	
Zr	90	2	72	4.623	ppb	4.623	233.18	77	1000	
Nb	93	2	72	-0.128	ppb	-0.128	-20.91	517	200	
Mo	95	2	115	-0.030	ppb	-0.030	-57.31	27	2000	
Pd	105	2	115	0.007	ppb	0.007	158.86	17	100	
Ag	107	2	115	0.005	ppb	0.005	135.70	20	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.044	ppb	-0.044	-73.53	193	2000	
Sb	121	2	115	-0.028	ppb	-0.028	-361.55	40	1000	
Ba	137	2	115	255.420	ppb	255.420	2.87	24415	5000	
W	182	2	165	0.030	ppb	0.030	17.67	377	100	
Pt	195	2	165	-0.010	ppb	-0.010	-263.64	493	100	
Tl	205	2	165	0.003	ppb	0.003	201.28	83	2000	
Pb	208	2	165	0.213	ppb	0.213	12.78	3280	5000	
Th	232	2	165	0.044	ppb	0.044	55.27	1003	2000	
U	238	2	165	0.077	ppb	0.077	23.00	840	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1040430	2.21	1110102	93.72	60	120	
Sc (IS)	45	1	HMI H2	34415339	1.14	33924373	101.45	60	120	
Sc (IS)	45	2	HMI He	352953	1.78	328850	107.33	60	120	
Sc (IS)	45	3	No Gas	113605402	1.28	114636782	99.10	60	120	
Ge Internal Standard	72	1	HMI H2	17295898	1.59	17028246	101.57	60	120	
Ge Internal Standard	72	2	HMI He	516032	1.18	488265	105.69	60	120	
In Internal Standard	115	2	HMI He	1058312	1.49	997863	106.06	60	120	
Ho-165	165	2	HMI He	9715359	0.31	9229532	105.26	60	120	

Sample Table

Sample Name	280-104320-C-25-B
Data File Name	067SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:47:33-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.064	ppb	-5.064	-111.51	125198	500000	
Li	7	2	45	-10.517	ppb	-10.517	-97.09	8849	500000	
Li	7	3	45	-13.254	ppb	-13.254	-24.31	8283908	50000	
Be	9	1	6	-0.030	ppb	-0.030	-67.90	3	2000	
B	11	1	6	29.496	ppb	29.496	2.82	11684	2000	
Na	23	1	45	8583.683	ppb	8583.683	0.20	27783020	2000	
Na	23	2	45	8073.043	ppb	8073.043	1.91	1004629	400000	
Mg	24	2	45	17598.088	ppb	17598.088	2.52	888005	400000	
Al	27	2	45	36.824	ppb	36.824	2.40	350	400000	
K	39	1	45	-193.780	ppb	-193.780	-5.10	5839580	400000	
K	39	2	45	750.672	ppb	750.672	8.59	14770	400000	
Ca	40	1	45	64193.527	ppb	64193.527	0.53	322445822	400000	
Ca	44	2	45	60443.322	ppb	60443.322	3.23	56750	400000	
V	51	2	72	-0.224	ppb	-0.224	-43.34	170	2000	
Cr	52	2	72	0.226	ppb	0.226	21.62	320	5000	
Mn	55	2	72	0.839	ppb	0.839	13.49	203	10000	
Fe	57	2	72	35.077	ppb	35.077	15.43	630	400000	
Co	59	2	72	0.023	ppb	0.023	44.39	50	2000	
Ni	60	2	72	0.093	ppb	0.093	43.83	120	5000	
Cu	63	2	72	-0.182	ppb	-0.182	-9.02	1193	5000	
Zn	66	2	72	-0.025	ppb	-0.025	-1245.03	227	5000	
As	75	2	72	0.020	ppb	0.020	367.53	10	2000	
Se	78	1	72	0.343	ppb	0.343	26.64	157	2000	
Sr	88	2	72	91.078	ppb	91.078	3.93	13523	4000	
Zr	90	2	72	7.171	ppb	7.171	79.88	87	1000	
Nb	93	2	72	-0.156	ppb	-0.156	-22.79	447	200	
Mo	95	2	115	-0.024	ppb	-0.024	-194.27	30	2000	
Pd	105	2	115	0.000	ppb	0.000	-2496.54	7	100	
Ag	107	2	115	0.001	ppb	0.001	599.45	10	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	0.099	ppb	0.099	73.96	253	2000	
Sb	121	2	115	-0.037	ppb	-0.037	-41.45	37	1000	
Ba	137	2	115	2.241	ppb	2.241	30.17	213	5000	
W	182	2	165	0.052	ppb	0.052	51.61	480	100	
Pt	195	2	165	-0.014	ppb	-0.014	-100.23	470	100	
Tl	205	2	165	0.002	ppb	0.002	189.61	73	2000	
Pb	208	2	165	0.125	ppb	0.125	21.12	2587	5000	
Th	232	2	165	0.033	ppb	0.033	71.74	900	2000	
U	238	2	165	0.455	ppb	0.455	10.07	4588	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1015009	1.99	1110102	91.43	60	120	
Sc (IS)	45	1	HMI H2	33754153	0.31	33924373	99.50	60	120	
Sc (IS)	45	2	HMI He	345555	2.22	328850	105.08	60	120	
Sc (IS)	45	3	No Gas	110425182	0.84	114636782	96.33	60	120	
Ge Internal Standard	72	1	HMI H2	16884653	0.28	17028246	99.16	60	120	
Ge Internal Standard	72	2	HMI He	510720	1.40	488265	104.60	60	120	
In Internal Standard	115	2	HMI He	1055394	1.29	997863	105.77	60	120	
Ho-165	165	2	HMI He	9591701	1.43	9229532	103.92	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	068_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:51:21-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	491.036	ppb	1.496	295208	500	98.2	90	110	
Li	7	2	45	414.124	ppb	15.037	18843	500	82.8	90	110	>+\-10%
Li	7	3	45	464.454	ppb	0.575	19313249	500	92.9	90	110	
Be	9	1	6	49.837	ppb	3.796	14753	50	99.7	90	110	
B	11	1	6	48.744	ppb	3.134	19114	50	97.5	90	110	
Na	23	1	45	5127.256	ppb	1.269	16605237	5000	102.5	90	110	
Na	23	2	45	4702.417	ppb	5.355	592163	5000	94.0	90	110	
Mg	24	2	45	4974.052	ppb	6.587	251867	5000	99.5	90	110	
Al	27	2	45	5038.667	ppb	5.537	44739	5000	100.8	90	110	
K	39	1	45	5105.915	ppb	0.941	21438021	5000	102.1	90	110	
K	39	2	45	5015.506	ppb	3.773	78032	5000	100.3	90	110	
Ca	40	1	45	5256.252	ppb	0.148	26381655	5000	105.1	90	110	
Ca	44	2	45	5167.767	ppb	7.399	4881	5000	103.4	90	110	
V	51	2	72	47.470	ppb	6.990	31101	50	94.9	90	110	
Cr	52	2	72	47.476	ppb	4.439	42842	50	95.0	90	110	
Mn	55	2	72	51.460	ppb	7.112	11094	50	102.9	90	110	
Fe	57	2	72	4806.902	ppb	2.483	77753	5000	96.1	90	110	
Co	59	2	72	48.075	ppb	6.630	97861	50	96.2	90	110	
Ni	60	2	72	48.150	ppb	6.747	29889	50	96.3	90	110	
Cu	63	2	72	48.267	ppb	5.557	90055	50	96.5	90	110	
Zn	66	2	72	47.223	ppb	9.057	7052	50	94.4	90	110	
As	75	2	72	49.356	ppb	6.043	4021	50	98.7	90	110	
Se	78	1	72	50.346	ppb	1.246	20098	50	100.7	90	110	
Sr	88	2	72	49.171	ppb	0.849	7385	50	98.3	90	110	
Zr	90	2	72	82.033	ppb	18.811	410	50	164.1	90	110	>+\-10%
Nb	93	2	72	90.025	ppb	4.388	211836	100	90.0	90	110	
Mo	95	2	115	47.716	ppb	4.954	31086	50	95.4	90	110	
Pd	105	2	115	47.057	ppb	6.057	61070	50	94.1	90	110	
Ag	107	2	115	48.089	ppb	6.478	129637	50	96.2	90	110	
Cd	111	2	115	48.766	ppb	4.417	10073	50	97.5	90	110	
Sn	120	2	115	49.787	ppb	3.393	21511	50	99.6	90	110	
Sb	121	2	115	49.385	ppb	6.172	17607	50	98.8	90	110	
Ba	137	2	115	48.760	ppb	6.257	4691	50	97.5	90	110	
W	182	2	165	46.937	ppb	7.685	231520	50	93.9	90	110	
Pt	195	2	165	46.750	ppb	7.631	259674	50	93.5	90	110	
Tl	205	2	165	49.343	ppb	5.090	292076	50	98.7	90	110	
Pb	208	2	165	49.029	ppb	6.246	368571	50	98.1	90	110	
Th	232	2	165	48.264	ppb	6.578	399136	50	96.5	90	110	
U	238	2	165	48.365	ppb	6.831	487258	50	96.7	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1057631	1.18	1110102	95.27	60	120	
Sc (IS)	45	1	HMI H2	33553003	0.33	33924373	98.91	60	120	
Sc (IS)	45	2	HMI He	347081	3.90	328850	105.54	60	120	
Sc (IS)	45	3	No Gas	108944055	1.00	114636782	95.03	60	120	
Ge Internal Standard	72	1	HMI H2	16779669	0.34	17028246	98.54	60	120	
Ge Internal Standard	72	2	HMI He	516369	3.45	488265	105.76	60	120	
In Internal Standard	115	2	HMI He	1065476	4.08	997863	106.78	60	120	
Ho-165	165	2	HMI He	9724275	4.08	9229532	105.36	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	069_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:55:09-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-22.845	ppb	-15.6	8057639	10	
Be	9	1	6	0.003	ppb	1166.2	13	0.5	
B	11	1	6	1.061	ppb	64.3	1900	0.5	>RL
Na	23	1	45	-15.604	ppb	-3.7	218321	25	
Na	23	2	45	-20.302	ppb	-4.9	9466	25	
Mg	24	2	45	2.856	ppb	11.3	287	25	
Al	27	2	45	2.550	ppb	112.8	47	15	
K	39	1	45	4.926	ppb	575.4	6336386	50	
K	39	2	45	-25.293	ppb	-68.2	3310	50	
Ca	40	1	45	-10.061	ppb	-1.2	97719	50	
Ca	44	2	45	2.841	ppb	576.6	17	25	
V	51	2	72	0.064	ppb	174.1	357	1	
Cr	52	2	72	-0.014	ppb	-332.2	107	1	
Mn	55	2	72	-0.006	ppb	-3402.5	23	0.5	
Fe	57	2	72	2.682	ppb	127.4	113	25	
Co	59	2	72	0.025	ppb	65.0	53	0.5	
Ni	60	2	72	-0.048	ppb	-38.5	33	1	
Cu	63	2	72	-0.255	ppb	-12.0	1067	1	
Zn	66	2	72	-0.704	ppb	-20.5	130	5	
As	75	2	72	-0.029	ppb	-165.5	6	1	
Se	78	1	72	0.007	ppb	550.9	23	1	
Sr	88	2	72	0.045	ppb	173.2	7	0.5	
Zr	90	2	72	5.566	ppb	112.9	80	1	>RL
Nb	93	2	72	1.865	ppb	2.9	5164	2	
Mo	95	2	115	0.031	ppb	54.7	67	0.5	
Pd	105	2	115	0.028	ppb	57.7	43	1	
Ag	107	2	115	0.021	ppb	57.0	63	1	
Cd	111	2	115	0.032	ppb	173.2	7	0.5	
Sn	120	2	115	-0.001	ppb	-7415.2	213	1	
Sb	121	2	115	0.178	ppb	54.7	113	0.6	
Ba	137	2	115	0.070	ppb	86.6	7	0.5	
W	182	2	165	0.049	ppb	30.2	467	1	
Pt	195	2	165	-0.023	ppb	-52.4	420	1	
Tl	205	2	165	0.029	ppb	57.0	233	0.1	
Pb	208	2	165	0.004	ppb	397.0	1710	0.5	
Th	232	2	165	0.373	ppb	17.0	3711	1	
U	238	2	165	0.027	ppb	12.6	333	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1040083	1.86	1110102	93.69	60	120	
Sc (IS)	45	1	HMI H2	33267940	0.58	33924373	98.07	60	120	
Sc (IS)	45	2	HMI He	344617	0.49	328850	104.79	60	120	
Sc (IS)	45	3	No Gas	110427095	0.38	114636782	96.33	60	120	
Ge Internal Standard	72	1	HMI H2	16836431	0.79	17028246	98.87	60	120	
Ge Internal Standard	72	2	HMI He	513495	0.74	488265	105.17	60	120	
In Internal Standard	115	2	HMI He	1065157	0.84	997863	106.74	60	120	
Ho-165	165	2	HMI He	9687848	0.74	9229532	104.97	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	070LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T13:58:58-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-4.991	ppb	-32.647	8257399	50	-10.0	70	130	>+/-30%
Be	9	1	6	0.842	ppb	29.125	263	1	84.2	70	130	
Na	23	2	45	28.658	ppb	16.510	15490	50	57.3	70	130	>+/-30%
Mg	24	2	45	49.281	ppb	8.526	2627	50	98.6	70	130	
Al	27	2	45	28.899	ppb	19.105	280	30	96.3	70	130	
K	39	2	45	74.665	ppb	20.723	4791	100	74.7	70	130	
Ca	44	2	45	88.034	ppb	25.069	97	50	176.1	70	130	>+/-30%
V	51	2	72	5.021	ppb	4.291	3527	5	100.4	70	130	
Cr	52	2	72	2.040	ppb	12.475	1930	2	102.0	70	130	
Mn	55	2	72	1.329	ppb	29.945	307	1	132.9	70	130	>+/-30%
Fe	57	2	72	52.946	ppb	2.916	913	50	105.9	70	130	
Co	59	2	72	0.997	ppb	8.772	2007	1	99.7	70	130	
Ni	60	2	72	2.073	ppb	4.129	1330	2	103.6	70	130	
Cu	63	2	72	1.843	ppb	6.386	4854	2	92.2	70	130	
Zn	66	2	72	10.122	ppb	16.133	1673	10	101.2	70	130	
As	75	2	72	4.646	ppb	19.009	381	5	92.9	70	130	
Se	78	1	72	4.992	ppb	8.072	2048	5	99.8	70	130	
Sr	88	2	72	1.082	ppb	43.592	160	1	108.2	70	130	
Zr	90	2	72	17.497	ppb	13.391	130	0.5	3499.4	70	130	>+/-30%
Nb	93	2	72	1.674	ppb	11.974	4677	2	83.7	70	130	
Mo	95	2	115	1.797	ppb	3.990	1203	2	89.8	70	130	
Pd	105	2	115	0.028	ppb	114.930	43	1	2.8	70	130	>+/-30%
Ag	107	2	115	4.910	ppb	1.539	13119	5	98.2	70	130	
Cd	111	2	115	1.206	ppb	13.087	247	1	120.6	70	130	
Sn	120	2	115	10.240	ppb	3.791	4547	10	102.4	70	130	
Sb	121	2	115	1.932	ppb	9.111	730	2	96.6	70	130	
Ba	137	2	115	1.016	ppb	31.557	97	1	101.6	70	130	
W	182	2	165	4.797	ppb	4.360	23835	1	479.7	70	130	>+/-30%
Pt	195	2	165	0.003	ppb	198.964	567	1	0.3	70	130	>+/-30%
Tl	205	2	165	1.060	ppb	4.512	6325	1	106.0	70	130	
Pb	208	2	165	1.148	ppb	5.767	10258	1	114.8	70	130	
Th	232	2	165	2.121	ppb	2.322	18121	2	106.0	70	130	
U	238	2	165	1.033	ppb	3.750	10447	1	103.3	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1062956	1.07	1110102	95.75	60	120	
Sc (IS)	45	1	HMI H2	34032939	0.48	33924373	100.32	60	120	
Sc (IS)	45	2	HMI He	345142	1.16	328850	104.95	60	120	
Sc (IS)	45	3	No Gas	107532972	0.80	114636782	93.80	60	120	
Ge Internal Standard	72	1	HMI H2	17097393	0.38	17028246	100.41	60	120	
Ge Internal Standard	72	2	HMI He	508975	0.26	488265	104.24	60	120	
In Internal Standard	115	2	HMI He	1053788	0.11	997863	105.60	60	120	
Ho-165	165	2	HMI He	9693013	1.08	9229532	105.02	60	120	

Sample Table

Sample Name	280-104320-J-6-B
Data File Name	071SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:02:59-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-4.593	ppb	-4.593	-125.29	122523	500000	
Li	7	2	45	-16.587	ppb	-16.587	-85.26	8502	500000	
Li	7	3	45	-11.437	ppb	-11.437	-39.43	8093696	50000	
Be	9	1	6	-0.018	ppb	-0.018	-112.35	7	2000	
B	11	1	6	29.816	ppb	29.816	1.14	11507	2000	
Na	23	1	45	14206.202	ppb	14206.202	0.47	44768223	2000	>LDR
Na	23	2	45	13980.771	ppb	13980.771	2.00	1690676	400000	
Mg	24	2	45	30390.200	ppb	30390.200	2.20	1497775	400000	
Al	27	2	45	9.213	ppb	9.213	14.77	103	400000	
K	39	1	45	1284.914	ppb	1284.914	0.16	9996583	400000	
K	39	2	45	2123.226	ppb	2123.226	1.45	34233	400000	
Ca	40	1	45	99062.885	ppb	99062.885	0.84	486280979	400000	
Ca	44	2	45	94690.286	ppb	94690.286	2.16	86856	400000	
V	51	2	72	-0.071	ppb	-0.071	-134.81	260	2000	
Cr	52	2	72	0.256	ppb	0.256	33.70	337	5000	
Mn	55	2	72	90.550	ppb	90.550	1.60	18777	10000	
Fe	57	2	72	554.685	ppb	554.685	7.52	8682	400000	
Co	59	2	72	1.980	ppb	1.980	3.79	3884	2000	
Ni	60	2	72	6.270	ppb	6.270	6.58	3797	5000	
Cu	63	2	72	-0.170	ppb	-0.170	-30.35	1180	5000	
Zn	66	2	72	0.733	ppb	0.733	72.54	327	5000	
As	75	2	72	12.528	ppb	12.528	7.41	988	2000	
Se	78	1	72	-0.029	ppb	-0.029	-93.02	8	2000	
Sr	88	2	72	288.766	ppb	288.766	1.11	41684	4000	
Zr	90	2	72	9.508	ppb	9.508	69.27	93	1000	
Nb	93	2	72	0.102	ppb	0.102	67.33	1017	200	
Mo	95	2	115	0.802	ppb	0.802	5.95	547	2000	
Pd	105	2	115	0.000	ppb	0.000	-4766.12	7	100	
Ag	107	2	115	0.015	ppb	0.015	74.71	47	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.053	ppb	-0.053	-302.63	183	2000	
Sb	121	2	115	0.451	ppb	0.451	42.57	203	1000	
Ba	137	2	115	37.162	ppb	37.162	3.78	3437	5000	
W	182	2	165	0.064	ppb	0.064	16.50	533	100	
Pt	195	2	165	-0.013	ppb	-0.013	-211.46	467	100	
Tl	205	2	165	0.038	ppb	0.038	19.07	280	2000	
Pb	208	2	165	0.085	ppb	0.085	38.15	2270	5000	
Th	232	2	165	0.249	ppb	0.249	6.78	2640	2000	
U	238	2	165	0.111	ppb	0.111	7.60	1160	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	989926	1.54	1110102	89.17	60	120	
Sc (IS)	45	1	HMI H2	32991311	0.58	33924373	97.25	60	120	
Sc (IS)	45	2	HMI He	337485	1.89	328850	102.63	60	120	
Sc (IS)	45	3	No Gas	107333445	0.65	114636782	93.63	60	120	
Ge Internal Standard	72	1	HMI H2	16482364	0.34	17028246	96.79	60	120	
Ge Internal Standard	72	2	HMI He	496417	2.30	488265	101.67	60	120	
In Internal Standard	115	2	HMI He	1024118	2.42	997863	102.63	60	120	
Ho-165	165	2	HMI He	9499567	1.60	9229532	102.93	60	120	

Sample Table

Sample Name	280-104320-J-7-B
Data File Name	072SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:06:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	0.269	ppb	0.269	1475.09	125251	500000	
Li	7	2	45	-18.066	ppb	-18.066	-139.62	8742	500000	
Li	7	3	45	-11.932	ppb	-11.932	-17.53	8143045	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	31.662	ppb	31.662	4.40	12261	2000	
Na	23	1	45	14189.398	ppb	14189.398	0.74	45104184	2000	>LDR
Na	23	2	45	13681.517	ppb	13681.517	2.24	1708293	400000	
Mg	24	2	45	30791.058	ppb	30791.058	1.82	1566637	400000	
Al	27	2	45	5.452	ppb	5.452	77.06	73	400000	
K	39	1	45	1234.896	ppb	1234.896	1.02	9937060	400000	
K	39	2	45	2131.952	ppb	2131.952	3.66	35462	400000	
Ca	40	1	45	99538.900	ppb	99538.900	0.42	492855366	400000	
Ca	44	2	45	94211.513	ppb	94211.513	2.59	89190	400000	
V	51	2	72	-0.189	ppb	-0.189	-56.00	193	2000	
Cr	52	2	72	0.234	ppb	0.234	27.97	330	5000	
Mn	55	2	72	94.875	ppb	94.875	2.66	20389	10000	
Fe	57	2	72	519.018	ppb	519.018	2.27	8432	400000	
Co	59	2	72	2.067	ppb	2.067	7.96	4204	2000	
Ni	60	2	72	6.926	ppb	6.926	3.32	4344	5000	
Cu	63	2	72	-0.216	ppb	-0.216	-11.92	1140	5000	
Zn	66	2	72	-0.063	ppb	-0.063	-1110.10	223	5000	
As	75	2	72	13.013	ppb	13.013	4.11	1063	2000	
Se	78	1	72	-0.012	ppb	-0.012	-191.11	15	2000	
Sr	88	2	72	285.810	ppb	285.810	1.43	42760	4000	
Zr	90	2	72	10.957	ppb	10.957	13.80	103	1000	
Nb	93	2	72	-0.073	ppb	-0.073	-78.34	643	200	
Mo	95	2	115	0.694	ppb	0.694	25.03	493	2000	
Pd	105	2	115	-0.006	ppb	-0.006	0.00	0	100	
Ag	107	2	115	0.004	ppb	0.004	120.97	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.020	ppb	-0.020	-1199.19	203	2000	
Sb	121	2	115	0.568	ppb	0.568	39.23	250	1000	
Ba	137	2	115	36.801	ppb	36.801	2.96	3507	5000	
W	182	2	165	0.051	ppb	0.051	37.21	483	100	
Pt	195	2	165	-0.018	ppb	-0.018	-105.24	453	100	
Tl	205	2	165	0.036	ppb	0.036	30.73	277	2000	
Pb	208	2	165	0.063	ppb	0.063	58.88	2167	5000	
Th	232	2	165	0.070	ppb	0.070	24.96	1223	2000	
U	238	2	165	0.108	ppb	0.108	2.71	1160	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1000604	1.71	1110102	90.14	60	120	
Sc (IS)	45	1	HMI H2	33277965	0.28	33924373	98.09	60	120	
Sc (IS)	45	2	HMI He	348351	0.84	328850	105.93	60	120	
Sc (IS)	45	3	No Gas	108136272	0.44	114636782	94.33	60	120	
Ge Internal Standard	72	1	HMI H2	16635255	0.41	17028246	97.69	60	120	
Ge Internal Standard	72	2	HMI He	514507	0.99	488265	105.37	60	120	
In Internal Standard	115	2	HMI He	1055280	0.45	997863	105.75	60	120	
Ho-165	165	2	HMI He	9748394	1.06	9229532	105.62	60	120	

Sample Report

Sample Table

Sample Name	280-104320-J-8-B
Data File Name	073SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:10:57-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-5.805	ppb	-5.805	-53.90	123714	500000	
Li	7	2	45	-23.255	ppb	-23.255	-27.45	8712	500000	
Li	7	3	45	-19.785	ppb	-19.785	-14.65	8080760	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	30.951	ppb	30.951	1.78	11904	2000	
Na	23	1	45	11538.368	ppb	11538.368	0.98	36886029	2000	>LDR
Na	23	2	45	11294.572	ppb	11294.572	2.33	1427079	400000	
Mg	24	2	45	23305.757	ppb	23305.757	1.54	1198087	400000	
Al	27	2	45	4.240	ppb	4.240	106.36	63	400000	
K	39	1	45	1061.936	ppb	1061.936	3.27	9471679	400000	
K	39	2	45	1974.558	ppb	1974.558	2.21	33455	400000	
Ca	40	1	45	80575.302	ppb	80575.302	0.62	400721687	400000	
Ca	44	2	45	75960.972	ppb	75960.972	2.72	72656	400000	
V	51	2	72	-0.171	ppb	-0.171	-46.44	207	2000	
Cr	52	2	72	0.350	ppb	0.350	44.58	437	5000	
Mn	55	2	72	495.552	ppb	495.552	3.17	107089	10000	
Fe	57	2	72	1353.087	ppb	1353.087	2.95	22011	400000	
Co	59	2	72	0.199	ppb	0.199	15.87	410	2000	
Ni	60	2	72	0.535	ppb	0.535	19.78	397	5000	
Cu	63	2	72	-0.077	ppb	-0.077	-105.69	1403	5000	
Zn	66	2	72	0.918	ppb	0.918	74.43	367	5000	
As	75	2	72	6.800	ppb	6.800	3.79	563	2000	
Se	78	1	72	-0.009	ppb	-0.009	-188.78	16	2000	
Sr	88	2	72	203.406	ppb	203.406	0.81	30628	4000	
Zr	90	2	72	1.522	ppb	1.522	230.13	63	1000	
Nb	93	2	72	-0.054	ppb	-0.054	-58.30	693	200	
Mo	95	2	115	0.748	ppb	0.748	47.83	533	2000	
Pd	105	2	115	-0.006	ppb	-0.006	0.00	0	100	
Ag	107	2	115	0.008	ppb	0.008	1.17	30	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.102	ppb	-0.102	-78.91	170	2000	
Sb	121	2	115	-0.047	ppb	-0.047	-69.36	33	1000	
Ba	137	2	115	93.632	ppb	93.632	3.60	9013	5000	
W	182	2	165	0.069	ppb	0.069	30.86	570	100	
Pt	195	2	165	-0.009	ppb	-0.009	-195.82	503	100	
Tl	205	2	165	0.007	ppb	0.007	105.05	107	2000	
Pb	208	2	165	0.143	ppb	0.143	6.31	2774	5000	
Th	232	2	165	0.048	ppb	0.048	25.58	1043	2000	
U	238	2	165	0.375	ppb	0.375	1.37	3864	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	991278	1.05	1110102	89.30	60	120	
Sc (IS)	45	1	HMI H2	33424218	1.27	33924373	98.53	60	120	
Sc (IS)	45	2	HMI He	351963	1.37	328850	107.03	60	120	
Sc (IS)	45	3	No Gas	109762928	1.07	114636782	95.75	60	120	
Ge Internal Standard	72	1	HMI H2	16841091	1.06	17028246	98.90	60	120	
Ge Internal Standard	72	2	HMI He	517785	0.28	488265	106.05	60	120	
In Internal Standard	115	2	HMI He	1065850	0.89	997863	106.81	60	120	
Ho-165	165	2	HMI He	9777093	1.14	9229532	105.93	60	120	

Sample Report

Sample Table

Sample Name	280-104320-A-12-B
Data File Name	074SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:14:45-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-22.912	ppb	-22.912	-13.02	118514	500000	
Li	7	2	45	-57.395	ppb	-57.395	-37.23	8025	500000	
Li	7	3	45	-30.416	ppb	-30.416	-6.77	7594763	50000	
Be	9	1	6	-0.007	ppb	-0.007	-502.10	10	2000	
B	11	1	6	60.594	ppb	60.594	6.95	22288	2000	
Na	23	1	45	9042.151	ppb	9042.151	2.90	29124005	2000	
Na	23	2	45	8670.018	ppb	8670.018	0.29	1116455	400000	
Mg	24	2	45	34256.415	ppb	34256.415	1.05	1790195	400000	
Al	27	2	45	6.720	ppb	6.720	49.99	87	400000	
K	39	1	45	151.104	ppb	151.104	32.55	6833314	400000	
K	39	2	45	1088.962	ppb	1088.962	1.22	20472	400000	
Ca	40	1	45	76777.972	ppb	76777.972	2.96	383932821	400000	
Ca	44	2	45	71375.501	ppb	71375.501	0.88	69411	400000	
V	51	2	72	-0.138	ppb	-0.138	-83.10	230	2000	
Cr	52	2	72	0.270	ppb	0.270	31.01	367	5000	
Mn	55	2	72	0.267	ppb	0.267	55.92	83	10000	
Fe	57	2	72	10.721	ppb	10.721	52.08	247	400000	
Co	59	2	72	0.034	ppb	0.034	71.11	73	2000	
Ni	60	2	72	0.338	ppb	0.338	14.96	277	5000	
Cu	63	2	72	0.200	ppb	0.200	18.82	1934	5000	
Zn	66	2	72	-0.084	ppb	-0.084	-68.94	223	5000	
As	75	2	72	0.254	ppb	0.254	15.60	29	2000	
Se	78	1	72	0.567	ppb	0.567	18.27	247	2000	
Sr	88	2	72	206.708	ppb	206.708	4.32	31446	4000	
Zr	90	2	72	2.890	ppb	2.890	318.96	70	1000	
Nb	93	2	72	-0.081	ppb	-0.081	-55.31	637	200	
Mo	95	2	115	0.934	ppb	0.934	18.77	663	2000	
Pd	105	2	115	-0.006	ppb	-0.006	0.00	0	100	
Ag	107	2	115	0.011	ppb	0.011	126.51	37	100	
Cd	111	2	115	0.032	ppb	0.032	173.21	7	2000	
Sn	120	2	115	0.239	ppb	0.239	31.94	320	2000	
Sb	121	2	115	3.132	ppb	3.132	14.71	1180	1000	
Ba	137	2	115	36.019	ppb	36.019	13.26	3501	5000	
W	182	2	165	0.017	ppb	0.017	34.55	317	100	
Pt	195	2	165	-0.012	ppb	-0.012	-55.04	490	100	
Tl	205	2	165	0.004	ppb	0.004	137.99	90	2000	
Pb	208	2	165	99.411	ppb	99.411	1.76	757426	5000	
Th	232	2	165	0.033	ppb	0.033	68.92	930	2000	
U	238	2	165	1.687	ppb	1.687	2.22	17340	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1007907	0.63	1110102	90.79	60	120	
Sc (IS)	45	1	HMI H2	33613364	1.20	33924373	99.08	60	120	
Sc (IS)	45	2	HMI He	357769	0.75	328850	108.79	60	120	
Sc (IS)	45	3	No Gas	106449602	0.73	114636782	92.86	60	120	
Ge Internal Standard	72	1	HMI H2	16811518	1.73	17028246	98.73	60	120	
Ge Internal Standard	72	2	HMI He	523233	1.60	488265	107.16	60	120	
In Internal Standard	115	2	HMI He	1077442	2.32	997863	107.97	60	120	
Ho-165	165	2	HMI He	9863648	1.66	9229532	106.87	60	120	

Sample Report

Sample Table

Sample Name	280-104320-A-13-B
Data File Name	075SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:18:31-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-17.932	ppb	-17.932	-10.89	121060	500000	
Li	7	2	45	-37.427	ppb	-37.427	-55.92	8372	500000	
Li	7	3	45	-26.523	ppb	-26.523	-17.21	7829716	50000	
Be	9	1	6	-0.042	ppb	-0.042	0.00	0	2000	
B	11	1	6	38.311	ppb	38.311	9.21	14576	2000	
Na	23	1	45	8794.135	ppb	8794.135	1.08	28532421	2000	
Na	23	2	45	8373.731	ppb	8373.731	2.34	1061312	400000	
Mg	24	2	45	14765.182	ppb	14765.182	1.04	759285	400000	
Al	27	2	45	28.263	ppb	28.263	27.03	280	400000	
K	39	1	45	613.412	ppb	613.412	3.13	8256651	400000	
K	39	2	45	1597.875	ppb	1597.875	4.93	27806	400000	
Ca	40	1	45	60216.678	ppb	60216.678	0.69	303275855	400000	
Ca	44	2	45	58598.381	ppb	58598.381	2.30	56068	400000	
V	51	2	72	-0.109	ppb	-0.109	-229.12	247	2000	
Cr	52	2	72	0.328	ppb	0.328	30.63	417	5000	
Mn	55	2	72	163.748	ppb	163.748	1.11	35409	10000	
Fe	57	2	72	743.472	ppb	743.472	0.63	12128	400000	
Co	59	2	72	0.129	ppb	0.129	31.87	267	2000	
Ni	60	2	72	0.224	ppb	0.224	22.07	203	5000	
Cu	63	2	72	-0.191	ppb	-0.191	-40.71	1193	5000	
Zn	66	2	72	0.067	ppb	0.067	1008.94	243	5000	
As	75	2	72	12.230	ppb	12.230	7.47	1007	2000	
Se	78	1	72	-0.020	ppb	-0.020	-51.12	12	2000	
Sr	88	2	72	217.652	ppb	217.652	3.85	32785	4000	
Zr	90	2	72	9.250	ppb	9.250	29.30	97	1000	
Nb	93	2	72	-0.119	ppb	-0.119	-58.74	540	200	
Mo	95	2	115	1.513	ppb	1.513	10.66	1040	2000	
Pd	105	2	115	-0.003	ppb	-0.003	-152.64	3	100	
Ag	107	2	115	0.006	ppb	0.006	37.56	23	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.005	ppb	-0.005	-624.50	213	2000	
Sb	121	2	115	0.036	ppb	0.036	84.56	63	1000	
Ba	137	2	115	113.794	ppb	113.794	1.06	11027	5000	
W	182	2	165	0.035	ppb	0.035	16.40	403	100	
Pt	195	2	165	-0.013	ppb	-0.013	-129.34	480	100	
Tl	205	2	165	0.009	ppb	0.009	115.29	120	2000	
Pb	208	2	165	0.147	ppb	0.147	5.31	2800	5000	
Th	232	2	165	0.021	ppb	0.021	40.82	823	2000	
U	238	2	165	0.175	ppb	0.175	4.73	1834	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1004046	0.42	1110102	90.45	60	120	
Sc (IS)	45	1	HMI H2	33842844	0.04	33924373	99.76	60	120	
Sc (IS)	45	2	HMI He	352028	1.06	328850	107.05	60	120	
Sc (IS)	45	3	No Gas	108479445	0.79	114636782	94.63	60	120	
Ge Internal Standard	72	1	HMI H2	16899154	0.58	17028246	99.24	60	120	
Ge Internal Standard	72	2	HMI He	517888	0.62	488265	106.07	60	120	
In Internal Standard	115	2	HMI He	1073241	1.23	997863	107.55	60	120	
Ho-165	165	2	HMI He	9758580	1.30	9229532	105.73	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-14-B
Data File Name	076SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:22:18-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-17.552	ppb	-17.552	-25.58	120801	500000	
Li	7	2	45	-50.568	ppb	-50.568	-18.31	8019	500000	
Li	7	3	45	-29.568	ppb	-29.568	-6.14	7640017	50000	
Be	9	1	6	-0.019	ppb	-0.019	-109.20	7	2000	
B	11	1	6	6.264	ppb	6.264	14.84	3661	2000	
Na	23	1	45	3936.654	ppb	3936.654	1.29	12881500	2000	
Na	23	2	45	3723.765	ppb	3723.765	1.12	476324	400000	
Mg	24	2	45	10032.881	ppb	10032.881	1.75	513270	400000	
Al	27	2	45	6.200	ppb	6.200	55.75	80	400000	
K	39	1	45	-347.630	ppb	-347.630	-4.14	5379991	400000	
K	39	2	45	612.087	ppb	612.087	12.23	12895	400000	
Ca	40	1	45	31351.812	ppb	31351.812	0.67	157467074	400000	
Ca	44	2	45	30492.973	ppb	30492.973	3.57	29028	400000	
V	51	2	72	-0.095	ppb	-0.095	-266.45	253	2000	
Cr	52	2	72	0.216	ppb	0.216	34.32	313	5000	
Mn	55	2	72	289.449	ppb	289.449	2.81	62189	10000	
Fe	57	2	72	3894.727	ppb	3894.727	1.23	62832	400000	
Co	59	2	72	0.417	ppb	0.417	11.82	850	2000	
Ni	60	2	72	2.506	ppb	2.506	8.60	1613	5000	
Cu	63	2	72	0.078	ppb	0.078	156.38	1680	5000	
Zn	66	2	72	-0.013	ppb	-0.013	-159.87	230	5000	
As	75	2	72	1.745	ppb	1.745	14.82	150	2000	
Se	78	1	72	-0.007	ppb	-0.007	-359.48	17	2000	
Sr	88	2	72	42.050	ppb	42.050	4.71	6291	4000	
Zr	90	2	72	-2.295	ppb	-2.295	-150.41	47	1000	
Nb	93	2	72	-0.146	ppb	-0.146	-26.55	473	200	
Mo	95	2	115	0.066	ppb	0.066	68.36	90	2000	
Pd	105	2	115	0.000	ppb	0.000	-1188.17	7	100	
Ag	107	2	115	0.004	ppb	0.004	159.57	17	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.033	ppb	-0.033	-418.46	200	2000	
Sb	121	2	115	-0.085	ppb	-0.085	-86.24	20	1000	
Ba	137	2	115	15.202	ppb	15.202	9.38	1470	5000	
W	182	2	165	0.035	ppb	0.035	43.35	400	100	
Pt	195	2	165	-0.006	ppb	-0.006	-324.74	520	100	
Tl	205	2	165	-0.001	ppb	-0.001	-337.89	57	2000	
Pb	208	2	165	0.155	ppb	0.155	16.42	2850	5000	
Th	232	2	165	0.007	ppb	0.007	159.01	703	2000	
U	238	2	165	0.003	ppb	0.003	17.73	93	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1016948	1.62	1110102	91.61	60	120	
Sc (IS)	45	1	HMI H2	33735739	0.83	33924373	99.44	60	120	
Sc (IS)	45	2	HMI He	350215	1.20	328850	106.50	60	120	
Sc (IS)	45	3	No Gas	106809092	0.18	114636782	93.17	60	120	
Ge Internal Standard	72	1	HMI H2	17103960	0.88	17028246	100.44	60	120	
Ge Internal Standard	72	2	HMI He	514624	1.27	488265	105.40	60	120	
In Internal Standard	115	2	HMI He	1069935	1.52	997863	107.22	60	120	
Ho-165	165	2	HMI He	9727585	1.62	9229532	105.40	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-15-B
Data File Name	077SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:26:06-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	-12.474	ppb	-12.474	-40.62	120145	500000	
Li	7	2	45	-50.839	ppb	-50.839	-42.53	7962	500000	
Li	7	3	45	-22.436	ppb	-22.436	-26.70	7711912	50000	
Be	9	1	6	0.053	ppb	0.053	77.14	27	2000	
B	11	1	6	28.920	ppb	28.920	2.48	11314	2000	
Na	23	1	45	4740.139	ppb	4740.139	1.09	15151450	2000	
Na	23	2	45	4494.135	ppb	4494.135	3.06	568236	400000	
Mg	24	2	45	17140.073	ppb	17140.073	3.64	870526	400000	
Al	27	2	45	21.626	ppb	21.626	22.60	217	400000	
K	39	1	45	389.349	ppb	389.349	10.31	7416797	400000	
K	39	2	45	1323.592	ppb	1323.592	1.89	23386	400000	
Ca	40	1	45	68477.189	ppb	68477.189	1.53	336989408	400000	
Ca	44	2	45	66188.018	ppb	66188.018	2.67	62556	400000	
V	51	2	72	-0.195	ppb	-0.195	-35.19	187	2000	
Cr	52	2	72	0.313	ppb	0.313	15.79	393	5000	
Mn	55	2	72	474.751	ppb	474.751	2.85	100230	10000	
Fe	57	2	72	2485.851	ppb	2485.851	3.91	39441	400000	
Co	59	2	72	0.357	ppb	0.357	14.39	717	2000	
Ni	60	2	72	0.342	ppb	0.342	17.89	270	5000	
Cu	63	2	72	0.444	ppb	0.444	31.95	2307	5000	
Zn	66	2	72	1.452	ppb	1.452	55.56	433	5000	
As	75	2	72	15.023	ppb	15.023	4.38	1206	2000	
Se	78	1	72	-0.016	ppb	-0.016	-99.27	13	2000	
Sr	88	2	72	144.620	ppb	144.620	4.90	21274	4000	
Zr	90	2	72	45.353	ppb	45.353	37.91	247	1000	
Nb	93	2	72	-0.169	ppb	-0.169	-27.99	413	200	
Mo	95	2	115	0.655	ppb	0.655	28.61	467	2000	
Pd	105	2	115	-0.006	ppb	-0.006	0.00	0	100	
Ag	107	2	115	-0.001	ppb	-0.001	-156.17	3	100	
Cd	111	2	115	0.000	ppb	0.000	#DIV/0!	0	2000	
Sn	120	2	115	-0.191	ppb	-0.191	-102.02	130	2000	
Sb	121	2	115	-0.027	ppb	-0.027	-104.83	40	1000	
Ba	137	2	115	56.497	ppb	56.497	5.13	5364	5000	
W	182	2	165	0.044	ppb	0.044	16.59	437	100	
Pt	195	2	165	-0.022	ppb	-0.022	-63.69	423	100	
Tl	205	2	165	-0.003	ppb	-0.003	-108.65	43	2000	
Pb	208	2	165	0.838	ppb	0.838	10.50	7818	5000	
Th	232	2	165	0.012	ppb	0.012	22.68	727	2000	
U	238	2	165	0.170	ppb	0.170	5.16	1740	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	999714	0.46	1110102	90.06	60	120	
Sc (IS)	45	1	HMI H2	33072010	0.87	33924373	97.49	60	120	
Sc (IS)	45	2	HMI He	347792	1.38	328850	105.76	60	120	
Sc (IS)	45	3	No Gas	105577095	1.30	114636782	92.10	60	120	
Ge Internal Standard	72	1	HMI H2	16657301	0.79	17028246	97.82	60	120	
Ge Internal Standard	72	2	HMI He	505951	1.26	488265	103.62	60	120	
In Internal Standard	115	2	HMI He	1051383	0.48	997863	105.36	60	120	
Ho-165	165	2	HMI He	9542711	1.61	9229532	103.39	60	120	

Sample Report

Sample Table

Sample Name	280-104320-E-16-B
Data File Name	078SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:29:54-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	397837 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	5.371	ppb	5.371	137.25	123657	500000	
Li	7	2	45	-27.712	ppb	-27.712	-48.72	8322	500000	
Li	7	3	45	-8.781	ppb	-8.781	-9.86	7943794	50000	
Be	9	1	6	0.057	ppb	0.057	79.15	27	2000	
B	11	1	6	54.933	ppb	54.933	6.39	19477	2000	
Na	23	1	45	4188.505	ppb	4188.505	0.48	13148181	2000	
Na	23	2	45	3878.447	ppb	3878.447	1.37	481531	400000	
Mg	24	2	45	37232.251	ppb	37232.251	1.23	1850531	400000	
Al	27	2	45	2620.434	ppb	2620.434	1.67	22859	400000	
K	39	1	45	756.711	ppb	756.711	5.29	8313740	400000	
K	39	2	45	1704.956	ppb	1704.956	2.39	28436	400000	
Ca	40	1	45	83160.170	ppb	83160.170	1.08	400963834	400000	
Ca	44	2	45	80369.929	ppb	80369.929	1.38	74330	400000	
V	51	2	72	4.063	ppb	4.063	4.36	2914	2000	
Cr	52	2	72	4.224	ppb	4.224	7.40	3867	5000	
Mn	55	2	72	119.814	ppb	119.814	1.96	25482	10000	
Fe	57	2	72	4897.934	ppb	4897.934	1.46	78158	400000	
Co	59	2	72	1.979	ppb	1.979	5.46	3984	2000	
Ni	60	2	72	5.272	ppb	5.272	3.83	3287	5000	
Cu	63	2	72	3.785	ppb	3.785	6.93	8369	5000	
Zn	66	2	72	13.563	ppb	13.563	5.99	2164	5000	
As	75	2	72	1.619	ppb	1.619	15.14	138	2000	
Se	78	1	72	0.543	ppb	0.543	10.52	231	2000	
Sr	88	2	72	188.906	ppb	188.906	1.74	27967	4000	
Zr	90	2	72	164.335	ppb	164.335	8.53	753	1000	
Nb	93	2	72	-0.160	ppb	-0.160	-9.04	437	200	
Mo	95	2	115	0.572	ppb	0.572	25.89	410	2000	
Pd	105	2	115	-0.006	ppb	-0.006	0.00	0	100	
Ag	107	2	115	0.014	ppb	0.014	56.93	43	100	
Cd	111	2	115	0.017	ppb	0.017	173.21	3	2000	
Sn	120	2	115	-0.118	ppb	-0.118	-57.10	160	2000	
Sb	121	2	115	-0.026	ppb	-0.026	-7.16	40	1000	
Ba	137	2	115	37.999	ppb	37.999	1.56	3577	5000	
W	182	2	165	0.023	ppb	0.023	54.85	340	100	
Pt	195	2	165	-0.019	ppb	-0.019	-53.50	443	100	
Tl	205	2	165	0.041	ppb	0.041	31.83	303	2000	
Pb	208	2	165	2.403	ppb	2.403	3.71	19626	5000	
Th	232	2	165	0.862	ppb	0.862	7.89	7742	2000	
U	238	2	165	1.089	ppb	1.089	4.85	11011	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	965846	2.00	1110102	87.01	60	120	
Sc (IS)	45	1	HMI H2	32403966	0.22	33924373	95.52	60	120	
Sc (IS)	45	2	HMI He	340303	1.34	328850	103.48	60	120	
Sc (IS)	45	3	No Gas	104552628	0.42	114636782	91.20	60	120	
Ge Internal Standard	72	1	HMI H2	16390639	0.28	17028246	96.26	60	120	
Ge Internal Standard	72	2	HMI He	509153	1.66	488265	104.28	60	120	
In Internal Standard	115	2	HMI He	1042611	1.60	997863	104.48	60	120	
Ho-165	165	2	HMI He	9687034	0.53	9229532	104.96	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	079_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:33:41-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	487.700	ppb	1.414	285806	500	97.5	90	110	
Li	7	2	45	439.381	ppb	2.491	19287	500	87.9	90	110	>+\-10%
Li	7	3	45	448.694	ppb	1.462	18043182	500	89.7	90	110	>+\-10%
Be	9	1	6	52.021	ppb	1.641	14513	50	104.0	90	110	
B	11	1	6	50.434	ppb	6.490	18570	50	100.9	90	110	
Na	23	1	45	5173.356	ppb	2.451	16279582	5000	103.5	90	110	
Na	23	2	45	4812.199	ppb	2.036	600478	5000	96.2	90	110	
Mg	24	2	45	5156.116	ppb	1.994	258919	5000	103.1	90	110	
Al	27	2	45	5198.043	ppb	4.185	45755	5000	104.0	90	110	
K	39	1	45	5267.591	ppb	2.515	21298073	5000	105.4	90	110	
K	39	2	45	5184.482	ppb	0.518	79820	5000	103.7	90	110	
Ca	40	1	45	5371.074	ppb	2.249	26194667	5000	107.4	90	110	
Ca	44	2	45	5111.911	ppb	5.451	4791	5000	102.2	90	110	
V	51	2	72	48.883	ppb	0.957	31796	50	97.8	90	110	
Cr	52	2	72	49.628	ppb	1.612	44446	50	99.3	90	110	
Mn	55	2	72	54.841	ppb	0.879	11741	50	109.7	90	110	
Fe	57	2	72	4939.026	ppb	0.224	79263	5000	98.8	90	110	
Co	59	2	72	49.265	ppb	1.093	99594	50	98.5	90	110	
Ni	60	2	72	48.717	ppb	3.222	30036	50	97.4	90	110	
Cu	63	2	72	49.575	ppb	1.873	91787	50	99.1	90	110	
Zn	66	2	72	50.606	ppb	2.428	7492	50	101.2	90	110	
As	75	2	72	49.508	ppb	0.887	4004	50	99.0	90	110	
Se	78	1	72	49.944	ppb	2.637	19643	50	99.9	90	110	
Sr	88	2	72	54.452	ppb	1.728	8109	50	108.9	90	110	
Zr	90	2	72	103.256	ppb	19.366	497	50	206.5	90	110	>+\-10%
Nb	93	2	72	95.791	ppb	1.196	223692	100	95.8	90	110	
Mo	95	2	115	49.318	ppb	0.654	32168	50	98.6	90	110	
Pd	105	2	115	48.913	ppb	1.838	63568	50	97.8	90	110	
Ag	107	2	115	48.692	ppb	1.016	131467	50	97.4	90	110	
Cd	111	2	115	48.370	ppb	3.338	10000	50	96.7	90	110	
Sn	120	2	115	51.328	ppb	1.440	22185	50	102.7	90	110	
Sb	121	2	115	52.817	ppb	4.453	18855	50	105.6	90	110	
Ba	137	2	115	50.357	ppb	1.824	4844	50	100.7	90	110	
W	182	2	165	47.970	ppb	2.635	238327	50	95.9	90	110	
Pt	195	2	165	47.568	ppb	2.157	266129	50	95.1	90	110	
Tl	205	2	165	50.146	ppb	1.510	298787	50	100.3	90	110	
Pb	208	2	165	50.893	ppb	3.594	385064	50	101.8	90	110	
Th	232	2	165	49.286	ppb	2.966	410397	50	98.6	90	110	
U	238	2	165	49.546	ppb	2.353	502659	50	99.1	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	996520	2.03	1110102	89.77	60	120	
Sc (IS)	45	1	HMI H2	32613530	1.38	33924373	96.14	60	120	
Sc (IS)	45	2	HMI He	343681	1.46	328850	104.51	60	120	
Sc (IS)	45	3	No Gas	103757778	0.94	114636782	90.51	60	120	
Ge Internal Standard	72	1	HMI H2	16535025	1.36	17028246	97.10	60	120	
Ge Internal Standard	72	2	HMI He	512032	0.84	488265	104.87	60	120	
In Internal Standard	115	2	HMI He	1065440	1.60	997863	106.77	60	120	
Ho-165	165	2	HMI He	9778205	2.18	9229532	105.94	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	080_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:37:29-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-24.162	ppb	-9.8	7625248	10	
Be	9	1	6	0.004	ppb	484.2	13	0.5	
B	11	1	6	0.075	ppb	441.7	1523	0.5	
Na	23	1	45	-21.171	ppb	-3.8	199785	25	
Na	23	2	45	-29.242	ppb	-6.6	8442	25	
Mg	24	2	45	2.872	ppb	14.7	290	25	
Al	27	2	45	2.128	ppb	62.9	43	15	
K	39	1	45	-31.977	ppb	-56.9	6198843	50	
K	39	2	45	-33.482	ppb	-49.2	3217	50	
Ca	40	1	45	-9.862	ppb	-4.7	98226	50	
Ca	44	2	45	-11.521	ppb	-52.4	3	25	
V	51	2	72	0.110	ppb	26.2	387	1	
Cr	52	2	72	0.027	ppb	110.5	143	1	
Mn	55	2	72	-0.006	ppb	-1751.6	23	0.5	
Fe	57	2	72	3.717	ppb	33.3	130	25	
Co	59	2	72	0.020	ppb	39.6	43	0.5	
Ni	60	2	72	-0.048	ppb	-20.7	33	1	
Cu	63	2	72	-0.216	ppb	-44.6	1140	1	
Zn	66	2	72	-0.772	ppb	-60.0	120	5	
As	75	2	72	-0.021	ppb	-295.7	7	1	
Se	78	1	72	-0.009	ppb	-105.5	16	1	
Sr	88	2	72	0.045	ppb	86.6	7	0.5	
Zr	90	2	72	-1.535	ppb	-602.8	50	1	
Nb	93	2	72	1.653	ppb	7.0	4674	2	
Mo	95	2	115	0.005	ppb	327.1	50	0.5	
Pd	105	2	115	0.017	ppb	43.2	30	1	
Ag	107	2	115	0.027	ppb	24.5	80	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.145	ppb	-34.9	153	1	
Sb	121	2	115	0.101	ppb	154.8	87	0.6	
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5	
W	182	2	165	0.035	ppb	40.7	403	1	
Pt	195	2	165	-0.002	ppb	-818.3	543	1	
Tl	205	2	165	0.018	ppb	42.5	170	0.1	
Pb	208	2	165	0.003	ppb	817.2	1720	0.5	
Th	232	2	165	0.199	ppb	12.1	2300	1	
U	238	2	165	0.017	ppb	43.9	233	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1023214	1.13	1110102	92.17	60	120	
Sc (IS)	45	1	HMI H2	33108781	0.36	33924373	97.60	60	120	
Sc (IS)	45	2	HMI He	347685	1.07	328850	105.73	60	120	
Sc (IS)	45	3	No Gas	104913185	1.66	114636782	91.52	60	120	
Ge Internal Standard	72	1	HMI H2	16800056	0.97	17028246	98.66	60	120	
Ge Internal Standard	72	2	HMI He	514014	1.08	488265	105.27	60	120	
In Internal Standard	115	2	HMI He	1079026	1.77	997863	108.13	60	120	
Ho-165	165	2	HMI He	9777565	0.86	9229532	105.94	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	081LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:41:18-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-16.353	ppb	-20.851	7803290	50	-32.7	70	130	>+/-30%
Be	9	1	6	0.718	ppb	36.550	220	1	71.8	70	130	
Na	23	2	45	24.266	ppb	13.365	15120	50	48.5	70	130	>+/-30%
Mg	24	2	45	53.686	ppb	4.995	2880	50	107.4	70	130	
Al	27	2	45	43.156	ppb	7.579	410	30	143.9	70	130	>+/-30%
K	39	2	45	61.482	ppb	25.093	4647	100	61.5	70	130	>+/-30%
Ca	44	2	45	86.750	ppb	50.036	97	50	173.5	70	130	>+/-30%
V	51	2	72	4.898	ppb	11.425	3487	5	98.0	70	130	
Cr	52	2	72	2.072	ppb	7.877	1980	2	103.6	70	130	
Mn	55	2	72	1.034	ppb	2.649	247	1	103.4	70	130	
Fe	57	2	72	51.480	ppb	22.995	900	50	103.0	70	130	
Co	59	2	72	0.912	ppb	2.255	1857	1	91.2	70	130	
Ni	60	2	72	1.995	ppb	5.187	1297	2	99.7	70	130	
Cu	63	2	72	1.751	ppb	4.394	4741	2	87.6	70	130	
Zn	66	2	72	8.446	ppb	2.795	1450	10	84.5	70	130	
As	75	2	72	4.538	ppb	4.812	376	5	90.8	70	130	
Se	78	1	72	4.964	ppb	18.514	2015	5	99.3	70	130	
Sr	88	2	72	1.648	ppb	36.288	247	1	164.8	70	130	>+/-30%
Zr	90	2	72	14.822	ppb	72.019	120	0.5	2964.5	70	130	>+/-30%
Nb	93	2	72	1.352	ppb	4.424	3977	2	67.6	70	130	>+/-30%
Mo	95	2	115	1.857	ppb	13.929	1267	2	92.8	70	130	
Pd	105	2	115	0.025	ppb	106.833	40	1	2.5	70	130	>+/-30%
Ag	107	2	115	4.829	ppb	3.508	13169	5	96.6	70	130	
Cd	111	2	115	0.733	ppb	38.479	153	1	73.3	70	130	
Sn	120	2	115	9.571	ppb	7.045	4354	10	95.7	70	130	
Sb	121	2	115	1.946	ppb	5.879	750	2	97.3	70	130	
Ba	137	2	115	1.443	ppb	62.092	140	1	144.3	70	130	>+/-30%
W	182	2	165	4.788	ppb	1.478	23942	1	478.8	70	130	>+/-30%
Pt	195	2	165	0.032	ppb	76.652	733	1	3.2	70	130	>+/-30%
Tl	205	2	165	1.065	ppb	4.850	6392	1	106.5	70	130	
Pb	208	2	165	1.245	ppb	3.178	11052	1	124.5	70	130	
Th	232	2	165	2.056	ppb	0.474	17697	2	102.8	70	130	
U	238	2	165	1.031	ppb	5.302	10497	1	103.1	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1039100	2.47	1110102	93.60	60	120	
Sc (IS)	45	1	HMI H2	34007909	6.59	33924373	100.25	60	120	
Sc (IS)	45	2	HMI He	348946	0.66	328850	106.11	60	120	
Sc (IS)	45	3	No Gas	104943978	0.58	114636782	91.54	60	120	
Ge Internal Standard	72	1	HMI H2	17009780	5.42	17028246	99.89	60	120	
Ge Internal Standard	72	2	HMI He	514727	0.08	488265	105.42	60	120	
In Internal Standard	115	2	HMI He	1075847	1.35	997863	107.82	60	120	
Ho-165	165	2	HMI He	9753620	0.64	9229532	105.68	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	082LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:45:09-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-11.513	ppb	-14.548	7839974	50	-23.0	70	130	>+/-30%
Be	9	1	6	0.799	ppb	13.715	237	1	79.9	70	130	
Na	23	2	45	17.454	ppb	31.225	14076	50	34.9	70	130	>+/-30%
Mg	24	2	45	52.102	ppb	6.852	2760	50	104.2	70	130	
Al	27	2	45	33.593	ppb	26.644	320	30	112.0	70	130	
K	39	2	45	57.385	ppb	18.467	4521	100	57.4	70	130	>+/-30%
Ca	44	2	45	59.712	ppb	46.625	70	50	119.4	70	130	
V	51	2	72	4.982	ppb	9.823	3507	5	99.6	70	130	
Cr	52	2	72	1.862	ppb	9.511	1774	2	93.1	70	130	
Mn	55	2	72	0.917	ppb	43.245	220	1	91.7	70	130	
Fe	57	2	72	48.467	ppb	3.958	843	50	96.9	70	130	
Co	59	2	72	1.057	ppb	4.596	2130	1	105.7	70	130	
Ni	60	2	72	2.079	ppb	13.144	1337	2	104.0	70	130	
Cu	63	2	72	1.722	ppb	3.581	4644	2	86.1	70	130	
Zn	66	2	72	10.109	ppb	8.425	1673	10	101.1	70	130	
As	75	2	72	4.680	ppb	8.369	384	5	93.6	70	130	
Se	78	1	72	5.367	ppb	11.742	2100	5	107.3	70	130	
Sr	88	2	72	1.193	ppb	27.340	177	1	119.3	70	130	
Zr	90	2	72	10.332	ppb	112.027	100	0.5	2066.4	70	130	>+/-30%
Nb	93	2	72	0.342	ppb	12.773	1600	2	17.1	70	130	>+/-30%
Mo	95	2	115	1.793	ppb	5.229	1203	2	89.7	70	130	
Pd	105	2	115	0.015	ppb	148.114	27	1	1.5	70	130	>+/-30%
Ag	107	2	115	4.825	ppb	2.156	12912	5	96.5	70	130	
Cd	111	2	115	0.814	ppb	19.764	167	1	81.4	70	130	
Sn	120	2	115	10.712	ppb	7.098	4754	10	107.1	70	130	
Sb	121	2	115	2.118	ppb	7.113	797	2	105.9	70	130	
Ba	137	2	115	1.016	ppb	40.114	97	1	101.6	70	130	
W	182	2	165	4.700	ppb	1.609	23231	1	470.0	70	130	>+/-30%
Pt	195	2	165	-0.001	ppb	-849.576	540	1	-0.1	70	130	>+/-30%
Tl	205	2	165	1.097	ppb	5.376	6505	1	109.7	70	130	
Pb	208	2	165	1.229	ppb	2.088	10805	1	122.9	70	130	
Th	232	2	165	1.942	ppb	3.080	16556	2	97.1	70	130	
U	238	2	165	1.052	ppb	2.001	10587	1	105.2	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	1007480	2.82	1110102	90.76	60	120	
Sc (IS)	45	1	HMI H2	32037376	5.71	33924373	94.44	60	120	
Sc (IS)	45	2	HMI He	344079	0.83	328850	104.63	60	120	
Sc (IS)	45	3	No Gas	103989268	1.58	114636782	90.71	60	120	
Ge Internal Standard	72	1	HMI H2	16367424	4.24	17028246	96.12	60	120	
Ge Internal Standard	72	2	HMI He	509835	0.83	488265	104.42	60	120	
In Internal Standard	115	2	HMI He	1055589	0.85	997863	105.78	60	120	
Ho-165	165	2	HMI He	9639739	0.50	9229532	104.44	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	083LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:48:57-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-12.325	ppb	-17.384	7650561	50	-24.6	70	130	>+/-30%
Be	9	1	6	1.029	ppb	20.176	297	1	102.9	70	130	
Na	23	2	45	21.521	ppb	17.067	14386	50	43.0	70	130	>+/-30%
Mg	24	2	45	59.291	ppb	6.853	3084	50	118.6	70	130	
Al	27	2	45	33.375	ppb	26.562	313	30	111.3	70	130	
K	39	2	45	50.538	ppb	18.675	4364	100	50.5	70	130	>+/-30%
Ca	44	2	45	86.040	ppb	37.945	93	50	172.1	70	130	>+/-30%
V	51	2	72	4.753	ppb	15.463	3290	5	95.1	70	130	
Cr	52	2	72	2.014	ppb	12.015	1870	2	100.7	70	130	
Mn	55	2	72	1.031	ppb	17.169	240	1	103.1	70	130	
Fe	57	2	72	51.851	ppb	9.063	880	50	103.7	70	130	
Co	59	2	72	0.950	ppb	17.507	1874	1	95.0	70	130	
Ni	60	2	72	2.190	ppb	5.672	1380	2	109.5	70	130	
Cu	63	2	72	1.899	ppb	6.838	4871	2	95.0	70	130	
Zn	66	2	72	10.141	ppb	15.837	1650	10	101.4	70	130	
As	75	2	72	4.686	ppb	1.999	378	5	93.7	70	130	
Se	78	1	72	5.293	ppb	5.343	2044	5	105.9	70	130	
Sr	88	2	72	0.889	ppb	49.818	130	1	88.9	70	130	
Zr	90	2	72	11.778	ppb	68.046	103	0.5	2355.5	70	130	>+/-30%
Nb	93	2	72	0.095	ppb	32.243	1010	2	4.8	70	130	>+/-30%
Mo	95	2	115	2.027	ppb	3.211	1337	2	101.3	70	130	
Pd	105	2	115	0.010	ppb	155.685	20	1	1.0	70	130	>+/-30%
Ag	107	2	115	4.989	ppb	3.123	13196	5	99.8	70	130	
Cd	111	2	115	1.118	ppb	18.798	227	1	111.8	70	130	
Sn	120	2	115	10.217	ppb	10.935	4487	10	102.2	70	130	
Sb	121	2	115	1.994	ppb	6.529	743	2	99.7	70	130	
Ba	137	2	115	1.059	ppb	17.623	100	1	105.9	70	130	
W	182	2	165	4.802	ppb	5.100	23424	1	480.2	70	130	>+/-30%
Pt	195	2	165	0.010	ppb	146.282	597	1	1.0	70	130	>+/-30%
Tl	205	2	165	1.123	ppb	3.122	6575	1	112.3	70	130	
Pb	208	2	165	1.203	ppb	6.920	10482	1	120.3	70	130	
Th	232	2	165	2.024	ppb	1.821	17020	2	101.2	70	130	
U	238	2	165	1.047	ppb	5.678	10401	1	104.7	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	986321	3.21	1110102	88.85	60	120	
Sc (IS)	45	1	HMI H2	31610505	2.54	33924373	93.18	60	120	
Sc (IS)	45	2	HMI He	339794	1.83	328850	103.33	60	120	
Sc (IS)	45	3	No Gas	101711085	0.88	114636782	88.72	60	120	
Ge Internal Standard	72	1	HMI H2	16116551	3.11	17028246	94.65	60	120	
Ge Internal Standard	72	2	HMI He	500536	2.99	488265	102.51	60	120	
In Internal Standard	115	2	HMI He	1042774	2.45	997863	104.50	60	120	
Ho-165	165	2	HMI He	9524879	3.35	9229532	103.20	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-39-E
Data File Name	084SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:53:24-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	142.799	ppb	142.799	7.15	159918	500000	
Li	7	2	45	85.885	ppb	85.885	16.56	11617	500000	
Li	7	3	45	138.775	ppb	138.775	3.46	10854789	50000	
Be	9	1	6	11.856	ppb	11.856	2.80	2387	2000	
B	11	1	6	125.554	ppb	125.554	1.33	31718	2000	
Na	23	1	45	2507.095	ppb	2507.095	1.61	7531373	2000	
Na	23	2	45	2201.133	ppb	2201.133	2.27	295556	400000	
Mg	24	2	45	294057.745	ppb	294057.745	2.75	15514089	400000	
Al	27	2	45	211002.762	ppb	211002.762	1.61	1952007	400000	
K	39	1	45	46786.731	ppb	46786.731	1.37	131689315	400000	
K	39	2	45	45551.674	ppb	45551.674	1.36	707186	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	1955509.312	ppb	1955509.312	0.50	1920641	400000	
V	51	2	72	317.514	ppb	317.514	2.63	194926	2000	
Cr	52	2	72	345.910	ppb	345.910	3.03	294141	5000	
Mn	55	2	72	5348.830	ppb	5348.830	2.80	1087500	10000	
Fe	57	2	72	187554.018	ppb	187554.018	2.67	2862030	400000	
Co	59	2	72	74.127	ppb	74.127	4.09	142568	2000	
Ni	60	2	72	194.525	ppb	194.525	1.44	113973	5000	
Cu	63	2	72	907.141	ppb	907.141	3.95	1572713	5000	
Zn	66	2	72	763.569	ppb	763.569	4.05	104456	5000	
As	75	2	72	74.761	ppb	74.761	1.38	5755	2000	
Se	78	1	72	3.774	ppb	3.774	5.33	1268	2000	
Sr	88	2	72	4586.530	ppb	4586.530	1.72	650115	4000	
Zr	90	2	72	31763.578	ppb	31763.578	2.59	129068	1000	>LDR
Nb	93	2	72	2.837	ppb	2.837	7.37	7048	200	
Mo	95	2	115	10.831	ppb	10.831	3.45	6802	2000	
Pd	105	2	115	0.053	ppb	0.053	43.88	73	100	
Ag	107	2	115	3.987	ppb	3.987	1.90	10307	100	
Cd	111	2	115	7.768	ppb	7.768	8.24	1540	2000	
Sn	120	2	115	7.761	ppb	7.761	5.79	3387	2000	
Sb	121	2	115	26.359	ppb	26.359	3.11	9026	1000	
Ba	137	2	115	2058.062	ppb	2058.062	0.84	189524	5000	
W	182	2	165	0.778	ppb	0.778	7.56	3847	100	
Pt	195	2	165	0.014	ppb	0.014	51.64	597	100	
Tl	205	2	165	2.735	ppb	2.735	2.88	15371	2000	
Pb	208	2	165	33391.836	ppb	33391.836	2.52	236500188	5000	>LDR
Th	232	2	165	90.354	ppb	90.354	3.23	706656	2000	
U	238	2	165	15.549	ppb	15.549	4.12	148281	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	716964	1.31	1110102	64.59	60	120	
Sc (IS)	45	1	HMI H2	30605270	1.48	33924373	90.22	60	120	
Sc (IS)	45	2	HMI He	361406	2.97	328850	109.90	60	120	
Sc (IS)	45	3	No Gas	100921752	1.05	114636782	88.04	60	120	
Ge Internal Standard	72	1	HMI H2	13959312	1.58	17028246	81.98	60	120	
Ge Internal Standard	72	2	HMI He	487584	3.35	488265	99.86	60	120	
In Internal Standard	115	2	HMI He	1020008	4.22	997863	102.22	60	120	
Ho-165	165	2	HMI He	9194012	3.19	9229532	99.62	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-69-E
Data File Name	085SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T14:57:10-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399898 soil 6020a dod5
ISTD Ref FileName	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	69.591	ppb	69.591	2.99	135234	500000	
Li	7	2	45	-1.026	ppb	-1.026	-1003.23	9403	500000	
Li	7	3	45	42.068	ppb	42.068	3.67	8293564	50000	
Be	9	1	6	9.532	ppb	9.532	10.40	1807	2000	
B	11	1	6	108.722	ppb	108.722	2.20	25979	2000	
Na	23	1	45	2389.717	ppb	2389.717	1.17	7100528	2000	
Na	23	2	45	2096.747	ppb	2096.747	4.31	279610	400000	
Mg	24	2	45	355632.404	ppb	355632.404	3.79	18597745	400000	
Al	27	2	45	156961.092	ppb	156961.092	4.88	1439044	400000	
K	39	1	45	35999.723	ppb	35999.723	0.90	101390222	400000	
K	39	2	45	35019.642	ppb	35019.642	4.23	539651	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	1776488.810	ppb	1776488.810	3.66	1728529	400000	
V	51	2	72	254.517	ppb	254.517	4.86	155460	2000	
Cr	52	2	72	412.137	ppb	412.137	5.10	348521	5000	
Mn	55	2	72	4043.012	ppb	4043.012	4.71	817534	10000	
Fe	57	2	72	143479.779	ppb	143479.779	4.59	2177498	400000	
Co	59	2	72	53.008	ppb	53.008	4.26	101414	2000	
Ni	60	2	72	156.863	ppb	156.863	4.62	91387	5000	
Cu	63	2	72	130.682	ppb	130.682	4.33	226627	5000	
Zn	66	2	72	561.682	ppb	561.682	5.48	76506	5000	
As	75	2	72	57.586	ppb	57.586	4.19	4407	2000	
Se	78	1	72	3.201	ppb	3.201	6.59	1089	2000	
Sr	88	2	72	3346.083	ppb	3346.083	4.99	471589	4000	
Zr	90	2	72	22039.057	ppb	22039.057	5.39	89089	1000	>LDR
Nb	93	2	72	2.772	ppb	2.772	12.72	6868	200	
Mo	95	2	115	10.181	ppb	10.181	8.86	6351	2000	
Pd	105	2	115	0.013	ppb	0.013	37.88	23	100	
Ag	107	2	115	0.525	ppb	0.525	15.10	1357	100	
Cd	111	2	115	5.653	ppb	5.653	9.18	1113	2000	
Sn	120	2	115	5.702	ppb	5.702	9.41	2527	2000	
Sb	121	2	115	0.283	ppb	0.283	18.79	143	1000	
Ba	137	2	115	1489.811	ppb	1489.811	5.55	136329	5000	
W	182	2	165	0.625	ppb	0.625	12.00	3117	100	
Pt	195	2	165	-0.013	ppb	-0.013	-105.59	450	100	
Tl	205	2	165	1.855	ppb	1.855	7.97	10390	2000	
Pb	208	2	165	214.517	ppb	214.517	4.42	1513687	5000	
Th	232	2	165	68.863	ppb	68.863	3.82	536304	2000	
U	238	2	165	13.818	ppb	13.818	5.92	131174	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	674606	0.16	1110102	60.77	60	120	
Sc (IS)	45	1	HMI H2	30220513	0.26	33924373	89.08	60	120	
Sc (IS)	45	2	HMI He	358134	1.44	328850	108.90	60	120	
Sc (IS)	45	3	No Gas	95478429	0.77	114636782	83.29	60	120	
Ge Internal Standard	72	1	HMI H2	14096066	0.70	17028246	82.78	60	120	
Ge Internal Standard	72	2	HMI He	484832	1.77	488265	99.30	60	120	
In Internal Standard	115	2	HMI He	1013835	1.90	997863	101.60	60	120	
Ho-165	165	2	HMI He	9149269	1.83	9229532	99.13	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	086_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:00:56-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	399.631	ppb	2.966	237872	500	79.9	90	110	>+\-10%
Li	7	2	45	256.413	ppb	2.708	15657	500	51.3	90	110	>+\-10%
Li	7	3	45	281.753	ppb	0.668	11769419	500	56.4	90	110	>+\-10%
Be	9	1	6	61.119	ppb	3.378	12945	50	122.2	90	110	>+\-10%
B	11	1	6	57.441	ppb	6.047	15917	50	114.9	90	110	>+\-10%
Na	23	1	45	5059.065	ppb	2.428	14778715	5000	101.2	90	110	
Na	23	2	45	4377.683	ppb	1.127	570526	5000	87.6	90	110	>+\-10%
Mg	24	2	45	4855.130	ppb	2.475	254140	5000	97.1	90	110	
Al	27	2	45	5372.102	ppb	3.348	49294	5000	107.4	90	110	
K	39	1	45	5524.068	ppb	2.530	20446431	5000	110.5	90	110	>+\-10%
K	39	2	45	5074.401	ppb	2.185	81507	5000	101.5	90	110	
Ca	40	1	45	6262.002	ppb	3.204	28315226	5000	125.2	90	110	>+\-10%
Ca	44	2	45	5835.232	ppb	2.086	5694	5000	116.7	90	110	>+\-10%
V	51	2	72	45.509	ppb	1.777	30897	50	91.0	90	110	
Cr	52	2	72	45.931	ppb	2.482	42912	50	91.9	90	110	
Mn	55	2	72	53.353	ppb	4.751	11914	50	106.7	90	110	
Fe	57	2	72	4666.354	ppb	3.170	78111	5000	93.3	90	110	
Co	59	2	72	46.643	ppb	2.491	98337	50	93.3	90	110	
Ni	60	2	72	46.474	ppb	3.764	29882	50	92.9	90	110	
Cu	63	2	72	45.263	ppb	4.019	87529	50	90.5	90	110	
Zn	66	2	72	46.217	ppb	5.391	7158	50	92.4	90	110	
As	75	2	72	48.322	ppb	5.364	4076	50	96.6	90	110	
Se	78	1	72	48.327	ppb	0.970	18000	50	96.7	90	110	
Sr	88	2	72	54.201	ppb	5.079	8419	50	108.4	90	110	
Zr	90	2	72	345.359	ppb	17.177	1597	50	690.7	90	110	>+\-10%
Nb	93	2	72	91.847	ppb	2.842	223716	100	91.8	90	110	
Mo	95	2	115	44.957	ppb	1.270	31152	50	89.9	90	110	>+\-10%
Pd	105	2	115	44.279	ppb	0.802	61136	50	88.6	90	110	>+\-10%
Ag	107	2	115	43.882	ppb	1.623	125859	50	87.8	90	110	>+\-10%
Cd	111	2	115	47.709	ppb	5.434	10477	50	95.4	90	110	
Sn	120	2	115	49.181	ppb	4.195	22592	50	98.4	90	110	
Sb	121	2	115	47.706	ppb	1.772	18097	50	95.4	90	110	
Ba	137	2	115	49.557	ppb	3.449	5064	50	99.1	90	110	
W	182	2	165	44.701	ppb	1.168	222059	50	89.4	90	110	>+\-10%
Pt	195	2	165	42.828	ppb	1.501	239599	50	85.7	90	110	>+\-10%
Tl	205	2	165	48.297	ppb	0.503	287681	50	96.6	90	110	
Pb	208	2	165	51.902	ppb	1.339	392658	50	103.8	90	110	
Th	232	2	165	48.514	ppb	1.936	403879	50	97.0	90	110	
U	238	2	165	47.885	ppb	1.952	485703	50	95.8	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	756535	0.49	1110102	68.15	60	120	
Sc (IS)	45	1	HMI H2	30265250	1.53	33924373	89.21	60	120	
Sc (IS)	45	2	HMI He	358179	1.02	328850	108.92	60	120	
Sc (IS)	45	3	No Gas	85181759	0.82	114636782	74.31	60	120	
Ge Internal Standard	72	1	HMI H2	15653978	0.64	17028246	91.93	60	120	
Ge Internal Standard	72	2	HMI He	534070	0.55	488265	109.38	60	120	
In Internal Standard	115	2	HMI He	1131665	0.59	997863	113.41	60	120	
Ho-165	165	2	HMI He	9772989	0.30	9229532	105.89	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	087_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:04:43-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-91.530	ppb	-0.7	4771460	10	
Be	9	1	6	-0.027	ppb	-103.5	3	0.5	
B	11	1	6	0.421	ppb	83.6	1183	0.5	
Na	23	1	45	-28.925	ppb	-2.7	156233	25	
Na	23	2	45	-45.705	ppb	-9.7	6708	25	
Mg	24	2	45	13.083	ppb	22.8	847	25	
Al	27	2	45	6.908	ppb	107.7	90	15	
K	39	1	45	141.118	ppb	29.1	5969978	50	>RL
K	39	2	45	-51.857	ppb	-38.9	3087	50	
Ca	40	1	45	57.669	ppb	6.8	383610	50	>RL
Ca	44	2	45	48.690	ppb	155.3	63	25	>RL
V	51	2	72	-0.130	ppb	-6.5	243	1	
Cr	52	2	72	0.040	ppb	116.9	163	1	
Mn	55	2	72	0.151	ppb	57.3	60	0.5	
Fe	57	2	72	12.787	ppb	27.1	290	25	
Co	59	2	72	0.030	ppb	25.1	67	0.5	
Ni	60	2	72	-0.025	ppb	-207.8	50	1	
Cu	63	2	72	-0.161	ppb	-63.6	1300	1	
Zn	66	2	72	-0.991	ppb	-16.5	93	5	
As	75	2	72	-0.079	ppb	-50.0	2	1	
Se	78	1	72	0.020	ppb	168.9	25	1	
Sr	88	2	72	0.064	ppb	100.6	10	0.5	
Zr	90	2	72	33.569	ppb	12.4	210	1	>RL
Nb	93	2	72	1.635	ppb	11.4	4861	2	
Mo	95	2	115	0.012	ppb	192.0	60	0.5	
Pd	105	2	115	0.036	ppb	50.1	60	1	
Ag	107	2	115	0.029	ppb	48.2	93	1	
Cd	111	2	115	0.015	ppb	173.2	3	0.5	
Sn	120	2	115	-0.019	ppb	-369.2	227	1	
Sb	121	2	115	0.166	ppb	41.0	120	0.6	
Ba	137	2	115	0.158	ppb	92.0	17	0.5	
W	182	2	165	0.033	ppb	68.9	400	1	
Pt	195	2	165	0.014	ppb	81.7	647	1	
Tl	205	2	165	0.036	ppb	44.3	280	0.1	
Pb	208	2	165	0.559	ppb	9.9	6021	0.5	>RL
Th	232	2	165	0.333	ppb	18.0	3474	1	
U	238	2	165	0.035	ppb	36.8	430	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	735921	1.80	1110102	66.29	60	120	
Sc (IS)	45	1	HMI H2	29493569	1.34	33924373	86.94	60	120	
Sc (IS)	45	2	HMI He	364119	1.69	328850	110.72	60	120	
Sc (IS)	45	3	No Gas	81890210	0.62	114636782	71.43	60	120	
Ge Internal Standard	72	1	HMI H2	15349660	1.82	17028246	90.14	60	120	
Ge Internal Standard	72	2	HMI He	539567	0.93	488265	110.51	60	120	
In Internal Standard	115	2	HMI He	1173877	1.03	997863	117.64	60	120	
Ho-165	165	2	HMI He	9967860	1.59	9229532	108.00	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	088LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:08:56-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-84.342	ppb	-4.817	4795731	50	-168.7	70	130	>+/-30%
Be	9	1	6	0.963	ppb	32.950	203	1	96.3	70	130	
Na	23	2	45	-2.915	ppb	-235.916	12201	50	-5.8	70	130	>+/-30%
Mg	24	2	45	50.143	ppb	6.519	2810	50	100.3	70	130	
Al	27	2	45	43.828	ppb	24.363	437	30	146.1	70	130	>+/-30%
K	39	2	45	87.620	ppb	14.963	5241	100	87.6	70	130	
Ca	44	2	45	103.176	ppb	22.669	117	50	206.4	70	130	>+/-30%
V	51	2	72	4.147	ppb	7.218	3174	5	82.9	70	130	
Cr	52	2	72	1.787	ppb	17.247	1820	2	89.3	70	130	
Mn	55	2	72	1.001	ppb	9.128	253	1	100.1	70	130	
Fe	57	2	72	54.019	ppb	5.761	997	50	108.0	70	130	
Co	59	2	72	0.850	ppb	5.083	1830	1	85.0	70	130	
Ni	60	2	72	1.604	ppb	3.634	1117	2	80.2	70	130	
Cu	63	2	72	1.453	ppb	7.758	4437	2	72.6	70	130	
Zn	66	2	72	7.605	ppb	5.780	1407	10	76.0	70	130	
As	75	2	72	4.516	ppb	9.901	397	5	90.3	70	130	
Se	78	1	72	4.994	ppb	2.532	1816	5	99.9	70	130	
Sr	88	2	72	1.042	ppb	45.651	167	1	104.2	70	130	
Zr	90	2	72	53.946	ppb	35.392	303	0.5	10789.3	70	130	>+/-30%
Nb	93	2	72	1.359	ppb	14.329	4221	2	68.0	70	130	>+/-30%
Mo	95	2	115	1.879	ppb	10.074	1433	2	94.0	70	130	
Pd	105	2	115	0.013	ppb	114.246	27	1	1.3	70	130	>+/-30%
Ag	107	2	115	4.079	ppb	5.830	12435	5	81.6	70	130	
Cd	111	2	115	0.927	ppb	24.063	217	1	92.7	70	130	
Sn	120	2	115	9.848	ppb	13.756	4988	10	98.5	70	130	
Sb	121	2	115	2.019	ppb	9.870	867	2	100.9	70	130	
Ba	137	2	115	1.104	ppb	25.589	120	1	110.4	70	130	
W	182	2	165	4.297	ppb	7.177	22510	1	429.7	70	130	>+/-30%
Pt	195	2	165	-0.009	ppb	-165.045	527	1	-0.9	70	130	>+/-30%
Tl	205	2	165	0.998	ppb	10.382	6268	1	99.8	70	130	
Pb	208	2	165	1.216	ppb	6.256	11349	1	121.6	70	130	
Th	232	2	165	2.104	ppb	9.060	18926	2	105.2	70	130	
U	238	2	165	0.936	ppb	8.734	9980	1	93.6	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	722851	0.42	1110102	65.12	60	120	
Sc (IS)	45	1	HMI H2	29082635	0.87	33924373	85.73	60	120	
Sc (IS)	45	2	HMI He	363462	5.32	328850	110.52	60	120	
Sc (IS)	45	3	No Gas	80192474	0.55	114636782	69.95	60	120	
Ge Internal Standard	72	1	HMI H2	15149159	0.95	17028246	88.96	60	120	
Ge Internal Standard	72	2	HMI He	545061	2.93	488265	111.63	60	120	
In Internal Standard	115	2	HMI He	1204116	4.38	997863	120.67	60	120	IS Failed
Ho-165	165	2	HMI He	10230214	4.99	9229532	110.84	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	089WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:13:05-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Pass
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.009	ppb	-334.3143164	7	0.5
Na	23	2	45	-39.660	ppb	-9.181527369	7435	25
Mg	24	2	45	2.908	ppb	21.2385784	303	25
Al	27	2	45	4.451	ppb	73.57610394	67	15
K	39	2	45	-54.914	ppb	-39.96344789	3014	50
Ca	44	2	45	22.319	ppb	69.60155507	37	25
V	51	2	72	-0.176	ppb	-63.10426331	213	1
Cr	52	2	72	-0.013	ppb	-364.7311173	113	1
Mn	55	2	72	-0.011	ppb	-596.7063361	23	0.5
Fe	57	2	72	2.111	ppb	27.26568267	110	25
Co	59	2	72	0.008	ppb	122.8526884	20	0.5
Ni	60	2	72	-0.051	ppb	-96.75333687	33	1
Cu	63	2	72	-0.205	ppb	-10.06584527	1223	1
Zn	66	2	72	-0.512	ppb	-53.79186765	167	5
As	75	2	72	-0.064	ppb	-54.23386976	3	1
Se	78	1	72	-0.038	ppb	-51.73651488	4	1
Nb	93	2	72	-0.105	ppb	-3.781319299	600	2
Mo	95	2	115	0.005	ppb	740.3863478	57	0.5
Pd	105	2	115	0.004	ppb	222.4442499	13	1
Ag	107	2	115	0.011	ppb	71.72078324	43	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.144	ppb	-8.765649111	173	1
Sb	121	2	115	-0.025	ppb	-339.6019702	47	0.6
Ba	137	2	115	0.000	ppb	#DIV/0!	0	0.5
W	182	2	165	0.008	ppb	180.5915891	280	1
Pt	195	2	165	-0.037	ppb	-30.90729122	363	1
Tl	205	2	165	0.001	ppb	381.3611089	73	0.1
Pb	208	2	165	0.122	ppb	28.39843711	2747	0.5
Th	232	2	165	0.032	ppb	42.32082054	953	1
U	238	2	165	0.005	ppb	10.86493277	117	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	705294	1.67	1110102	63.53	60	120	
Sc (IS)	45	1	HMI H2	28501203	2.06	33924373	84.01	60	120	
Sc (IS)	45	2	HMI He	361326	0.34	328850	109.88	60	120	
Sc (IS)	45	3	No Gas	79326032	0.69	114636782	69.20	60	120	
Ge Internal Standard	72	1	HMI H2	14793474	1.08	17028246	86.88	60	120	
Ge Internal Standard	72	2	HMI He	542713	0.91	488265	111.15	60	120	
In Internal Standard	115	2	HMI He	1213265	0.23	997863	121.59	60	120	IS Failed
Ho-165	165	2	HMI He	10240672	1.02	9229532	110.96	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	090WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:16:54-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	055CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	-0.042	ppb	0	0	0.5
Na	23	2	45	-35.085	ppb	-3.474046181	8142	25
Mg	24	2	45	0.894	ppb	91.66807451	200	25
Al	27	2	45	5.924	ppb	163.3992912	83	15
K	39	2	45	-56.501	ppb	-42.9971128	3027	50
Ca	44	2	45	25.574	ppb	83.42780808	40	25
V	51	2	72	-0.175	ppb	-10.61053109	217	1
Cr	52	2	72	-0.018	ppb	-246.4030973	110	1
Mn	55	2	72	-0.027	ppb	-331.2443534	20	0.5
Fe	57	2	72	-0.651	ppb	-283.6999852	63	25
Co	59	2	72	0.001	ppb	392.3022114	7	0.5
Ni	60	2	72	-0.041	ppb	-66.31983192	40	1
Cu	63	2	72	-0.262	ppb	-20.18543317	1127	1
Zn	66	2	72	-0.416	ppb	-96.32340185	183	5
As	75	2	72	-0.048	ppb	-193.4196872	5	1
Se	78	1	72	-0.019	ppb	-91.11660858	11	1
Nb	93	2	72	-0.182	ppb	-34.28190872	417	2
Mo	95	2	115	-0.035	ppb	-118.8296507	27	0.5
Pd	105	2	115	-0.001	ppb	-756.9004917	7	1
Ag	107	2	115	0.003	ppb	71.57318595	17	1
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5
Sn	120	2	115	-0.114	ppb	-25.00843248	190	1
Sb	121	2	115	-0.059	ppb	-108.1058744	33	0.6
Ba	137	2	115	0.061	ppb	173.2050808	7	0.5
W	182	2	165	0.003	ppb	340.5686088	260	1
Pt	195	2	165	-0.029	ppb	-27.42254749	420	1
Tl	205	2	165	0.002	ppb	146.9888517	83	0.1
Pb	208	2	165	0.042	ppb	14.52943528	2160	0.5
Th	232	2	165	0.003	ppb	341.9536872	720	1
U	238	2	165	0.004	ppb	107.879878	107	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	705655	0.62	1110102	63.57	60	120	
Sc (IS)	45	1	HMI H2	28270875	0.30	33924373	83.33	60	120	
Sc (IS)	45	2	HMI He	366806	3.21	328850	111.54	60	120	
Sc (IS)	45	3	No Gas	77650696	0.95	114636782	67.74	60	120	
Ge Internal Standard	72	1	HMI H2	14813730	0.38	17028246	87.00	60	120	
Ge Internal Standard	72	2	HMI He	549335	2.35	488265	112.51	60	120	
In Internal Standard	115	2	HMI He	1227117	2.73	997863	122.97	60	120	IS Failed
Ho-165	165	2	HMI He	10466964	2.77	9229532	113.41	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	091CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:20:46-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	92268	0.00
Li	7	2	HMI He	6065	0.19
Li	7	3	No Gas	4495288	0.00
Be	9	1	HMI H2	10	1732.05
B	11	1	HMI H2	850	0.24
Na	23	1	HMI H2	190382	0.00
Na	23	2	HMI He	8562	0.05
Mg	24	2	HMI He	230	11.80
Al	27	2	HMI He	40	108.25
K	39	2	HMI He	2897	0.27
Ca	44	2	HMI He	33	316.07
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	237	4.49
Cr	52	2	HMI He	153	8.85
Mn	55	2	HMI He	23	280.57
Fe	57	2	HMI He	57	200.21
Co	59	2	HMI He	10	1000.00
Ni	60	2	HMI He	47	147.61
Cu	63	2	HMI He	1507	1.09
Zn	66	2	HMI He	213	16.19
As	75	2	HMI He	5	828.47
Se	78	1	HMI H2	4	4330.13
Sr	88	2	HMI He	3	5196.15
Zr	90	2	HMI He	107	30.87
Nb	93	2	HMI He	370	2.92
Mo	95	2	HMI He	27	162.38
Pd	105	2	HMI He	23	280.57
Ag	107	2	HMI He	47	70.14
Cd	111	2	HMI He	3	5196.15
Sn	120	2	HMI He	167	22.00
Sb	121	2	HMI He	27	81.19
Ba	137	2	HMI He	10	1000.00
W	182	2	HMI He	250	8.00
Pt	195	2	HMI He	467	1.86
Tl	205	2	HMI He	47	26.51
Pb	208	2	HMI He	2490	0.19
Th	232	2	HMI He	570	4.31
U	238	2	HMI He	83	8.31

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	704708	1.04
Sc (IS)	45	1	HMI H2	28482651	0.55
Sc (IS)	45	2	HMI He	364232	1.32
Sc (IS)	45	3	No Gas	77153839	0.87
Ge Internal Standard	72	1	HMI H2	14832978	0.19
Ge Internal Standard	72	2	HMI He	544043	0.95
In Internal Standard	115	2	HMI He	1220944	0.59
Ho-165	165	2	HMI He	10341190	1.15

Calibration Standard Report

Sample Table

Sample Name	ic-4908433
Data File Name	092CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:24:35-07:00
Sample Type	CalStd
Level	1
Dilution	1
Comment	
ISTD Ref File Name	091CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	347023	0.00
Li	7	2	HMI He	23112	0.01
Li	7	3	No Gas	17079541	0.00
Be	9	1	HMI H2	22848	0.02
B	11	1	HMI H2	29354	0.01
Na	23	1	HMI H2	27085073	0.00
Na	23	2	HMI He	1161288	0.00
Mg	24	2	HMI He	494110	0.00
Al	27	2	HMI He	99911	0.00
K	39	1	HMI H2	32894990	0.00
K	39	2	HMI He	161801	0.00
Ca	40	1	HMI H2	44433253	0.00
Ca	44	2	HMI He	10560	0.04
Ti	47	2	HMI He	3	5196.15
V	51	2	HMI He	60937	0.00
Cr	52	2	HMI He	83795	0.00
Mn	55	2	HMI He	23953	0.01
Fe	57	2	HMI He	156731	0.00
Co	59	2	HMI He	187776	0.00
Ni	60	2	HMI He	57377	0.00
Cu	63	2	HMI He	169499	0.00
Zn	66	2	HMI He	14376	0.02
As	75	2	HMI He	8238	0.02
Se	78	1	HMI H2	33262	0.01
Sr	88	2	HMI He	17780	0.01
Zr	90	2	HMI He	640	4.17
Nb	93	2	HMI He	473439	0.00
Mo	95	2	HMI He	63775	0.00
Pd	105	2	HMI He	121457	0.00
Ag	107	2	HMI He	253152	0.00
Cd	111	2	HMI He	20957	0.01
Sn	120	2	HMI He	48206	0.00
Sb	121	2	HMI He	40015	0.01
Ba	137	2	HMI He	10707	0.02
Nd	146	2	HMI He	56330	0.00
Sm	147	2	HMI He	48368	0.00
Sm	150	2	HMI He	49525	0.00
Gd	156	1	HMI H2	846412	0.00
Gd	157	1	HMI H2	647158	0.00
W	182	2	HMI He	459986	0.00
Pt	195	2	HMI He	488817	0.00
Tl	205	2	HMI He	594078	0.00
Pb	208	2	HMI He	760629	0.00
Th	232	2	HMI He	827040	0.00
U	238	2	HMI He	997558	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	692315	0.68	704708	98.24	60	120	
Sc (IS)	45	1	HMI H2	28867946	0.80	28482651	101.35	60	120	
Sc (IS)	45	2	HMI He	360845	1.56	364232	99.07	60	120	
Sc (IS)	45	3	No Gas	77944449	0.07	77153839	101.02	60	120	
Ge Internal Standard	72	1	HMI H2	14852885	0.59	14832978	100.13	60	120	
Ge Internal Standard	72	2	HMI He	540563	1.39	544043	99.36	60	120	
In Internal Standard	115	2	HMI He	1201516	2.29	1220944	98.41	60	120	
Ho-165	165	2	HMI He	10256234	0.72	10341190	99.18	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	093_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:28:21-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	091CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	-2114.831	ppb	-2.138	226594	500	-423.0	90	110	>+\-10%
Li	7	2	45	-845.608	ppb	-2.384	14459	500	-169.1	90	110	>+\-10%
Li	7	3	45	-1064.790	ppb	-1.648	11080117	500	-213.0	90	110	>+\-10%
Be	9	1	6	327.507	ppb	2.047	11837	50	655.0	90	110	>+\-10%
B	11	1	6	372.845	ppb	1.370	12011	50	745.7	90	110	>+\-10%
Na	23	1	45	-233068.573	ppb	-1.093	14219728	5000	-4661.4	90	110	>+\-10%
Na	23	2	45	-45185.640	ppb	-3.473	570433	5000	-903.7	90	110	>+\-10%
Mg	24	2	45	-75270.332	ppb	-3.561	254484	5000	-1505.4	90	110	>+\-10%
Al	27	2	45	67487.703	ppb	2.144	51022	5000	1349.8	90	110	>+\-10%
K	39	1	45	62888.553	ppb	1.372	20262839	5000	1257.8	90	110	>+\-10%
K	39	2	45	214482.529	ppb	4.806	84443	5000	4289.7	90	110	>+\-10%
Ca	40	1	45	157315.806	ppb	1.312	23046712	5000	3146.3	90	110	>+\-10%
Ca	44	2	45	70033.367	ppb	9.211	5578	5000	1400.7	90	110	>+\-10%
Ti	47	2	45	100.000	ppb	0.000	0	50	200.0	90	110	>+\-10%
V	51	2	72	-412.347	ppb	-1.636	31545	50	-824.7	90	110	>+\-10%
Cr	52	2	72	-393.073	ppb	-2.387	43507	50	-786.1	90	110	>+\-10%
Mn	55	2	72	903.723	ppb	7.107	11924	50	1807.4	90	110	>+\-10%
Fe	57	2	72	-62643.822	ppb	-3.143	80391	5000	-1252.9	90	110	>+\-10%
Co	59	2	72	-368.385	ppb	-4.141	96511	50	-736.8	90	110	>+\-10%
Ni	60	2	72	-379.259	ppb	-4.992	29358	50	-758.5	90	110	>+\-10%
Cu	63	2	72	-341.723	ppb	-4.691	89311	50	-683.4	90	110	>+\-10%
Zn	66	2	72	-702.501	ppb	-6.418	7512	50	-1405.0	90	110	>+\-10%
As	75	2	72	-1491.376	ppb	-3.045	4034	50	-2982.8	90	110	>+\-10%
Se	78	1	72	-787.232	ppb	-2.709	17199	50	-1574.5	90	110	>+\-10%
Sr	88	2	72	450.757	ppb	0.530	8786	50	901.5	90	110	>+\-10%
Zr	90	2	72	8.852	ppb	171.746	650	50	17.7	90	110	>+\-10%
Nb	93	2	72	-2597.948	ppb	-1.914	238707	100	-2597.9	90	110	>+\-10%
Mo	95	2	115	-329.454	ppb	-3.952	32952	50	-658.9	90	110	>+\-10%
Pd	105	2	115	-239.559	ppb	-6.578	63559	50	-479.1	90	110	>+\-10%
Ag	107	2	115	-248.750	ppb	-3.505	130268	50	-497.5	90	110	>+\-10%
Cd	111	2	115	-434.226	ppb	-2.216	11127	50	-868.5	90	110	>+\-10%
Sn	120	2	115	-8079.386	ppb	-6.278	24035	50	-16158.8	90	110	>+\-10%
Sb	121	2	115	-10374.660	ppb	-6.573	20012	50	-20749.3	90	110	>+\-10%
Ba	137	2	115	-3688.623	ppb	-10.458	5665	50	-7377.2	90	110	>+\-10%
W	182	2	165	-389.781	ppb	-3.819	227189	50	-779.6	90	110	>+\-10%
Pt	195	2	165	-261.551	ppb	-3.414	239188	50	-523.1	90	110	>+\-10%
Tl	205	2	165	-968.706	ppb	-2.799	301571	50	-1937.4	90	110	>+\-10%
Pb	208	2	165	-1203.828	ppb	-3.012	388691	50	-2407.7	90	110	>+\-10%
Th	232	2	165	-901.422	ppb	-2.944	422898	50	-1802.8	90	110	>+\-10%
U	238	2	165	-754.482	ppb	-3.590	505250	50	-1509.0	90	110	>+\-10%

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	713984	0.66	704708	101.32	60	120	
Sc (IS)	45	1	HMI H2	29061950	0.87	28482651	102.03	60	120	
Sc (IS)	45	2	HMI He	374490	2.94	364232	102.82	60	120	
Sc (IS)	45	3	No Gas	78237484	1.05	77153839	101.40	60	120	
Ge Internal Standard	72	1	HMI H2	14967819	0.19	14832978	100.91	60	120	
Ge Internal Standard	72	2	HMI He	558561	2.18	544043	102.67	60	120	
In Internal Standard	115	2	HMI He	1246969	3.34	1220944	102.13	60	120	
Ho-165	165	2	HMI He	10498584	1.75	10341190	101.52	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	094_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:32:09-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	091CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-2194.284	ppb	-0.5	4673007	10	
Be	9	1	6	658.257	ppb	0.0	0	0.5	>RL
B	11	1	6	595.546	ppb	0.4	1127	0.5	>RL
Na	23	1	45	-483561.223	ppb	0.0	195540	25	
Na	23	2	45	-85230.387	ppb	0.0	8429	25	
Mg	24	2	45	-149437.616	ppb	0.0	243	25	
Al	27	2	45	132844.983	ppb	0.0	27	15	>RL
K	39	1	45	131151.493	ppb	0.2	6296896	50	>RL
K	39	2	45	423845.254	ppb	0.2	3104	50	>RL
Ca	40	1	45	323552.092	ppb	0.0	130860	50	>RL
Ca	44	2	45	142463.756	ppb	0.1	27	25	>RL
Ti	47	2	45	100.000	ppb	0.0	0	0.5	>RL
V	51	2	72	-822.148	ppb	-0.1	313	1	
Cr	52	2	72	-789.007	ppb	-0.1	117	1	
Mn	55	2	72	1742.345	ppb	0.2	47	0.5	>RL
Fe	57	2	72	-124313.570	ppb	0.0	150	25	
Co	59	2	72	-733.114	ppb	0.0	53	0.5	
Ni	60	2	72	-751.158	ppb	0.0	53	1	
Cu	63	2	72	-692.776	ppb	-0.1	1250	1	
Zn	66	2	72	-1405.879	ppb	-0.1	160	5	
As	75	2	72	-2830.805	ppb	-0.1	12	1	
Se	78	1	72	-1615.547	ppb	0.0	28	1	
Sr	88	2	72	863.306	ppb	0.1	13	0.5	>RL
Zr	90	2	72	442.262	ppb	2.6	63	1	>RL
Nb	93	2	72	-5018.118	ppb	-0.1	5511	2	
Mo	95	2	115	-656.000	ppb	0.0	50	0.5	
Pd	105	2	115	-483.627	ppb	0.0	57	1	
Ag	107	2	115	-493.560	ppb	0.0	43	1	
Cd	111	2	115	-888.581	ppb	0.0	0	0.5	
Sn	120	2	115	-15476.789	ppb	-0.2	297	1	
Sb	121	2	115	-19998.551	ppb	-0.1	100	0.6	
Ba	137	2	115	-7537.239	ppb	-0.1	3	0.5	
W	182	2	165	-752.652	ppb	0.0	533	1	
Pt	195	2	165	-500.662	ppb	0.0	597	1	
Tl	205	2	165	-1921.305	ppb	0.0	253	0.1	
Pb	208	2	165	-2398.359	ppb	0.0	2043	0.5	
Th	232	2	165	-1794.003	ppb	-0.1	3651	1	
U	238	2	165	-1493.515	ppb	0.0	277	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	727597	0.35	704708	103.25	60	120	
Sc (IS)	45	1	HMI H2	28992948	0.63	28482651	101.79	60	120	
Sc (IS)	45	2	HMI He	374085	0.86	364232	102.71	60	120	
Sc (IS)	45	3	No Gas	78637824	0.38	77153839	101.92	60	120	
Ge Internal Standard	72	1	HMI H2	15073300	0.08	14832978	101.62	60	120	
Ge Internal Standard	72	2	HMI He	563059	0.75	544043	103.50	60	120	
In Internal Standard	115	2	HMI He	1262634	0.04	1220944	103.41	60	120	
Ho-165	165	2	HMI He	10538668	1.39	10341190	101.91	60	120	

Blank Report

Sample Table

Sample Name	rinse-4879204
Data File Name	095WASH.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:36:39-07:00
Sample Type	WASH
Dilution	1
Comment	
ISTD Ref File Name	091CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit
Be	9	1	6	658.257	ppb	1.63911E-06	0	0.5
Na	23	2	45	-85293.568	ppb	-0.036117249	7659	25
Mg	24	2	45	-149399.258	ppb	-0.027552907	380	25
Al	27	2	45	132824.703	ppb	0.027429624	43	15
K	39	2	45	424434.326	ppb	0.126285826	2920	50
Ca	44	2	45	142428.215	ppb	0.0868696	30	25
V	51	2	72	-822.949	ppb	-0.129695347	253	1
Cr	52	2	72	-788.836	ppb	-0.017784749	137	1
Mn	55	2	72	1743.071	ppb	0.140870196	37	0.5
Fe	57	2	72	-124289.272	ppb	-0.030451036	183	25
Co	59	2	72	-733.215	ppb	-0.010485743	27	0.5
Ni	60	2	72	-751.413	ppb	-0.018918704	33	1
Cu	63	2	72	-692.646	ppb	-0.090913104	1293	1
Zn	66	2	72	-1411.010	ppb	-0.034291092	107	5
As	75	2	72	-2832.331	ppb	-0.025765211	7	1
Se	78	1	72	-1615.995	ppb	-0.018161287	19	1
Nb	93	2	72	-5053.190	ppb	-0.037762774	2120	2
Mo	95	2	115	-655.649	ppb	-0.017032367	87	0.5
Pd	105	2	115	-483.654	ppb	-0.015382676	50	1
Ag	107	2	115	-493.573	ppb	-0.002084086	37	1
Cd	111	2	115	-888.581	ppb	0	0	0.5
Sn	120	2	115	-15514.164	ppb	-0.031916819	177	1
Sb	121	2	115	-19995.811	ppb	-0.073474286	107	0.6
Ba	137	2	115	-7539.473	ppb	0	0	0.5
W	182	2	165	-753.055	ppb	-0.009299238	283	1
Pt	195	2	165	-500.795	ppb	-0.027756346	470	1
Tl	205	2	165	-1921.574	ppb	-0.000413683	170	0.1
Pb	208	2	165	-2397.386	ppb	-0.026650999	2394	0.5
Th	232	2	165	-1798.555	ppb	-0.004865016	1520	1
U	238	2	165	-1493.749	ppb	-0.002138319	117	0.5

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	729130	0.48	704708	103.47	60	120	
Sc (IS)	45	1	HMI H2	29049995	0.46	28482651	101.99	60	120	
Sc (IS)	45	2	HMI He	380019	1.76	364232	104.33	60	120	
Sc (IS)	45	3	No Gas	79589447	0.47	77153839	103.16	60	120	
Ge Internal Standard	72	1	HMI H2	15097481	0.31	14832978	101.78	60	120	
Ge Internal Standard	72	2	HMI He	567137	0.64	544043	104.24	60	120	
In Internal Standard	115	2	HMI He	1274583	0.59	1220944	104.39	60	120	
Ho-165	165	2	HMI He	10691687	1.51	10341190	103.39	60	120	

Calibration Blank Report

Sample Table

Sample Name	icis-4908432
Data File Name	096CALB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:40:28-07:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	93929	0.00
Li	7	2	HMI He	6271	0.07
Li	7	3	No Gas	4760966	0.00
Be	9	1	HMI H2	0	#VALUE!
B	11	1	HMI H2	897	1.13
Na	23	1	HMI H2	334583	0.00
Na	23	2	HMI He	14189	0.02
Mg	24	2	HMI He	353	10.45
Al	27	2	HMI He	83	41.57
K	39	2	HMI He	3447	0.12
Ca	44	2	HMI He	90	12.35
Ti	47	2	HMI He	0	#VALUE!
V	51	2	HMI He	273	2.79
Cr	52	2	HMI He	133	16.24
Mn	55	2	HMI He	83	81.88
Fe	57	2	HMI He	167	18.47
Co	59	2	HMI He	27	162.38
Ni	60	2	HMI He	120	25.04
Cu	63	2	HMI He	1770	0.89
Zn	66	2	HMI He	427	6.17
As	75	2	HMI He	5	541.04
Se	78	1	HMI H2	17	335.05
Sr	88	2	HMI He	17	1039.23
Zr	90	2	HMI He	93	36.90
Nb	93	2	HMI He	1367	0.90
Mo	95	2	HMI He	17	207.85
Pd	105	2	HMI He	27	405.95
Ag	107	2	HMI He	23	382.35
Cd	111	2	HMI He	0	#VALUE!
Sn	120	2	HMI He	273	3.86
Sb	121	2	HMI He	77	42.82
Ba	137	2	HMI He	3	5196.15
W	182	2	HMI He	323	10.23
Pt	195	2	HMI He	473	1.43
Tl	205	2	HMI He	110	16.53
Pb	208	2	HMI He	2737	0.52
Th	232	2	HMI He	1117	1.21
U	238	2	HMI He	127	38.08

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li-6 Internal Standard	6	1	HMI H2	725791	0.02
Sc (IS)	45	1	HMI H2	29180131	0.46
Sc (IS)	45	2	HMI He	385363	3.30
Sc (IS)	45	3	No Gas	79244055	0.29
Ge Internal Standard	72	1	HMI H2	15144823	0.18
Ge Internal Standard	72	2	HMI He	571408	3.39
In Internal Standard	115	2	HMI He	1311355	3.79
Ho-165	165	2	HMI He	10825536	3.96

Calibration Standard Report

Sample Table

Sample Name	ic-4908433
Data File Name	097CALS.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:44:16-07:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	HMI H2	358233	0.00
Li	7	2	HMI He	22831	0.01
Li	7	3	No Gas	17855398	0.00
Be	9	1	HMI H2	23939	0.01
B	11	1	HMI H2	29778	0.01
Na	23	1	HMI H2	28199109	0.00
Na	23	2	HMI He	1169519	0.00
Mg	24	2	HMI He	501661	0.00
Al	27	2	HMI He	101623	0.00
K	39	1	HMI H2	34054100	0.00
K	39	2	HMI He	165301	0.00
Ca	40	1	HMI H2	46414826	0.00
Ca	44	2	HMI He	10707	0.05
Ti	47	2	HMI He	20	250.00
V	51	2	HMI He	62185	0.00
Cr	52	2	HMI He	84928	0.00
Mn	55	2	HMI He	23062	0.00
Fe	57	2	HMI He	156595	0.00
Co	59	2	HMI He	189227	0.00
Ni	60	2	HMI He	57062	0.00
Cu	63	2	HMI He	169957	0.00
Zn	66	2	HMI He	14473	0.01
As	75	2	HMI He	8389	0.01
Se	78	1	HMI H2	34274	0.00
Sr	88	2	HMI He	17983	0.02
Zr	90	2	HMI He	577	1.42
Nb	93	2	HMI He	484368	0.00
Mo	95	2	HMI He	64949	0.00
Pd	105	2	HMI He	126388	0.00
Ag	107	2	HMI He	256553	0.00
Cd	111	2	HMI He	21978	0.03
Sn	120	2	HMI He	48935	0.00
Sb	121	2	HMI He	40767	0.01
Ba	137	2	HMI He	11127	0.01
Nd	146	2	HMI He	56106	0.00
Sm	147	2	HMI He	49705	0.00
Sm	150	2	HMI He	49181	0.00
Gd	156	1	HMI H2	867599	0.00
Gd	157	1	HMI H2	666238	0.00
W	182	2	HMI He	460500	0.00
Pt	195	2	HMI He	492130	0.00
Tl	205	2	HMI He	601971	0.00
Pb	208	2	HMI He	768283	0.00
Th	232	2	HMI He	849713	0.00
U	238	2	HMI He	1007720	0.00

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	702897	0.29	725791	96.85	60	120	
Sc (IS)	45	1	HMI H2	29044104	0.25	29180131	99.53	60	120	
Sc (IS)	45	2	HMI He	376354	1.42	385363	97.66	60	120	
Sc (IS)	45	3	No Gas	80365360	0.36	79244055	101.42	60	120	
Ge Internal Standard	72	1	HMI H2	15029846	0.30	15144823	99.24	60	120	
Ge Internal Standard	72	2	HMI He	558920	0.90	571408	97.81	60	120	
In Internal Standard	115	2	HMI He	1240667	1.62	1311355	94.61	60	120	
Ho-165	165	2	HMI He	10569603	1.16	10825536	97.64	60	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4908434
Data File Name	098_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:48:04-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	499.955	ppb	1.859	231933	500	100.0	90	110	
Li	7	2	45	522.903	ppb	6.688	14810	500	104.6	90	110	
Li	7	3	45	501.251	ppb	1.591	11367783	500	100.3	90	110	
Be	9	1	6	50.403	ppb	7.565	12598	50	100.8	90	110	
B	11	1	6	40.509	ppb	4.292	13138	50	81.0	90	110	>+\-10%
Na	23	1	45	5014.509	ppb	0.198	14691934	5000	100.3	90	110	
Na	23	2	45	4959.597	ppb	1.158	585137	5000	99.2	90	110	
Mg	24	2	45	5242.064	ppb	0.924	262205	5000	104.8	90	110	
Al	27	2	45	5174.125	ppb	1.065	52439	5000	103.5	90	110	
K	39	1	45	5054.831	ppb	0.459	20881868	5000	101.1	90	110	
K	39	2	45	5283.304	ppb	1.556	88606	5000	105.7	90	110	
Ca	40	1	45	4954.326	ppb	0.462	23784185	5000	99.1	90	110	
Ca	44	2	45	5139.690	ppb	7.558	5524	5000	102.8	90	110	
Ti	47	2	45	49.947	ppb	99.619	10	50	99.9	90	110	
V	51	2	72	51.990	ppb	1.715	32644	50	104.0	90	110	
Cr	52	2	72	52.294	ppb	2.612	44730	50	104.6	90	110	
Mn	55	2	72	54.045	ppb	0.723	12575	50	108.1	90	110	
Fe	57	2	72	5190.580	ppb	2.084	81824	5000	103.8	90	110	
Co	59	2	72	51.498	ppb	0.362	98025	50	103.0	90	110	
Ni	60	2	72	51.494	ppb	2.376	29609	50	103.0	90	110	
Cu	63	2	72	52.032	ppb	0.880	89783	50	104.1	90	110	
Zn	66	2	72	49.445	ppb	5.246	7412	50	98.9	90	110	
As	75	2	72	49.562	ppb	5.734	4184	50	99.1	90	110	
Se	78	1	72	50.149	ppb	1.846	17566	50	100.3	90	110	
Sr	88	2	72	50.703	ppb	1.558	9176	50	101.4	90	110	
Zr	90	2	72	73.302	ppb	8.851	450	50	146.6	90	110	>+\-10%
Nb	93	2	72	101.125	ppb	1.455	246967	100	101.1	90	110	
Mo	95	2	115	50.482	ppb	2.336	33029	50	101.0	90	110	
Pd	105	2	115	49.725	ppb	4.571	63331	50	99.5	90	110	
Ag	107	2	115	51.474	ppb	1.441	133055	50	102.9	90	110	
Cd	111	2	115	51.126	ppb	3.223	11317	50	102.3	90	110	
Sn	120	2	115	50.729	ppb	3.014	25143	50	101.5	90	110	
Sb	121	2	115	51.089	ppb	1.164	21021	50	102.2	90	110	
Ba	137	2	115	53.260	ppb	2.785	5975	50	106.5	90	110	
W	182	2	165	50.510	ppb	1.277	231952	50	101.0	90	110	
Pt	195	2	165	49.667	ppb	1.736	243818	50	99.3	90	110	
Tl	205	2	165	50.972	ppb	1.018	305829	50	101.9	90	110	
Pb	208	2	165	51.735	ppb	1.513	397392	50	103.5	90	110	
Th	232	2	165	51.356	ppb	2.142	435383	50	102.7	90	110	
U	238	2	165	51.644	ppb	2.106	518707	50	103.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	734037	0.76	725791	101.14	60	120	
Sc (IS)	45	1	HMI H2	29826484	0.18	29180131	102.22	60	120	
Sc (IS)	45	2	HMI He	375016	0.64	385363	97.32	60	120	
Sc (IS)	45	3	No Gas	80433104	0.08	79244055	101.50	60	120	
Ge Internal Standard	72	1	HMI H2	15354543	0.69	15144823	101.38	60	120	
Ge Internal Standard	72	2	HMI He	562109	1.02	571408	98.37	60	120	
In Internal Standard	115	2	HMI He	1249848	0.87	1311355	95.31	60	120	
Ho-165	165	2	HMI He	10532331	0.65	10825536	97.29	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4908432
Data File Name	099_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:51:53-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-4.895	ppb	-31.5	4869992	10	
Be	9	1	6	0.013	ppb	173.2	3	0.5	
B	11	1	6	0.959	ppb	49.9	1203	0.5	>RL
Na	23	1	45	-48.398	ppb	-2.9	200412	25	
Na	23	2	45	-47.437	ppb	-6.5	8586	25	
Mg	24	2	45	0.204	ppb	503.1	367	25	
Al	27	2	45	-5.170	ppb	-19.7	30	15	
K	39	1	45	32.008	ppb	32.6	6472037	50	
K	39	2	45	-20.512	ppb	-42.4	3107	50	
Ca	40	1	45	-41.860	ppb	-1.5	134938	50	
Ca	44	2	45	-55.359	ppb	-17.3	30	25	
Ti	47	2	45	0.000	ppb	#DIV/0!	0	0.5	
V	51	2	72	0.095	ppb	73.1	333	1	
Cr	52	2	72	-0.032	ppb	-112.5	107	1	
Mn	55	2	72	-0.232	ppb	-17.6	30	0.5	
Fe	57	2	72	-2.529	ppb	-59.5	127	25	
Co	59	2	72	0.005	ppb	226.7	37	0.5	
Ni	60	2	72	-0.132	ppb	-37.8	43	1	
Cu	63	2	72	-0.351	ppb	-22.7	1163	1	
Zn	66	2	72	-1.267	ppb	-78.8	247	5	
As	75	2	72	0.000	ppb	-67340.2	5	1	
Se	78	1	72	0.011	ppb	332.9	21	1	
Sr	88	2	72	-0.070	ppb	-45.4	3	0.5	
Zr	90	2	72	-2.627	ppb	-275.4	80	1	
Nb	93	2	72	1.812	ppb	7.0	5845	2	
Mo	95	2	115	0.081	ppb	113.0	70	0.5	
Pd	105	2	115	0.021	ppb	142.7	53	1	
Ag	107	2	115	0.024	ppb	65.6	87	1	
Cd	111	2	115	0.000	ppb	#DIV/0!	0	0.5	
Sn	120	2	115	-0.152	ppb	-49.1	190	1	
Sb	121	2	115	0.251	ppb	83.8	180	0.6	
Ba	137	2	115	0.147	ppb	60.7	20	0.5	
W	182	2	165	0.050	ppb	30.1	550	1	
Pt	195	2	165	-0.003	ppb	-422.4	447	1	
Tl	205	2	165	0.033	ppb	41.0	307	0.1	
Pb	208	2	165	-0.115	ppb	-1.9	1813	0.5	
Th	232	2	165	0.325	ppb	13.3	3861	1	
U	238	2	165	0.023	ppb	6.4	357	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	738400	0.38	725791	101.74	60	120	
Sc (IS)	45	1	HMI H2	29377177	0.93	29180131	100.68	60	120	
Sc (IS)	45	2	HMI He	385056	1.83	385363	99.92	60	120	
Sc (IS)	45	3	No Gas	82143349	0.14	79244055	103.66	60	120	
Ge Internal Standard	72	1	HMI H2	15256754	0.56	15144823	100.74	60	120	
Ge Internal Standard	72	2	HMI He	571574	1.36	571408	100.03	60	120	
In Internal Standard	115	2	HMI He	1281807	1.52	1311355	97.75	60	120	
Ho-165	165	2	HMI He	10628119	1.74	10825536	98.18	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4908436
Data File Name	100LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:55:42-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	13.790	ppb	43.648	5079038	50	27.6	70	130	>+/-30%
Be	9	1	6	1.255	ppb	8.405	320	1	125.5	70	130	
Na	23	2	45	-5.855	ppb	-89.302	13132	50	-11.7	70	130	>+/-30%
Mg	24	2	45	47.555	ppb	6.855	2717	50	95.1	70	130	
Al	27	2	45	28.896	ppb	10.225	373	30	96.3	70	130	
K	39	2	45	99.176	ppb	8.479	4948	100	99.2	70	130	
Ca	44	2	45	-26.330	ppb	-94.557	60	50	-52.7	70	130	>+/-30%
V	51	2	72	5.966	ppb	6.187	4001	5	119.3	70	130	
Cr	52	2	72	2.227	ppb	12.145	2040	2	111.4	70	130	
Mn	55	2	72	0.774	ppb	25.118	263	1	77.4	70	130	
Fe	57	2	72	47.092	ppb	24.885	907	50	94.2	70	130	
Co	59	2	72	1.090	ppb	7.418	2107	1	109.0	70	130	
Ni	60	2	72	2.229	ppb	3.310	1400	2	111.5	70	130	
Cu	63	2	72	1.596	ppb	22.292	4454	2	79.8	70	130	
Zn	66	2	72	9.249	ppb	22.772	1734	10	92.5	70	130	
As	75	2	72	4.749	ppb	1.094	407	5	95.0	70	130	
Se	78	1	72	4.861	ppb	4.737	1724	5	97.2	70	130	
Sr	88	2	72	1.197	ppb	5.563	233	1	119.7	70	130	
Zr	90	2	72	9.656	ppb	161.882	140	0.5	1931.2	70	130	>+/-30%
Nb	93	2	72	1.906	ppb	8.598	5998	2	95.3	70	130	
Mo	95	2	115	2.167	ppb	10.185	1437	2	108.3	70	130	
Pd	105	2	115	0.013	ppb	184.706	43	1	1.3	70	130	>+/-30%
Ag	107	2	115	5.111	ppb	3.051	13296	5	102.2	70	130	
Cd	111	2	115	0.783	ppb	29.313	173	1	78.3	70	130	
Sn	120	2	115	9.704	ppb	10.298	5038	10	97.0	70	130	
Sb	121	2	115	2.032	ppb	20.479	907	2	101.6	70	130	
Ba	137	2	115	1.134	ppb	69.700	130	1	113.4	70	130	
W	182	2	165	4.970	ppb	1.677	23304	1	497.0	70	130	>+/-30%
Pt	195	2	165	0.017	ppb	101.850	547	1	1.7	70	130	>+/-30%
Tl	205	2	165	1.089	ppb	4.467	6695	1	108.9	70	130	
Pb	208	2	165	0.952	ppb	6.252	10018	1	95.2	70	130	
Th	232	2	165	2.221	ppb	3.792	20037	2	111.1	70	130	
U	238	2	165	1.054	ppb	9.486	10784	1	105.4	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	748586	0.17	725791	103.14	60	120	
Sc (IS)	45	1	HMI H2	29872568	0.29	29180131	102.37	60	120	
Sc (IS)	45	2	HMI He	374274	1.82	385363	97.12	60	120	
Sc (IS)	45	3	No Gas	81512014	0.94	79244055	102.86	60	120	
Ge Internal Standard	72	1	HMI H2	15403962	0.38	15144823	101.71	60	120	
Ge Internal Standard	72	2	HMI He	564373	1.81	571408	98.77	60	120	
In Internal Standard	115	2	HMI He	1255342	2.56	1311355	95.73	60	120	
Ho-165	165	2	HMI He	10622236	1.99	10825536	98.12	60	120	

Sample Table

Sample Name	280-104412-A-50-D
Data File Name	101SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T15:59:33-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	59.887	ppb	59.887	8.31	95872	500000	
Li	7	2	45	88.504	ppb	88.504	18.52	6248	500000	
Li	7	3	45	70.935	ppb	70.935	5.06	5149492	50000	
Be	9	1	6	4.889	ppb	4.889	17.32	947	2000	
B	11	1	6	60.075	ppb	60.075	1.98	14746	2000	
Na	23	1	45	1795.299	ppb	1795.299	1.13	4678470	2000	
Na	23	2	45	1797.743	ppb	1797.743	3.84	182168	400000	
Mg	24	2	45	194271.995	ppb	194271.995	2.77	8003951	400000	
Al	27	2	45	65513.407	ppb	65513.407	2.63	546825	400000	
K	39	1	45	25557.579	ppb	25557.579	1.39	67704107	400000	
K	39	2	45	18423.569	ppb	18423.569	2.67	247948	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3070819.103	ppb	3070819.103	0.88	2680365	400000	>LDR
Ti	47	2	45	120621.307	ppb	120621.307	4.29	19905	4000	>LDR
V	51	2	72	261.874	ppb	261.874	2.67	122804	2000	
Cr	52	2	72	426.820	ppb	426.820	2.77	273715	5000	
Mn	55	2	72	3073.808	ppb	3073.808	3.05	534036	10000	
Fe	57	2	72	139716.732	ppb	139716.732	2.90	1652372	400000	
Co	59	2	72	48.181	ppb	48.181	4.74	68921	2000	
Ni	60	2	72	164.477	ppb	164.477	2.08	70899	5000	
Cu	63	2	72	15752.004	ppb	15752.004	2.90	20035336	5000	
Zn	66	2	72	2144.321	ppb	2144.321	2.82	228131	5000	
As	75	2	72	81.260	ppb	81.260	5.03	5152	2000	
Se	78	1	72	6.563	ppb	6.563	10.52	1791	2000	
Sr	88	2	72	8042.454	ppb	8042.454	1.67	1092428	4000	
Zr	90	2	72	6863.401	ppb	6863.401	0.76	25296	1000	>LDR
Nb	93	2	72	4.899	ppb	4.899	3.52	9967	200	
Mo	95	2	115	34.662	ppb	34.662	2.96	16789	2000	
Pd	105	2	115	0.117	ppb	0.117	22.16	130	100	
Ag	107	2	115	5.167	ppb	5.167	2.67	9900	100	
Cd	111	2	115	10.456	ppb	10.456	4.26	1713	2000	
Sn	120	2	115	24.424	ppb	24.424	3.15	9059	2000	
Sb	121	2	115	1636.251	ppb	1636.251	2.11	496590	1000	
Ba	137	2	115	1341.759	ppb	1341.759	2.24	111331	5000	
W	182	2	165	4.491	ppb	4.491	2.10	16756	100	
Pt	195	2	165	-0.003	ppb	-0.003	-699.56	357	100	
Tl	205	2	165	2.093	ppb	2.093	1.05	10144	2000	
Pb	208	2	165	170083.012	ppb	170083.012	1.64	1039547805	5000	>LDR
Th	232	2	165	38.920	ppb	38.920	1.75	264544	2000	
U	238	2	165	21.400	ppb	21.400	2.04	172240	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	568398	0.32	725791	78.31	60	120	
Sc (IS)	45	1	HMI H2	25466491	0.37	29180131	87.27	60	120	
Sc (IS)	45	2	HMI He	309430	2.72	385363	80.30	60	120	
Sc (IS)	45	3	No Gas	71943549	0.38	79244055	90.79	60	120	
Ge Internal Standard	72	1	HMI H2	11883357	0.26	15144823	78.46	60	120	
Ge Internal Standard	72	2	HMI He	422696	2.47	571408	73.97	60	120	
In Internal Standard	115	2	HMI He	925421	2.80	1311355	70.57	60	120	
Ho-165	165	2	HMI He	8438708	1.82	10825536	77.95	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-51-D
Data File Name	102SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:03:20-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	55.624	ppb	55.624	7.84	81696	500000	
Li	7	2	45	107.318	ppb	107.318	22.78	5638	500000	
Li	7	3	45	37.527	ppb	37.527	3.68	3814605	50000	
Be	9	1	6	4.673	ppb	4.673	13.37	753	2000	
B	11	1	6	61.206	ppb	61.206	7.96	12488	2000	
Na	23	1	45	1700.241	ppb	1700.241	0.65	3828391	2000	
Na	23	2	45	1711.181	ppb	1711.181	0.89	150786	400000	
Mg	24	2	45	193796.256	ppb	193796.256	0.55	6920312	400000	
Al	27	2	45	68352.673	ppb	68352.673	0.79	494521	400000	
K	39	1	45	26701.295	ppb	26701.295	0.15	60693019	400000	
K	39	2	45	18145.731	ppb	18145.731	1.73	211711	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2907217.132	ppb	2907217.132	0.60	2198706	400000	>LDR
Ti	47	2	45	132713.595	ppb	132713.595	3.00	18984	4000	>LDR
V	51	2	72	271.653	ppb	271.653	2.41	111571	2000	
Cr	52	2	72	322.173	ppb	322.173	2.27	181006	5000	
Mn	55	2	72	3096.368	ppb	3096.368	2.16	471293	10000	
Fe	57	2	72	138120.167	ppb	138120.167	1.38	1431099	400000	
Co	59	2	72	47.833	ppb	47.833	1.35	59958	2000	
Ni	60	2	72	165.478	ppb	165.478	1.41	62484	5000	
Cu	63	2	72	14300.489	ppb	14300.489	2.25	15934102	5000	
Zn	66	2	72	2087.153	ppb	2087.153	2.32	194526	5000	
As	75	2	72	83.899	ppb	83.899	1.46	4663	2000	
Se	78	1	72	6.653	ppb	6.653	5.99	1595	2000	
Sr	88	2	72	7630.601	ppb	7630.601	1.50	907926	4000	
Zr	90	2	72	6468.723	ppb	6468.723	4.17	20873	1000	>LDR
Nb	93	2	72	5.412	ppb	5.412	7.05	9553	200	
Mo	95	2	115	34.757	ppb	34.757	2.39	14643	2000	
Pd	105	2	115	0.073	ppb	0.073	59.57	77	100	
Ag	107	2	115	5.016	ppb	5.016	4.83	8362	100	
Cd	111	2	115	11.989	ppb	11.989	10.38	1707	2000	
Sn	120	2	115	29.312	ppb	29.312	4.23	9420	2000	
Sb	121	2	115	1449.445	ppb	1449.445	2.54	382533	1000	
Ba	137	2	115	1355.671	ppb	1355.671	0.72	97852	5000	
W	182	2	165	5.083	ppb	5.083	3.07	16726	100	
Pt	195	2	165	-0.021	ppb	-0.021	-74.18	253	100	
Tl	205	2	165	2.289	ppb	2.289	1.95	9793	2000	
Pb	208	2	165	156072.038	ppb	156072.038	1.67	842641074	5000	>LDR
Th	232	2	165	42.245	ppb	42.245	1.02	253609	2000	
U	238	2	165	21.551	ppb	21.551	1.96	153221	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	473040	0.78	725791	65.18	60	120	
Sc (IS)	45	1	HMI H2	21927756	0.49	29180131	75.15	60	120	
Sc (IS)	45	2	HMI He	268070	1.07	385363	69.56	60	120	
Sc (IS)	45	3	No Gas	57655434	0.55	79244055	72.76	60	120	
Ge Internal Standard	72	1	HMI H2	10439362	0.18	15144823	68.93	60	120	
Ge Internal Standard	72	2	HMI He	370206	1.74	571408	64.79	60	120	
In Internal Standard	115	2	HMI He	804642	1.93	1311355	61.36	60	120	
Ho-165	165	2	HMI He	7454638	2.19	10825536	68.86	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-69-D
Data File Name	103SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:07:07-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	105.050	ppb	105.050	3.67	85977	500000	
Li	7	2	45	153.380	ppb	153.380	5.96	6101	500000	
Li	7	3	45	79.635	ppb	79.635	2.94	3961254	50000	
Be	9	1	6	8.865	ppb	8.865	8.91	1290	2000	
B	11	1	6	86.857	ppb	86.857	3.47	15797	2000	
Na	23	1	45	2224.818	ppb	2224.818	1.34	4630455	2000	
Na	23	2	45	2245.974	ppb	2245.974	0.65	192114	400000	
Mg	24	2	45	441542.788	ppb	441542.788	0.79	15547576	400000	
Al	27	2	45	125559.399	ppb	125559.399	0.40	895690	400000	
K	39	1	45	38951.061	ppb	38951.061	0.78	81070032	400000	
K	39	2	45	30806.253	ppb	30806.253	0.42	352772	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2100850.350	ppb	2100850.350	0.78	1566897	400000	>LDR
Ti	47	2	45	223387.066	ppb	223387.066	1.34	31518	4000	>LDR
V	51	2	72	346.676	ppb	346.676	2.62	142973	2000	
Cr	52	2	72	386.304	ppb	386.304	0.51	218039	5000	
Mn	55	2	72	4774.459	ppb	4774.459	0.74	730073	10000	
Fe	57	2	72	204787.147	ppb	204787.147	0.35	2131680	400000	
Co	59	2	72	71.011	ppb	71.011	3.24	89401	2000	
Ni	60	2	72	204.985	ppb	204.985	1.23	77736	5000	
Cu	63	2	72	176.290	ppb	176.290	2.07	198453	5000	
Zn	66	2	72	710.232	ppb	710.232	1.32	66699	5000	
As	75	2	72	83.373	ppb	83.373	2.53	4654	2000	
Se	78	1	72	5.269	ppb	5.269	8.31	1207	2000	
Sr	88	2	72	3785.016	ppb	3785.016	1.51	452427	4000	
Zr	90	2	72	11196.601	ppb	11196.601	1.34	36259	1000	>LDR
Nb	93	2	72	4.422	ppb	4.422	4.28	7996	200	
Mo	95	2	115	19.783	ppb	19.783	1.87	8512	2000	
Pd	105	2	115	0.039	ppb	0.039	52.94	50	100	
Ag	107	2	115	0.639	ppb	0.639	17.05	1100	100	
Cd	111	2	115	6.835	ppb	6.835	13.40	993	2000	
Sn	120	2	115	7.242	ppb	7.242	10.81	2504	2000	
Sb	121	2	115	6.356	ppb	6.356	2.54	1760	1000	
Ba	137	2	115	1725.711	ppb	1725.711	0.37	127112	5000	
W	182	2	165	3.591	ppb	3.591	5.62	12032	100	
Pt	195	2	165	-0.014	ppb	-0.014	-96.04	280	100	
Tl	205	2	165	1.909	ppb	1.909	5.12	8289	2000	
Pb	208	2	165	253.169	ppb	253.169	2.43	1386699	5000	
Th	232	2	165	69.885	ppb	69.885	0.22	424541	2000	
U	238	2	165	17.235	ppb	17.235	1.23	124180	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	427494	0.79	725791	58.90	60	120	IS Failed
Sc (IS)	45	1	HMI H2	20586585	0.09	29180131	70.55	60	120	
Sc (IS)	45	2	HMI He	264353	1.41	385363	68.60	60	120	
Sc (IS)	45	3	No Gas	54271088	0.79	79244055	68.49	60	120	
Ge Internal Standard	72	1	HMI H2	9952376	0.46	15144823	65.71	60	120	
Ge Internal Standard	72	2	HMI He	371859	1.48	571408	65.08	60	120	
In Internal Standard	115	2	HMI He	821213	1.12	1311355	62.62	60	120	
Ho-165	165	2	HMI He	7551471	0.76	10825536	69.76	60	120	

Sample Table

Sample Name	280-104412-A-70-D
Data File Name	104SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:10:55-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	41.238	ppb	41.238	9.67	67313	500000	
Li	7	2	45	75.647	ppb	75.647	9.74	4701	500000	
Li	7	3	45	13.453	ppb	13.453	16.05	2916589	50000	
Be	9	1	6	6.259	ppb	6.259	23.27	803	2000	
B	11	1	6	73.929	ppb	73.929	3.87	11904	2000	
Na	23	1	45	1862.112	ppb	1862.112	2.05	3559798	2000	
Na	23	2	45	1854.865	ppb	1854.865	2.02	145257	400000	
Mg	24	2	45	220756.375	ppb	220756.375	1.26	7041703	400000	
Al	27	2	45	82766.699	ppb	82766.699	2.00	534844	400000	
K	39	1	45	31038.826	ppb	31038.826	1.43	59586597	400000	
K	39	2	45	22984.097	ppb	22984.097	1.83	238949	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3141245.291	ppb	3141245.291	2.42	2122069	400000	>LDR
Ti	47	2	45	156515.711	ppb	156515.711	3.67	20002	4000	>LDR
V	51	2	72	305.093	ppb	305.093	2.63	113499	2000	
Cr	52	2	72	395.046	ppb	395.046	2.19	201043	5000	
Mn	55	2	72	3507.110	ppb	3507.110	3.26	483542	10000	
Fe	57	2	72	160646.868	ppb	160646.868	1.70	1507751	400000	
Co	59	2	72	54.247	ppb	54.247	2.43	61587	2000	
Ni	60	2	72	188.148	ppb	188.148	0.57	64350	5000	
Cu	63	2	72	8283.291	ppb	8283.291	0.94	8362242	5000	
Zn	66	2	72	1632.945	ppb	1632.945	2.92	137916	5000	
As	75	2	72	94.436	ppb	94.436	4.14	4753	2000	
Se	78	1	72	6.836	ppb	6.836	11.76	1423	2000	
Sr	88	2	72	8145.215	ppb	8145.215	2.39	877877	4000	
Zr	90	2	72	6555.009	ppb	6555.009	4.15	19161	1000	>LDR
Nb	93	2	72	6.242	ppb	6.242	1.90	9850	200	
Mo	95	2	115	30.376	ppb	30.376	4.78	11875	2000	
Pd	105	2	115	0.147	ppb	0.147	36.06	127	100	
Ag	107	2	115	3.729	ppb	3.729	3.03	5771	100	
Cd	111	2	115	11.029	ppb	11.029	16.03	1460	2000	
Sn	120	2	115	78.465	ppb	78.465	1.96	23140	2000	
Sb	121	2	115	1129.676	ppb	1129.676	1.70	276628	1000	
Ba	137	2	115	1616.106	ppb	1616.106	1.99	108167	5000	
W	182	2	165	4.121	ppb	4.121	2.29	12552	100	
Pt	195	2	165	-0.008	ppb	-0.008	-196.38	277	100	
Tl	205	2	165	2.211	ppb	2.211	7.88	8730	2000	
Pb	208	2	165	109587.064	ppb	109587.064	2.66	546168445	5000	>LDR
Th	232	2	165	46.264	ppb	46.264	3.22	256276	2000	
U	238	2	165	21.122	ppb	21.122	1.74	138638	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	376307	1.39	725791	51.85	60	120	IS Failed
Sc (IS)	45	1	HMI H2	18727783	1.82	29180131	64.18	60	120	
Sc (IS)	45	2	HMI He	239460	0.36	385363	62.14	60	120	
Sc (IS)	45	3	No Gas	46843579	0.78	79244055	59.11	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9071933	1.17	15144823	59.90	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	335343	1.38	571408	58.69	60	120	IS Failed
In Internal Standard	115	2	HMI He	746307	1.68	1311355	56.91	60	120	IS Failed
Ho-165	165	2	HMI He	6880749	0.85	10825536	63.56	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-71-D
Data File Name	105SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:14:41-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	35.963	ppb	35.963	13.75	61007	500000	
Li	7	2	45	81.701	ppb	81.701	39.74	4467	500000	
Li	7	3	45	1.318	ppb	1.318	346.69	2500208	50000	
Be	9	1	6	6.376	ppb	6.376	10.74	733	2000	
B	11	1	6	75.454	ppb	75.454	8.07	10904	2000	
Na	23	1	45	1836.955	ppb	1836.955	1.19	3228902	2000	
Na	23	2	45	1860.717	ppb	1860.717	2.03	136624	400000	
Mg	24	2	45	215406.797	ppb	215406.797	1.76	6443533	400000	
Al	27	2	45	81058.025	ppb	81058.025	1.84	491224	400000	
K	39	1	45	30434.086	ppb	30434.086	1.30	53743259	400000	
K	39	2	45	22826.172	ppb	22826.172	1.41	222585	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	3093651.081	ppb	3093651.081	2.07	1959981	400000	>LDR
Ti	47	2	45	164129.128	ppb	164129.128	4.81	19665	4000	>LDR
V	51	2	72	295.282	ppb	295.282	3.02	103653	2000	
Cr	52	2	72	396.959	ppb	396.959	2.20	190593	5000	
Mn	55	2	72	3468.306	ppb	3468.306	2.49	451197	10000	
Fe	57	2	72	146415.446	ppb	146415.446	5.12	1296093	400000	
Co	59	2	72	53.222	ppb	53.222	2.35	57009	2000	
Ni	60	2	72	185.036	ppb	185.036	2.03	59707	5000	
Cu	63	2	72	13974.053	ppb	13974.053	2.17	13308343	5000	
Zn	66	2	72	2283.112	ppb	2283.112	2.35	181866	5000	
As	75	2	72	96.624	ppb	96.624	5.20	4588	2000	
Se	78	1	72	6.843	ppb	6.843	8.39	1312	2000	
Sr	88	2	72	8030.068	ppb	8030.068	2.79	816573	4000	
Zr	90	2	72	6180.218	ppb	6180.218	5.23	17046	1000	>LDR
Nb	93	2	72	6.259	ppb	6.259	6.33	9313	200	
Mo	95	2	115	26.197	ppb	26.197	8.14	9773	2000	
Pd	105	2	115	0.099	ppb	0.099	37.27	87	100	
Ag	107	2	115	4.448	ppb	4.448	3.94	6575	100	
Cd	111	2	115	12.854	ppb	12.854	1.87	1623	2000	
Sn	120	2	115	197.993	ppb	197.993	2.91	55529	2000	
Sb	121	2	115	1258.390	ppb	1258.390	2.71	294281	1000	
Ba	137	2	115	1617.149	ppb	1617.149	2.40	103388	5000	
W	182	2	165	4.367	ppb	4.367	1.75	12632	100	
Pt	195	2	165	-0.017	ppb	-0.017	-14.15	233	100	
Tl	205	2	165	2.059	ppb	2.059	3.46	7732	2000	
Pb	208	2	165	96707.065	ppb	96707.065	2.43	458171630	5000	>LDR
Th	232	2	165	43.908	ppb	43.908	2.90	231233	2000	
U	238	2	165	20.803	ppb	20.803	2.27	129787	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	337853	1.02	725791	46.55	60	120	IS Failed
Sc (IS)	45	1	HMI H2	17201626	0.51	29180131	58.95	60	120	IS Failed
Sc (IS)	45	2	HMI He	224562	1.08	385363	58.27	60	120	IS Failed
Sc (IS)	45	3	No Gas	41468744	0.53	79244055	52.33	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8352567	0.31	15144823	55.15	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	316358	1.13	571408	55.36	60	120	IS Failed
In Internal Standard	115	2	HMI He	712925	2.08	1311355	54.37	60	120	IS Failed
Ho-165	165	2	HMI He	6540920	1.49	10825536	60.42	60	120	

Sample Report

Sample Table

Sample Name	280-104412-A-72-D
Data File Name	106SMPL.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:18:29-07:00
Analyst	Trudell, Lynn-Anne
Sample Type	Sample
Dilution	1
Comment	399900 hot Sb 6020a dod5
ISTD Ref FileName	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	units	FinalConc	Conc %RSD	CPS	LDR	QC Flag
Li	7	1	45	33.024	ppb	33.024	26.71	54721	500000	
Li	7	2	45	37.903	ppb	37.903	28.85	3874	500000	
Li	7	3	45	-9.315	ppb	-9.315	-26.50	2211694	50000	
Be	9	1	6	6.237	ppb	6.237	3.93	650	2000	
B	11	1	6	68.532	ppb	68.532	3.00	9003	2000	
Na	23	1	45	1643.288	ppb	1643.288	0.85	2629410	2000	
Na	23	2	45	1571.994	ppb	1571.994	0.67	112130	400000	
Mg	24	2	45	202631.701	ppb	202631.701	1.58	5823786	400000	
Al	27	2	45	75546.082	ppb	75546.082	1.97	439881	400000	
K	39	1	45	29663.699	ppb	29663.699	0.84	47429963	400000	
K	39	2	45	20993.507	ppb	20993.507	0.58	196819	400000	
Ca	40	1	45	OR	ppb	OR	#VALUE!	OR	400000	
Ca	44	2	45	2929425.697	ppb	2929425.697	1.40	1783098	400000	>LDR
Ti	47	2	45	147693.675	ppb	147693.675	4.41	17009	4000	>LDR
V	51	2	72	272.598	ppb	272.598	1.99	92619	2000	
Cr	52	2	72	302.571	ppb	302.571	1.27	140623	5000	
Mn	55	2	72	3276.285	ppb	3276.285	1.16	412496	10000	
Fe	57	2	72	133962.374	ppb	133962.374	1.53	1148046	400000	
Co	59	2	72	48.717	ppb	48.717	1.02	50509	2000	
Ni	60	2	72	164.446	ppb	164.446	3.00	51354	5000	
Cu	63	2	72	10699.469	ppb	10699.469	1.60	9861319	5000	
Zn	66	2	72	1823.750	ppb	1823.750	2.43	140613	5000	
As	75	2	72	84.539	ppb	84.539	1.74	3885	2000	
Se	78	1	72	6.382	ppb	6.382	10.10	1131	2000	
Sr	88	2	72	7755.059	ppb	7755.059	1.53	763256	4000	
Zr	90	2	72	6602.407	ppb	6602.407	0.54	17626	1000	>LDR
Nb	93	2	72	5.089	ppb	5.089	1.41	7469	200	
Mo	95	2	115	26.701	ppb	26.701	5.54	9716	2000	
Pd	105	2	115	0.031	ppb	0.031	54.86	37	100	
Ag	107	2	115	3.112	ppb	3.112	5.73	4484	100	
Cd	111	2	115	11.259	ppb	11.259	12.25	1387	2000	
Sn	120	2	115	96.537	ppb	96.537	3.18	26485	2000	
Sb	121	2	115	869.366	ppb	869.366	2.44	198226	1000	
Ba	137	2	115	1463.660	ppb	1463.660	1.47	91238	5000	
W	182	2	165	4.113	ppb	4.113	1.93	11685	100	
Pt	195	2	165	-0.019	ppb	-0.019	-10.84	223	100	
Tl	205	2	165	1.861	ppb	1.861	3.46	6865	2000	
Pb	208	2	165	77651.320	ppb	77651.320	1.62	360958088	5000	>LDR
Th	232	2	165	43.405	ppb	43.405	0.50	224308	2000	
U	238	2	165	19.301	ppb	19.301	2.27	118160	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	306023	0.83	725791	42.16	60	120	IS Failed
Sc (IS)	45	1	HMI H2	15546969	0.67	29180131	53.28	60	120	IS Failed
Sc (IS)	45	2	HMI He	215749	0.35	385363	55.99	60	120	IS Failed
Sc (IS)	45	3	No Gas	37762727	0.76	79244055	47.65	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	7717327	0.83	15144823	50.96	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	306178	1.37	571408	53.58	60	120	IS Failed
In Internal Standard	115	2	HMI He	694980	1.60	1311355	53.00	60	120	IS Failed
Ho-165	165	2	HMI He	6416873	0.33	10825536	59.28	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	ccv-4907387
Data File Name	107_CCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:22:16-07:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High2	QC Flag
Li	7	1	45	358.320	ppb	4.417	104810	500	71.7	90	110	>+\-10%
Li	7	2	45	331.215	ppb	5.361	7368	500	66.2	90	110	>+\-10%
Li	7	3	45	283.529	ppb	2.641	3777021	500	56.7	90	110	>+\-10%
Be	9	1	6	52.453	ppb	3.389	5791	50	104.9	90	110	
B	11	1	6	42.897	ppb	3.361	6121	50	85.8	90	110	>+\-10%
Na	23	1	45	4688.751	ppb	1.726	7455735	5000	93.8	90	110	
Na	23	2	45	4534.125	ppb	3.651	339955	5000	90.7	90	110	
Mg	24	2	45	5000.335	ppb	3.901	158598	5000	100.0	90	110	
Al	27	2	45	5119.843	ppb	4.885	32904	5000	102.4	90	110	
K	39	1	45	5369.072	ppb	1.303	11800540	5000	107.4	90	110	
K	39	2	45	5119.921	ppb	3.776	54523	5000	102.4	90	110	
Ca	40	1	45	6463.391	ppb	1.652	16760175	5000	129.3	90	110	>+\-10%
Ca	44	2	45	5544.672	ppb	7.237	3774	5000	110.9	90	110	>+\-10%
Ti	47	2	45	26.173	ppb	173.205	3	50	52.3	90	110	>+\-10%
V	51	2	72	48.302	ppb	5.804	19852	50	96.6	90	110	
Cr	52	2	72	48.334	ppb	4.730	27058	50	96.7	90	110	
Mn	55	2	72	50.249	ppb	5.840	7659	50	100.5	90	110	
Fe	57	2	72	4860.702	ppb	4.474	50138	5000	97.2	90	110	
Co	59	2	72	48.458	ppb	5.903	60330	50	96.9	90	110	
Ni	60	2	72	48.330	ppb	4.903	18183	50	96.7	90	110	
Cu	63	2	72	53.419	ppb	4.139	60276	50	106.8	90	110	
Zn	66	2	72	48.230	ppb	2.893	4737	50	96.5	90	110	
As	75	2	72	47.141	ppb	2.758	2605	50	94.3	90	110	
Se	78	1	72	49.895	ppb	4.063	9928	50	99.8	90	110	
Sr	88	2	72	52.769	ppb	4.537	6248	50	105.5	90	110	
Zr	90	2	72	163.749	ppb	10.062	583	50	327.5	90	110	>+\-10%
Nb	93	2	72	97.430	ppb	2.591	155744	100	97.4	90	110	
Mo	95	2	115	47.207	ppb	3.563	21327	50	94.4	90	110	
Pd	105	2	115	45.781	ppb	2.687	40275	50	91.6	90	110	
Ag	107	2	115	48.075	ppb	3.880	85798	50	96.1	90	110	
Cd	111	2	115	46.649	ppb	6.751	7125	50	93.3	90	110	
Sn	120	2	115	48.005	ppb	2.435	16442	50	96.0	90	110	
Sb	121	2	115	50.659	ppb	3.326	14390	50	101.3	90	110	
Ba	137	2	115	51.939	ppb	2.763	4027	50	103.9	90	110	
W	182	2	165	47.564	ppb	4.709	151798	50	95.1	90	110	
Pt	195	2	165	45.444	ppb	5.319	155035	50	90.9	90	110	
Tl	205	2	165	49.237	ppb	2.336	205357	50	98.5	90	110	
Pb	208	2	165	83.354	ppb	11.306	443375	50	166.7	90	110	>+\-10%
Th	232	2	165	49.968	ppb	2.252	294508	50	99.9	90	110	
U	238	2	165	49.991	ppb	2.845	349011	50	100.0	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	324141	1.61	725791	44.66	60	120	IS Failed
Sc (IS)	45	1	HMI H2	16162932	0.78	29180131	55.39	60	120	IS Failed
Sc (IS)	45	2	HMI He	237918	2.29	385363	61.74	60	120	
Sc (IS)	45	3	No Gas	35622229	1.22	79244055	44.95	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	8719104	1.67	15144823	57.57	60	120	IS Failed
Ge Internal Standard	72	2	HMI He	367980	2.28	571408	64.40	60	120	
In Internal Standard	115	2	HMI He	863518	3.26	1311355	65.85	60	120	
Ho-165	165	2	HMI He	7323735	2.27	10825536	67.65	60	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	ccb-4907385
Data File Name	108_CCB.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:26:12-07:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Upper Limit	QC Flag
Li	7	3	45	-89.747	ppb	-3.6	1669436	10	
Be	9	1	6	0.028	ppb	173.2	3	0.5	
B	11	1	6	0.282	ppb	251.1	467	0.5	
Na	23	1	45	-61.368	ppb	-1.9	94496	25	
Na	23	2	45	-59.989	ppb	-7.6	4774	25	
Mg	24	2	45	25.096	ppb	29.9	1107	25	>RL
Al	27	2	45	1.442	ppb	242.8	67	15	
K	39	1	45	275.463	ppb	12.0	4126072	50	>RL
K	39	2	45	11.281	ppb	94.0	2444	50	
Ca	40	1	45	175.666	ppb	5.7	662430	50	>RL
Ca	44	2	45	222.248	ppb	21.7	223	25	>RL
Ti	47	2	45	95.696	ppb	173.2	13	0.5	>RL
V	51	2	72	-0.005	ppb	-1875.1	190	1	
Cr	52	2	72	-0.018	ppb	-283.2	83	1	
Mn	55	2	72	0.384	ppb	99.0	123	0.5	
Fe	57	2	72	8.818	ppb	37.5	217	25	
Co	59	2	72	0.035	ppb	93.7	67	0.5	
Ni	60	2	72	-0.100	ppb	-85.8	43	1	
Cu	63	2	72	1.275	ppb	27.6	2784	1	>RL
Zn	66	2	72	-1.491	ppb	-71.5	150	5	
As	75	2	72	-0.010	ppb	-364.7	3	1	
Se	78	1	72	-0.019	ppb	-155.0	7	1	
Sr	88	2	72	0.891	ppb	24.7	127	0.5	>RL
Zr	90	2	72	1.368	ppb	565.6	70	1	>RL
Nb	93	2	72	1.345	ppb	19.1	3290	2	
Mo	95	2	115	0.009	ppb	259.5	17	0.5	
Pd	105	2	115	0.010	ppb	101.7	30	1	
Ag	107	2	115	0.018	ppb	16.4	53	1	
Cd	111	2	115	0.079	ppb	173.2	13	0.5	
Sn	120	2	115	-0.051	ppb	-382.2	180	1	
Sb	121	2	115	0.534	ppb	83.9	223	0.6	
Ba	137	2	115	0.362	ppb	75.7	33	0.5	
W	182	2	165	0.014	ppb	72.3	287	1	
Pt	195	2	165	0.015	ppb	148.7	403	1	
Tl	205	2	165	0.012	ppb	50.8	137	0.1	
Pb	208	2	165	9.480	ppb	15.2	56488	0.5	>RL
Th	232	2	165	0.245	ppb	17.6	2377	1	
U	238	2	165	0.027	ppb	69.3	297	0.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	345106	2.29	725791	47.55	60	120	IS Failed
Sc (IS)	45	1	HMI H2	16942197	1.54	29180131	58.06	60	120	IS Failed
Sc (IS)	45	2	HMI He	258958	1.33	385363	67.20	60	120	
Sc (IS)	45	3	No Gas	36661934	1.21	79244055	46.26	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9182813	1.69	15144823	60.63	60	120	
Ge Internal Standard	72	2	HMI He	401279	1.80	571408	70.23	60	120	
In Internal Standard	115	2	HMI He	960049	1.28	1311355	73.21	60	120	
Ho-165	165	2	HMI He	7918283	1.91	10825536	73.14	60	120	

Low Level Continuing Calibration Verification (LLCCV) Report

Sample Table

Sample Name	ccvl-4907389
Data File Name	109LCCV.d
Data Path Name	D:\MassHunter Data\Li12
Acq Date Time	2017-12-29T16:30:02-07:00
Sample Type	LLCCV
Dilution	1
Comment	
ISTD Ref File Name	096CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	IS	Conc	Units	Conc %RSD	CPS	Exp Value	%Rec	%Low	%High	QC Flag
Li	7	3	45	-82.514	ppb	-6.255	1825227	50	-165.0	70	130	>+/-30%
Be	9	1	6	0.699	ppb	34.978	83	1	69.9	70	130	>+/-30%
Na	23	2	45	-21.006	ppb	-30.933	7905	50	-42.0	70	130	>+/-30%
Mg	24	2	45	58.252	ppb	14.875	2254	50	116.5	70	130	
Al	27	2	45	28.449	ppb	13.878	257	30	94.8	70	130	
K	39	2	45	104.526	ppb	5.972	3497	100	104.5	70	130	
Ca	44	2	45	26.221	ppb	96.762	80	50	52.4	70	130	>+/-30%
V	51	2	72	4.938	ppb	11.535	2420	5	98.8	70	130	
Cr	52	2	72	1.726	ppb	9.134	1160	2	86.3	70	130	
Mn	55	2	72	0.736	ppb	2.853	183	1	73.6	70	130	
Fe	57	2	72	45.089	ppb	19.989	633	50	90.2	70	130	
Co	59	2	72	0.947	ppb	0.346	1323	1	94.7	70	130	
Ni	60	2	72	1.933	ppb	9.291	887	2	96.7	70	130	
Cu	63	2	72	2.205	ppb	3.353	3961	2	110.3	70	130	
Zn	66	2	72	8.301	ppb	24.662	1153	10	83.0	70	130	
As	75	2	72	4.958	ppb	13.630	306	5	99.2	70	130	
Se	78	1	72	4.791	ppb	5.864	1025	5	95.8	70	130	
Sr	88	2	72	1.341	ppb	18.972	187	1	134.1	70	130	>+/-30%
Zr	90	2	72	36.599	ppb	66.373	197	0.5	7319.7	70	130	>+/-30%
Nb	93	2	72	1.247	ppb	14.136	3167	2	62.4	70	130	>+/-30%
Mo	95	2	115	1.823	ppb	11.843	943	2	91.2	70	130	
Pd	105	2	115	0.013	ppb	46.426	33	1	1.3	70	130	>+/-30%
Ag	107	2	115	4.547	ppb	3.959	9210	5	90.9	70	130	
Cd	111	2	115	0.693	ppb	24.698	120	1	69.3	70	130	>+/-30%
Sn	120	2	115	9.194	ppb	4.107	3727	10	91.9	70	130	
Sb	121	2	115	2.051	ppb	21.364	713	2	102.5	70	130	
Ba	137	2	115	0.803	ppb	61.435	73	1	80.3	70	130	
W	182	2	165	4.445	ppb	6.115	15722	1	444.5	70	130	>+/-30%
Pt	195	2	165	0.003	ppb	274.745	360	1	0.3	70	130	>+/-30%
Tl	205	2	165	1.047	ppb	10.188	4848	1	104.7	70	130	
Pb	208	2	165	4.275	ppb	8.194	26793	1	427.5	70	130	>+/-30%
Th	232	2	165	2.092	ppb	8.116	14254	2	104.6	70	130	
U	238	2	165	1.026	ppb	4.469	7922	1	102.6	70	130	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	1	HMI H2	350217	0.47	725791	48.25	60	120	IS Failed
Sc (IS)	45	1	HMI H2	17200941	0.85	29180131	58.95	60	120	IS Failed
Sc (IS)	45	2	HMI He	260186	3.08	385363	67.52	60	120	
Sc (IS)	45	3	No Gas	39082189	0.47	79244055	49.32	60	120	IS Failed
Ge Internal Standard	72	1	HMI H2	9293072	0.16	15144823	61.36	60	120	
Ge Internal Standard	72	2	HMI He	407009	1.76	571408	71.23	60	120	
In Internal Standard	115	2	HMI He	977063	2.58	1311355	74.51	60	120	
Ho-165	165	2	HMI He	8008286	3.13	10825536	73.98	60	120	

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ICPMS Data Review Checklist

LIMS Batch Number(s): 400403, 400407 400411	Filename(s): 4122917a b	Instrument ID (circle one): 024 077 078
Analyst/1st Reviewer/Date: Lm Tall 12/29/17		Method (circle): 200.8 6020 6020A
		QC Type (circle): Standard DOD Q4 DoD Q5 QAPP_____ Other_____
Matrix (circle): Water Solid Leachate		Circle: Total TR PD Dissolved

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune					
1. Tune solution analyzed minimum of 4 times for 6020 or 5 times for 200.8	✓			✓	
2. Tune RSD <5%	✓			✓	
3. Resolution ≤ 0.9 AMU full width at 10% peak height Note: This also satisfies 200.8, 1.0 AMU at 5% peak height	✓			✓	
4. Mass calibration results within ± 0.1 amu of expected value	✓			✓	
B. Calibration/Instrument Run QC					
1. Instrument calibrated per lab SOP?	✓			✓	
2. For multi-point calibrations: r ≥ 0.995 -- |x-intercept| ≤ RL	✓			✓	
3. High Level LDR Check Standard: required by DoD daily if samples analyzed > highest ICAL level -- 90-110% recovery	✓			✓	
4. ICB/CCB: run before samples, 10% frequency, & closing Result < ½ RL (routine), < LOD/2x MDL (DoD or special project)	✓			✓	
5. ICV/CCV: frequency initial, 10%, & closing; 90-110% recovery	✓			✓	
6. ICVL/CCVL: 70-130% recovery (6020A); Not applicable (other)	✓			✓	
7. ICSA/ICSAB: run before samples and every 12 hours ICSA detections for non-spiked <2*RL (<LOD or 2x MDL for DoD or special projects; ICSAB for spiked elements 80-120%; *If no, list analytes:*	✓			✓	□ Results outside limits due to contamination. □ Concentration of affected analyte in sample is less than RL. □ Concentration of affected analyte in sample is more than 10x analyte signal in ICSA.
8. RL-level check standard: CRI : 50-150% (routine) 80-120% recovery (DoD);	✓			✓	
C. Client Sample and QC Sample Results					
1. Samples with target element concentrations > 90% linear range diluted and reanalyzed (200.8)	✓			✓	Comments:
2. Sample IS response: 30-120% of ICB IS (6020) 70-150% of ICB IS (6020A) 60-125% (200.8)	✓			✓	□ High IS response. Sample(s) rerun at dilution. □ Low IS response. Sample(s) rerun at dilution.
D. Preparation/Matrix QC					
1. Method Blank: one per preparation batch result < ½ RL	✓			✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Insufficient sample for reanalysis
2. LCS :one per preparation batch; 80-120% recovery or historical (routine) 85-115% recovery or historical (200.8); project limits (other)	✓			✓	□ Insufficient sample for reanalysis □ LCS %R > QC limits & samples < RL
3. MS/MSD or MS/Dup frequency: a pair per batch (routine); a pair per 10 samples (200.8);	✓			✓	□ Insufficient sample
4. MS/MSD recovery & RPD: 75-125% recovery or historical (routine); 70-130% recovery (200.8); 20% RPD;	✓			✓	□ LCS acceptable – matrix effects □ Native analyte > 4x spike level □ Matrix effect and native analyte > 4x spike

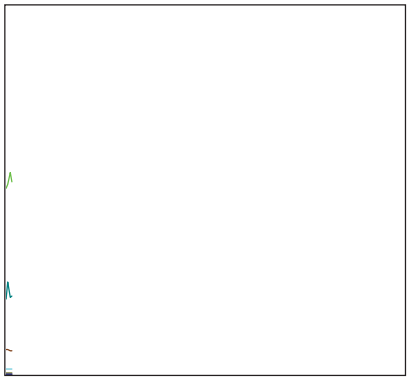
Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
C. Preparation/Matrix QC (continued)					
5. Serial dilution: one per prep batch (6020/6020A) Required if MS/MSD fail (DoD) -- run at 5x dilution of parent sample; ≤ 10% difference.	✓			✓	☐ Sample result < 50 x MDL
6. Post digestion spike: one per 6020/6020A batch Required if MS/MSD fail (DoD) 75-125% recovery	✓			✓	
D. Raw Data & TALS Data Entry					
1. TALS Sample List Tab	✓				
a. LIMS Sample IDs / Containers are correct	✓			✓	
b. Method and matrix are correct	✓			✓	
c. Date and time are correct	✓			✓	
d. Dilutions are correct	✓			✓	
e. Correct suffix designated; e.g., DU, (where applicable)	✓			✓	
2. TALS Sample Results Tab	✓				
a. All reported analytes are marked Primary or Secondary	✓			✓	
b. All unused data are marked Rejected or Accepted. Unused data are clearly identified with reason not used	✓			✓	
c. Out of control QC is clearly identified	✓			✓	
d. Any data that has a qualifier is reviewed with appropriate action taken (NCM if needed)	✓			✓	
e. The attached data file includes the filename, instrument, and analyst initials	✓			✓	
3. TALS Worksheet Tab is complete and correct	✓			✓	
4. TALS Reagent Tab is complete and correct	✓			✓	
5. TALS QC Links Tab is correct	✓			✓	
6. TALS Batch Information Screen documentation is complete	✓			✓	
7. TALS Status set to appropriate review level	✓			✓	
E. Final Report and NCMs (2nd level review only)					
1. Were all job/project requirements met?				✓	
2. Results for samples and QC correct on final report?				✓	
3. Are all necessary scanned documents in TALS?				✓	
4. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?				✓	
5. Raw Data PDF attached as document				✓	

Comments: _____

2nd Reviewer: _____ Review Date: 12/20/17

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
7	2000000	26837	26860.5	0.95
59	200	36533	36501.8	0.70
63	5000	2618	2613.3	3.56
70	10000000	1305	1374.1	4.17
75	50000	3208	3312.4	3.01
89	2000	62679	62635.3	1.61
115	20000000	59537	59824.4	0.83
118	2000	424	437.6	10.41
137	100	7409	7366.6	0.61
140	100	65995	64815.3	2.15
205	10000	33961	33597.4	1.73
6	20000000	9910	9772.9	1.99
70/140	1000	1.977 %	2.121 %	4.63
156/140	200	1.814 %	1.780 %	2.95
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	1.03	L/min	Makeup/Dilution Gas	0.10	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-24	V
Extract 2	-130.0	V	Cell Exit	-56	V
Omega Bias	-60	V	Deflect	15.2	V
Omega Lens	6.1	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-3.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

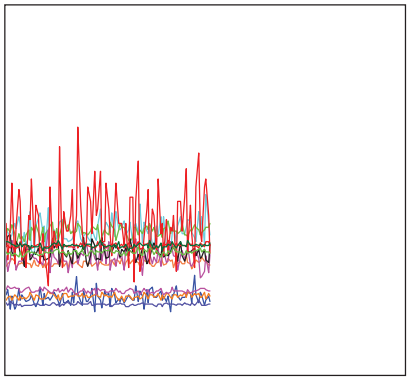
IF/BK Press	1.68E+2	Pa	Carrier Gas(BP)	6.12E+2	kPa
Analyzer Press	6.25E-5	Pa	Reflected Power	16	W

Current Signal

Forward Power	1549	W

Current Signal

[HMI H2]



Mass	Range	Count	Avg. Count	RSD [%]
7	1000	377	389.8	7.93
9	5000	2056	1941.8	3.80
59	20000	5949	6045.3	2.55
63	1000	325	317.2	7.64
70	2000	707	661.2	5.68
78	100	33	41.2	20.83
89	100000	34905	34897.2	1.66
115	100000	32797	33115.4	1.88
118	1000	198	208.4	8.64
137	20000	4239	4237.5	2.78
140	100000	35652	35004.6	1.73
205	100000	19034	18997.1	1.74
238	100000	22530	22688.4	2.41
70/140	5	1.983 %	1.889 %	5.88
156/140	2	1.669 %	1.520 %	6.03
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.75	L/min	Makeup/Dilution Gas	0.28	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-160.0	V	Cell Exit	-60	V
Omega Bias	-65	V	Deflect	0.2	V
Omega Lens	7.6	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		OctP Bias	-18.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	4.0	mL/min	Energy Discrimination	3.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-15.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

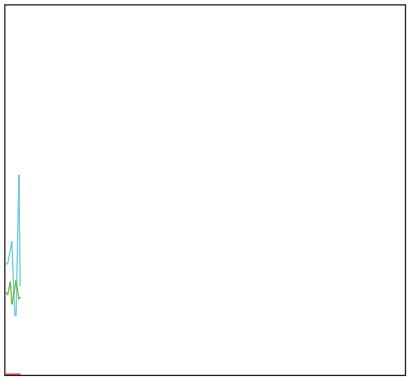
IF/BK Press	1.74E+2	Pa	Carrier Gas(BP)	4.41E+2	kPa

Current Signal

Analyzer Press	6.16E-4	Pa	Reflected Power	17	W
Forward Power	1551	W			

Current Signal

[HMI He]



Mass	Range	Count	Avg. Count	RSD [%]
7	50	12	15.0	40.94
9	500	105	111.5	9.88
23	10000	6233	5827.7	9.03
51	500	94	80.4	26.12
70	500	142	113.9	20.43
75	20	3	2.3	61.72
78	20	0	0.0	0.00
115	10000	2667	2602.6	4.66
118	200	25	28.0	21.93
137	2000	427	414.3	5.39
140	50000	8664	8449.1	4.64
205	50000	9934	9887.3	1.29
238	50000	14822	15327.1	2.29
70/140	2	1.639 %	1.342 %	17.93
156/140	1	0.219 %	0.244 %	21.62
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.75	L/min	Makeup/Dilution Gas	0.28	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-32	V
Extract 2	-170.0	V	Cell Exit	-60	V
Omega Bias	-75	V	Deflect	-0.2	V
Omega Lens	7.1	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		OctP Bias	-18.0	V
He Flow	5.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	4.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-14.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

IF/BK Press	1.66E+2	Pa	Carrier Gas(BP)	4.40E+2	kPa

Current Signal

Analyzer Press	2.20E-4	Pa	Reflected Power	16	W
Forward Power	1550	W			

US EPA 200.8 Tune Check Sample Report

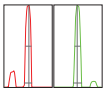
Batch Folder D:\DATA\122717.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1096	6.60	5.00	[F]
9	5460	5.03	5.00	[F]

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	975	1095	1131	1165	1117
9	4999	5575	5587	5432	5705

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	334	7.05	6.9 - 7.1		0.442	0.750	
9	1652	9.00	8.9 - 9.1		0.482	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V			
Extract 2	-160.0	V	Cell Entrance	-40	V			
Omega Bias	-65	V	Cell Exit	-60	V			
Deflect	0.2	V						

 # # Cell Parameters # #

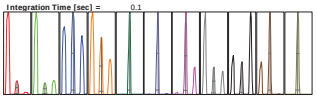
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	200	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2565	2.16	5.00	TRUE
25	366	4.54	5.00	TRUE
26	460	0.50	5.00	TRUE
59	11456	1.06	5.00	TRUE
103	24748	1.00	5.00	TRUE
115	5886	1.87	5.00	TRUE
205	13640	2.39	5.00	TRUE
206	4797	2.19	5.00	TRUE
207	4055	0.36	5.00	TRUE
208	9910	0.50	5.00	TRUE
238	21880	1.40	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2571	2540	2497	2649	2568
25	386	365	348	352	379
26	460	460	460	463	457
59	11350	11354	11611	11560	11408
103	24582	24631	25124	24532	24869
115	6050	5794	5928	5881	5779
205	14025	13750	13222	13810	13394
206	4931	4684	4869	4792	4708
207	4063	4059	4072	4038	4041
208	9936	9909	9979	9868	9860
238	22182	22026	21980	21832	21380

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	766	24.000	23.9 - 24.1		0.444	0.750	
25	104	24.950	24.9 - 25.1		0.444	0.750	
26	127	26.000	25.9 - 26.1		0.444	0.750	
59	3480	59.000	58.9 - 59.1		0.481	0.750	
103	8943	103.000	102.9 - 103.1		0.432	0.750	
115	2334	115.050	114.9 - 115.1		0.428	0.750	
205	5245	205.000	204.9 - 205.1		0.423	0.750	
206	1790	206.000	205.9 - 206.1		0.397	0.750	
207	1557	207.000	206.9 - 207.1		0.390	0.750	
208	3939	208.000	207.9 - 208.1		0.423	0.750	
238	8014	237.950	237.9 - 238.1		0.465	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.1	V			
Extract 2	-170.0	V	Cell Entrance	-32	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	-0.2	V						

 # # Cell Parameters # #

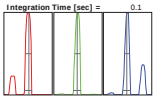
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	91770	1.51	5.00	TRUE
89	165062	0.54	5.00	TRUE
205	58796	1.71	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	93971	92140	91255	91144	90340
89	165320	166232	165420	164249	164087
205	57239	59005	58975	60032	58731

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	27028	7.050	6.9 - 7.1		0.441	0.750	
89	51825	89.000	88.9 - 89.1		0.442	0.750	
205	21079	205.000	204.9 - 205.1		0.455	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.1	V			
Extract 2	-130.0	V	Cell Entrance	-24	V			
Omega Bias	-60	V	Cell Exit	-56	V			
Deflect	15.2	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

US EPA 200.8 Tune Check Sample Report

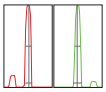
Batch Folder D:\DATA\122717.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1086	1.31	5.00	
9	5327	2.79	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	1087	1085	1079	1070	1109
9	5191	5283	5204	5538	5417

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	320	7.05	6.9 - 7.1		0.442	0.750	
9	1604	9.00	8.9 - 9.1		0.482	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V			
Extract 2	-160.0	V	Cell Entrance	-40	V			
Omega Bias	-65	V	Cell Exit	-60	V			
Deflect	0.2	V						

 # # Cell Parameters # #

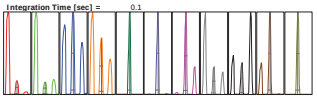
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	200	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2351	2.66	5.00	TRUE
25	360	7.00	5.00	FALSE
26	430	1.49	5.00	TRUE
59	11124	1.98	5.00	TRUE
103	23896	0.91	5.00	TRUE
115	5536	1.85	5.00	TRUE
205	13481	0.25	5.00	TRUE
206	4747	1.45	5.00	TRUE
207	3912	2.08	5.00	TRUE
208	9723	1.62	5.00	TRUE
238	21476	1.02	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2264	2351	2360	2338	2440
25	315	374	374	369	367
26	428	442	425	429	429
59	10903	10917	11115	11290	11397
103	23564	23833	24038	24132	23911
115	5393	5573	5473	5585	5653
205	13480	13439	13468	13530	13490
206	4796	4670	4780	4813	4676
207	3869	3987	3792	3937	3976
208	9734	9975	9604	9725	9579
238	21631	21492	21124	21681	21452

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	694	24.000	23.9 - 24.1		0.443	0.750	
25	102	25.000	24.9 - 25.1		0.446	0.750	
26	123	26.000	25.9 - 26.1		0.484	0.750	
59	3337	59.000	58.9 - 59.1		0.481	0.750	
103	8660	103.000	102.9 - 103.1		0.432	0.750	
115	2205	115.050	114.9 - 115.1		0.428	0.750	
205	5107	205.000	204.9 - 205.1		0.426	0.750	
206	1739	206.000	205.9 - 206.1		0.393	0.750	
207	1482	207.000	206.9 - 207.1		0.394	0.750	
208	3869	208.000	207.9 - 208.1		0.424	0.750	
238	7773	237.950	237.9 - 238.1		0.466	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.1	V			
Extract 2	-170.0	V	Cell Entrance	-32	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	-0.2	V						

 # # Cell Parameters # #

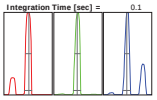
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	95329	1.59	5.00	TRUE
89	164770	1.16	5.00	TRUE
205	58103	1.05	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	96851	96975	94873	94304	93639
89	165244	167306	164881	164427	161990
205	57061	58519	58480	58038	58415

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	28053	7.050	6.9 - 7.1		0.441	0.750	
89	51982	89.000	88.9 - 89.1		0.441	0.750	
205	20817	205.000	204.9 - 205.1		0.456	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.1	V			
Extract 2	-130.0	V	Cell Entrance	-24	V			
Omega Bias	-60	V	Cell Exit	-56	V			
Deflect	15.2	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

US EPA 200.8 Tune Check Sample Report

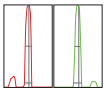
Batch Folder D:\DATA\122717.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1139	1.61	5.00	
9	5532	1.71	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	1134	1129	1154	1160	1116
9	5468	5419	5545	5563	5665

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	333	7.05	6.9 - 7.1		0.443	0.750	
9	1631	9.05	8.9 - 9.1		0.483	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V			
Extract 2	-155.0	V	Cell Entrance	-40	V			
Omega Bias	-65	V	Cell Exit	-60	V			
Deflect	1.0	V						

 # # Cell Parameters # #

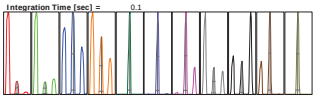
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	200	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2039	2.16	5.00	TRUE
25	313	4.87	5.00	TRUE
26	398	3.41	5.00	TRUE
59	10919	1.11	5.00	TRUE
103	23933	0.72	5.00	TRUE
115	5572	2.15	5.00	TRUE
205	13714	1.47	5.00	TRUE
206	4765	1.25	5.00	TRUE
207	4033	1.00	5.00	TRUE
208	9799	0.78	5.00	TRUE
238	21849	0.51	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	1993	2027	2048	2017	2109
25	310	301	315	338	302
26	389	389	419	389	405
59	10797	10804	11042	10907	11043
103	23660	23941	24066	23910	24089
115	5447	5464	5588	5739	5621
205	13972	13675	13411	13746	13766
206	4871	4738	4728	4738	4752
207	4073	3980	4062	4047	4000
208	9792	9823	9872	9837	9671
238	21970	21860	21787	21693	21935

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	595	24.000	23.9 - 24.1		0.444	0.750	
25	88	25.000	24.9 - 25.1		0.444	0.750	
26	108	26.000	25.9 - 26.1		0.445	0.750	
59	3319	59.000	58.9 - 59.1		0.479	0.750	
103	8639	103.000	102.9 - 103.1		0.432	0.750	
115	2043	115.000	114.9 - 115.1		0.430	0.750	
205	5246	205.000	204.9 - 205.1		0.425	0.750	
206	1763	206.000	205.9 - 206.1		0.397	0.750	
207	1565	207.000	206.9 - 207.1		0.391	0.750	
208	3912	208.000	207.9 - 208.1		0.422	0.750	
238	8001	237.950	237.9 - 238.1		0.464	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V			
Extract 2	-175.0	V	Cell Entrance	-32	V			
Omega Bias	-75	V	Cell Exit	-60	V			
Deflect	-0.2	V						

 # # Cell Parameters # #

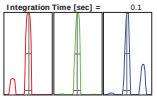
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	105266	1.29	5.00	TRUE
89	167396	0.83	5.00	TRUE
205	58024	0.69	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	107076	106158	105122	104172	103803
89	167228	168773	168804	166519	165657
205	57805	58407	57434	58224	58248

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	31231	7.050	6.9 - 7.1		0.440	0.750	
89	52951	89.000	88.9 - 89.1		0.441	0.750	
205	21114	205.000	204.9 - 205.1		0.450	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.3	V			
Extract 2	-125.0	V	Cell Entrance	-24	V			
Omega Bias	-55	V	Cell Exit	-56	V			
Deflect	15.4	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	190	V			
Energy Discrimination	5.0	V						

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
7	Li	Signal too low	☑
9	Be	0.104141	☑
23	Na	0.115577	☑
24	Mg	0.120654	☑
27	Al	0.123403	☑
39	K	0.125055	☑
45	Sc	0.126239	☑
51	V	0.127089	☑
55	Mn	0.133334	☑
56	Fe	0.123734	☑
59	Co	0.135920	☑
60	Ni	0.136779	☑
63	Cu	0.138996	☑
66	Zn	0.139290	☑
72	Ge	0.138336	☑
75	As	0.138237	☑
77	Se	Signal too low	☑
78	Se	Signal too low	☑
82	Se	Signal too low	☑
88	Sr	0.139781	☑
89	Y	0.138193	☑
95	Mo	0.138070	☑
100	Ru	0.139493	☑
101	Ru	0.141664	☑
102	Ru	0.141131	☑

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
104	Ru	0.141892	☑
105	Pd	0.142854	☑
106	Pd	0.142269	☑
111	Cd	0.144601	☑
114	Cd	0.144838	☑
115	In	0.145310	☑
118	Sn	0.143195	☑
121	Sb	0.143866	☑
137	Ba	0.142523	☑
175	Lu	0.148656	☑
193	Ir	0.147494	☑
205	Tl	0.149108	☑
208	Pb	0.149995	☑
209	Bi	0.150077	☑
232	Th	0.150848	☑
238	U	0.150878	☑

Sample Report

Sample Name	RINSE-4884883
File Name	001SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:26:41 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4884883
File Name	002SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:30:07 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4875024
File Name	003SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:33:35 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4875024
File Name	004SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:37:03 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4896488
File Name	005SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:40:30 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4896488
File Name	006SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:43:59 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	007CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:47:25 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	129574.72	ppb	1.55
Be	9	6	HMI H2	31.67	ppb	39.74
B	11	6	HMI H2	196.67	ppb	30.65
Se	78	72	HMI H2	248.00	ppb	5.82
Na	23	45	HMI He	26748.23	ppb	2.40
Mg	24	45	HMI He	516.68	ppb	6.80
Al	27	45	HMI He	76.67	ppb	32.83
K	39	45	HMI He	33173.46	ppb	4.16
Ca	44	45	HMI He	76.67	ppb	32.83
V	51	72	HMI He	2276.87	ppb	3.96
Cr	52	72	HMI He	253.34	ppb	29.89
Mn	55	72	HMI He	83.33	ppb	42.14
Fe	57	72	HMI He	123.33	ppb	36.56
Co	59	72	HMI He	20.00	ppb	86.60
Ni	60	72	HMI He	256.67	ppb	9.81
Cu	63	72	HMI He	2256.86	ppb	10.50
Zn	66	72	HMI He	373.34	ppb	8.61
As	75	72	HMI He	32.03	ppb	23.18
Sr	88	45	HMI He	30.00	ppb	66.67
Zr	90	72	HMI He	120.00	ppb	16.67
Nb	93	72	HMI He	43.33	ppb	13.32
Mo	95	115	HMI He	43.33	ppb	70.50
Pd	105	115	HMI He	390.01	ppb	25.25
Ag	107	115	HMI He	13.33	ppb	114.56
Cd	111	115	HMI He	6.67	ppb	173.21
Sn	120	115	HMI He	280.01	ppb	15.57
Sb	121	115	HMI He	26.67	ppb	57.28
Ba	137	115	HMI He	13.33	ppb	86.60
W	182	165	HMI He	1150.06	ppb	17.97
Pt	195	165	HMI He	96.67	ppb	21.53
Tl	205	165	HMI He	420.01	ppb	10.91
Pb	208	165	HMI He	6063.91	ppb	5.21
Th	232	165	HMI He	206.67	ppb	43.64
U	238	165	HMI He	63.33	ppb	24.12
Li	7	45	No Gas	11298215.04	ppb	0.76

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	865763.31	5.16
Ge Internal Standard	72	HMI H2	18880997.76	0.86
Sc (IS)	45	HMI He	1068382.69	1.23
Ge Internal Standard	72	HMI He	1458896.69	2.29
In Internal standard	115	HMI He	3645468.44	1.38
Ho-165	165	HMI He	17933219.48	1.20
Sc IS)	45	No Gas	127018650.04	2.21

Calibration Standard Report

Sample Name	IC-4905894
File Name	008CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:50:51 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	507557.05	ppb	4.21
Be	9	6	HMI H2	49388.14	ppb	0.89
B	11	6	HMI H2	64837.30	ppb	3.58
Se	78	72	HMI H2	47338.51	ppb	1.84
Na	23	45	HMI He	2677805.43	ppb	1.79
Mg	24	45	HMI He	1117457.38	ppb	0.41
Al	27	45	HMI He	251350.48	ppb	0.53
K	39	45	HMI He	636420.73	ppb	0.91
Ca	44	45	HMI He	33721.27	ppb	2.53
V	51	72	HMI He	146847.05	ppb	1.13
Cr	52	72	HMI He	195773.58	ppb	1.21
Mn	55	72	HMI He	65359.97	ppb	1.22
Fe	57	72	HMI He	354448.85	ppb	0.83
Co	59	72	HMI He	352936.36	ppb	0.69
Ni	60	72	HMI He	103190.25	ppb	1.37
Cu	63	72	HMI He	284564.07	ppb	0.54
Zn	66	72	HMI He	35873.19	ppb	2.09
As	75	72	HMI He	26347.50	ppb	0.74
Sr	88	45	HMI He	63971.34	ppb	3.62
Zr	90	72	HMI He	1416.75	ppb	13.21
Nb	93	72	HMI He	1009873.83	ppb	2.38
Mo	95	115	HMI He	126317.37	ppb	2.21
Pd	105	115	HMI He	197318.44	ppb	2.08
Ag	107	115	HMI He	433721.24	ppb	1.54
Cd	111	115	HMI He	50521.13	ppb	2.50
Sn	120	115	HMI He	126582.31	ppb	0.87
Sb	121	115	HMI He	114490.87	ppb	0.74
Ba	137	115	HMI He	36062.36	ppb	1.13
W	182	165	HMI He	531122.08	ppb	1.02
Pt	195	165	HMI He	432412.35	ppb	1.90
Tl	205	165	HMI He	888188.34	ppb	1.98
Pb	208	165	HMI He	1186450.93	ppb	1.28
Th	232	165	HMI He	1282409.19	ppb	0.65
U	238	165	HMI He	1400260.03	ppb	0.30
Li	7	45	No Gas	41165704.10	ppb	0.65

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	886000.36	6.23	865763.313333333	102.34	60	125	
Ge Internal Standard	72	HMI H2	18162155.72	1.47	18880997.7633333	96.19	60	125	
Sc (IS)	45	HMI He	1031860.71	0.79	1068382.69	96.58	60	125	
Ge Internal Standard	72	HMI He	1396399.34	1.97	1458896.69333333	95.72	60	125	
In Internal standard	115	HMI He	3592596.15	1.22	3645468.44	98.55	60	125	
Ho-165	165	HMI He	17672271.16	1.23	17933219.48	98.54	60	125	
Sc IS)	45	No Gas	119286497.11	1.05	127018650.04	93.91	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	009_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:54:16 AM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	417.211	ppb	4.99	286011.76	40	1043.03	90	110	>+\-10%
Be	9	6	HMI H2	42.484	ppb	0.75	19382.78	40	106.21	90	110	
B	11	6	HMI H2	33.465	ppb	4.43	20178.93	40	83.66	90	110	>+\-10%
Se	78	72	HMI H2	39.122	ppb	2.86	18680.19	40	97.81	90	110	
Na	23	45	HMI He	3949.531	ppb	2.37	1068677.09	4000	98.74	90	110	
Mg	24	45	HMI He	4019.064	ppb	1.73	447530.18	4000	100.48	90	110	
Al	27	45	HMI He	8035.315	ppb	1.44	201144.34	4000	200.88	90	110	>+\-10%
K	39	45	HMI He	3977.148	ppb	3.71	271245.56	4000	99.43	90	110	
Ca	44	45	HMI He	3856.392	ppb	3.93	12995.27	4000	96.41	90	110	
V	51	72	HMI He	40.780	ppb	3.33	60173.30	40	101.95	90	110	
Cr	52	72	HMI He	40.343	ppb	1.47	77846.98	40	100.86	90	110	
Mn	55	72	HMI He	42.413	ppb	3.15	27322.96	40	106.03	90	110	
Fe	57	72	HMI He	7926.310	ppb	2.50	276318.65	4000	198.16	90	110	>+\-10%
Co	59	72	HMI He	41.946	ppb	3.07	145639.54	40	104.86	90	110	
Ni	60	72	HMI He	39.988	ppb	2.78	40727.61	40	99.97	90	110	
Cu	63	72	HMI He	41.559	ppb	2.25	117560.57	40	103.9	90	110	
Zn	66	72	HMI He	40.470	ppb	4.72	14479.88	40	101.17	90	110	
As	75	72	HMI He	39.492	ppb	1.87	10253.58	40	98.73	90	110	
Sr	88	45	HMI He	40.314	ppb	3.63	25690.81	40	100.78	90	110	
Zr	90	72	HMI He	6.228	ppb	37.24	193.33	40	15.57	90	110	>+\-10%
Nb	93	72	HMI He	79.871	ppb	2.00	396671.19	80	99.84	90	110	
Mo	95	115	HMI He	40.665	ppb	2.45	50971.98	40	101.66	90	110	
Pd	105	115	HMI He	41.270	ppb	3.19	81027.05	40	103.17	90	110	
Ag	107	115	HMI He	37.639	ppb	1.12	161968.04	40	94.1	90	110	
Cd	111	115	HMI He	40.995	ppb	0.96	20550.29	40	102.49	90	110	
Sn	120	115	HMI He	40.021	ppb	0.71	50421.22	40	100.05	90	110	
Sb	121	115	HMI He	41.935	ppb	1.94	47643.04	40	104.84	90	110	
Ba	137	115	HMI He	41.600	ppb	3.21	14894.02	40	104	90	110	
W	182	165	HMI He	79.846	ppb	1.87	422332.04	40	199.62	90	110	>+\-10%
Pt	195	165	HMI He	39.758	ppb	1.13	171199.65	40	99.4	90	110	
Tl	205	165	HMI He	40.689	ppb	0.61	359988.84	40	101.72	90	110	
Pb	208	165	HMI He	40.526	ppb	1.84	482191.97	40	101.32	90	110	
Th	232	165	HMI He	40.347	ppb	2.87	515104.99	40	100.87	90	110	
U	238	165	HMI He	40.408	ppb	0.75	563259.82	40	101.02	90	110	
Li	7	45	No Gas	450.024	ppb	1.99	24488411.43	40	1125.06	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	815832.23	0.89	865763.313333333	94.23	60	125	
Ge Internal Standard	72	HMI H2	18177741.76	2.00	18880997.7633333	96.28	60	125	
Sc (IS)	45	HMI He	1027701.80	1.58	1068382.69	96.19	60	125	
Ge Internal Standard	72	HMI He	1373645.35	2.73	1458896.69333333	94.16	60	125	
In Internal standard	115	HMI He	3563971.39	1.11	3645468.44	97.76	60	125	
Ho-165	165	HMI He	17590628.04	1.27	17933219.48	98.09	60	125	
Sc IS)	45	No Gas	119899360.41	0.46	127018650.04	94.4	60	120	

Initial Calibration Blank (ICB) Report

Sample Name	ICB-4905893
File Name	010_ICB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:57:41 AM
Sample Type	ICB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	4.560	ppb	123.02	129129.83	0.1	>RL
Be	9	6	HMI H2	0.065	ppb	63.51	63.33	0.5	
B	11	6	HMI H2	1.667	ppb	8.64	1280.06	0.1	>RL
Se	78	72	HMI H2	-0.097	ppb	-40.61	193.33	1	
Na	23	45	HMI He	-3.697	ppb	-56.53	25629.72	25	
Mg	24	45	HMI He	-0.153	ppb	-404.23	496.68	25	
Al	27	45	HMI He	2.433	ppb	84.90	140.00	15	
K	39	45	HMI He	-8.797	ppb	-166.57	32512.21	50	
Ca	44	45	HMI He	22.298	ppb	75.27	153.33	25	
V	51	72	HMI He	0.952	ppb	7.14	3670.45	1	
Cr	52	72	HMI He	0.021	ppb	120.76	293.34	1	
Mn	55	72	HMI He	0.002	ppb	4048.29	83.33	0.5	
Fe	57	72	HMI He	2.660	ppb	32.11	220.00	25	
Co	59	72	HMI He	0.011	ppb	23.02	60.00	0.5	
Ni	60	72	HMI He	-0.007	ppb	-733.87	246.67	1	
Cu	63	72	HMI He	-0.028	ppb	-111.56	2146.85	1	
Zn	66	72	HMI He	0.113	ppb	48.90	410.01	5	
As	75	72	HMI He	-0.009	ppb	-524.07	29.41	1	
Sr	88	45	HMI He	0.005	ppb	186.73	33.33	1	
Zr	90	72	HMI He	1.141	ppb	272.55	133.33	1	>RL
Nb	93	72	HMI He	0.584	ppb	5.51	3080.35	2	
Mo	95	115	HMI He	0.062	ppb	49.26	123.33	0.5	
Pd	105	115	HMI He	0.033	ppb	54.69	460.01	1	
Ag	107	115	HMI He	0.009	ppb	26.20	53.33	1	
Cd	111	115	HMI He	0.025	ppb	149.74	20.00	0.5	
Sn	120	115	HMI He	0.018	ppb	190.18	306.68	1	
Sb	121	115	HMI He	0.902	ppb	15.59	1083.38	1	
Ba	137	115	HMI He	0.000	ppb	15377.82	13.33	0.5	
W	182	165	HMI He	0.077	ppb	71.17	1566.77	1	
Pt	195	165	HMI He	0.054	ppb	29.49	333.35	1	
Tl	205	165	HMI He	0.012	ppb	36.79	526.68	0.1	
Pb	208	165	HMI He	0.034	ppb	133.04	6464.01	0.5	
Th	232	165	HMI He	0.037	ppb	21.71	690.02	1	
U	238	165	HMI He	0.008	ppb	30.33	176.67	0.5	
Li	7	45	No Gas	4.137	ppb	94.83	11195732.33	0.05	>RL

Initial Calibration Blank (ICB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	883481.80	5.08	865763.313333333	102.05	60	125	
Ge Internal Standard	72	HMI H2	18239991.34	1.55	18880997.7633333	96.61	60	125	
Sc (IS)	45	HMI He	1064044.90	2.00	1068382.69	99.59	60	125	
Ge Internal Standard	72	HMI He	1440775.64	2.38	1458896.69333333	98.76	60	125	
In Internal standard	115	HMI He	3684098.36	2.69	3645468.44	101.06	60	125	
Ho-165	165	HMI He	17930391.56	1.44	17933219.48	99.98	60	125	
Sc IS)	45	No Gas	124354147.68	0.76	127018650.04	97.9	60	120	

Low Level Initial Calibration Verification(LLICV) Report

Sample Name	ICVL-4905898
File Name	011LICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:01:08 AM
Sample Type	LLICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.053	ppb	6.73	581.68	1	105.29	70	130	
Se	78	72	HMI H2	4.480	ppb	5.22	2440.19	5	89.6	70	130	
Na	23	45	HMI He	43.879	ppb	17.75	39249.20	50	87.76	70	130	
Mg	24	45	HMI He	51.931	ppb	8.00	6594.72	50	103.86	70	130	
Al	27	45	HMI He	27.733	ppb	15.74	810.04	30	92.44	70	130	
K	39	45	HMI He	74.153	ppb	1.77	38297.62	100	74.15	70	130	
Ca	44	45	HMI He	54.417	ppb	13.20	270.01	50	108.83	70	130	
V	51	72	HMI He	5.313	ppb	6.25	10373.41	5	106.27	70	130	
Cr	52	72	HMI He	2.017	ppb	3.64	4404.00	2	100.83	70	130	
Mn	55	72	HMI He	0.918	ppb	8.57	713.36	1	91.79	70	130	
Fe	57	72	HMI He	48.557	ppb	2.32	1933.48	50	97.11	70	130	
Co	59	72	HMI He	0.979	ppb	0.74	3653.79	1	97.91	70	130	
Ni	60	72	HMI He	1.884	ppb	11.23	2296.86	2	94.2	70	130	
Cu	63	72	HMI He	1.903	ppb	8.59	7918.73	2	95.17	70	130	
Zn	66	72	HMI He	10.949	ppb	3.64	4464.00	10	109.49	70	130	
As	75	72	HMI He	4.666	ppb	4.12	1322.93	5	93.31	70	130	
Sr	88	45	HMI He	0.910	ppb	8.92	640.02	1	90.99	70	130	
Zr	90	72	HMI He	6.026	ppb	65.42	203.34	0.5	1205.14	70	130	>+/-30%
Nb	93	72	HMI He	0.506	ppb	4.39	2726.95	2	25.28	70	130	>+/-30%
Mo	95	115	HMI He	1.784	ppb	11.94	2393.55	2	89.2	70	130	
Pd	105	115	HMI He	0.010	ppb	435.95	420.01	1	0.97	70	130	>+/-30%
Ag	107	115	HMI He	4.959	ppb	2.94	22479.58	5	99.18	70	130	
Cd	111	115	HMI He	0.855	ppb	20.23	456.68	1	85.48	70	130	
Sn	120	115	HMI He	9.689	ppb	10.27	13055.62	10	96.89	70	130	
Sb	121	115	HMI He	2.335	ppb	7.54	2816.94	2	116.76	70	130	
Ba	137	115	HMI He	1.139	ppb	7.51	443.34	1	113.91	70	130	
W	182	165	HMI He	4.718	ppb	1.59	26707.45	1	471.79	70	130	>+/-30%
Pt	195	165	HMI He	0.044	ppb	51.79	290.01	1	4.37	70	130	>+/-30%
Tl	205	165	HMI He	1.015	ppb	5.64	9623.30	1	101.45	70	130	
Pb	208	165	HMI He	0.692	ppb	7.13	14449.68	1	69.2	70	130	>+/-30%
Th	232	165	HMI He	1.987	ppb	2.39	26237.50	2	99.36	70	130	
U	238	165	HMI He	0.998	ppb	2.03	14345.58	1	99.83	70	130	

QC ISTD Table

Low Level Initial Calibration Verification(LLICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	932996.47	4.30	865763.313333333	107.77	60	125	
Ge Internal Standard	72	HMI H2	18873150.48	1.90	18880997.7633333	99.96	60	125	
Sc (IS)	45	HMI He	1081793.52	2.94	1068382.69	101.26	60	125	
Ge Internal Standard	72	HMI He	1467964.10	1.64	1458896.69333333	100.62	60	125	
In Internal standard	115	HMI He	3753398.36	2.34	3645468.44	102.96	60	125	
Ho-165	165	HMI He	18053387.39	0.60	17933219.48	100.67	60	125	
Sc IS)	45	No Gas	126235275.92	0.95	127018650.04	99.38	60	120	

Low Level Initial Calibration Verification(LLICV) Report

Sample Name	ICVL-4905898
File Name	012LICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:07:30 AM
Sample Type	LLICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.023	ppb	16.37	553.34	1	102.31	70	130	
Se	78	72	HMI H2	4.688	ppb	13.60	2541.54	5	93.77	70	130	
Na	23	45	HMI He	40.860	ppb	8.90	39830.67	50	81.72	70	130	
Mg	24	45	HMI He	52.638	ppb	7.82	6931.53	50	105.28	70	130	
Al	27	45	HMI He	32.615	ppb	14.72	970.04	30	108.72	70	130	
K	39	45	HMI He	111.268	ppb	15.97	42117.00	100	111.27	70	130	
Ca	44	45	HMI He	65.439	ppb	13.51	320.01	50	130.88	70	130	>+/-30%
V	51	72	HMI He	5.263	ppb	4.83	10703.59	5	105.27	70	130	
Cr	52	72	HMI He	2.013	ppb	6.70	4567.37	2	100.66	70	130	
Mn	55	72	HMI He	1.153	ppb	16.68	910.04	1	115.34	70	130	
Fe	57	72	HMI He	49.353	ppb	4.22	2040.15	50	98.71	70	130	
Co	59	72	HMI He	0.907	ppb	10.30	3517.08	1	90.69	70	130	
Ni	60	72	HMI He	1.866	ppb	2.11	2366.86	2	93.29	70	130	
Cu	63	72	HMI He	2.024	ppb	11.24	8605.69	2	101.18	70	130	
Zn	66	72	HMI He	10.608	ppb	13.94	4504.02	10	106.08	70	130	
As	75	72	HMI He	4.447	ppb	0.94	1312.47	5	88.94	70	130	
Sr	88	45	HMI He	1.044	ppb	14.15	756.69	1	104.41	70	130	
Zr	90	72	HMI He	5.465	ppb	109.12	203.34	0.5	1092.93	70	130	>+/-30%
Nb	93	72	HMI He	0.141	ppb	24.78	823.37	2	7.06	70	130	>+/-30%
Mo	95	115	HMI He	2.044	ppb	6.44	2830.28	2	102.18	70	130	
Pd	105	115	HMI He	-0.053	ppb	-92.61	300.01	1	-5.28	70	130	>+/-30%
Ag	107	115	HMI He	4.624	ppb	4.07	21641.79	5	92.48	70	130	
Cd	111	115	HMI He	0.909	ppb	9.62	503.35	1	90.86	70	130	
Sn	120	115	HMI He	9.535	ppb	4.39	13289.11	10	95.35	70	130	
Sb	121	115	HMI He	2.184	ppb	13.86	2726.94	2	109.19	70	130	
Ba	137	115	HMI He	1.286	ppb	15.05	513.35	1	128.61	70	130	
W	182	165	HMI He	4.716	ppb	0.62	27181.61	1	471.61	70	130	>+/-30%
Pt	195	165	HMI He	0.048	ppb	22.62	313.34	1	4.77	70	130	>+/-30%
Tl	205	165	HMI He	1.031	ppb	6.22	9950.16	1	103.05	70	130	
Pb	208	165	HMI He	0.674	ppb	2.73	14496.31	1	67.44	70	130	>+/-30%
Th	232	165	HMI He	1.964	ppb	3.20	26397.67	2	98.19	70	130	
U	238	165	HMI He	0.996	ppb	2.92	14574.23	1	99.64	70	130	

QC ISTD Table

Low Level Initial Calibration Verification(LLICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	911585.67	0.78	865763.313333333	105.29	60	125	
Ge Internal Standard	72	HMI H2	18889381.10	1.89	18880997.7633333	100.04	60	125	
Sc (IS)	45	HMI He	1120796.63	1.13	1068382.69	104.91	60	125	
Ge Internal Standard	72	HMI He	1525526.33	0.60	1458896.69333333	104.57	60	125	
In Internal standard	115	HMI He	3876941.81	2.70	3645468.44	106.35	60	125	
Ho-165	165	HMI He	18380777.79	1.25	17933219.48	102.5	60	125	
Sc IS)	45	No Gas	129244568.26	0.42	127018650.04	101.75	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	013SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:10:57 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.029	ppb	-110.94	18.33	2000	
B	11	6	HMI H2	0.178	ppb	59.80	323.34	100	
Se	78	72	HMI H2	-0.184	ppb	-38.14	157.33	2000	
Na	23	45	HMI He	-8.895	ppb	-20.68	24604.80	400000	
Mg	24	45	HMI He	-0.136	ppb	-100.08	506.68	400000	
Al	27	45	HMI He	5.895	ppb	37.81	233.34	400000	
K	39	45	HMI He	9.603	ppb	387.90	34182.24	400000	
Ca	44	45	HMI He	14.825	ppb	38.07	130.00	400000	
V	51	72	HMI He	0.524	ppb	41.93	3137.01	2000	
Cr	52	72	HMI He	0.019	ppb	106.95	300.01	5000	
Mn	55	72	HMI He	-0.051	ppb	-116.43	50.00	10000	
Fe	57	72	HMI He	4.434	ppb	48.46	293.34	400000	
Co	59	72	HMI He	-0.002	ppb	-76.09	13.33	2000	
Ni	60	72	HMI He	-0.018	ppb	-150.06	243.34	5000	
Cu	63	72	HMI He	-0.175	ppb	-46.19	1776.79	5000	
Zn	66	72	HMI He	1.175	ppb	34.65	826.70	5000	
As	75	72	HMI He	-0.023	ppb	-128.74	26.14	2000	
Sr	88	45	HMI He	-0.015	ppb	-195.25	20.00	2000	
Zr	90	72	HMI He	0.078	ppb	5547.30	123.33	1000	
Nb	93	72	HMI He	0.029	ppb	35.67	200.00	200	
Mo	95	115	HMI He	0.037	ppb	100.43	93.33	2000	
Pd	105	115	HMI He	-0.097	ppb	-19.21	200.00	100	
Ag	107	115	HMI He	0.001	ppb	320.23	20.00	100	
Cd	111	115	HMI He	0.006	ppb	554.15	10.00	2000	
Sn	120	115	HMI He	0.037	ppb	167.53	336.67	2000	
Sb	121	115	HMI He	0.099	ppb	47.58	146.67	1000	
Ba	137	115	HMI He	0.034	ppb	163.37	26.67	5000	
W	182	165	HMI He	0.027	ppb	95.38	1323.42	100	
Pt	195	165	HMI He	-0.004	ppb	-109.89	80.00	100	
Tl	205	165	HMI He	-0.028	ppb	-25.83	166.67	2000	
Pb	208	165	HMI He	-0.378	ppb	-1.54	1560.06	5000	
Th	232	165	HMI He	0.002	ppb	81.88	236.67	2000	
U	238	165	HMI He	0.000	ppb	328.48	66.67	2000	
Li	7	45	No Gas	0.736	ppb	788.60	11340056.18	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	910849.49	2.87	865763.313333333	105.21	60	125	
Ge Internal Standard	72	HMI H2	18868267.77	3.04	18880997.7633333	99.93	60	125	
Sc (IS)	45	HMI He	1081288.29	0.85	1068382.69	101.21	60	125	
Ge Internal Standard	72	HMI He	1492717.43	2.72	1458896.69333333	102.32	60	125	
In Internal standard	115	HMI He	3752002.96	1.15	3645468.44	102.92	60	125	
Ho-165	165	HMI He	18285862.80	1.66	17933219.48	101.97	60	125	
Sc IS)	45	No Gas	127204538.37	1.50	127018650.04	100.15	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	014SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:14:23 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.027	ppb	-128.53	20.00	2000	
B	11	6	HMI H2	0.124	ppb	21.67	296.68	100	
Se	78	72	HMI H2	-0.259	ppb	-10.47	120.00	2000	
Na	23	45	HMI He	-11.541	ppb	-23.82	24120.81	400000	
Mg	24	45	HMI He	-0.374	ppb	-194.05	483.35	400000	
Al	27	45	HMI He	3.690	ppb	33.75	176.67	400000	
K	39	45	HMI He	-0.497	ppb	-4002.75	33904.95	400000	
Ca	44	45	HMI He	5.015	ppb	222.06	96.67	400000	
V	51	72	HMI He	0.587	ppb	48.26	3193.71	2000	
Cr	52	72	HMI He	0.028	ppb	131.45	313.34	5000	
Mn	55	72	HMI He	0.033	ppb	126.70	106.67	10000	
Fe	57	72	HMI He	4.689	ppb	60.21	300.01	400000	
Co	59	72	HMI He	0.001	ppb	616.19	23.33	2000	
Ni	60	72	HMI He	-0.042	ppb	-141.94	213.34	5000	
Cu	63	72	HMI He	-0.185	ppb	-10.58	1726.78	5000	
Zn	66	72	HMI He	1.017	ppb	16.14	756.69	5000	
As	75	72	HMI He	0.041	ppb	100.99	43.79	2000	
Sr	88	45	HMI He	0.033	ppb	179.68	53.33	2000	
Zr	90	72	HMI He	0.901	ppb	647.40	133.33	1000	
Nb	93	72	HMI He	0.016	ppb	50.58	130.00	200	
Mo	95	115	HMI He	0.012	ppb	301.69	60.00	2000	
Pd	105	115	HMI He	-0.099	ppb	-39.03	200.01	100	
Ag	107	115	HMI He	0.001	ppb	332.60	20.00	100	
Cd	111	115	HMI He	-0.013	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.005	ppb	-1416.61	283.34	2000	
Sb	121	115	HMI He	0.090	ppb	14.09	136.67	1000	
Ba	137	115	HMI He	0.034	ppb	94.98	26.67	5000	
W	182	165	HMI He	0.036	ppb	124.71	1366.74	100	
Pt	195	165	HMI He	-0.003	ppb	-226.76	86.67	100	
Tl	205	165	HMI He	-0.019	ppb	-15.64	256.67	2000	
Pb	208	165	HMI He	-0.374	ppb	-1.05	1613.39	5000	
Th	232	165	HMI He	0.006	ppb	59.65	290.01	2000	
U	238	165	HMI He	0.002	ppb	65.70	90.00	2000	
Li	7	45	No Gas	4.271	ppb	146.84	11589687.63	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	938311.19	1.14	865763.313333333	108.38	60	125	
Ge Internal Standard	72	HMI H2	18776381.73	2.58	18880997.7633333	99.45	60	125	
Sc (IS)	45	HMI He	1092565.22	1.00	1068382.69	102.26	60	125	
Ge Internal Standard	72	HMI He	1471120.73	0.18	1458896.69333333	100.84	60	125	
In Internal standard	115	HMI He	3796536.03	1.96	3645468.44	104.14	60	125	
Ho-165	165	HMI He	18288755.50	2.16	17933219.48	101.98	60	125	
Sc IS)	45	No Gas	128706469.95	1.81	127018650.04	101.33	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	015SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:17:50 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	007CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.022	ppb	-53.44	21.67	2000	
B	11	6	HMI H2	0.157	ppb	73.27	306.67	100	
Se	78	72	HMI H2	-0.306	ppb	-5.01	100.00	2000	
Na	23	45	HMI He	-14.586	ppb	-18.50	23459.90	400000	
Mg	24	45	HMI He	-0.979	ppb	-94.94	416.68	400000	
Al	27	45	HMI He	3.883	ppb	59.00	183.34	400000	
K	39	45	HMI He	-9.800	ppb	-44.35	33590.90	400000	
Ca	44	45	HMI He	1.172	ppb	293.00	83.33	400000	
V	51	72	HMI He	0.613	ppb	17.75	3303.71	2000	
Cr	52	72	HMI He	0.041	ppb	139.11	346.67	5000	
Mn	55	72	HMI He	0.049	ppb	33.37	120.00	10000	
Fe	57	72	HMI He	3.906	ppb	32.36	276.67	400000	
Co	59	72	HMI He	-0.003	ppb	-99.17	10.00	2000	
Ni	60	72	HMI He	-0.021	ppb	-275.11	240.01	5000	
Cu	63	72	HMI He	-0.186	ppb	-7.83	1760.12	5000	
Zn	66	72	HMI He	0.802	ppb	37.17	690.03	5000	
As	75	72	HMI He	-0.013	ppb	-102.28	29.41	2000	
Sr	88	45	HMI He	-0.007	ppb	-334.81	26.67	2000	
Zr	90	72	HMI He	-1.171	ppb	-242.23	106.67	1000	
Nb	93	72	HMI He	0.018	ppb	55.76	143.33	200	
Mo	95	115	HMI He	0.028	ppb	38.58	83.33	2000	
Pd	105	115	HMI He	-0.092	ppb	-17.35	216.67	100	
Ag	107	115	HMI He	0.008	ppb	72.58	53.33	100	
Cd	111	115	HMI He	0.012	ppb	184.89	13.33	2000	
Sn	120	115	HMI He	-0.018	ppb	-269.73	270.01	2000	
Sb	121	115	HMI He	0.031	ppb	37.45	66.67	1000	
Ba	137	115	HMI He	-0.002	ppb	-1479.90	13.33	5000	
W	182	165	HMI He	0.002	ppb	1747.93	1180.06	100	
Pt	195	165	HMI He	-0.009	ppb	-121.58	56.67	100	
Tl	205	165	HMI He	-0.023	ppb	-40.70	216.67	2000	
Pb	208	165	HMI He	-0.376	ppb	-2.94	1580.06	5000	
Th	232	165	HMI He	0.004	ppb	123.19	256.67	2000	
U	238	165	HMI He	0.003	ppb	58.08	106.67	2000	
Li	7	45	No Gas	1.183	ppb	538.59	11502683.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	900795.40	1.84	865763.313333333	104.05	60	125	
Ge Internal Standard	72	HMI H2	19237162.75	2.67	18880997.7633333	101.89	60	125	
Sc (IS)	45	HMI He	1101942.72	1.21	1068382.69	103.14	60	125	
Ge Internal Standard	72	HMI He	1503260.04	1.92	1458896.69333333	103.04	60	125	
In Internal standard	115	HMI He	3842892.34	1.44	3645468.44	105.42	60	125	
Ho-165	165	HMI He	18217671.34	0.78	17933219.48	101.59	60	125	
Sc IS)	45	No Gas	128856116.61	0.89	127018650.04	101.45	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	016CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:21:16 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	134938.26	ppb	1.81
Be	9	6	HMI H2	8.33	ppb	34.64
B	11	6	HMI H2	296.68	ppb	16.97
Se	78	72	HMI H2	120.00	ppb	37.86
Na	23	45	HMI He	44960.07	ppb	1.71
Mg	24	45	HMI He	766.69	ppb	9.61
Al	27	45	HMI He	223.33	ppb	15.72
K	39	45	HMI He	35197.57	ppb	2.92
Ca	44	45	HMI He	186.67	ppb	6.19
V	51	72	HMI He	3123.68	ppb	11.99
Cr	52	72	HMI He	346.68	ppb	14.52
Mn	55	72	HMI He	170.00	ppb	25.64
Fe	57	72	HMI He	403.35	ppb	21.09
Co	59	72	HMI He	70.00	ppb	0.00
Ni	60	72	HMI He	400.01	ppb	10.90
Cu	63	72	HMI He	6057.88	ppb	2.65
Zn	66	72	HMI He	1513.43	ppb	3.64
As	75	72	HMI He	40.52	ppb	20.15
Sr	88	45	HMI He	50.00	ppb	40.00
Zr	90	72	HMI He	170.00	ppb	5.88
Nb	93	72	HMI He	93.33	ppb	16.37
Mo	95	115	HMI He	63.33	ppb	32.87
Pd	105	115	HMI He	166.67	ppb	36.17
Ag	107	115	HMI He	46.67	ppb	44.61
Cd	111	115	HMI He	6.67	ppb	86.60
Sn	120	115	HMI He	520.02	ppb	5.77
Sb	121	115	HMI He	93.33	ppb	26.96
Ba	137	115	HMI He	66.67	ppb	75.50
W	182	165	HMI He	1230.07	ppb	6.14
Pt	195	165	HMI He	80.00	ppb	57.28
Tl	205	165	HMI He	383.34	ppb	6.56
Pb	208	165	HMI He	1883.41	ppb	10.04
Th	232	165	HMI He	273.34	ppb	31.97
U	238	165	HMI He	306.67	ppb	30.30
Li	7	45	No Gas	11593214.71	ppb	0.57

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	965331.59	3.77
Ge Internal Standard	72	HMI H2	19002166.30	1.13
Sc (IS)	45	HMI He	1111221.06	1.44
Ge Internal Standard	72	HMI He	1497634.46	1.89
In Internal standard	115	HMI He	3747839.21	0.80
Ho-165	165	HMI He	18195114.68	1.75
Sc IS)	45	No Gas	127127773.37	2.03

Calibration Standard Report

Sample Name	IC-4905894
File Name	017CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:24:43 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	520232.09	ppb	1.00
Be	9	6	HMI H2	49908.02	ppb	1.88
B	11	6	HMI H2	66386.76	ppb	2.86
Se	78	72	HMI H2	46480.08	ppb	1.18
Na	23	45	HMI He	2808264.59	ppb	3.30
Mg	24	45	HMI He	1169359.87	ppb	0.28
Al	27	45	HMI He	264080.11	ppb	0.86
K	39	45	HMI He	662654.17	ppb	1.64
Ca	44	45	HMI He	34543.02	ppb	3.61
V	51	72	HMI He	152712.92	ppb	3.10
Cr	52	72	HMI He	200050.72	ppb	0.54
Mn	55	72	HMI He	69326.39	ppb	0.63
Fe	57	72	HMI He	362452.80	ppb	0.81
Co	59	72	HMI He	362766.51	ppb	0.23
Ni	60	72	HMI He	102651.20	ppb	2.34
Cu	63	72	HMI He	288515.39	ppb	1.88
Zn	66	72	HMI He	37961.20	ppb	2.03
As	75	72	HMI He	26408.38	ppb	0.89
Sr	88	45	HMI He	65634.56	ppb	3.61
Zr	90	72	HMI He	1493.43	ppb	4.09
Nb	93	72	HMI He	1031627.69	ppb	0.21
Mo	95	115	HMI He	127032.93	ppb	0.94
Pd	105	115	HMI He	197643.90	ppb	0.79
Ag	107	115	HMI He	431929.53	ppb	3.72
Cd	111	115	HMI He	51979.13	ppb	1.55
Sn	120	115	HMI He	127654.68	ppb	1.59
Sb	121	115	HMI He	116269.48	ppb	1.67
Ba	137	115	HMI He	38210.74	ppb	0.55
W	182	165	HMI He	521563.84	ppb	2.39
Pt	195	165	HMI He	433752.61	ppb	1.11
Tl	205	165	HMI He	901544.02	ppb	0.70
Pb	208	165	HMI He	1177015.98	ppb	0.69
Th	232	165	HMI He	1283849.09	ppb	1.32
U	238	165	HMI He	1398044.33	ppb	1.92
Li	7	45	No Gas	43899411.46	ppb	1.47

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	955828.04	4.28	965331.59	99.02	60	125	
Ge Internal Standard	72	HMI H2	18429460.50	1.39	19002166.3033333	96.99	60	125	
Sc (IS)	45	HMI He	1071857.73	1.34	1111221.06	96.46	60	125	
Ge Internal Standard	72	HMI He	1427043.83	0.61	1497634.46333333	95.29	60	125	
In Internal standard	115	HMI He	3628162.71	3.29	3747839.20666667	96.81	60	125	
Ho-165	165	HMI He	17712250.74	1.59	18195114.6766667	97.35	60	125	
Sc IS)	45	No Gas	123802334.38	1.02	127127773.366667	97.38	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	018_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:29:15 AM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	422.403	ppb	4.92	292457.96	40	1056.01	90	110	>+\-10%
Be	9	6	HMI H2	45.747	ppb	4.01	20208.73	40	114.37	90	110	>+\-10%
B	11	6	HMI H2	33.224	ppb	3.85	19694.97	40	83.06	90	110	>+\-10%
Se	78	72	HMI H2	40.247	ppb	2.28	18851.05	40	100.62	90	110	
Na	23	45	HMI He	3809.474	ppb	3.46	1095006.63	4000	95.24	90	110	
Mg	24	45	HMI He	4025.931	ppb	3.23	470390.12	4000	100.65	90	110	
Al	27	45	HMI He	7973.265	ppb	4.92	210208.33	4000	199.33	90	110	>+\-10%
K	39	45	HMI He	3979.787	ppb	4.88	283608.84	4000	99.49	90	110	
Ca	44	45	HMI He	4089.414	ppb	4.48	14212.90	4000	102.24	90	110	
V	51	72	HMI He	40.521	ppb	2.64	65359.82	40	101.3	90	110	
Cr	52	72	HMI He	39.743	ppb	1.79	81852.82	40	99.36	90	110	
Mn	55	72	HMI He	39.235	ppb	4.65	28024.18	40	98.09	90	110	
Fe	57	72	HMI He	7807.542	ppb	3.49	290623.56	4000	195.19	90	110	>+\-10%
Co	59	72	HMI He	38.603	ppb	3.61	143811.02	40	96.51	90	110	
Ni	60	72	HMI He	39.620	ppb	3.85	41987.34	40	99.05	90	110	
Cu	63	72	HMI He	39.027	ppb	2.71	119246.50	40	97.57	90	110	
Zn	66	72	HMI He	38.494	ppb	2.98	15914.57	40	96.23	90	110	
As	75	72	HMI He	39.248	ppb	3.85	10665.63	40	98.12	90	110	
Sr	88	45	HMI He	40.938	ppb	1.81	26859.39	40	102.35	90	110	
Zr	90	72	HMI He	5.108	ppb	61.23	236.67	40	12.77	90	110	>+\-10%
Nb	93	72	HMI He	76.636	ppb	1.90	405976.45	80	95.8	90	110	
Mo	95	115	HMI He	40.671	ppb	2.03	51583.50	40	101.68	90	110	
Pd	105	115	HMI He	40.302	ppb	1.96	79556.27	40	100.76	90	110	
Ag	107	115	HMI He	37.774	ppb	3.32	162856.39	40	94.44	90	110	
Cd	111	115	HMI He	40.270	ppb	6.78	20860.68	40	100.67	90	110	
Sn	120	115	HMI He	40.043	ppb	3.59	51260.61	40	100.11	90	110	
Sb	121	115	HMI He	41.183	ppb	2.79	47816.46	40	102.96	90	110	
Ba	137	115	HMI He	38.808	ppb	3.78	14830.65	40	97.02	90	110	
W	182	165	HMI He	78.920	ppb	4.40	419144.66	40	197.3	90	110	>+\-10%
Pt	195	165	HMI He	38.497	ppb	2.99	170045.65	40	96.24	90	110	
Tl	205	165	HMI He	38.933	ppb	2.76	357547.85	40	97.33	90	110	
Pb	208	165	HMI He	39.784	ppb	3.45	477771.26	40	99.46	90	110	
Th	232	165	HMI He	39.577	ppb	2.48	517436.24	40	98.94	90	110	
U	238	165	HMI He	38.855	ppb	4.02	553072.56	40	97.14	90	110	
Li	7	45	No Gas	441.368	ppb	0.93	25711480.12	40	1103.42	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	845319.93	3.88	965331.59	87.57	60	125	
Ge Internal Standard	72	HMI H2	18503948.41	1.25	19002166.3033333	97.38	60	125	
Sc (IS)	45	HMI He	1070222.60	1.70	1111221.06	96.31	60	125	
Ge Internal Standard	72	HMI He	1465743.66	2.07	1497634.46333333	97.87	60	125	
In Internal standard	115	HMI He	3617189.47	2.54	3747839.20666667	96.51	60	125	
Ho-165	165	HMI He	18034443.85	2.30	18195114.6766667	99.12	60	125	
Sc IS)	45	No Gas	123917698.54	0.41	127127773.366667	97.47	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	019_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:33:09 AM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	434.042	ppb	2.24	293776.55	40	1085.1	90	110	>+\-10%
Be	9	6	HMI H2	44.613	ppb	9.61	19661.43	40	111.53	90	110	>+\-10%
B	11	6	HMI H2	32.717	ppb	6.49	19364.68	40	81.79	90	110	>+\-10%
Se	78	72	HMI H2	39.881	ppb	2.76	18625.48	40	99.7	90	110	
Na	23	45	HMI He	3802.807	ppb	0.94	1107275.89	4000	95.07	90	110	
Mg	24	45	HMI He	3975.624	ppb	1.27	470535.82	4000	99.39	90	110	
Al	27	45	HMI He	8025.912	ppb	1.19	214362.63	4000	200.65	90	110	>+\-10%
K	39	45	HMI He	4016.917	ppb	1.07	289657.66	4000	100.42	90	110	
Ca	44	45	HMI He	4043.739	ppb	1.06	14229.62	4000	101.09	90	110	
V	51	72	HMI He	40.057	ppb	2.24	64225.70	40	100.14	90	110	
Cr	52	72	HMI He	39.740	ppb	3.26	81277.22	40	99.35	90	110	
Mn	55	72	HMI He	39.532	ppb	5.11	28040.84	40	98.83	90	110	
Fe	57	72	HMI He	7813.471	ppb	0.59	288982.94	4000	195.34	90	110	>+\-10%
Co	59	72	HMI He	39.916	ppb	2.13	147711.81	40	99.79	90	110	
Ni	60	72	HMI He	40.593	ppb	0.65	42732.85	40	101.48	90	110	
Cu	63	72	HMI He	39.750	ppb	1.39	120525.23	40	99.37	90	110	
Zn	66	72	HMI He	37.519	ppb	1.59	15444.18	40	93.8	90	110	
As	75	72	HMI He	40.062	ppb	4.13	10810.80	40	100.15	90	110	
Sr	88	45	HMI He	39.834	ppb	2.05	26458.85	40	99.58	90	110	
Zr	90	72	HMI He	8.226	ppb	31.59	276.68	40	20.57	90	110	>+\-10%
Nb	93	72	HMI He	78.466	ppb	1.55	412848.17	80	98.08	90	110	
Mo	95	115	HMI He	39.179	ppb	1.34	51817.82	40	97.95	90	110	
Pd	105	115	HMI He	40.249	ppb	0.40	82856.00	40	100.62	90	110	
Ag	107	115	HMI He	36.538	ppb	0.59	164315.29	40	91.35	90	110	
Cd	111	115	HMI He	38.213	ppb	0.81	20657.04	40	95.53	90	110	
Sn	120	115	HMI He	39.123	ppb	1.65	52260.73	40	97.81	90	110	
Sb	121	115	HMI He	40.160	ppb	1.51	48632.65	40	100.4	90	110	
Ba	137	115	HMI He	37.845	ppb	3.88	15084.21	40	94.61	90	110	
W	182	165	HMI He	80.764	ppb	2.06	424620.77	40	201.91	90	110	>+\-10%
Pt	195	165	HMI He	38.856	ppb	1.88	169897.61	40	97.14	90	110	
Tl	205	165	HMI He	39.276	ppb	2.49	357060.40	40	98.19	90	110	
Pb	208	165	HMI He	40.447	ppb	2.02	480972.42	40	101.12	90	110	
Th	232	165	HMI He	40.225	ppb	2.70	520573.25	40	100.56	90	110	
U	238	165	HMI He	39.715	ppb	1.83	559708.39	40	99.29	90	110	
Li	7	45	No Gas	441.791	ppb	4.04	26104270.10	40	1104.48	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	845069.59	5.07	965331.59	87.54	60	125	
Ge Internal Standard	72	HMI H2	18448946.54	0.96	19002166.3033333	97.09	60	125	
Sc (IS)	45	HMI He	1083661.21	0.72	1111221.06	97.52	60	125	
Ge Internal Standard	72	HMI He	1455715.93	2.03	1497634.46333333	97.2	60	125	
In Internal standard	115	HMI He	3771066.51	0.84	3747839.20666667	100.62	60	125	
Ho-165	165	HMI He	17849450.74	1.47	18195114.6766667	98.1	60	125	
Sc IS)	45	No Gas	125739162.61	0.70	127127773.366667	98.91	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	020SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:37:19 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.030	ppb	80.12	23.33	2000	
B	11	6	HMI H2	0.986	ppb	17.42	933.37	100	
Se	78	72	HMI H2	-0.088	ppb	-40.48	77.33	2000	
Na	23	45	HMI He	-80.120	ppb	-1.61	21964.55	400000	
Mg	24	45	HMI He	-3.402	ppb	-10.71	353.34	400000	
Al	27	45	HMI He	1.594	ppb	70.09	266.67	400000	
K	39	45	HMI He	2.172	ppb	970.99	35311.25	400000	
Ca	44	45	HMI He	-28.900	ppb	-69.58	83.33	400000	
V	51	72	HMI He	0.852	ppb	17.16	4490.68	2000	
Cr	52	72	HMI He	0.021	ppb	310.73	393.35	5000	
Mn	55	72	HMI He	-0.130	ppb	-57.53	76.67	10000	
Fe	57	72	HMI He	-1.716	ppb	-179.20	340.01	400000	
Co	59	72	HMI He	-0.011	ppb	-42.77	30.00	2000	
Ni	60	72	HMI He	-0.160	ppb	-24.37	230.01	5000	
Cu	63	72	HMI He	-1.426	ppb	-0.61	1836.80	5000	
Zn	66	72	HMI He	-1.760	ppb	-9.93	843.37	5000	
As	75	72	HMI He	-0.036	ppb	-117.18	30.72	2000	
Sr	88	45	HMI He	-0.020	ppb	-219.56	36.67	2000	
Zr	90	72	HMI He	-1.489	ppb	-222.07	150.00	1000	
Nb	93	72	HMI He	0.488	ppb	7.13	2753.61	200	
Mo	95	115	HMI He	0.025	ppb	101.80	96.67	2000	
Pd	105	115	HMI He	0.037	ppb	75.26	243.34	100	
Ag	107	115	HMI He	0.001	ppb	836.45	50.00	100	
Cd	111	115	HMI He	0.012	ppb	177.03	13.33	2000	
Sn	120	115	HMI He	-0.099	ppb	-79.94	390.01	2000	
Sb	121	115	HMI He	0.535	ppb	16.01	740.03	1000	
Ba	137	115	HMI He	-0.094	ppb	-72.22	30.00	5000	
W	182	165	HMI He	0.070	ppb	13.11	1636.77	100	
Pt	195	165	HMI He	0.003	ppb	207.35	93.33	100	
Tl	205	165	HMI He	-0.003	ppb	-148.71	360.01	2000	
Pb	208	165	HMI He	-0.026	ppb	-58.12	1603.39	5000	
Th	232	165	HMI He	0.023	ppb	39.77	583.35	2000	
U	238	165	HMI He	-0.016	ppb	-2.65	86.67	2000	
Li	7	45	No Gas	-11.267	ppb	-18.06	11348156.80	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	945025.52	3.42	965331.59	97.9	60	125	
Ge Internal Standard	72	HMI H2	18808382.14	1.98	19002166.3033333	98.98	60	125	
Sc (IS)	45	HMI He	1110289.04	0.82	1111221.06	99.92	60	125	
Ge Internal Standard	72	HMI He	1505924.39	0.77	1497634.46333333	100.55	60	125	
In Internal standard	115	HMI He	3766260.30	2.53	3747839.20666667	100.49	60	125	
Ho-165	165	HMI He	18526558.62	0.32	18195114.6766667	101.82	60	125	
Sc IS)	45	No Gas	128589209.96	1.79	127127773.366667	101.15	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	021SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:40:45 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.014	ppb	67.37	15.00	2000	
B	11	6	HMI H2	0.696	ppb	25.82	730.03	100	
Se	78	72	HMI H2	-0.112	ppb	-57.90	66.67	2000	
Na	23	45	HMI He	-81.051	ppb	-4.16	21841.04	400000	
Mg	24	45	HMI He	-3.584	ppb	-15.89	333.34	400000	
Al	27	45	HMI He	-2.487	ppb	-93.90	156.67	400000	
K	39	45	HMI He	9.569	ppb	50.97	36049.34	400000	
Ca	44	45	HMI He	-16.189	ppb	-31.16	130.00	400000	
V	51	72	HMI He	0.678	ppb	17.56	4320.64	2000	
Cr	52	72	HMI He	-0.024	ppb	-203.34	303.34	5000	
Mn	55	72	HMI He	-0.055	ppb	-103.19	133.33	10000	
Fe	57	72	HMI He	-3.960	ppb	-4.77	260.01	400000	
Co	59	72	HMI He	-0.013	ppb	-51.12	20.00	2000	
Ni	60	72	HMI He	-0.193	ppb	-24.33	200.00	5000	
Cu	63	72	HMI He	-1.444	ppb	-2.84	1826.80	5000	
Zn	66	72	HMI He	-1.992	ppb	-17.56	773.36	5000	
As	75	72	HMI He	-0.035	ppb	-125.43	32.03	2000	
Sr	88	45	HMI He	-0.021	ppb	-329.41	36.67	2000	
Zr	90	72	HMI He	-4.267	ppb	-98.75	113.33	1000	
Nb	93	72	HMI He	0.164	ppb	16.82	1010.05	200	
Mo	95	115	HMI He	0.018	ppb	71.49	90.00	2000	
Pd	105	115	HMI He	0.016	ppb	151.95	206.67	100	
Ag	107	115	HMI He	-0.003	ppb	-176.88	36.67	100	
Cd	111	115	HMI He	0.000	ppb	-4182.56	6.67	2000	
Sn	120	115	HMI He	-0.145	ppb	-79.20	343.35	2000	
Sb	121	115	HMI He	0.290	ppb	18.17	460.01	1000	
Ba	137	115	HMI He	-0.088	ppb	-115.77	33.33	5000	
W	182	165	HMI He	0.042	ppb	102.91	1476.76	100	
Pt	195	165	HMI He	-0.006	ppb	-92.29	53.33	100	
Tl	205	165	HMI He	-0.021	ppb	-2.07	186.67	2000	
Pb	208	165	HMI He	-0.044	ppb	-39.68	1366.71	5000	
Th	232	165	HMI He	0.010	ppb	88.27	416.68	2000	
U	238	165	HMI He	-0.016	ppb	-13.12	73.33	2000	
Li	7	45	No Gas	-13.168	ppb	-50.88	11587853.98	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	928266.96	4.64	965331.59	96.16	60	125	
Ge Internal Standard	72	HMI H2	18984706.09	2.96	19002166.3033333	99.91	60	125	
Sc (IS)	45	HMI He	1117996.53	1.55	1111221.06	100.61	60	125	
Ge Internal Standard	72	HMI He	1543592.94	2.09	1497634.46333333	103.07	60	125	
In Internal standard	115	HMI He	3904006.60	0.63	3747839.20666667	104.17	60	125	
Ho-165	165	HMI He	18431986.74	1.07	18195114.6766667	101.3	60	125	
Sc IS)	45	No Gas	132068313.11	2.18	127127773.366667	103.89	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	022SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:44:11 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	016CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.029	ppb	20.10	21.67	2000	
B	11	6	HMI H2	0.408	ppb	37.31	536.68	100	
Se	78	72	HMI H2	-0.122	ppb	-44.13	62.67	2000	
Na	23	45	HMI He	-82.258	ppb	-2.01	21560.63	400000	
Mg	24	45	HMI He	-3.485	ppb	-13.44	346.68	400000	
Al	27	45	HMI He	-0.785	ppb	-286.81	203.34	400000	
K	39	45	HMI He	2.894	ppb	1220.88	35698.80	400000	
Ca	44	45	HMI He	-27.301	ppb	-37.50	90.00	400000	
V	51	72	HMI He	0.273	ppb	39.49	3640.46	2000	
Cr	52	72	HMI He	-0.033	ppb	-90.13	283.34	5000	
Mn	55	72	HMI He	-0.118	ppb	-35.01	86.67	10000	
Fe	57	72	HMI He	-4.941	ppb	-44.82	220.00	400000	
Co	59	72	HMI He	-0.014	ppb	-10.45	16.67	2000	
Ni	60	72	HMI He	-0.112	ppb	-17.03	286.68	5000	
Cu	63	72	HMI He	-1.466	ppb	-1.35	1750.12	5000	
Zn	66	72	HMI He	-2.021	ppb	-14.84	756.70	5000	
As	75	72	HMI He	-0.041	ppb	-76.58	30.07	2000	
Sr	88	45	HMI He	-0.030	ppb	-95.39	30.00	2000	
Zr	90	72	HMI He	-3.306	ppb	-69.67	126.67	1000	
Nb	93	72	HMI He	0.107	ppb	34.49	690.03	200	
Mo	95	115	HMI He	0.011	ppb	288.19	80.00	2000	
Pd	105	115	HMI He	0.014	ppb	172.13	200.00	100	
Ag	107	115	HMI He	-0.006	ppb	-69.34	20.00	100	
Cd	111	115	HMI He	-0.012	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.189	ppb	-32.33	280.01	2000	
Sb	121	115	HMI He	0.117	ppb	49.08	240.01	1000	
Ba	137	115	HMI He	-0.112	ppb	-25.60	23.33	5000	
W	182	165	HMI He	0.002	ppb	1555.50	1256.73	100	
Pt	195	165	HMI He	0.001	ppb	228.88	83.33	100	
Tl	205	165	HMI He	-0.015	ppb	-19.29	246.67	2000	
Pb	208	165	HMI He	-0.020	ppb	-52.89	1663.40	5000	
Th	232	165	HMI He	0.004	ppb	37.97	326.68	2000	
U	238	165	HMI He	-0.017	ppb	-11.74	63.33	2000	
Li	7	45	No Gas	-11.380	ppb	-50.18	11679118.45	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	912864.69	6.77	965331.59	94.56	60	125	
Ge Internal Standard	72	HMI H2	19270775.25	2.73	19002166.3033333	101.41	60	125	
Sc (IS)	45	HMI He	1121091.06	1.01	1111221.06	100.89	60	125	
Ge Internal Standard	72	HMI He	1533241.29	0.83	1497634.46333333	102.38	60	125	
In Internal standard	115	HMI He	3852149.74	2.45	3747839.20666667	102.78	60	125	
Ho-165	165	HMI He	18369139.87	2.73	18195114.6766667	100.96	60	125	
Sc IS)	45	No Gas	132392686.43	0.97	127127773.366667	104.14	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	023CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:47:38 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	023CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	135080.02	ppb	0.49
Be	9	6	HMI H2	8.33	ppb	34.64
B	11	6	HMI H2	400.01	ppb	15.61
Se	78	72	HMI H2	90.67	ppb	50.75
Na	23	45	HMI He	24694.91	ppb	4.50
Mg	24	45	HMI He	363.34	ppb	19.33
Al	27	45	HMI He	110.00	ppb	18.18
K	39	45	HMI He	37449.06	ppb	3.69
Ca	44	45	HMI He	186.67	ppb	32.29
V	51	72	HMI He	3397.07	ppb	11.50
Cr	52	72	HMI He	293.34	ppb	35.48
Mn	55	72	HMI He	176.67	ppb	25.52
Fe	57	72	HMI He	190.01	ppb	27.85
Co	59	72	HMI He	16.67	ppb	91.65
Ni	60	72	HMI He	330.01	ppb	30.30
Cu	63	72	HMI He	2303.52	ppb	10.85
Zn	66	72	HMI He	680.02	ppb	6.41
As	75	72	HMI He	37.91	ppb	10.78
Sr	88	45	HMI He	70.00	ppb	74.23
Zr	90	72	HMI He	143.33	ppb	44.31
Nb	93	72	HMI He	363.34	ppb	20.29
Mo	95	115	HMI He	40.00	ppb	75.00
Pd	105	115	HMI He	130.00	ppb	20.35
Ag	107	115	HMI He	16.67	ppb	69.28
Cd	111	115	HMI He	20.00	ppb	86.60
Sn	120	115	HMI He	306.68	ppb	23.59
Sb	121	115	HMI He	126.67	ppb	24.12
Ba	137	115	HMI He	16.67	ppb	124.90
W	182	165	HMI He	1286.74	ppb	7.22
Pt	195	165	HMI He	70.00	ppb	51.51
Tl	205	165	HMI He	163.33	ppb	12.74
Pb	208	165	HMI He	3813.59	ppb	3.06
Th	232	165	HMI He	266.68	ppb	20.65
U	238	165	HMI He	76.67	ppb	7.53
Li	7	45	No Gas	12098076.24	ppb	2.72

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	887835.81	2.62
Ge Internal Standard	72	HMI H2	19267350.66	2.15
Sc (IS)	45	HMI He	1155296.50	1.43
Ge Internal Standard	72	HMI He	1528376.03	1.47
In Internal standard	115	HMI He	3902071.03	1.13
Ho-165	165	HMI He	18646711.73	0.77
Sc IS)	45	No Gas	135643441.26	2.03

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	024CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:52:30 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	024CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	132106.68	ppb	1.61
Be	9	6	HMI H2	11.67	ppb	89.21
B	11	6	HMI H2	356.70	ppb	47.70
Se	78	72	HMI H2	72.00	ppb	33.79
Na	23	45	HMI He	31937.21	ppb	0.40
Mg	24	45	HMI He	663.35	ppb	6.80
Al	27	45	HMI He	160.00	ppb	70.44
K	39	45	HMI He	38732.25	ppb	3.89
Ca	44	45	HMI He	130.00	ppb	73.38
V	51	72	HMI He	3417.07	ppb	5.43
Cr	52	72	HMI He	360.01	ppb	20.97
Mn	55	72	HMI He	126.67	ppb	22.79
Fe	57	72	HMI He	476.68	ppb	8.73
Co	59	72	HMI He	26.67	ppb	43.30
Ni	60	72	HMI He	323.34	ppb	18.64
Cu	63	72	HMI He	4110.57	ppb	11.86
Zn	66	72	HMI He	1103.39	ppb	6.43
As	75	72	HMI He	33.33	ppb	31.13
Sr	88	45	HMI He	30.00	ppb	0.00
Zr	90	72	HMI He	130.00	ppb	67.06
Nb	93	72	HMI He	356.68	ppb	11.33
Mo	95	115	HMI He	50.00	ppb	52.92
Pd	105	115	HMI He	136.67	ppb	32.99
Ag	107	115	HMI He	33.33	ppb	69.28
Cd	111	115	HMI He	6.67	ppb	173.21
Sn	120	115	HMI He	403.35	ppb	12.48
Sb	121	115	HMI He	136.67	ppb	37.55
Ba	137	115	HMI He	40.00	ppb	50.00
W	182	165	HMI He	1173.40	ppb	7.15
Pt	195	165	HMI He	110.00	ppb	9.09
Tl	205	165	HMI He	260.01	ppb	16.77
Pb	208	165	HMI He	1690.06	ppb	8.13
Th	232	165	HMI He	306.68	ppb	28.11
U	238	165	HMI He	220.01	ppb	39.63
Li	7	45	No Gas	12189728.84	ppb	0.93

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	891987.52	7.75
Ge Internal Standard	72	HMI H2	19286944.83	1.57
Sc (IS)	45	HMI He	1167476.50	1.24
Ge Internal Standard	72	HMI He	1599819.64	2.43
In Internal standard	115	HMI He	3931844.24	0.92
Ho-165	165	HMI He	18618400.49	1.79
Sc IS)	45	No Gas	137159197.85	1.17

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	025CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:56:22 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	136282.30	ppb	2.08
Be	9	6	HMI H2	13.33	ppb	57.28
B	11	6	HMI H2	183.33	ppb	3.15
Se	78	72	HMI H2	80.00	ppb	39.69
Na	23	45	HMI He	59448.31	ppb	3.06
Mg	24	45	HMI He	1060.05	ppb	19.27
Al	27	45	HMI He	120.00	ppb	8.33
K	39	45	HMI He	40526.31	ppb	2.09
Ca	44	45	HMI He	123.33	ppb	32.77
V	51	72	HMI He	3357.07	ppb	10.41
Cr	52	72	HMI He	356.68	ppb	8.57
Mn	55	72	HMI He	233.34	ppb	10.79
Fe	57	72	HMI He	166.67	ppb	17.32
Co	59	72	HMI He	43.33	ppb	26.65
Ni	60	72	HMI He	2176.84	ppb	8.87
Cu	63	72	HMI He	4704.06	ppb	5.97
Zn	66	72	HMI He	1063.38	ppb	15.52
As	75	72	HMI He	40.52	ppb	60.50
Sr	88	45	HMI He	46.67	ppb	12.37
Zr	90	72	HMI He	150.00	ppb	34.64
Nb	93	72	HMI He	306.68	ppb	15.41
Mo	95	115	HMI He	46.67	ppb	81.13
Pd	105	115	HMI He	220.01	ppb	13.64
Ag	107	115	HMI He	43.33	ppb	74.18
Cd	111	115	HMI He	6.67	ppb	86.60
Sn	120	115	HMI He	523.35	ppb	2.92
Sb	121	115	HMI He	96.67	ppb	46.65
Ba	137	115	HMI He	26.67	ppb	94.37
W	182	165	HMI He	1280.07	ppb	16.41
Pt	195	165	HMI He	106.67	ppb	35.49
Tl	205	165	HMI He	220.00	ppb	24.05
Pb	208	165	HMI He	2203.43	ppb	3.09
Th	232	165	HMI He	323.34	ppb	35.85
U	238	165	HMI He	173.34	ppb	35.25
Li	7	45	No Gas	12081939.79	ppb	1.13

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	958690.56	1.52
Ge Internal Standard	72	HMI H2	19448588.57	2.47
Sc (IS)	45	HMI He	1169335.93	0.94
Ge Internal Standard	72	HMI He	1552068.10	1.17
In Internal standard	115	HMI He	3963230.64	2.06
Ho-165	165	HMI He	18155167.59	0.76
Sc IS)	45	No Gas	136133576.24	1.44

Calibration Standard Report

Sample Name	IC-4905894
File Name	026CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:00:42 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	513085.84	ppb	5.13
Be	9	6	HMI H2	50178.78	ppb	0.75
B	11	6	HMI H2	65125.24	ppb	3.35
Se	78	72	HMI H2	48314.79	ppb	1.21
Na	23	45	HMI He	2799617.77	ppb	1.73
Mg	24	45	HMI He	1218955.57	ppb	2.24
Al	27	45	HMI He	269283.72	ppb	0.87
K	39	45	HMI He	681497.71	ppb	1.01
Ca	44	45	HMI He	35922.50	ppb	3.71
V	51	72	HMI He	158395.24	ppb	2.31
Cr	52	72	HMI He	204663.42	ppb	0.38
Mn	55	72	HMI He	70470.97	ppb	1.36
Fe	57	72	HMI He	373307.62	ppb	2.09
Co	59	72	HMI He	372989.31	ppb	1.02
Ni	60	72	HMI He	107061.75	ppb	2.20
Cu	63	72	HMI He	298981.62	ppb	1.48
Zn	66	72	HMI He	37650.40	ppb	3.35
As	75	72	HMI He	27575.71	ppb	1.05
Sr	88	45	HMI He	67753.06	ppb	1.03
Zr	90	72	HMI He	1236.73	ppb	11.84
Nb	93	72	HMI He	1072193.16	ppb	1.36
Mo	95	115	HMI He	132877.83	ppb	1.94
Pd	105	115	HMI He	203722.63	ppb	1.35
Ag	107	115	HMI He	446693.54	ppb	1.53
Cd	111	115	HMI He	53346.98	ppb	1.96
Sn	120	115	HMI He	132927.72	ppb	2.32
Sb	121	115	HMI He	119970.69	ppb	0.59
Ba	137	115	HMI He	37966.88	ppb	0.89
W	182	165	HMI He	528244.21	ppb	2.69
Pt	195	165	HMI He	432519.69	ppb	0.91
Tl	205	165	HMI He	901170.55	ppb	1.23
Pb	208	165	HMI He	1188839.40	ppb	1.29
Th	232	165	HMI He	1280724.06	ppb	1.68
U	238	165	HMI He	1381980.37	ppb	2.05
Li	7	45	No Gas	44321497.69	ppb	1.20

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	902922.77	6.27	958690.556666667	94.18	60	125	
Ge Internal Standard	72	HMI H2	19083809.21	0.82	19448588.5666667	98.12	60	125	
Sc (IS)	45	HMI He	1107753.69	2.31	1169335.93	94.73	60	125	
Ge Internal Standard	72	HMI He	1480146.07	1.68	1552068.09666667	95.37	60	125	
In Internal standard	115	HMI He	3814516.61	1.35	3963230.63666667	96.25	60	125	
Ho-165	165	HMI He	18304185.92	2.69	18155167.5933333	100.82	60	125	
Sc IS)	45	No Gas	127222810.86	0.97	136133576.236667	93.45	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	027_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:04:30 PM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	438.564	ppb	4.05	301467.27	40	1096.41	90	110	>+\-10%
Be	9	6	HMI H2	41.895	ppb	5.21	20477.35	40	104.74	90	110	
B	11	6	HMI H2	31.767	ppb	6.94	20275.66	40	79.42	90	110	>+\-10%
Se	78	72	HMI H2	38.590	ppb	4.78	18278.40	40	96.47	90	110	
Na	23	45	HMI He	3906.732	ppb	1.24	1102706.15	4000	97.67	90	110	
Mg	24	45	HMI He	3950.393	ppb	2.29	471409.36	4000	98.76	90	110	
Al	27	45	HMI He	8024.303	ppb	1.10	211217.25	4000	200.61	90	110	>+\-10%
K	39	45	HMI He	3944.302	ppb	1.34	285410.30	4000	98.61	90	110	
Ca	44	45	HMI He	4002.627	ppb	6.01	14119.50	4000	100.07	90	110	
V	51	72	HMI He	39.579	ppb	0.81	62937.05	40	98.95	90	110	
Cr	52	72	HMI He	40.794	ppb	1.71	81517.87	40	101.98	90	110	
Mn	55	72	HMI He	40.548	ppb	2.74	27960.70	40	101.37	90	110	
Fe	57	72	HMI He	7976.239	ppb	1.47	290087.75	4000	199.41	90	110	>+\-10%
Co	59	72	HMI He	40.665	ppb	2.29	147768.96	40	101.66	90	110	
Ni	60	72	HMI He	38.627	ppb	2.27	41532.90	40	96.57	90	110	
Cu	63	72	HMI He	40.303	ppb	0.71	119995.22	40	100.76	90	110	
Zn	66	72	HMI He	41.114	ppb	1.12	15664.46	40	102.79	90	110	
As	75	72	HMI He	39.262	ppb	2.22	10568.16	40	98.15	90	110	
Sr	88	45	HMI He	40.976	ppb	0.69	27159.97	40	102.44	90	110	
Zr	90	72	HMI He	10.674	ppb	55.01	253.34	40	26.69	90	110	>+\-10%
Nb	93	72	HMI He	79.092	ppb	1.84	413146.03	80	98.87	90	110	
Mo	95	115	HMI He	39.542	ppb	0.74	51132.25	40	98.86	90	110	
Pd	105	115	HMI He	41.584	ppb	2.08	82521.55	40	103.96	90	110	
Ag	107	115	HMI He	37.931	ppb	3.23	164829.43	40	94.83	90	110	
Cd	111	115	HMI He	39.871	ppb	6.50	20683.77	40	99.68	90	110	
Sn	120	115	HMI He	40.576	ppb	0.77	52768.96	40	101.44	90	110	
Sb	121	115	HMI He	41.126	ppb	2.29	48047.26	40	102.82	90	110	
Ba	137	115	HMI He	39.974	ppb	1.37	14777.27	40	99.93	90	110	
W	182	165	HMI He	79.508	ppb	2.74	413252.89	40	198.77	90	110	>+\-10%
Pt	195	165	HMI He	39.098	ppb	3.32	166369.08	40	97.74	90	110	
Tl	205	165	HMI He	39.985	ppb	2.67	354564.82	40	99.96	90	110	
Pb	208	165	HMI He	40.581	ppb	3.36	475787.83	40	101.45	90	110	
Th	232	165	HMI He	40.932	ppb	2.23	515706.48	40	102.33	90	110	
U	238	165	HMI He	40.338	ppb	2.42	548273.88	40	100.84	90	110	
Li	7	45	No Gas	453.514	ppb	1.23	26199050.72	40	1133.79	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	878514.33	6.19	958690.556666667	91.64	60	125	
Ge Internal Standard	72	HMI H2	18667573.40	1.46	19448588.5666667	95.98	60	125	
Sc (IS)	45	HMI He	1082364.94	1.44	1169335.93	92.56	60	125	
Ge Internal Standard	72	HMI He	1441590.41	1.26	1552068.09666667	92.88	60	125	
In Internal standard	115	HMI He	3710268.40	1.10	3963230.63666667	93.62	60	125	
Ho-165	165	HMI He	18001214.69	2.01	18155167.5933333	99.15	60	125	
Sc IS)	45	No Gas	126871085.89	0.64	136133576.236667	93.2	60	120	

Initial Calibration Blank (ICB) Report

Sample Name	ICB-4905893
File Name	028_ICB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:07:56 PM
Sample Type	ICB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	7.223	ppb	140.93	133381.40	0.1	>RL
Be	9	6	HMI H2	0.028	ppb	24.04	26.67	0.5	
B	11	6	HMI H2	1.600	ppb	13.22	1223.40	0.1	>RL
Se	78	72	HMI H2	0.076	ppb	114.40	113.33	1	
Na	23	45	HMI He	-80.580	ppb	-1.90	34465.66	25	
Mg	24	45	HMI He	-3.026	ppb	-1.86	640.02	25	
Al	27	45	HMI He	5.360	ppb	72.73	260.00	15	
K	39	45	HMI He	-38.226	ppb	-37.24	36203.03	50	
Ca	44	45	HMI He	21.886	ppb	33.06	196.67	25	
V	51	72	HMI He	0.846	ppb	16.94	4617.39	1	
Cr	52	72	HMI He	0.041	ppb	129.86	433.34	1	
Mn	55	72	HMI He	-0.061	ppb	-27.85	183.33	0.5	
Fe	57	72	HMI He	9.784	ppb	26.38	536.68	25	
Co	59	72	HMI He	0.013	ppb	96.95	93.33	0.5	
Ni	60	72	HMI He	-1.568	ppb	-6.36	440.01	1	
Cu	63	72	HMI He	-0.069	ppb	-52.09	4380.64	1	
Zn	66	72	HMI He	0.437	ppb	50.95	1200.06	5	
As	75	72	HMI He	0.043	ppb	41.60	51.63	1	
Sr	88	45	HMI He	0.003	ppb	541.26	46.67	1	
Zr	90	72	HMI He	0.620	ppb	308.25	153.33	1	
Nb	93	72	HMI He	0.514	ppb	2.93	3120.35	2	
Mo	95	115	HMI He	0.026	ppb	53.17	80.00	0.5	
Pd	105	115	HMI He	0.028	ppb	70.42	270.00	1	
Ag	107	115	HMI He	-0.001	ppb	-304.86	36.67	1	
Cd	111	115	HMI He	0.013	ppb	221.11	13.33	0.5	
Sn	120	115	HMI He	-0.088	ppb	-56.35	386.68	1	
Sb	121	115	HMI He	0.847	ppb	16.90	1106.71	1	
Ba	137	115	HMI He	0.003	ppb	507.76	26.67	0.5	
W	182	165	HMI He	0.064	ppb	34.66	1630.11	1	
Pt	195	165	HMI He	0.028	ppb	29.02	230.00	1	
Tl	205	165	HMI He	0.024	ppb	22.57	443.35	0.1	
Pb	208	165	HMI He	0.210	ppb	7.72	4717.03	0.5	
Th	232	165	HMI He	0.031	ppb	22.46	716.69	1	
U	238	165	HMI He	0.009	ppb	10.05	300.01	0.5	
Li	7	45	No Gas	-0.977	ppb	-792.16	11620504.50	0.05	

Initial Calibration Blank (ICB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	907851.29	1.75	958690.556666667	94.7	60	125	
Ge Internal Standard	72	HMI H2	18668603.19	1.24	19448588.5666667	95.99	60	125	
Sc (IS)	45	HMI He	1115970.54	0.48	1169335.93	95.44	60	125	
Ge Internal Standard	72	HMI He	1514207.31	0.44	1552068.09666667	97.56	60	125	
In Internal standard	115	HMI He	3812615.59	1.94	3963230.63666667	96.2	60	125	
Ho-165	165	HMI He	18328000.09	2.50	18155167.5933333	100.95	60	125	
Sc IS)	45	No Gas	131324414.82	1.03	136133576.236667	96.47	60	120	

Low Level Initial Calibration Verification(LLICV) Report

Sample Name	ICVL-4905898
File Name	029LICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:11:20 PM
Sample Type	LLICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.982	ppb	18.15	526.68	1	98.19	70	130	
Se	78	72	HMI H2	4.526	ppb	7.67	2288.18	5	90.52	70	130	
Na	23	45	HMI He	-75.757	ppb	-6.61	36666.85	50	-151.51	70	130	>+/-30%
Mg	24	45	HMI He	42.932	ppb	7.26	6437.99	50	85.86	70	130	
Al	27	45	HMI He	33.254	ppb	17.28	1040.05	30	110.85	70	130	
K	39	45	HMI He	46.210	ppb	19.85	42691.72	100	46.21	70	130	>+/-30%
Ca	44	45	HMI He	40.729	ppb	106.44	270.01	50	81.46	70	130	
V	51	72	HMI He	5.197	ppb	3.72	11560.89	5	103.95	70	130	
Cr	52	72	HMI He	1.841	ppb	8.72	4207.26	2	92.03	70	130	
Mn	55	72	HMI He	0.868	ppb	23.68	853.37	1	86.82	70	130	
Fe	57	72	HMI He	49.319	ppb	13.88	2050.16	50	98.64	70	130	
Co	59	72	HMI He	0.961	ppb	6.60	3717.17	1	96.1	70	130	
Ni	60	72	HMI He	0.054	ppb	246.50	2190.18	2	2.7	70	130	>+/-30%
Cu	63	72	HMI He	1.293	ppb	17.09	8502.35	2	64.63	70	130	>+/-30%
Zn	66	72	HMI He	8.776	ppb	2.41	4340.66	10	87.76	70	130	
As	75	72	HMI He	5.048	ppb	3.78	1466.74	5	100.97	70	130	
Sr	88	45	HMI He	1.045	ppb	14.12	776.70	1	104.49	70	130	
Zr	90	72	HMI He	2.450	ppb	305.29	173.33	0.5	489.9	70	130	>+/-30%
Nb	93	72	HMI He	0.482	ppb	4.63	2950.31	2	24.11	70	130	>+/-30%
Mo	95	115	HMI He	2.065	ppb	3.97	2796.95	2	103.25	70	130	
Pd	105	115	HMI He	-0.025	ppb	-148.78	163.33	1	-2.46	70	130	>+/-30%
Ag	107	115	HMI He	5.133	ppb	1.81	23057.07	5	102.66	70	130	
Cd	111	115	HMI He	1.029	ppb	15.88	556.68	1	102.9	70	130	
Sn	120	115	HMI He	10.087	ppb	2.86	13909.67	10	100.87	70	130	
Sb	121	115	HMI He	2.330	ppb	3.71	2896.98	2	116.48	70	130	
Ba	137	115	HMI He	0.950	ppb	25.87	386.68	1	94.97	70	130	
W	182	165	HMI He	5.029	ppb	2.34	27028.06	1	502.87	70	130	>+/-30%
Pt	195	165	HMI He	0.033	ppb	10.01	243.34	1	3.3	70	130	>+/-30%
Tl	205	165	HMI He	1.073	ppb	6.50	9616.61	1	107.3	70	130	
Pb	208	165	HMI He	1.104	ppb	5.26	14903.28	1	110.42	70	130	
Th	232	165	HMI He	2.107	ppb	4.71	26548.12	2	105.34	70	130	
U	238	165	HMI He	1.057	ppb	3.64	14373.98	1	105.72	70	130	

QC ISTD Table

Low Level Initial Calibration Verification(LLICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	942177.89	4.00	958690.556666667	98.28	60	125	
Ge Internal Standard	72	HMI H2	19280939.83	3.11	19448588.5666667	99.14	60	125	
Sc (IS)	45	HMI He	1143077.42	1.19	1169335.93	97.75	60	125	
Ge Internal Standard	72	HMI He	1518518.11	1.91	1552068.09666667	97.84	60	125	
In Internal standard	115	HMI He	3827650.01	1.23	3963230.63666667	96.58	60	125	
Ho-165	165	HMI He	17799713.24	1.16	18155167.5933333	98.04	60	125	
Sc IS)	45	No Gas	131848269.79	1.27	136133576.236667	96.85	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	030SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:14:50 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.013	ppb	-103.07	11.67	2000	
B	11	6	HMI H2	0.226	ppb	55.74	586.69	100	
Se	78	72	HMI H2	-0.090	ppb	-20.37	53.33	2000	
Na	23	45	HMI He	-157.163	ppb	-4.06	20015.50	400000	
Mg	24	45	HMI He	-4.908	ppb	-15.88	613.36	400000	
Al	27	45	HMI He	41.791	ppb	116.34	1917.63	400000	
K	39	45	HMI He	-269.195	ppb	-5.54	32191.70	400000	
Ca	44	45	HMI He	-18.644	ppb	-0.93	76.67	400000	
V	51	72	HMI He	-1.008	ppb	-11.50	2513.56	2000	
Cr	52	72	HMI He	-0.069	ppb	-37.26	306.67	5000	
Mn	55	72	HMI He	-0.125	ppb	-86.66	203.34	10000	
Fe	57	72	HMI He	2.530	ppb	138.53	386.68	400000	
Co	59	72	HMI He	-0.005	ppb	-47.05	33.33	2000	
Ni	60	72	HMI He	-1.762	ppb	-2.39	346.68	5000	
Cu	63	72	HMI He	-0.982	ppb	-9.54	2440.22	5000	
Zn	66	72	HMI He	-0.769	ppb	-52.14	1120.05	5000	
As	75	72	HMI He	-0.043	ppb	-69.04	41.83	2000	
Sr	88	45	HMI He	0.007	ppb	432.46	73.33	2000	
Zr	90	72	HMI He	-3.306	ppb	-88.18	163.34	1000	
Nb	93	72	HMI He	0.060	ppb	47.71	940.06	200	
Mo	95	115	HMI He	0.007	ppb	129.07	80.00	2000	
Pd	105	115	HMI He	0.013	ppb	118.07	343.34	100	
Ag	107	115	HMI He	-0.003	ppb	-109.50	40.00	100	
Cd	111	115	HMI He	-0.012	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.166	ppb	-13.72	410.01	2000	
Sb	121	115	HMI He	0.095	ppb	101.43	293.34	1000	
Ba	137	115	HMI He	0.025	ppb	207.53	50.00	5000	
W	182	165	HMI He	0.650	ppb	115.23	6724.88	100	
Pt	195	165	HMI He	-0.012	ppb	-33.43	80.00	100	
Tl	205	165	HMI He	-0.006	ppb	-59.93	240.01	2000	
Pb	208	165	HMI He	-0.069	ppb	-23.48	2056.75	5000	
Th	232	165	HMI He	0.003	ppb	508.41	520.02	2000	
U	238	165	HMI He	-0.003	ppb	-76.97	193.33	2000	
Li	7	45	No Gas	84.302	ppb	13.95	15386853.57	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1646349.47	4.73	958690.556666667	171.73	60	125	IS Failed
Ge Internal Standard	72	HMI H2	28798698.50	3.85	19448588.5666667	148.08	60	125	IS Failed
Sc (IS)	45	HMI He	1692055.98	8.16	1169335.93	144.7	60	125	IS Failed
Ge Internal Standard	72	HMI He	2283111.05	5.62	1552068.09666667	147.1	60	125	IS Failed
In Internal standard	115	HMI He	5520300.92	6.49	3963230.63666667	139.29	60	125	IS Failed
Ho-165	165	HMI He	26800852.14	5.89	18155167.5933333	147.62	60	125	IS Failed
Sc IS)	45	No Gas	139372212.73	12.71	136133576.236667	102.38	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	031SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:18:16 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.012	ppb	-49.86	6.67	2000	
B	11	6	HMI H2	0.574	ppb	24.65	550.02	100	
Se	78	72	HMI H2	-0.079	ppb	-57.12	40.00	2000	
Na	23	45	HMI He	-128.842	ppb	-1.47	21463.82	400000	
Mg	24	45	HMI He	-5.167	ppb	-1.37	383.34	400000	
Al	27	45	HMI He	1.442	ppb	164.08	156.67	400000	
K	39	45	HMI He	-19.982	ppb	-49.93	37996.93	400000	
Ca	44	45	HMI He	-6.286	ppb	-52.47	96.67	400000	
V	51	72	HMI He	0.302	ppb	46.37	3770.49	2000	
Cr	52	72	HMI He	0.004	ppb	318.17	356.68	5000	
Mn	55	72	HMI He	-0.183	ppb	-21.84	96.67	10000	
Fe	57	72	HMI He	4.201	ppb	42.83	323.34	400000	
Co	59	72	HMI He	-0.005	ppb	-127.77	23.33	2000	
Ni	60	72	HMI He	-1.740	ppb	-6.09	256.67	5000	
Cu	63	72	HMI He	-0.894	ppb	-3.69	1900.14	5000	
Zn	66	72	HMI He	-0.502	ppb	-119.58	850.04	5000	
As	75	72	HMI He	-0.034	ppb	-24.23	30.06	2000	
Sr	88	45	HMI He	-0.041	ppb	-41.32	16.67	2000	
Zr	90	72	HMI He	-2.722	ppb	-59.37	116.67	1000	
Nb	93	72	HMI He	0.016	ppb	29.87	390.01	200	
Mo	95	115	HMI He	0.008	ppb	285.37	56.67	2000	
Pd	105	115	HMI He	-0.022	ppb	-194.66	170.00	100	
Ag	107	115	HMI He	0.002	ppb	144.42	53.33	100	
Cd	111	115	HMI He	0.019	ppb	114.97	16.67	2000	
Sn	120	115	HMI He	-0.110	ppb	-31.14	363.35	2000	
Sb	121	115	HMI He	0.158	ppb	31.16	286.68	1000	
Ba	137	115	HMI He	-0.042	ppb	-62.74	10.00	5000	
W	182	165	HMI He	-0.013	ppb	-126.79	1196.73	100	
Pt	195	165	HMI He	-0.013	ppb	-2.71	50.00	100	
Tl	205	165	HMI He	-0.005	ppb	-22.25	170.00	2000	
Pb	208	165	HMI He	-0.064	ppb	-7.26	1433.38	5000	
Th	232	165	HMI He	-0.001	ppb	-334.80	303.34	2000	
U	238	165	HMI He	-0.008	ppb	-7.59	60.00	2000	
Li	7	45	No Gas	2.913	ppb	360.82	12016239.17	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	912002.80	4.15	958690.556666667	95.13	60	125	
Ge Internal Standard	72	HMI H2	19156377.54	3.35	19448588.5666667	98.5	60	125	
Sc (IS)	45	HMI He	1134331.03	1.53	1169335.93	97.01	60	125	
Ge Internal Standard	72	HMI He	1519617.75	2.32	1552068.09666667	97.91	60	125	
In Internal standard	115	HMI He	3875086.97	2.41	3963230.63666667	97.78	60	125	
Ho-165	165	HMI He	17907033.86	2.93	18155167.5933333	98.63	60	125	
Sc IS)	45	No Gas	134265619.66	0.99	136133576.236667	98.63	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	032SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:21:43 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.005	ppb	-171.74	10.00	2000	
B	11	6	HMI H2	0.400	ppb	24.08	433.34	100	
Se	78	72	HMI H2	-0.048	ppb	-65.14	56.00	2000	
Na	23	45	HMI He	-132.282	ppb	-0.99	20609.53	400000	
Mg	24	45	HMI He	-4.887	ppb	-9.07	420.01	400000	
Al	27	45	HMI He	2.387	ppb	28.47	183.33	400000	
K	39	45	HMI He	-25.226	ppb	-61.38	37843.29	400000	
Ca	44	45	HMI He	-10.100	ppb	-110.59	83.33	400000	
V	51	72	HMI He	0.212	ppb	92.74	3623.77	2000	
Cr	52	72	HMI He	0.026	ppb	106.74	403.34	5000	
Mn	55	72	HMI He	-0.131	ppb	-20.18	133.33	10000	
Fe	57	72	HMI He	2.426	ppb	57.67	256.67	400000	
Co	59	72	HMI He	-0.004	ppb	-236.57	26.67	2000	
Ni	60	72	HMI He	-1.774	ppb	-0.71	220.00	5000	
Cu	63	72	HMI He	-0.885	ppb	-0.65	1930.14	5000	
Zn	66	72	HMI He	-0.818	ppb	-9.22	733.36	5000	
As	75	72	HMI He	-0.019	ppb	-116.03	33.99	2000	
Sr	88	45	HMI He	-0.022	ppb	-109.00	30.00	2000	
Zr	90	72	HMI He	4.844	ppb	141.99	200.00	1000	
Nb	93	72	HMI He	-0.005	ppb	-148.50	273.34	200	
Mo	95	115	HMI He	0.065	ppb	14.80	133.33	2000	
Pd	105	115	HMI He	-0.043	ppb	-68.54	126.67	100	
Ag	107	115	HMI He	-0.001	ppb	-105.25	36.67	100	
Cd	111	115	HMI He	-0.012	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.124	ppb	-26.34	343.34	2000	
Sb	121	115	HMI He	0.076	ppb	27.86	186.67	1000	
Ba	137	115	HMI He	-0.042	ppb	-106.64	10.00	5000	
W	182	165	HMI He	-0.013	ppb	-380.32	1170.07	100	
Pt	195	165	HMI He	-0.015	ppb	-49.49	40.00	100	
Tl	205	165	HMI He	-0.005	ppb	-142.84	166.67	2000	
Pb	208	165	HMI He	-0.060	ppb	-13.19	1453.39	5000	
Th	232	165	HMI He	-0.004	ppb	-237.24	266.67	2000	
U	238	165	HMI He	-0.008	ppb	-4.10	56.67	2000	
Li	7	45	No Gas	3.869	ppb	335.11	12059924.37	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	906211.79	4.12	958690.556666667	94.53	60	125	
Ge Internal Standard	72	HMI H2	19183756.50	2.47	19448588.5666667	98.64	60	125	
Sc (IS)	45	HMI He	1140100.27	1.34	1169335.93	97.5	60	125	
Ge Internal Standard	72	HMI He	1521081.60	3.07	1552068.09666667	98	60	125	
In Internal standard	115	HMI He	3866682.29	2.75	3963230.63666667	97.56	60	125	
Ho-165	165	HMI He	17603099.71	2.42	18155167.5933333	96.96	60	125	
Sc IS)	45	No Gas	134407919.66	1.46	136133576.236667	98.73	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	033SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:25:12 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	025CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.001	ppb	3936.32	13.33	2000	
B	11	6	HMI H2	0.354	ppb	57.39	403.34	100	
Se	78	72	HMI H2	-0.044	ppb	-61.10	57.33	2000	
Na	23	45	HMI He	-135.020	ppb	-1.66	20242.37	400000	
Mg	24	45	HMI He	-5.062	ppb	-2.19	406.68	400000	
Al	27	45	HMI He	1.323	ppb	105.67	156.67	400000	
K	39	45	HMI He	-44.719	ppb	-50.06	37329.04	400000	
Ca	44	45	HMI He	-1.615	ppb	-272.71	116.67	400000	
V	51	72	HMI He	0.289	ppb	31.17	3860.50	2000	
Cr	52	72	HMI He	-0.012	ppb	-137.86	333.34	5000	
Mn	55	72	HMI He	-0.164	ppb	-6.05	113.33	10000	
Fe	57	72	HMI He	2.488	ppb	104.50	266.67	400000	
Co	59	72	HMI He	-0.005	ppb	-75.35	23.33	2000	
Ni	60	72	HMI He	-1.786	ppb	-3.16	213.34	5000	
Cu	63	72	HMI He	-0.946	ppb	-4.51	1796.79	5000	
Zn	66	72	HMI He	-0.781	ppb	-45.38	770.03	5000	
As	75	72	HMI He	-0.012	ppb	-246.38	37.26	2000	
Sr	88	45	HMI He	0.000	ppb	4067.83	46.67	2000	
Zr	90	72	HMI He	-2.974	ppb	-97.36	116.67	1000	
Nb	93	72	HMI He	-0.015	ppb	-60.73	223.34	200	
Mo	95	115	HMI He	0.013	ppb	160.85	63.33	2000	
Pd	105	115	HMI He	-0.052	ppb	-13.51	106.67	100	
Ag	107	115	HMI He	-0.001	ppb	-299.90	36.67	100	
Cd	111	115	HMI He	-0.006	ppb	-189.96	3.33	2000	
Sn	120	115	HMI He	-0.094	ppb	-109.63	383.35	2000	
Sb	121	115	HMI He	0.049	ppb	19.17	153.33	1000	
Ba	137	115	HMI He	0.002	ppb	2982.47	26.67	5000	
W	182	165	HMI He	0.000	ppb	-2075.27	1273.40	100	
Pt	195	165	HMI He	-0.009	ppb	-116.75	70.00	100	
Tl	205	165	HMI He	-0.014	ppb	-14.25	90.00	2000	
Pb	208	165	HMI He	-0.071	ppb	-20.90	1360.05	5000	
Th	232	165	HMI He	-0.008	ppb	-24.26	220.00	2000	
U	238	165	HMI He	-0.007	ppb	-17.65	80.00	2000	
Li	7	45	No Gas	1.108	ppb	452.84	12120911.03	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	894710.01	3.97	958690.556666667	93.33	60	125	
Ge Internal Standard	72	HMI H2	19088784.42	1.82	19448588.5666667	98.15	60	125	
Sc (IS)	45	HMI He	1163857.37	1.45	1169335.93	99.53	60	125	
Ge Internal Standard	72	HMI He	1565237.28	1.64	1552068.09666667	100.85	60	125	
In Internal standard	115	HMI He	3836440.32	2.80	3963230.63666667	96.8	60	125	
Ho-165	165	HMI He	18088218.85	2.39	18155167.5933333	99.63	60	125	
Sc IS)	45	No Gas	136128841.23	0.55	136133576.236667	100	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	034CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:28:38 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	034CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	135421.83	ppb	2.13
Be	9	6	HMI H2	8.33	ppb	124.90
B	11	6	HMI H2	353.34	ppb	10.71
Se	78	72	HMI H2	34.67	ppb	73.28
Na	23	45	HMI He	17829.63	ppb	0.45
Mg	24	45	HMI He	276.67	ppb	20.55
Al	27	45	HMI He	73.33	ppb	79.90
K	39	45	HMI He	39443.79	ppb	4.58
Ca	44	45	HMI He	60.00	ppb	50.00
V	51	72	HMI He	3713.81	ppb	4.19
Cr	52	72	HMI He	266.68	ppb	7.81
Mn	55	72	HMI He	86.67	ppb	24.02
Fe	57	72	HMI He	83.33	ppb	24.98
Co	59	72	HMI He	26.67	ppb	78.06
Ni	60	72	HMI He	180.00	ppb	36.43
Cu	63	72	HMI He	1650.11	ppb	7.37
Zn	66	72	HMI He	493.35	ppb	32.20
As	75	72	HMI He	32.03	ppb	27.61
Sr	88	45	HMI He	46.67	ppb	32.73
Zr	90	72	HMI He	143.33	ppb	56.39
Nb	93	72	HMI He	176.67	ppb	48.14
Mo	95	115	HMI He	30.00	ppb	33.33
Pd	105	115	HMI He	136.67	ppb	15.23
Ag	107	115	HMI He	30.00	ppb	0.00
Sn	120	115	HMI He	276.67	ppb	31.58
Sb	121	115	HMI He	126.67	ppb	50.14
Ba	137	115	HMI He	10.00	ppb	100.00
W	182	165	HMI He	1233.41	ppb	13.86
Pt	195	165	HMI He	103.33	ppb	20.15
Tl	205	165	HMI He	126.67	ppb	18.23
Pb	208	165	HMI He	1416.71	ppb	4.96
Th	232	165	HMI He	213.34	ppb	31.21
U	238	165	HMI He	86.67	ppb	52.03
Li	7	45	No Gas	12288931.96	ppb	0.84

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	926476.38	5.18
Ge Internal Standard	72	HMI H2	19308411.08	2.23
Sc (IS)	45	HMI He	1167662.84	1.88
Ge Internal Standard	72	HMI He	1552190.91	0.98
In Internal standard	115	HMI He	3877860.07	0.30
Ho-165	165	HMI He	18469400.70	0.63
Sc IS)	45	No Gas	136952326.19	1.02

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	035CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:32:05 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	035CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	227389.32	ppb	1.95
Be	9	6	HMI H2	11.67	ppb	24.74
B	11	6	HMI H2	283.34	ppb	23.50
Se	78	72	HMI H2	65.33	ppb	9.35
Na	23	45	HMI He	18450.32	ppb	3.04
Mg	24	45	HMI He	383.34	ppb	24.10
Al	27	45	HMI He	170.00	ppb	21.21
K	39	45	HMI He	38154.11	ppb	2.27
Ca	44	45	HMI He	73.33	ppb	34.32
V	51	72	HMI He	3397.06	ppb	3.54
Cr	52	72	HMI He	406.68	ppb	13.54
Mn	55	72	HMI He	100.00	ppb	52.92
Fe	57	72	HMI He	150.00	ppb	30.55
Co	59	72	HMI He	20.00	ppb	50.00
Ni	60	72	HMI He	220.00	ppb	13.64
Cu	63	72	HMI He	1830.12	ppb	4.13
Zn	66	72	HMI He	470.01	ppb	22.42
As	75	72	HMI He	27.45	ppb	12.37
Sr	88	45	HMI He	56.67	ppb	66.81
Zr	90	72	HMI He	153.33	ppb	35.92
Nb	93	72	HMI He	176.67	ppb	23.57
Mo	95	115	HMI He	60.00	ppb	60.09
Pd	105	115	HMI He	96.67	ppb	21.53
Ag	107	115	HMI He	30.00	ppb	66.67
Cd	111	115	HMI He	6.67	ppb	173.21
Sn	120	115	HMI He	283.34	ppb	14.27
Sb	121	115	HMI He	156.67	ppb	28.78
Ba	137	115	HMI He	13.33	ppb	173.21
W	182	165	HMI He	1436.77	ppb	41.23
Pt	195	165	HMI He	80.00	ppb	81.97
Tl	205	165	HMI He	150.00	ppb	35.28
Pb	208	165	HMI He	1500.06	ppb	15.68
Th	232	165	HMI He	246.67	ppb	28.76
U	238	165	HMI He	106.67	ppb	46.25
Li	7	45	No Gas	12570426.64	ppb	1.26

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	1597313.98	1.59
Ge Internal Standard	72	HMI H2	28652516.63	6.29
Sc (IS)	45	HMI He	1205442.50	5.78
Ge Internal Standard	72	HMI He	1632690.06	4.19
In Internal standard	115	HMI He	3989976.36	5.01
Ho-165	165	HMI He	18711077.15	6.87
Sc IS)	45	No Gas	140246554.35	1.39

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	036CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:35:33 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	036CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	234401.75	ppb	1.68
Be	9	6	HMI H2	8.33	ppb	91.65
B	11	6	HMI H2	210.00	ppb	9.53
Se	78	72	HMI H2	38.67	ppb	39.16
Na	23	45	HMI He	16177.96	ppb	4.35
Mg	24	45	HMI He	200.00	ppb	47.70
Al	27	45	HMI He	106.67	ppb	32.92
K	39	45	HMI He	28988.83	ppb	5.00
Ca	44	45	HMI He	46.67	ppb	32.73
V	51	72	HMI He	1796.79	ppb	15.33
Cr	52	72	HMI He	323.34	ppb	21.72
Mn	55	72	HMI He	90.00	ppb	55.56
Fe	57	72	HMI He	90.00	ppb	19.25
Co	59	72	HMI He	6.67	ppb	86.60
Ni	60	72	HMI He	233.34	ppb	6.55
Cu	63	72	HMI He	1460.09	ppb	13.68
Zn	66	72	HMI He	383.34	ppb	12.33
As	75	72	HMI He	26.80	ppb	11.17
Sr	88	45	HMI He	20.00	ppb	86.60
Zr	90	72	HMI He	150.00	ppb	46.19
Nb	93	72	HMI He	323.34	ppb	41.99
Mo	95	115	HMI He	23.33	ppb	89.21
Pd	105	115	HMI He	223.34	ppb	14.39
Ag	107	115	HMI He	13.33	ppb	43.30
Cd	111	115	HMI He	3.33	ppb	173.21
Sn	120	115	HMI He	293.34	ppb	21.92
Sb	121	115	HMI He	56.67	ppb	71.32
Ba	137	115	HMI He	6.67	ppb	173.21
W	182	165	HMI He	2856.66	ppb	70.79
Pt	195	165	HMI He	46.67	ppb	81.13
Tl	205	165	HMI He	156.67	ppb	32.13
Pb	208	165	HMI He	1386.71	ppb	18.60
Th	232	165	HMI He	313.34	ppb	11.21
U	238	165	HMI He	86.67	ppb	24.02
Li	7	45	No Gas	17267563.26	ppb	4.73

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	1641099.69	0.49
Ge Internal Standard	72	HMI H2	28299622.48	1.88
Sc (IS)	45	HMI He	1631456.74	12.16
Ge Internal Standard	72	HMI He	2137108.58	14.27
In Internal standard	115	HMI He	5403429.41	10.85
Ho-165	165	HMI He	25772685.95	7.79
Sc IS)	45	No Gas	166384409.66	5.55

Calibration Standard Report

Sample Name	IC-4905894
File Name	037CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:39:03 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	036CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	527253.55	ppb	4.20
Be	9	6	HMI H2	51266.90	ppb	2.85
B	11	6	HMI H2	66356.82	ppb	0.51
Se	78	72	HMI H2	47533.68	ppb	0.21
Na	23	45	HMI He	2910255.86	ppb	0.54
Mg	24	45	HMI He	1241352.51	ppb	1.97
Al	27	45	HMI He	270173.17	ppb	2.13
K	39	45	HMI He	694560.02	ppb	1.42
Ca	44	45	HMI He	35528.30	ppb	1.15
V	51	72	HMI He	161901.90	ppb	1.17
Cr	52	72	HMI He	210475.65	ppb	1.38
Mn	55	72	HMI He	71930.76	ppb	2.96
Fe	57	72	HMI He	377026.15	ppb	0.57
Co	59	72	HMI He	372087.73	ppb	0.60
Ni	60	72	HMI He	105834.44	ppb	2.24
Cu	63	72	HMI He	300642.89	ppb	1.49
Zn	66	72	HMI He	38512.47	ppb	3.08
As	75	72	HMI He	27901.71	ppb	1.64
Sr	88	45	HMI He	67552.05	ppb	2.14
Zr	90	72	HMI He	1590.11	ppb	4.40
Nb	93	72	HMI He	1080369.15	ppb	0.66
Mo	95	115	HMI He	132540.29	ppb	2.52
Pd	105	115	HMI He	203649.36	ppb	0.40
Ag	107	115	HMI He	437342.46	ppb	1.31
Cd	111	115	HMI He	50825.65	ppb	2.32
Sn	120	115	HMI He	131805.29	ppb	0.86
Sb	121	115	HMI He	117891.63	ppb	3.56
Ba	137	115	HMI He	37492.34	ppb	1.81
W	182	165	HMI He	538061.13	ppb	1.10
Pt	195	165	HMI He	427362.75	ppb	1.66
Tl	205	165	HMI He	882166.00	ppb	0.53
Pb	208	165	HMI He	1176857.54	ppb	1.49
Th	232	165	HMI He	1266418.01	ppb	1.11
U	238	165	HMI He	1369247.69	ppb	2.56
Li	7	45	No Gas	47092845.46	ppb	2.74

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	949445.94	2.01	1641099.69333333	57.85	60	125	IS Failed
Ge Internal Standard	72	HMI H2	19202781.71	3.66	28299622.4833333	67.86	60	125	
Sc (IS)	45	HMI He	1122886.43	2.34	1631456.73666667	68.83	60	125	
Ge Internal Standard	72	HMI He	1510900.49	0.91	2137108.57666667	70.7	60	125	
In Internal standard	115	HMI He	3743268.42	1.86	5403429.41333333	69.28	60	125	
Ho-165	165	HMI He	18443820.49	0.80	25772685.9466667	71.56	60	125	
Sc IS)	45	No Gas	130810261.51	1.41	166384409.656667	78.62	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	038_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:42:28 PM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	036CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	396.229	ppb	7.14	298913.69	40	990.57	90	110	>+\-10%
Be	9	6	HMI H2	40.531	ppb	3.34	19649.70	40	101.33	90	110	
B	11	6	HMI H2	32.474	ppb	3.90	20452.66	40	81.19	90	110	>+\-10%
Se	78	72	HMI H2	39.884	ppb	1.60	18503.98	40	99.71	90	110	
Na	23	45	HMI He	4051.683	ppb	3.63	1149613.06	4000	101.29	90	110	
Mg	24	45	HMI He	3892.516	ppb	2.21	468732.13	4000	97.31	90	110	
Al	27	45	HMI He	7974.951	ppb	0.78	208968.01	4000	199.37	90	110	>+\-10%
K	39	45	HMI He	4136.483	ppb	1.74	290001.09	4000	103.41	90	110	
Ca	44	45	HMI He	4123.344	ppb	7.44	14219.60	4000	103.08	90	110	
V	51	72	HMI He	39.046	ppb	7.45	62586.01	40	97.62	90	110	
Cr	52	72	HMI He	38.411	ppb	7.11	79227.55	40	96.03	90	110	
Mn	55	72	HMI He	40.534	ppb	5.97	28565.07	40	101.33	90	110	
Fe	57	72	HMI He	7828.064	ppb	5.43	288876.32	4000	195.7	90	110	>+\-10%
Co	59	72	HMI He	40.298	ppb	6.11	146713.16	40	100.74	90	110	
Ni	60	72	HMI He	40.668	ppb	3.38	42251.55	40	101.67	90	110	
Cu	63	72	HMI He	39.769	ppb	5.85	117611.25	40	99.42	90	110	
Zn	66	72	HMI He	41.718	ppb	5.80	15881.19	40	104.3	90	110	
As	75	72	HMI He	38.427	ppb	6.20	10504.07	40	96.07	90	110	
Sr	88	45	HMI He	41.286	ppb	2.81	27056.51	40	103.21	90	110	
Zr	90	72	HMI He	5.490	ppb	83.53	186.67	40	13.72	90	110	>+\-10%
Nb	93	72	HMI He	75.463	ppb	5.33	399110.18	80	94.33	90	110	
Mo	95	115	HMI He	37.371	ppb	2.10	50005.27	40	93.43	90	110	
Pd	105	115	HMI He	39.995	ppb	4.14	82256.59	40	99.99	90	110	
Ag	107	115	HMI He	37.520	ppb	3.48	165516.75	40	93.8	90	110	
Cd	111	115	HMI He	40.469	ppb	2.18	20753.94	40	101.17	90	110	
Sn	120	115	HMI He	38.199	ppb	2.80	50922.84	40	95.5	90	110	
Sb	121	115	HMI He	40.444	ppb	5.03	48144.39	40	101.11	90	110	
Ba	137	115	HMI He	39.624	ppb	4.19	14987.36	40	99.06	90	110	
W	182	165	HMI He	78.439	ppb	1.29	409216.99	40	196.1	90	110	>+\-10%
Pt	195	165	HMI He	39.585	ppb	2.04	163844.22	40	98.96	90	110	
Tl	205	165	HMI He	41.105	ppb	2.63	351149.56	40	102.76	90	110	
Pb	208	165	HMI He	41.351	ppb	2.79	471721.20	40	103.38	90	110	
Th	232	165	HMI He	41.331	ppb	2.43	506950.64	40	103.33	90	110	
U	238	165	HMI He	41.053	ppb	3.64	544271.36	40	102.63	90	110	
Li	7	45	No Gas	413.533	ppb	2.32	27061345.25	40	1033.83	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	898102.41	3.93	1641099.69333333	54.73	60	125	IS Failed
Ge Internal Standard	72	HMI H2	18712027.78	1.51	28299622.4833333	66.12	60	125	
Sc (IS)	45	HMI He	1088725.84	2.05	1631456.73666667	66.73	60	125	
Ge Internal Standard	72	HMI He	1481236.26	4.97	2137108.57666667	69.31	60	125	
In Internal standard	115	HMI He	3777533.12	2.60	5403429.41333333	69.91	60	125	
Ho-165	165	HMI He	17864308.65	2.28	25772685.9466667	69.31	60	125	
Sc IS)	45	No Gas	129002869.94	0.56	166384409.656667	77.53	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	039SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:45:56 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	036CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.049	ppb	59.64	30.00	2000	
B	11	6	HMI H2	1.634	ppb	8.98	1213.39	100	
Se	78	72	HMI H2	0.110	ppb	50.64	76.00	2000	
Na	23	45	HMI He	30.467	ppb	6.33	20118.89	400000	
Mg	24	45	HMI He	2.083	ppb	24.54	393.34	400000	
Al	27	45	HMI He	3.793	ppb	51.43	176.67	400000	
K	39	45	HMI He	221.832	ppb	7.44	35057.22	400000	
Ca	44	45	HMI He	10.787	ppb	3.62	70.00	400000	
V	51	72	HMI He	2.119	ppb	12.16	4744.06	2000	
Cr	52	72	HMI He	0.060	ppb	48.00	366.68	5000	
Mn	55	72	HMI He	0.059	ppb	79.72	106.67	10000	
Fe	57	72	HMI He	7.838	ppb	11.32	366.68	400000	
Co	59	72	HMI He	0.012	ppb	21.41	50.00	2000	
Ni	60	72	HMI He	0.040	ppb	83.89	213.34	5000	
Cu	63	72	HMI He	0.289	ppb	3.55	1936.81	5000	
Zn	66	72	HMI He	1.315	ppb	8.99	786.70	5000	
As	75	72	HMI He	0.037	ppb	76.43	30.07	2000	
Sr	88	45	HMI He	0.060	ppb	62.97	53.33	2000	
Zr	90	72	HMI He	-0.663	ppb	-550.68	103.33	1000	
Nb	93	72	HMI He	0.569	ppb	6.68	3363.74	200	
Mo	95	115	HMI He	0.087	ppb	55.59	133.33	2000	
Pd	105	115	HMI He	0.027	ppb	67.76	216.67	100	
Ag	107	115	HMI He	0.010	ppb	56.17	53.33	100	
Cd	111	115	HMI He	0.015	ppb	130.31	10.00	2000	
Sn	120	115	HMI He	0.135	ppb	79.30	390.01	2000	
Sb	121	115	HMI He	0.857	ppb	7.61	1076.72	1000	
Ba	137	115	HMI He	0.067	ppb	76.43	30.00	5000	
W	182	165	HMI He	-0.089	ppb	-36.92	1640.12	100	
Pt	195	165	HMI He	0.025	ppb	31.25	140.00	100	
Tl	205	165	HMI He	0.029	ppb	25.19	363.34	2000	
Pb	208	165	HMI He	0.063	ppb	9.81	1720.07	5000	
Th	232	165	HMI He	0.042	ppb	36.13	746.69	2000	
U	238	165	HMI He	0.013	ppb	36.90	240.00	2000	
Li	7	45	No Gas	-53.840	ppb	-6.41	11758279.91	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	956680.09	1.56	1641099.69333333	58.3	60	125	IS Failed
Ge Internal Standard	72	HMI H2	18727121.94	2.30	28299622.4833333	66.17	60	125	
Sc (IS)	45	HMI He	1123030.96	1.99	1631456.73666667	68.84	60	125	
Ge Internal Standard	72	HMI He	1534060.49	0.84	2137108.57666667	71.78	60	125	
In Internal standard	115	HMI He	3828246.20	1.48	5403429.41333333	70.85	60	125	
Ho-165	165	HMI He	18316509.67	2.76	25772685.9466667	71.07	60	125	
Sc IS)	45	No Gas	130604402.35	1.97	166384409.656667	78.5	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	040CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:49:29 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	134212.42	ppb	2.37
Be	9	6	HMI H2	15.00	ppb	88.19
B	11	6	HMI H2	730.03	ppb	16.67
Se	78	72	HMI H2	54.67	ppb	61.36
Na	23	45	HMI He	21006.63	ppb	3.44
Mg	24	45	HMI He	310.01	ppb	25.60
Al	27	45	HMI He	116.67	ppb	43.99
K	39	45	HMI He	36366.63	ppb	3.76
Ca	44	45	HMI He	113.33	ppb	28.36
V	51	72	HMI He	3920.53	ppb	1.35
Cr	52	72	HMI He	306.67	ppb	29.59
Mn	55	72	HMI He	66.67	ppb	22.91
Fe	57	72	HMI He	203.33	ppb	15.02
Co	59	72	HMI He	20.00	ppb	132.29
Ni	60	72	HMI He	286.67	ppb	28.41
Cu	63	72	HMI He	2313.53	ppb	7.44
Zn	66	72	HMI He	606.68	ppb	24.02
As	75	72	HMI He	37.25	ppb	44.97
Sr	88	45	HMI He	40.00	ppb	43.30
Zr	90	72	HMI He	140.00	ppb	18.90
Nb	93	72	HMI He	1093.39	ppb	10.28
Mo	95	115	HMI He	50.00	ppb	40.00
Pd	105	115	HMI He	156.67	ppb	20.52
Ag	107	115	HMI He	40.00	ppb	66.14
Cd	111	115	HMI He	3.33	ppb	173.21
Sn	120	115	HMI He	443.35	ppb	15.35
Sb	121	115	HMI He	303.34	ppb	43.02
Ba	137	115	HMI He	16.67	ppb	34.64
W	182	165	HMI He	1480.10	ppb	7.12
Pt	195	165	HMI He	80.00	ppb	33.07
Tl	205	165	HMI He	163.33	ppb	19.68
Pb	208	165	HMI He	1826.74	ppb	1.76
Th	232	165	HMI He	313.34	ppb	15.08
U	238	165	HMI He	113.33	ppb	61.97
Li	7	45	No Gas	12257414.36	ppb	2.26

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	956003.02	0.56
Ge Internal Standard	72	HMI H2	18947224.01	2.69
Sc (IS)	45	HMI He	1144561.88	0.58
Ge Internal Standard	72	HMI He	1545458.59	1.05
In Internal standard	115	HMI He	3925517.66	1.62
Ho-165	165	HMI He	18306963.84	1.58
Sc IS)	45	No Gas	132851188.07	1.24

Calibration Standard Report

Sample Name	IC-4905894
File Name	041CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:52:57 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	506954.04	ppb	1.45
Be	9	6	HMI H2	49577.02	ppb	0.81
B	11	6	HMI H2	68729.21	ppb	3.29
Se	78	72	HMI H2	47719.70	ppb	0.42
Na	23	45	HMI He	2875668.63	ppb	2.16
Mg	24	45	HMI He	1221777.70	ppb	1.88
Al	27	45	HMI He	269743.52	ppb	0.77
K	39	45	HMI He	686260.14	ppb	0.74
Ca	44	45	HMI He	35785.77	ppb	2.30
V	51	72	HMI He	159822.98	ppb	1.96
Cr	52	72	HMI He	205570.40	ppb	1.95
Mn	55	72	HMI He	69135.60	ppb	0.87
Fe	57	72	HMI He	375196.48	ppb	1.45
Co	59	72	HMI He	375808.49	ppb	0.69
Ni	60	72	HMI He	107766.93	ppb	2.13
Cu	63	72	HMI He	296541.85	ppb	1.80
Zn	66	72	HMI He	39120.60	ppb	2.57
As	75	72	HMI He	27601.19	ppb	0.79
Sr	88	45	HMI He	68586.93	ppb	3.22
Zr	90	72	HMI He	1516.76	ppb	8.50
Nb	93	72	HMI He	1067169.94	ppb	0.60
Mo	95	115	HMI He	132436.91	ppb	1.30
Pd	105	115	HMI He	203827.65	ppb	1.27
Ag	107	115	HMI He	443473.40	ppb	0.98
Cd	111	115	HMI He	51835.34	ppb	1.71
Sn	120	115	HMI He	134971.80	ppb	1.13
Sb	121	115	HMI He	122987.31	ppb	1.24
Ba	137	115	HMI He	37475.81	ppb	5.25
W	182	165	HMI He	515238.38	ppb	1.56
Pt	195	165	HMI He	437927.62	ppb	1.45
Tl	205	165	HMI He	894989.80	ppb	0.86
Pb	208	165	HMI He	1181372.70	ppb	1.09
Th	232	165	HMI He	1289475.34	ppb	1.85
U	238	165	HMI He	1383479.77	ppb	1.82
Li	7	45	No Gas	46436228.41	ppb	3.47

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	856590.46	1.96	956003.023333333	89.6	60	125	
Ge Internal Standard	72	HMI H2	18949481.51	2.69	18947224.0133333	100.01	60	125	
Sc (IS)	45	HMI He	1105140.92	0.85	1144561.88333333	96.56	60	125	
Ge Internal Standard	72	HMI He	1507756.00	1.09	1545458.59	97.56	60	125	
In Internal standard	115	HMI He	3701693.26	0.56	3925517.65666667	94.3	60	125	
Ho-165	165	HMI He	18044560.73	0.73	18306963.8366667	98.57	60	125	
Sc IS)	45	No Gas	128302018.31	1.98	132851188.07	96.58	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4905897
File Name	042_ICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:56:23 PM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	478.183	ppb	10.48	299419.65	40	1195.46	90	110	>+\-10%
Be	9	6	HMI H2	38.838	ppb	5.57	20250.45	40	97.1	90	110	
B	11	6	HMI H2	27.945	ppb	8.24	20656.08	40	69.86	90	110	>+\-10%
Se	78	72	HMI H2	39.311	ppb	3.93	18150.28	40	98.28	90	110	
Na	23	45	HMI He	3847.304	ppb	2.05	1103291.36	4000	96.18	90	110	
Mg	24	45	HMI He	3813.798	ppb	1.58	459706.59	4000	95.34	90	110	
Al	27	45	HMI He	7865.522	ppb	0.46	209275.21	4000	196.64	90	110	>+\-10%
K	39	45	HMI He	3829.023	ppb	1.18	280498.99	4000	95.73	90	110	
Ca	44	45	HMI He	3939.572	ppb	3.59	13966.02	4000	98.49	90	110	
V	51	72	HMI He	38.739	ppb	1.03	63803.50	40	96.85	90	110	
Cr	52	72	HMI He	39.715	ppb	3.50	81222.97	40	99.29	90	110	
Mn	55	72	HMI He	41.020	ppb	3.78	28191.20	40	102.55	90	110	
Fe	57	72	HMI He	7836.802	ppb	1.15	292011.61	4000	195.92	90	110	>+\-10%
Co	59	72	HMI He	38.729	ppb	0.67	144521.10	40	96.82	90	110	
Ni	60	72	HMI He	38.849	ppb	4.06	41719.96	40	97.12	90	110	
Cu	63	72	HMI He	40.089	ppb	1.82	119354.89	40	100.22	90	110	
Zn	66	72	HMI He	40.272	ppb	4.86	15984.69	40	100.68	90	110	
As	75	72	HMI He	37.580	ppb	1.62	10321.61	40	93.95	90	110	
Sr	88	45	HMI He	39.775	ppb	6.99	26909.50	40	99.44	90	110	
Zr	90	72	HMI He	8.590	ppb	21.76	253.34	40	21.48	90	110	>+\-10%
Nb	93	72	HMI He	76.833	ppb	1.04	407691.27	80	96.04	90	110	
Mo	95	115	HMI He	38.458	ppb	3.38	51634.12	40	96.14	90	110	
Pd	105	115	HMI He	39.068	ppb	4.01	80776.05	40	97.67	90	110	
Ag	107	115	HMI He	36.329	ppb	0.96	163268.09	40	90.82	90	110	
Cd	111	115	HMI He	40.136	ppb	0.08	21084.34	40	100.34	90	110	
Sn	120	115	HMI He	38.498	ppb	2.07	52909.57	40	96.24	90	110	
Sb	121	115	HMI He	38.570	ppb	0.84	48244.65	40	96.43	90	110	
Ba	137	115	HMI He	38.562	ppb	4.53	14653.76	40	96.4	90	110	
W	182	165	HMI He	80.481	ppb	1.30	412269.74	40	201.2	90	110	>+\-10%
Pt	195	165	HMI He	38.767	ppb	2.81	168701.87	40	96.92	90	110	
Tl	205	165	HMI He	39.432	ppb	1.01	350739.45	40	98.58	90	110	
Pb	208	165	HMI He	40.353	ppb	0.80	474719.36	40	100.88	90	110	
Th	232	165	HMI He	39.138	ppb	1.04	501537.65	40	97.85	90	110	
U	238	165	HMI He	39.309	ppb	2.19	540278.52	40	98.27	90	110	
Li	7	45	No Gas	432.842	ppb	2.94	27109041.71	40	1082.1	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	902955.56	8.31	956003.023333333	94.45	60	125	
Ge Internal Standard	72	HMI H2	18305804.46	2.89	18947224.0133333	96.61	60	125	
Sc (IS)	45	HMI He	1089893.67	1.66	1144561.88333333	95.22	60	125	
Ge Internal Standard	72	HMI He	1496923.09	1.37	1545458.59	96.86	60	125	
In Internal standard	115	HMI He	3750857.88	0.42	3925517.65666667	95.55	60	125	
Ho-165	165	HMI He	17927433.02	0.90	18306963.8366667	97.93	60	125	
Sc IS)	45	No Gas	129735895.73	1.09	132851188.07	97.66	60	120	

Initial Calibration Blank (ICB) Report

Sample Name	ICB-4905893
File Name	043_ICB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 12:59:52 PM
Sample Type	ICB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-1.389	ppb	-499.86	130822.83	0.1	
Be	9	6	HMI H2	0.007	ppb	183.73	18.33	0.5	
B	11	6	HMI H2	0.874	ppb	24.43	1333.40	0.1	>RL
Se	78	72	HMI H2	0.047	ppb	41.87	74.67	1	
Na	23	45	HMI He	-8.501	ppb	-26.39	17806.25	25	
Mg	24	45	HMI He	0.396	ppb	92.89	346.68	25	
Al	27	45	HMI He	0.909	ppb	374.03	136.67	15	
K	39	45	HMI He	19.881	ppb	47.22	36316.47	50	
Ca	44	45	HMI He	-6.295	ppb	-94.25	86.67	25	
V	51	72	HMI He	0.564	ppb	42.44	4747.42	1	
Cr	52	72	HMI He	0.009	ppb	59.22	320.01	1	
Mn	55	72	HMI He	0.030	ppb	118.51	86.67	0.5	
Fe	57	72	HMI He	-0.877	ppb	-67.91	166.67	25	
Co	59	72	HMI He	0.007	ppb	74.10	46.67	0.5	
Ni	60	72	HMI He	-0.045	ppb	-19.58	233.34	1	
Cu	63	72	HMI He	-0.321	ppb	-8.11	1326.74	1	
Zn	66	72	HMI He	-0.410	ppb	-20.13	436.68	5	
As	75	72	HMI He	0.021	ppb	131.15	42.48	1	
Sr	88	45	HMI He	0.017	ppb	231.32	50.00	1	
Zr	90	72	HMI He	-0.283	ppb	-930.94	133.33	1	
Nb	93	72	HMI He	0.345	ppb	7.32	2926.97	2	
Mo	95	115	HMI He	-0.001	ppb	-1682.99	46.67	0.5	
Pd	105	115	HMI He	0.026	ppb	52.92	206.67	1	
Ag	107	115	HMI He	0.007	ppb	62.05	70.00	1	
Cd	111	115	HMI He	0.000	ppb	4280.45	3.33	0.5	
Sn	120	115	HMI He	-0.037	ppb	-504.14	373.38	1	
Sb	121	115	HMI He	0.629	ppb	2.24	1083.39	1	
Ba	137	115	HMI He	-0.033	ppb	-46.35	3.33	0.5	
W	182	165	HMI He	0.008	ppb	337.59	1500.11	1	
Pt	195	165	HMI He	0.015	ppb	79.93	143.33	1	
Tl	205	165	HMI He	0.022	ppb	44.66	360.01	0.1	
Pb	208	165	HMI He	-0.016	ppb	-69.84	1606.72	0.5	
Th	232	165	HMI He	0.023	ppb	48.32	606.68	1	
U	238	165	HMI He	0.009	ppb	44.13	236.67	0.5	
Li	7	45	No Gas	-4.656	ppb	-100.77	11766284.18	0.05	

Initial Calibration Blank (ICB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	917227.75	4.25	956003.023333333	95.94	60	125	
Ge Internal Standard	72	HMI H2	18277105.09	1.56	18947224.0133333	96.46	60	125	
Sc (IS)	45	HMI He	1102147.93	0.41	1144561.88333333	96.29	60	125	
Ge Internal Standard	72	HMI He	1520690.79	1.96	1545458.59	98.4	60	125	
In Internal standard	115	HMI He	3791535.26	1.79	3925517.65666667	96.59	60	125	
Ho-165	165	HMI He	18033659.69	0.41	18306963.8366667	98.51	60	125	
Sc IS)	45	No Gas	129271246.59	1.40	132851188.07	97.31	60	120	

Low Level Initial Calibration Verification(LLICV) Report

Sample Name	ICVL-4905898
File Name	044LICV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:03:25 PM
Sample Type	LLICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.034	ppb	13.77	553.35	1	103.4	70	130	
Se	78	72	HMI H2	5.167	ppb	5.23	2472.20	5	103.34	70	130	
Na	23	45	HMI He	49.311	ppb	5.17	34722.76	50	98.62	70	130	
Mg	24	45	HMI He	52.086	ppb	7.54	6734.80	50	104.17	70	130	
Al	27	45	HMI He	27.248	ppb	4.59	856.70	30	90.83	70	130	
K	39	45	HMI He	118.155	ppb	10.47	43263.18	100	118.16	70	130	
Ca	44	45	HMI He	46.004	ppb	35.64	276.68	50	92.01	70	130	
V	51	72	HMI He	5.228	ppb	5.47	12141.31	5	104.55	70	130	
Cr	52	72	HMI He	2.122	ppb	9.75	4714.06	2	106.12	70	130	
Mn	55	72	HMI He	1.014	ppb	11.98	776.69	1	101.44	70	130	
Fe	57	72	HMI He	44.841	ppb	10.37	1906.81	50	89.68	70	130	
Co	59	72	HMI He	0.989	ppb	6.99	3787.14	1	98.94	70	130	
Ni	60	72	HMI He	2.071	ppb	6.16	2540.24	2	103.57	70	130	
Cu	63	72	HMI He	2.219	ppb	3.48	8905.89	2	110.95	70	130	
Zn	66	72	HMI He	10.168	ppb	9.60	4564.02	10	101.68	70	130	
As	75	72	HMI He	4.933	ppb	5.69	1415.75	5	98.65	70	130	
Sr	88	45	HMI He	0.994	ppb	20.72	726.70	1	99.4	70	130	
Zr	90	72	HMI He	3.240	ppb	96.25	183.33	0.5	647.99	70	130	>+/-30%
Nb	93	72	HMI He	0.378	ppb	5.43	3120.34	2	18.88	70	130	>+/-30%
Mo	95	115	HMI He	2.070	ppb	7.61	2926.97	2	103.49	70	130	
Pd	105	115	HMI He	-0.013	ppb	-57.83	126.67	1	-1.33	70	130	>+/-30%
Ag	107	115	HMI He	4.923	ppb	3.99	22943.53	5	98.47	70	130	
Cd	111	115	HMI He	0.926	ppb	6.04	506.68	1	92.57	70	130	
Sn	120	115	HMI He	8.979	ppb	5.78	13118.97	10	89.79	70	130	
Sb	121	115	HMI He	2.121	ppb	8.64	3033.67	2	106.04	70	130	
Ba	137	115	HMI He	0.941	ppb	4.75	386.68	1	94.09	70	130	
W	182	165	HMI He	4.906	ppb	3.66	26897.73	1	490.61	70	130	>+/-30%
Pt	195	165	HMI He	0.024	ppb	23.59	186.67	1	2.43	70	130	>+/-30%
Tl	205	165	HMI He	0.983	ppb	3.91	9036.23	1	98.28	70	130	
Pb	208	165	HMI He	1.064	ppb	2.64	14482.94	1	106.39	70	130	
Th	232	165	HMI He	1.948	ppb	2.11	25646.18	2	97.41	70	130	
U	238	165	HMI He	1.028	ppb	1.70	14454.08	1	102.76	70	130	

QC ISTD Table

Low Level Initial Calibration Verification(LLICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	900355.82	3.54	956003.023333333	94.18	60	125	
Ge Internal Standard	72	HMI H2	18608686.74	2.26	18947224.0133333	98.21	60	125	
Sc (IS)	45	HMI He	1116934.51	1.40	1144561.88333333	97.59	60	125	
Ge Internal Standard	72	HMI He	1528333.34	2.33	1545458.59	98.89	60	125	
In Internal standard	115	HMI He	3885266.12	1.69	3925517.65666667	98.97	60	125	
Ho-165	165	HMI He	18205722.59	1.58	18306963.8366667	99.45	60	125	
Sc IS)	45	No Gas	133401128.04	1.30	132851188.07	100.41	60	120	

CRI Report

Sample Name	CRI-4905899
File Name	045RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:06:55 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.953	ppb	12.27	511.68	1	95.28	80	120	
Se	78	72	HMI H2	0.935	ppb	16.68	494.68	1	93.46	80	120	
Na	23	45	HMI He	100.905	ppb	9.33	49877.39	100	100.91	80	120	
Mg	24	45	HMI He	101.006	ppb	9.64	12828.39	100	101.01	80	120	
Al	27	45	HMI He	106.689	ppb	6.60	3036.99	100	106.69	80	120	
K	39	45	HMI He	106.425	ppb	14.15	42755.17	100	106.42	80	120	
Ca	44	45	HMI He	122.594	ppb	16.58	556.68	100	122.59	80	120	>+\-20%
V	51	72	HMI He	1.051	ppb	20.74	5594.35	1	105.1	80	120	
Cr	52	72	HMI He	1.111	ppb	9.42	2640.26	1	111.11	80	120	
Mn	55	72	HMI He	1.229	ppb	3.69	936.71	1	122.94	80	120	>+\-20%
Fe	57	72	HMI He	102.867	ppb	3.52	4157.27	100	102.87	80	120	
Co	59	72	HMI He	0.970	ppb	10.17	3750.49	1	97.04	80	120	
Ni	60	72	HMI He	0.891	ppb	22.60	1263.40	1	89.08	80	120	
Cu	63	72	HMI He	0.834	ppb	6.76	4827.43	1	83.37	80	120	
Zn	66	72	HMI He	0.282	ppb	73.27	716.69	1	28.23	80	120	>+\-20%
As	75	72	HMI He	0.980	ppb	11.59	313.73	1	98.02	80	120	
Sr	88	45	HMI He	0.916	ppb	30.82	673.36	1	91.55	80	120	
Nb	93	72	HMI He	1.840	ppb	7.54	11147.36	2	92.01	80	120	
Mo	95	115	HMI He	1.021	ppb	2.96	1450.08	1	102.1	80	120	
Pd	105	115	HMI He	0.964	ppb	6.57	2190.19	1	96.41	80	120	
Ag	107	115	HMI He	1.052	ppb	1.27	4877.47	1	105.2	80	120	
Cd	111	115	HMI He	0.944	ppb	16.55	510.01	1	94.42	80	120	
Sn	120	115	HMI He	0.898	ppb	3.59	1686.79	1	89.77	80	120	
Sb	121	115	HMI He	0.923	ppb	25.54	1463.42	1	92.28	80	120	
Ba	137	115	HMI He	0.945	ppb	8.67	383.34	1	94.49	80	120	
W	182	165	HMI He	0.947	ppb	5.51	6298.10	1	94.74	80	120	
Pt	195	165	HMI He	1.034	ppb	4.61	4580.76	1	103.37	80	120	
Tl	205	165	HMI He	1.013	ppb	13.70	9156.32	1	101.33	80	120	
Pb	208	165	HMI He	1.088	ppb	6.45	14546.36	1	108.82	80	120	
Th	232	165	HMI He	0.999	ppb	10.84	13076.13	1	99.86	80	120	
U	238	165	HMI He	1.003	ppb	7.91	13880.21	1	100.25	80	120	
Li	7	45	No Gas	7.068	ppb	64.91	12693327.88	10	70.68	50	150	

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	904553.03	3.32	956003.023333333	94.62	60	125	
Ge Internal Standard	72	HMI H2	18727060.69	1.46	18947224.0133333	98.84	60	125	
Sc (IS)	45	HMI He	1124075.74	3.36	1144561.88333333	98.21	60	125	
Ge Internal Standard	72	HMI He	1546020.49	3.89	1545458.59	100.04	60	125	
In Internal standard	115	HMI He	3840652.55	4.57	3925517.65666667	97.84	60	125	
Ho-165	165	HMI He	17946850.94	3.75	18306963.8366667	98.03	60	125	
Sc IS)	45	No Gas	134783297.97	1.50	132851188.07	101.45	60	120	

CRI Report

Sample Name	CRI-
File Name	046RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:12:19 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	-0.009	ppb	-3.33	10.00	1	-0.87	80	120	>+\-20%
Se	78	72	HMI H2	0.009	ppb	279.17	60.00	1	0.95	80	120	>+\-20%
Na	23	45	HMI He	27.853	ppb	8.38	29716.45	100	27.85	80	120	>+\-20%
Mg	24	45	HMI He	0.507	ppb	13.60	380.01	100	0.51	80	120	>+\-20%
Al	27	45	HMI He	0.161	ppb	536.70	123.33	100	0.16	80	120	>+\-20%
K	39	45	HMI He	42.733	ppb	29.36	39884.79	100	42.73	80	120	>+\-20%
Ca	44	45	HMI He	10.121	ppb	151.93	153.34	100	10.12	80	120	>+\-20%
V	51	72	HMI He	-0.099	ppb	-182.90	3843.85	1	-9.95	80	120	>+\-20%
Cr	52	72	HMI He	-0.048	ppb	-22.95	210.00	1	-4.82	80	120	>+\-20%
Mn	55	72	HMI He	1.263	ppb	15.41	980.05	1	126.32	80	120	>+\-20%
Fe	57	72	HMI He	0.149	ppb	1100.38	213.34	100	0.15	80	120	>+\-20%
Co	59	72	HMI He	-0.003	ppb	-98.41	10.00	1	-0.26	80	120	>+\-20%
Ni	60	72	HMI He	0.974	ppb	12.07	1390.08	1	97.41	80	120	
Cu	63	72	HMI He	0.077	ppb	68.15	2600.26	1	7.73	80	120	>+\-20%
Zn	66	72	HMI He	9.386	ppb	7.73	4400.65	1	938.62	80	120	>+\-20%
As	75	72	HMI He	-0.057	ppb	-33.56	21.57	1	-5.74	80	120	>+\-20%
Sr	88	45	HMI He	-0.001	ppb	-3188.99	40.00	1	-0.09	80	120	>+\-20%
Nb	93	72	HMI He	-0.146	ppb	-10.12	300.01	2	-7.31	80	120	>+\-20%
Mo	95	115	HMI He	-0.002	ppb	-188.97	46.67	1	-0.22	80	120	>+\-20%
Pd	105	115	HMI He	-0.011	ppb	-207.45	133.33	1	-1.09	80	120	>+\-20%
Ag	107	115	HMI He	0.004	ppb	126.12	56.67	1	0.36	80	120	>+\-20%
Cd	111	115	HMI He	0.000	ppb	15766.41	3.33	1	0.01	80	120	>+\-20%
Sn	120	115	HMI He	-0.119	ppb	-24.79	273.34	1	-11.88	80	120	>+\-20%
Sb	121	115	HMI He	-0.095	ppb	-17.98	180.00	1	-9.48	80	120	>+\-20%
Ba	137	115	HMI He	0.017	ppb	230.75	23.33	1	1.7	80	120	>+\-20%
W	182	165	HMI He	-0.043	ppb	-76.46	1273.41	1	-4.26	80	120	>+\-20%
Pt	195	165	HMI He	0.007	ppb	74.96	113.33	1	0.71	80	120	>+\-20%
Tl	205	165	HMI He	0.000	ppb	9335.67	166.67	1	0.01	80	120	>+\-20%
Pb	208	165	HMI He	0.042	ppb	68.23	2360.12	1	4.19	80	120	>+\-20%
Th	232	165	HMI He	0.001	ppb	643.75	330.01	1	0.1	80	120	>+\-20%
U	238	165	HMI He	-0.002	ppb	-71.01	93.33	1	-0.15	80	120	>+\-20%
Li	7	45	No Gas	-4.069	ppb	-61.12	12376669.04	10	-40.69	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	944511.77	1.60	956003.023333333	98.8	60	125	
Ge Internal Standard	72	HMI H2	19115764.00	1.19	18947224.0133333	100.89	60	125	
Sc (IS)	45	HMI He	1163063.01	0.56	1144561.88333333	101.62	60	125	
Ge Internal Standard	72	HMI He	1577793.92	1.91	1545458.59	102.09	60	125	
In Internal standard	115	HMI He	3922217.29	1.19	3925517.65666667	99.92	60	125	
Ho-165	165	HMI He	18542462.58	0.98	18306963.8366667	101.29	60	125	
Sc IS)	45	No Gas	135741661.25	1.85	132851188.07	102.18	60	120	

CRI Report

Sample Name	CRI-
File Name	047RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:16:26 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	-0.018	ppb	-52.07	5.00	1	-1.78	80	120	>+\-20%
Se	78	72	HMI H2	0.013	ppb	400.06	62.67	1	1.31	80	120	>+\-20%
Na	23	45	HMI He	28.692	ppb	8.90	30541.13	100	28.69	80	120	>+\-20%
Mg	24	45	HMI He	-0.228	ppb	-284.14	290.01	100	-0.23	80	120	>+\-20%
Al	27	45	HMI He	0.200	ppb	146.06	126.67	100	0.2	80	120	>+\-20%
K	39	45	HMI He	26.111	ppb	116.12	39483.80	100	26.11	80	120	>+\-20%
Ca	44	45	HMI He	-14.198	ppb	-54.29	63.33	100	-14.2	80	120	>+\-20%
V	51	72	HMI He	-0.381	ppb	-52.42	3400.39	1	-38.07	80	120	>+\-20%
Cr	52	72	HMI He	0.004	ppb	557.65	323.34	1	0.37	80	120	>+\-20%
Mn	55	72	HMI He	1.266	ppb	16.40	990.04	1	126.61	80	120	>+\-20%
Fe	57	72	HMI He	-2.073	ppb	-50.91	126.67	100	-2.07	80	120	>+\-20%
Co	59	72	HMI He	-0.003	ppb	-166.70	10.00	1	-0.27	80	120	>+\-20%
Ni	60	72	HMI He	0.975	ppb	13.01	1396.74	1	97.51	80	120	
Cu	63	72	HMI He	0.077	ppb	55.74	2616.91	1	7.74	80	120	>+\-20%
Zn	66	72	HMI He	0.077	ppb	179.68	653.35	1	7.7	80	120	>+\-20%
As	75	72	HMI He	-0.008	ppb	-142.54	35.95	1	-0.8	80	120	>+\-20%
Sr	88	45	HMI He	-0.006	ppb	-573.09	36.67	1	-0.61	80	120	>+\-20%
Nb	93	72	HMI He	-0.151	ppb	-5.16	273.34	2	-7.57	80	120	>+\-20%
Mo	95	115	HMI He	-0.012	ppb	-35.66	33.33	1	-1.21	80	120	>+\-20%
Pd	105	115	HMI He	-0.021	ppb	-79.02	113.33	1	-2.08	80	120	>+\-20%
Ag	107	115	HMI He	-0.005	ppb	-63.61	16.67	1	-0.5	80	120	>+\-20%
Cd	111	115	HMI He	0.006	ppb	172.07	6.67	1	0.61	80	120	>+\-20%
Sn	120	115	HMI He	-0.135	ppb	-13.17	253.34	1	-13.52	80	120	>+\-20%
Sb	121	115	HMI He	-0.115	ppb	-57.04	156.67	1	-11.53	80	120	>+\-20%
Ba	137	115	HMI He	-0.017	ppb	-146.48	10.00	1	-1.7	80	120	>+\-20%
W	182	165	HMI He	-0.028	ppb	-157.61	1350.08	1	-2.83	80	120	>+\-20%
Pt	195	165	HMI He	0.006	ppb	194.35	110.00	1	0.65	80	120	>+\-20%
Tl	205	165	HMI He	-0.004	ppb	-21.87	130.00	1	-0.39	80	120	>+\-20%
Pb	208	165	HMI He	-0.010	ppb	-114.56	1726.72	1	-1.04	80	120	>+\-20%
Th	232	165	HMI He	-0.009	ppb	-37.54	203.34	1	-0.86	80	120	>+\-20%
U	238	165	HMI He	-0.003	ppb	-18.10	76.67	1	-0.27	80	120	>+\-20%
Li	7	45	No Gas	-6.978	ppb	-86.13	12538606.95	10	-69.78	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	937625.86	0.58	956003.023333333	98.08	60	125	
Ge Internal Standard	72	HMI H2	19281001.70	1.62	18947224.0133333	101.76	60	125	
Sc (IS)	45	HMI He	1185785.43	2.20	1144561.88333333	103.6	60	125	
Ge Internal Standard	72	HMI He	1586996.92	1.05	1545458.59	102.69	60	125	
In Internal standard	115	HMI He	3982460.70	1.41	3925517.65666667	101.45	60	125	
Ho-165	165	HMI He	18586136.74	1.68	18306963.8366667	101.52	60	125	
Sc IS)	45	No Gas	138726811.10	2.27	132851188.07	104.42	60	120	

CRI Report

Sample Name	CRI4905900
File Name	048_CRI.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:19:57 PM
Sample Type	AFCRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.218	ppb	27.27	131.67	0.2	109.13	80	120	
Mg	24	45	HMI H2	18.807	ppb	4.70	92376.90	20	94.03	80	120	
Se	78	72	HMI H2	0.142	ppb	52.29	126.67	0.2	70.96	80	120	AFCRI Main CR1 Failed
(Se)	82	72	HMI H2	0.513	ppb	43.34	476.68	0.2	256.27	80	120	AFCRI Main CR1 Failed
Na	23	45	HMI He	10.358	ppb	9.92	24658.17	20	51.79	80	120	AFCRI Main CR1 Failed
Mg	24	45	HMI He	17.354	ppb	2.05	2566.89	20	86.77	80	120	
Al	27	45	HMI He	19.921	ppb	33.47	690.02	20	99.6	80	120	
K	39	45	HMI He	59.946	ppb	55.11	41408.72	20	299.73	80	120	AFCRI Main CR1 Failed
Ca	44	45	HMI He	16.879	ppb	41.45	180.00	20	84.4	80	120	
V	51	72	HMI He	-0.198	ppb	-99.37	3730.49	0.2	-98.95	80	120	AFCRI Main CR1 Failed
Cr	52	72	HMI He	0.167	ppb	23.39	683.36	0.2	83.65	80	120	
(Cr)	53	72	HMI He	-0.327	ppb	-236.92	1466.75	0.2	-163.52	80	120	AFCRI Main CR1 Failed
Mn	55	72	HMI He	0.220	ppb	34.25	230.00	0.2	110.19	80	120	
Fe	57	72	HMI He	16.721	ppb	22.07	876.70	20	83.61	80	120	
Co	59	72	HMI He	0.231	ppb	7.60	943.37	0.2	115.72	80	120	
Ni	60	72	HMI He	0.248	ppb	33.17	580.02	0.2	123.96	80	120	AFCRI Main CR1 Failed
Cu	63	72	HMI He	0.189	ppb	54.78	2986.99	0.2	94.51	80	120	
Zn	66	72	HMI He	0.000	ppb	48901.68	626.69	0.2	0.19	80	120	AFCRI Main CR1 Failed
As	75	72	HMI He	0.184	ppb	23.17	92.16	0.2	91.79	80	120	
Sr	88	45	HMI He	0.159	ppb	25.37	156.67	0.2	79.51	80	120	AFCRI Main CR1 Failed
Nb	93	72	HMI He	0.195	ppb	13.15	2233.52	0.4	48.76	80	120	AFCRI Main CR1 Failed
Mo	95	115	HMI He	0.237	ppb	28.71	390.01	0.2	118.48	80	120	
Pd	105	115	HMI He	0.168	ppb	2.48	533.35	0.2	84.12	80	120	
Ag	107	115	HMI He	0.189	ppb	3.85	950.04	0.2	94.41	80	120	
Cd	111	115	HMI He	0.149	ppb	28.22	86.67	0.2	74.35	80	120	AFCRI Main CR1 Failed
(Cd)	114	115	HMI He	0.175	ppb	29.91	280.01	0.2	87.73	80	120	
Sn	120	115	HMI He	0.021	ppb	236.90	483.35	0.2	10.3	80	120	AFCRI Main CR1 Failed
Sb	121	115	HMI He	0.026	ppb	142.60	346.68	0.2	13.01	80	120	AFCRI Main CR1 Failed
Ba	137	115	HMI He	0.226	ppb	46.57	110.00	0.2	113.03	80	120	
W	182	165	HMI He	0.156	ppb	9.80	2330.22	0.2	77.93	80	120	AFCRI Main CR1 Failed
Pt	195	165	HMI He	0.163	ppb	2.90	820.03	0.2	81.71	80	120	
Tl	205	165	HMI He	0.198	ppb	5.78	1996.82	0.2	99.05	80	120	
(Pb)	206	165	HMI He	0.141	ppb	19.58	993.38	0.2	70.42	80	120	AFCRI Main CR1 Failed
(Pb)	207	165	HMI He	0.170	ppb	56.30	813.37	0.2	85.03	80	120	
Pb	208	165	HMI He	0.163	ppb	15.73	3843.58	0.2	81.5	80	120	

CRI Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	0.160	ppb	9.72	2443.59	0.2	79.99	80	120	AFCRI Main CR1 Failed
U	238	165	HMI He	0.192	ppb	2.26	2853.66	0.2	95.95	80	120	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	929751.09	1.54	956003.023333333	97.25	60	125	
Ge Internal Standard	72	HMI H2	19609281.69	2.10	18947224.0133333	103.49	60	125	
Sc (IS)	45	HMI He	1172675.49	0.37	1144561.88333333	102.46	60	125	
Ge Internal Standard	72	HMI He	1599688.55	1.79	1545458.59	103.51	60	125	
In Internal standard	115	HMI He	4022732.95	3.07	3925517.65666667	102.48	60	125	
Ho-165	165	HMI He	18615442.57	2.27	18306963.8366667	101.69	60	125	
Sc IS)	45	No Gas	136091907.90	0.52	132851188.07	102.44	60	120	

Interference Check Solution A (ICS-A) Report

Sample Name	ICSA-4905066
File Name	049ICSA.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:23:28 PM
Sample Type	ICSA
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	15.376	ppb	77.96	125892.77			100	>RL or LOD
Be	9	6	HMI H2	0.001	ppb	2420.40	13.33			100	
B	11	6	HMI H2	-0.212	ppb	-76.06	506.69			100	
Se	78	72	HMI H2	0.044	ppb	189.95	68.00			100	
V	51	72	HMI He	-0.541	ppb	-25.64	2573.57			100	
Cr	52	72	HMI He	1.218	ppb	4.41	2416.88			100	>RL or LOD
Mn	55	72	HMI He	0.364	ppb	40.84	273.34			100	
Co	59	72	HMI He	0.002	ppb	327.40	23.33			100	
Ni	60	72	HMI He	0.049	ppb	133.53	286.67			100	
Cu	63	72	HMI He	0.781	ppb	3.52	3933.87			100	
Zn	66	72	HMI He	0.420	ppb	28.07	650.03			100	
As	75	72	HMI He	0.097	ppb	150.65	54.25			100	
Sr	88	45	HMI He	0.834	ppb	13.66	550.01			100	
Nb	93	72	HMI He	-0.126	ppb	-19.45	340.01			100	
Mo	95	115	HMI He	2009.067	ppb	3.39	2395755.14			100	>RL or LOD
Pd	105	115	HMI He	-0.020	ppb	-75.64	96.67			100	
Ag	107	115	HMI He	0.028	ppb	54.97	146.67			100	
Cd	111	115	HMI He	0.282	ppb	43.85	133.33			100	
Sn	120	115	HMI He	-0.039	ppb	-113.60	330.01			100	
Sb	121	115	HMI He	-0.046	ppb	-31.20	206.67			100	
Ba	137	115	HMI He	0.087	ppb	87.60	43.33			100	
W	182	165	HMI He	0.152	ppb	26.26	2103.51			100	
Pt	195	165	HMI He	-0.001	ppb	-1115.22	70.00			100	
Tl	205	165	HMI He	0.001	ppb	244.09	160.00			100	
Pb	208	165	HMI He	0.116	ppb	15.92	2980.16			100	
Th	232	165	HMI He	0.008	ppb	87.46	386.68			100	
U	238	165	HMI He	0.010	ppb	26.59	233.34			100	
Li	7	45	No Gas	-12.078	ppb	-0.62	10310864.05			100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	863427.84	9.79	956003.023333333	90.32	60	125	
Ge Internal Standard	72	HMI H2	16768712.25	3.60	18947224.0133333	88.5	60	125	

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc (IS)	45	HMI He	993906.20	1.97	1144561.88333333	86.84	60	125	
Ge Internal Standard	72	HMI He	1301209.39	0.87	1545458.59	84.2	60	125	
In Internal standard	115	HMI He	3335767.91	2.53	3925517.65666667	84.98	60	125	
Ho-165	165	HMI He	16943579.12	1.03	18306963.8366667	92.55	60	125	
Sc IS)	45	No Gas	115820433.12	0.46	132851188.07	87.18	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Name	ICSAB-4905067
File Name	050ICSB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:26:54 PM
Sample Type	ICSB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	1004.121	ppb	7.31	439297.84	100	80	120	
Be	9	6	HMI H2	90.658	ppb	3.94	42419.67	100	80	120	
B	11	6	HMI H2	60.167	ppb	1.86	39279.40	100	80	120	>+\-20%
Se	78	72	HMI H2	99.436	ppb	2.77	41832.92	100	80	120	
V	51	72	HMI He	95.357	ppb	0.64	130399.44	100	80	120	
Cr	52	72	HMI He	97.522	ppb	2.43	171294.34	100	80	120	
Mn	55	72	HMI He	100.359	ppb	1.83	59290.37	100	80	120	
Co	59	72	HMI He	97.820	ppb	0.70	314123.08	100	80	120	
Ni	60	72	HMI He	96.202	ppb	1.29	88585.42	100	80	120	
Cu	63	72	HMI He	97.565	ppb	3.10	247228.68	100	80	120	
Zn	66	72	HMI He	96.763	ppb	3.60	32355.73	100	80	120	
As	75	72	HMI He	100.611	ppb	1.81	23728.46	100	80	120	
Sr	88	45	HMI He	96.823	ppb	2.38	58272.78	100	80	120	
Zr	90	72	HMI He	4.805	ppb	141.05	173.34	100	80	120	>+\-20%
Nb	93	72	HMI He	171.058	ppb	1.35	780054.69	100	80	120	
Mo	95	115	HMI He	2015.501	ppb	3.61	2419234.17	100	80	120	>+\-20%
Pd	105	115	HMI He	91.319	ppb	4.58	168716.07	100	80	120	
Ag	107	115	HMI He	91.909	ppb	5.51	369339.69	100	80	120	
Cd	111	115	HMI He	96.553	ppb	3.97	45385.51	100	80	120	
Sn	120	115	HMI He	93.847	ppb	5.74	114793.35	100	80	120	
Sb	121	115	HMI He	99.116	ppb	2.92	110538.82	100	80	120	
Ba	137	115	HMI He	97.478	ppb	5.00	33112.49	100	80	120	
W	182	165	HMI He	99.068	ppb	1.59	469572.38	100	80	120	
Pt	195	165	HMI He	93.300	ppb	1.95	375761.47	100	80	120	
Tl	205	165	HMI He	95.988	ppb	1.41	790191.20	100	80	120	
Pb	208	165	HMI He	94.392	ppb	1.37	1025677.12	100	80	120	
Th	232	165	HMI He	97.829	ppb	0.67	1160186.92	100	80	120	
U	238	165	HMI He	95.978	ppb	1.15	1221230.09	100	80	120	
Li	7	45	No Gas	914.068	ppb	2.47	38085281.76	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	808610.65	2.43	956003.023333333	84.58	60	125	
Ge Internal Standard	72	HMI H2	16708673.19	3.45	18947224.0133333	88.19	60	125	
Sc (IS)	45	HMI He	969610.05	1.17	1144561.88333333	84.71	60	125	
Ge Internal Standard	72	HMI He	1288277.60	0.26	1545458.59	83.36	60	125	
In Internal standard	115	HMI He	3359376.14	4.16	3925517.65666667	85.58	60	125	
Ho-165	165	HMI He	16596002.05	1.19	18306963.8366667	90.65	60	125	
Sc IS)	45	No Gas	112447107.47	0.71	132851188.07	84.64	60	120	

Sample Report

Sample Name	RINSE
File Name	051SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:30:21 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.033	ppb	18.57	31.67	2000	
B	11	6	HMI H2	0.191	ppb	50.96	833.37	100	
Se	78	72	HMI H2	0.090	ppb	6.82	92.00	2000	
Na	23	45	HMI He	67.792	ppb	6.04	36803.67	400000	
Mg	24	45	HMI He	24.654	ppb	5.78	3073.65	400000	
Al	27	45	HMI He	25.762	ppb	21.56	750.03	400000	
K	39	45	HMI He	33.923	ppb	46.54	34659.74	400000	
Ca	44	45	HMI He	35.784	ppb	31.28	220.00	400000	
V	51	72	HMI He	-0.487	ppb	-3.09	2876.96	2000	
Cr	52	72	HMI He	0.034	ppb	124.60	346.67	5000	
Mn	55	72	HMI He	0.106	ppb	26.71	130.00	10000	
Fe	57	72	HMI He	26.554	ppb	8.17	1120.06	400000	
Co	59	72	HMI He	0.016	ppb	74.85	73.33	2000	
Ni	60	72	HMI He	-0.055	ppb	-14.04	206.67	5000	
Cu	63	72	HMI He	0.033	ppb	17.79	2210.18	5000	
Zn	66	72	HMI He	-0.215	ppb	-67.33	476.68	5000	
As	75	72	HMI He	0.006	ppb	1048.05	35.95	2000	
Sr	88	45	HMI He	0.048	ppb	75.17	66.67	2000	
Zr	90	72	HMI He	1.754	ppb	330.08	150.00	1000	
Nb	93	72	HMI He	0.353	ppb	12.06	2766.95	200	
Mo	95	115	HMI He	1.004	ppb	14.16	1360.08	2000	
Pd	105	115	HMI He	0.038	ppb	33.97	223.33	100	
Ag	107	115	HMI He	0.030	ppb	54.36	166.67	100	
Cd	111	115	HMI He	0.007	ppb	318.78	6.67	2000	
Sn	120	115	HMI He	-0.054	ppb	-133.48	340.01	2000	
Sb	121	115	HMI He	-0.148	ppb	-16.38	103.33	1000	
Ba	137	115	HMI He	0.003	ppb	517.17	16.67	5000	
W	182	165	HMI He	0.014	ppb	159.12	1453.43	100	
Pt	195	165	HMI He	0.030	ppb	34.20	200.00	100	
Tl	205	165	HMI He	0.060	ppb	12.19	660.02	2000	
Pb	208	165	HMI He	0.365	ppb	6.07	5793.89	5000	
Th	232	165	HMI He	0.020	ppb	11.71	543.35	2000	
U	238	165	HMI He	0.023	ppb	16.94	413.34	2000	
Li	7	45	No Gas	-7.559	ppb	-81.63	11122815.98	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	910316.24	1.17	956003.023333333	95.22	60	125	
Ge Internal Standard	72	HMI H2	17827580.11	3.48	18947224.0133333	94.09	60	125	
Sc (IS)	45	HMI He	1026130.09	0.80	1144561.88333333	89.65	60	125	
Ge Internal Standard	72	HMI He	1415029.91	1.56	1545458.59	91.56	60	125	
In Internal standard	115	HMI He	3658242.19	0.71	3925517.65666667	93.19	60	125	
Ho-165	165	HMI He	17116263.69	0.53	18306963.8366667	93.5	60	125	
Sc IS)	45	No Gas	123267993.57	0.93	132851188.07	92.79	60	120	

Linear Range Sample (LRS) Report

Sample Name	LRA-4861752
File Name	052_LR.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:33:50 PM
Sample Type	LR
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1906.941	ppb	3.27	961696.61	2000	95.35	90	110	
Se	78	72	HMI H2	2002.986	ppb	2.47	889937.43	2000	100.15	90	110	
(Se)	82	72	HMI H2	1755.984	ppb	2.76	365818.59	2000	87.8	90	110	LRS Main CR1 Failed
V	51	72	HMI He	2024.483	ppb	3.64	2756830.07	2000	101.22	90	110	
Cr	52	72	HMI He	5074.394	ppb	2.47	9080780.98	5000	101.49	90	110	
(Cr)	53	72	HMI He	5001.226	ppb	4.00	1128540.11	5000	100.02	90	110	
Mn	55	72	HMI He	10600.981	ppb	2.99	6384502.48	10000	106.01	90	110	
Co	59	72	HMI He	2055.652	ppb	2.66	6734766.16	2000	102.78	90	110	
Ni	60	72	HMI He	5136.606	ppb	2.41	4813780.32	5000	102.73	90	110	
Cu	63	72	HMI He	5161.586	ppb	2.40	13244105.04	5000	103.23	90	110	
Zn	66	72	HMI He	5220.849	ppb	1.75	1754363.97	5000	104.42	90	110	
As	75	72	HMI He	1963.661	ppb	1.67	471990.63	2000	98.18	90	110	
Sr	88	45	HMI He	0.112	ppb	91.93	100.00	2000	0.01	90	110	LRS Main CR1 Failed
Mo	95	115	HMI He	1995.145	ppb	0.34	2471878.18	2000	99.76	90	110	
Cd	111	115	HMI He	2044.909	ppb	1.22	991846.63	2000	102.25	90	110	
(Cd)	114	115	HMI He	2120.307	ppb	1.12	2581911.97	2000	106.02	90	110	
Sn	120	115	HMI He	1964.795	ppb	1.84	2474514.66	2000	98.24	90	110	
Sb	121	115	HMI He	955.024	ppb	0.24	1096861.34	1000	95.5	90	110	
Ba	137	115	HMI He	5075.420	ppb	0.80	1779502.97	5000	101.51	90	110	
Tl	205	165	HMI He	1041.683	ppb	3.92	8662347.46	1000	104.17	90	110	
(Pb)	206	165	HMI He	5227.152	ppb	4.83	13672635.64	5000	104.54	90	110	
(Pb)	207	165	HMI He	5188.662	ppb	2.65	12583342.57	5000	103.77	90	110	
Pb	208	165	HMI He	5165.413	ppb	2.88	56626288.09	5000	103.31	90	110	
Th	232	165	HMI He	1045.401	ppb	1.90	12525404.87	1000	104.54	90	110	
U	238	165	HMI He	2140.072	ppb	1.86	27524781.06	2000	107	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	871760.83	2.25	956003.023333333	91.19	60	125	
Ge Internal Standard	72	HMI H2	17659087.20	1.28	18947224.0133333	93.2	60	125	
Sc (IS)	45	HMI He	960545.81	0.76	1144561.88333333	83.92	60	125	
Ge Internal Standard	72	HMI He	1314877.89	1.91	1545458.59	85.08	60	125	
In Internal standard	115	HMI He	3464019.91	1.32	3925517.65666667	88.24	60	125	
Ho-165	165	HMI He	16774506.21	1.78	18306963.8366667	91.63	60	125	

Linear Range Sample (LRS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc IS)	45	No Gas	116249788.10	0.57	132851188.07	87.5	60	120	

Sample Report

Sample Name	RINSE
File Name	053SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:37:14 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	1.300	ppb	7.19	653.35	2000	
B	11	6	HMI H2	-0.372	ppb	-35.12	396.68	100	
Se	78	72	HMI H2	1.212	ppb	24.55	566.68	2000	
Na	23	45	HMI He	5.838	ppb	18.47	18934.23	400000	
Mg	24	45	HMI He	0.432	ppb	242.61	303.34	400000	
Al	27	45	HMI He	-2.175	ppb	-23.17	46.67	400000	
K	39	45	HMI He	13.773	ppb	118.49	31069.29	400000	
Ca	44	45	HMI He	2.855	ppb	660.31	103.33	400000	
V	51	72	HMI He	-0.644	ppb	-11.66	2430.23	2000	
Cr	52	72	HMI He	1.472	ppb	11.23	2860.29	5000	
Mn	55	72	HMI He	3.255	ppb	8.77	1993.48	10000	
Fe	57	72	HMI He	-1.674	ppb	-71.35	116.67	400000	
Co	59	72	HMI He	0.620	ppb	15.44	2023.49	2000	
Ni	60	72	HMI He	1.504	ppb	13.07	1633.44	5000	
Cu	63	72	HMI He	1.467	ppb	14.15	5664.41	5000	
Zn	66	72	HMI He	1.541	ppb	27.98	1020.05	5000	
As	75	72	HMI He	0.584	ppb	20.08	169.94	2000	
Sr	88	45	HMI He	0.034	ppb	29.83	53.33	2000	
Zr	90	72	HMI He	1.331	ppb	267.06	133.33	1000	
Nb	93	72	HMI He	-0.088	ppb	-23.56	513.35	200	
Mo	95	115	HMI He	1.174	ppb	12.78	1480.09	2000	
Pd	105	115	HMI He	-0.034	ppb	-66.17	73.33	100	
Ag	107	115	HMI He	0.001	ppb	1387.89	36.67	100	
Cd	111	115	HMI He	0.737	ppb	22.46	356.68	2000	
Sn	120	115	HMI He	0.817	ppb	2.66	1403.41	2000	
Sb	121	115	HMI He	5.737	ppb	1.61	6778.24	1000	
Ba	137	115	HMI He	1.658	ppb	8.02	590.02	5000	
W	182	165	HMI He	-0.062	ppb	-6.34	1060.05	100	
Pt	195	165	HMI He	-0.002	ppb	-231.52	63.33	100	
Tl	205	165	HMI He	0.390	ppb	4.95	3397.10	2000	
Pb	208	165	HMI He	2.231	ppb	8.90	26106.18	5000	
Th	232	165	HMI He	0.429	ppb	12.66	5427.79	2000	
U	238	165	HMI He	0.624	ppb	13.31	8142.44	2000	
Li	7	45	No Gas	-10.978	ppb	-21.46	10583308.82	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	850897.01	1.93	956003.023333333	89.01	60	125	
Ge Internal Standard	72	HMI H2	16954956.62	0.55	18947224.0133333	89.49	60	125	
Sc (IS)	45	HMI He	953350.42	0.43	1144561.88333333	83.29	60	125	
Ge Internal Standard	72	HMI He	1299651.74	1.16	1545458.59	84.09	60	125	
In Internal standard	115	HMI He	3425645.77	1.98	3925517.65666667	87.27	60	125	
Ho-165	165	HMI He	16769962.25	2.76	18306963.8366667	91.6	60	125	
Sc IS)	45	No Gas	118488619.65	0.60	132851188.07	89.19	60	120	

Sample Report

Sample Name	RINSE
File Name	054SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:42:22 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.028	ppb	34.78	43.33	2000	
B	11	6	HMI H2	-0.654	ppb	-3.10	330.01	100	
Se	78	72	HMI H2	0.014	ppb	337.62	74.67	2000	
Na	23	45	HMI He	-34.709	ppb	-2.04	15130.23	400000	
Mg	24	45	HMI He	-1.013	ppb	-14.96	256.67	400000	
Al	27	45	HMI He	-1.115	ppb	-57.50	120.00	400000	
K	39	45	HMI He	-262.422	ppb	-7.88	26348.09	400000	
Ca	44	45	HMI He	-14.725	ppb	-44.93	83.33	400000	
V	51	72	HMI He	-1.887	ppb	-1.91	1230.06	2000	
Cr	52	72	HMI He	-0.029	ppb	-126.49	336.68	5000	
Mn	55	72	HMI He	0.058	ppb	21.80	146.67	10000	
Fe	57	72	HMI He	-3.378	ppb	-1.44	100.00	400000	
Co	59	72	HMI He	0.010	ppb	66.62	80.00	2000	
Ni	60	72	HMI He	-0.032	ppb	-36.31	343.34	5000	
Cu	63	72	HMI He	-0.387	ppb	-7.94	1566.77	5000	
Zn	66	72	HMI He	-0.470	ppb	-17.67	573.35	5000	
As	75	72	HMI He	-0.035	ppb	-8.66	37.26	2000	
Sr	88	45	HMI He	-0.049	ppb	-24.36	6.67	2000	
Zr	90	72	HMI He	-1.651	ppb	-277.90	160.00	1000	
Nb	93	72	HMI He	-0.124	ppb	-14.81	566.68	200	
Mo	95	115	HMI He	0.049	ppb	38.23	160.00	2000	
Pd	105	115	HMI He	-0.015	ppb	-56.46	166.67	100	
Ag	107	115	HMI He	-0.007	ppb	-24.90	6.67	100	
Cd	111	115	HMI He	0.012	ppb	67.65	13.33	2000	
Sn	120	115	HMI He	-0.118	ppb	-42.27	370.01	2000	
Sb	121	115	HMI He	0.188	ppb	24.39	736.70	1000	
Ba	137	115	HMI He	-0.005	ppb	-373.07	20.00	5000	
W	182	165	HMI He	-0.027	ppb	-89.46	1953.49	100	
Pt	195	165	HMI He	-0.012	ppb	-41.79	40.00	100	
Tl	205	165	HMI He	0.029	ppb	21.26	630.02	2000	
Pb	208	165	HMI He	0.015	ppb	33.00	2933.50	5000	
Th	232	165	HMI He	0.117	ppb	6.65	2703.63	2000	
U	238	165	HMI He	0.006	ppb	51.84	286.68	2000	
Li	7	45	No Gas	27.679	ppb	4.79	19982941.25	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1355999.57	1.93	956003.023333333	141.84	60	125	IS Failed
Ge Internal Standard	72	HMI H2	23031647.76	1.72	18947224.0133333	121.56	60	125	
Sc (IS)	45	HMI He	1613522.16	4.36	1144561.88333333	140.97	60	125	IS Failed
Ge Internal Standard	72	HMI He	2106867.05	2.51	1545458.59	136.33	60	125	IS Failed
In Internal standard	115	HMI He	5268681.97	2.45	3925517.65666667	134.22	60	125	IS Failed
Ho-165	165	HMI He	26789377.56	4.58	18306963.8366667	146.33	60	125	IS Failed
Sc IS)	45	No Gas	200337942.88	1.39	132851188.07	150.8	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	055_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:45:50 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	573.289	ppb	3.30	314934.83	500	114.66	90	110	>+\-10%
Be	9	6	HMI H2	48.771	ppb	4.85	24105.50	50	97.54	90	110	
B	11	6	HMI H2	41.171	ppb	6.45	28564.21	50	82.34	90	110	>+\-10%
Se	78	72	HMI H2	51.304	ppb	1.77	22667.96	50	102.61	90	110	
Na	23	45	HMI He	5151.719	ppb	3.09	1337396.90	5000	103.03	90	110	
Mg	24	45	HMI He	5035.850	ppb	4.71	551770.75	5000	100.72	90	110	
Al	27	45	HMI He	5069.533	ppb	3.62	122683.00	5000	101.39	90	110	
K	39	45	HMI He	4991.160	ppb	4.14	322876.53	5000	99.82	90	110	
Ca	44	45	HMI He	4996.645	ppb	3.19	16098.00	5000	99.93	90	110	
V	51	72	HMI He	50.975	ppb	2.22	73319.48	50	101.95	90	110	
Cr	52	72	HMI He	50.937	ppb	2.81	92210.77	50	101.87	90	110	
Mn	55	72	HMI He	52.648	ppb	4.73	32038.15	50	105.3	90	110	
Fe	57	72	HMI He	5188.958	ppb	2.90	171331.75	5000	103.78	90	110	
Co	59	72	HMI He	51.519	ppb	4.01	170272.17	50	103.04	90	110	
Ni	60	72	HMI He	52.012	ppb	6.90	49374.97	50	104.02	90	110	
Cu	63	72	HMI He	52.481	ppb	1.02	137842.46	50	104.96	90	110	
Zn	66	72	HMI He	48.524	ppb	4.38	16962.40	50	97.05	90	110	
As	75	72	HMI He	51.202	ppb	3.39	12443.36	50	102.4	90	110	
Sr	88	45	HMI He	50.576	ppb	5.19	31113.77	50	101.15	90	110	
Zr	90	72	HMI He	56.522	ppb	7.67	806.70	50	113.04	90	110	>+\-10%
Nb	93	72	HMI He	103.987	ppb	1.69	488518.81	100	103.99	90	110	
Mo	95	115	HMI He	48.928	ppb	1.12	60970.18	50	97.86	90	110	
Pd	105	115	HMI He	51.152	ppb	2.79	98117.07	50	102.3	90	110	
Ag	107	115	HMI He	49.808	ppb	1.76	207758.27	50	99.62	90	110	
Cd	111	115	HMI He	50.609	ppb	1.97	24679.52	50	101.22	90	110	
Sn	120	115	HMI He	49.497	ppb	1.36	63033.65	50	98.99	90	110	
Sb	121	115	HMI He	49.018	ppb	2.73	56836.84	50	98.04	90	110	
Ba	137	115	HMI He	50.100	ppb	2.31	17670.29	50	100.2	90	110	
W	182	165	HMI He	52.479	ppb	1.76	252438.07	50	104.96	90	110	
Pt	195	165	HMI He	50.974	ppb	2.17	207951.02	50	101.95	90	110	
Tl	205	165	HMI He	51.785	ppb	3.36	431569.05	50	103.57	90	110	
Pb	208	165	HMI He	51.729	ppb	0.59	569897.53	50	103.46	90	110	
Th	232	165	HMI He	51.528	ppb	2.15	618730.45	50	103.06	90	110	
U	238	165	HMI He	51.572	ppb	1.79	664355.79	50	103.14	90	110	
Li	7	45	No Gas	497.536	ppb	2.76	27295766.91	500	99.51	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	855143.52	5.99	956003.023333333	89.45	60	125	
Ge Internal Standard	72	HMI H2	17523376.79	2.26	18947224.0133333	92.49	60	125	
Sc (IS)	45	HMI He	991464.09	2.50	1144561.88333333	86.62	60	125	
Ge Internal Standard	72	HMI He	1326570.81	2.50	1545458.59	85.84	60	125	
In Internal standard	115	HMI He	3481818.55	0.93	3925517.65666667	88.7	60	125	
Ho-165	165	HMI He	16803846.00	1.44	18306963.8366667	91.79	60	125	
Sc IS)	45	No Gas	120570941.21	1.41	132851188.07	90.76	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	056_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:49:20 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	25.559	ppb	66.27	129657.59	0.1	>RL
Be	9	6	HMI H2	0.128	ppb	37.55	81.67	0.5	
B	11	6	HMI H2	0.171	ppb	61.62	816.70	0.1	>RL
Se	78	72	HMI H2	0.070	ppb	44.62	80.00	1	
Na	23	45	HMI He	8.328	ppb	33.79	20502.64	25	
Mg	24	45	HMI He	1.057	ppb	98.56	386.67	25	
Al	27	45	HMI He	3.071	ppb	115.79	176.67	15	
K	39	45	HMI He	-2.359	ppb	-1011.06	31640.38	50	
Ca	44	45	HMI He	-0.646	ppb	-1583.90	96.67	25	
V	51	72	HMI He	-0.705	ppb	-17.49	2393.55	1	
Cr	52	72	HMI He	0.054	ppb	58.78	360.01	1	
Mn	55	72	HMI He	0.147	ppb	56.31	146.67	0.5	
Fe	57	72	HMI He	-0.353	ppb	-674.04	163.33	25	
Co	59	72	HMI He	0.002	ppb	188.77	23.33	0.5	
Ni	60	72	HMI He	-0.013	ppb	-346.59	233.34	1	
Cu	63	72	HMI He	0.129	ppb	34.63	2320.19	1	
Zn	66	72	HMI He	0.075	ppb	727.06	546.68	5	
As	75	72	HMI He	0.019	ppb	299.79	36.60	1	
Sr	88	45	HMI He	0.051	ppb	18.45	66.67	1	
Zr	90	72	HMI He	-0.538	ppb	-246.45	113.33	1	
Nb	93	72	HMI He	0.203	ppb	7.26	1886.80	2	
Mo	95	115	HMI He	0.068	ppb	41.05	130.00	0.5	
Pd	105	115	HMI He	0.019	ppb	163.15	176.67	1	
Ag	107	115	HMI He	0.004	ppb	231.13	53.33	1	
Cd	111	115	HMI He	0.076	ppb	28.60	40.00	0.5	
Sn	120	115	HMI He	-0.110	ppb	-32.85	256.67	1	
Sb	121	115	HMI He	0.643	ppb	10.36	1020.05	1	
Ba	137	115	HMI He	0.042	ppb	113.56	30.00	0.5	
W	182	165	HMI He	-0.009	ppb	-223.88	1340.08	1	
Pt	195	165	HMI He	0.028	ppb	18.54	190.00	1	
Tl	205	165	HMI He	0.031	ppb	68.32	410.01	0.1	
Pb	208	165	HMI He	0.525	ppb	8.83	7587.51	0.5	>RL
Th	232	165	HMI He	0.020	ppb	9.78	536.69	1	
U	238	165	HMI He	0.011	ppb	31.69	250.01	0.5	
Li	7	45	No Gas	-5.913	ppb	-47.39	10968860.26	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	908277.99	1.29	956003.023333333	95.01	60	125	
Ge Internal Standard	72	HMI H2	17167212.23	0.52	18947224.0133333	90.61	60	125	
Sc (IS)	45	HMI He	1000286.44	1.51	1144561.88333333	87.39	60	125	
Ge Internal Standard	72	HMI He	1325441.01	1.26	1545458.59	85.76	60	125	
In Internal standard	115	HMI He	3510352.05	3.48	3925517.65666667	89.42	60	125	
Ho-165	165	HMI He	17154020.56	2.91	18306963.8366667	93.7	60	125	
Sc IS)	45	No Gas	120958486.19	0.77	132851188.07	91.05	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	057LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:52:47 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.985	ppb	8.84	530.01	1	98.46	70	130	
Se	78	72	HMI H2	4.721	ppb	5.72	2122.82	5	94.42	70	130	
Na	23	45	HMI He	49.766	ppb	6.32	31880.35	50	99.53	70	130	
Mg	24	45	HMI He	50.696	ppb	5.55	5997.81	50	101.39	70	130	
Al	27	45	HMI He	29.241	ppb	7.11	833.36	30	97.47	70	130	
K	39	45	HMI He	85.641	ppb	25.74	37642.94	100	85.64	70	130	
Ca	44	45	HMI He	44.906	ppb	29.58	250.01	50	89.81	70	130	
V	51	72	HMI He	3.866	ppb	10.43	8912.53	5	77.33	70	130	
Cr	52	72	HMI He	2.100	ppb	7.74	4173.94	2	105.02	70	130	
Mn	55	72	HMI He	1.095	ppb	3.88	743.36	1	109.53	70	130	
Fe	57	72	HMI He	46.861	ppb	5.87	1770.12	50	93.72	70	130	
Co	59	72	HMI He	1.056	ppb	6.97	3603.77	1	105.57	70	130	
Ni	60	72	HMI He	2.059	ppb	6.66	2253.52	2	102.95	70	130	
Cu	63	72	HMI He	2.150	ppb	15.88	7758.65	2	107.52	70	130	
Zn	66	72	HMI He	10.919	ppb	10.45	4337.31	10	109.19	70	130	
As	75	72	HMI He	4.913	ppb	6.93	1256.92	5	98.25	70	130	
Sr	88	45	HMI He	0.807	ppb	10.81	546.68	1	80.7	70	130	
Zr	90	72	HMI He	0.826	ppb	336.00	133.33	0.5	165.14	70	130	>+/-30%
Nb	93	72	HMI He	0.215	ppb	15.27	2000.15	2	10.76	70	130	>+/-30%
Mo	95	115	HMI He	1.960	ppb	9.37	2583.57	2	97.99	70	130	
Pd	105	115	HMI He	-0.009	ppb	-354.14	126.67	1	-0.91	70	130	>+/-30%
Ag	107	115	HMI He	4.838	ppb	6.97	21017.59	5	96.75	70	130	
Cd	111	115	HMI He	1.089	ppb	16.80	556.68	1	108.89	70	130	
Sn	120	115	HMI He	9.223	ppb	9.79	12538.55	10	92.23	70	130	
Sb	121	115	HMI He	2.316	ppb	4.51	3063.67	2	115.82	70	130	
Ba	137	115	HMI He	0.892	ppb	11.36	343.34	1	89.15	70	130	
W	182	165	HMI He	4.977	ppb	0.09	26126.26	1	497.73	70	130	>+/-30%
Pt	195	165	HMI He	0.020	ppb	34.95	160.00	1	1.99	70	130	>+/-30%
Tl	205	165	HMI He	1.041	ppb	4.60	9159.67	1	104.13	70	130	
Pb	208	165	HMI He	1.071	ppb	5.90	13946.10	1	107.12	70	130	
Th	232	165	HMI He	1.903	ppb	4.28	24006.86	2	95.16	70	130	
U	238	165	HMI He	0.990	ppb	3.35	13339.73	1	99.01	70	130	
Li	7	45	No Gas	12.193	ppb	38.83	11419778.78	50	24.39	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	903883.81	4.97	956003.023333333	94.55	60	125	
Ge Internal Standard	72	HMI H2	17442930.34	0.64	18947224.0133333	92.06	60	125	
Sc (IS)	45	HMI He	1021947.82	2.88	1144561.88333333	89.29	60	125	
Ge Internal Standard	72	HMI He	1363799.50	1.63	1545458.59	88.25	60	125	
In Internal standard	115	HMI He	3625835.90	3.20	3925517.65666667	92.37	60	125	
Ho-165	165	HMI He	17439044.71	1.84	18306963.8366667	95.26	60	125	
Sc IS)	45	No Gas	119487164.60	0.77	132851188.07	89.94	60	120	

Blank Report

Sample Name	mb 280-399863/1-a
File Name	058_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:56:16 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	24.074	ppb	17.04	130585.83	0.1	>DL
Be	9	6	HMI H2	0.044	ppb	80.24	36.67	0.5	
Se	78	72	HMI H2	0.042	ppb	206.47	69.33	1	
Na	23	45	HMI He	54.086	ppb	4.65	31803.63	25	>DL
Mg	24	45	HMI He	1.558	ppb	74.36	436.68	25	
Al	27	45	HMI He	2.336	ppb	52.01	156.67	15	
K	39	45	HMI He	1.096	ppb	1685.96	31326.52	50	
Ca	44	45	HMI He	-7.573	ppb	-186.12	73.33	25	
V	51	72	HMI He	-0.392	ppb	-19.29	2823.62	1	
Cr	52	72	HMI He	0.021	ppb	252.65	303.34	1	
Mn	55	72	HMI He	0.156	ppb	97.08	150.00	0.5	
Fe	57	72	HMI He	-0.723	ppb	-195.66	150.00	25	
Co	59	72	HMI He	0.006	ppb	34.92	36.67	0.5	
Ni	60	72	HMI He	0.802	ppb	26.12	1000.04	1	
Cu	63	72	HMI He	0.019	ppb	512.59	2030.15	1	
Zn	66	72	HMI He	0.375	ppb	45.54	646.69	5	
As	75	72	HMI He	-0.024	ppb	-83.60	26.14	1	
Sr	88	45	HMI He	-0.018	ppb	-187.55	23.33	1	
Zr	90	72	HMI He	0.524	ppb	262.79	126.67	1	
Nb	93	72	HMI He	-0.138	ppb	-7.46	290.01	2	
Mo	95	115	HMI He	0.023	ppb	172.09	73.33	0.5	
Pd	105	115	HMI He	-0.010	ppb	-334.52	120.00	1	
Ag	107	115	HMI He	0.000	ppb	-1307.12	33.33	1	
Cd	111	115	HMI He	0.035	ppb	118.50	20.00	0.5	
Sn	120	115	HMI He	-0.083	ppb	-100.56	290.00	1	
Sb	121	115	HMI He	0.176	ppb	30.50	473.34	1	
Ba	137	115	HMI He	0.014	ppb	341.26	20.00	0.5	
W	182	165	HMI He	-0.066	ppb	-48.77	1043.38	1	
Pt	195	165	HMI He	0.002	ppb	507.47	83.33	1	
Tl	205	165	HMI He	0.011	ppb	29.15	240.00	0.1	
Pb	208	165	HMI He	0.034	ppb	25.05	2053.42	0.5	
Th	232	165	HMI He	0.000	ppb	-1268.68	283.34	1	
U	238	165	HMI He	0.001	ppb	463.18	116.67	0.5	
Li	7	45	No Gas	-3.526	ppb	-234.01	10624178.51	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	884980.63	3.81	956003.023333333	92.57	60	125	
Ge Internal Standard	72	HMI H2	17582832.62	1.95	18947224.0133333	92.8	60	125	
Sc (IS)	45	HMI He	983967.32	1.32	1144561.88333333	85.97	60	125	
Ge Internal Standard	72	HMI He	1325886.79	3.25	1545458.59	85.79	60	125	
In Internal standard	115	HMI He	3490594.15	2.00	3925517.65666667	88.92	60	125	
Ho-165	165	HMI He	16863063.91	1.55	18306963.8366667	92.11	60	125	
Sc IS)	45	No Gas	116365466.43	2.14	132851188.07	87.59	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399863/2-a
File Name	059_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 1:59:46 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	29.962	ppb	1.01	16232.82	40	74.91	80	120	>+/-20%
Se	78	72	HMI H2	32.661	ppb	0.80	14545.26	40	81.65	80	120	
Na	23	45	HMI He	34.740	ppb	6.30	27305.67	40	86.85	80	120	
Mg	24	45	HMI He	0.898	ppb	63.23	370.01	40	2.25	80	120	>+/-20%
Al	27	45	HMI He	327.895	ppb	7.88	8095.37	40	819.74	80	120	>+/-20%
K	39	45	HMI He	2.297	ppb	1151.91	31880.88	40	5.74	80	120	>+/-20%
Ca	44	45	HMI He	161.599	ppb	11.56	620.02	40	404	80	120	>+/-20%
V	51	72	HMI He	32.655	ppb	1.62	48772.62	40	81.64	80	120	
Cr	52	72	HMI He	34.007	ppb	4.34	62394.99	40	85.02	80	120	
Mn	55	72	HMI He	34.735	ppb	4.42	21414.11	40	86.84	80	120	
Fe	57	72	HMI He	335.980	ppb	0.89	11397.47	40	839.95	80	120	>+/-20%
Co	59	72	HMI He	34.475	ppb	1.77	115368.49	40	86.19	80	120	
Ni	60	72	HMI He	35.061	ppb	5.30	33791.79	40	87.65	80	120	
Cu	63	72	HMI He	35.042	ppb	2.03	93818.23	40	87.6	80	120	
Zn	66	72	HMI He	34.554	ppb	4.09	12378.22	40	86.39	80	120	
As	75	72	HMI He	32.564	ppb	2.47	8023.57	40	81.41	80	120	
Sr	88	45	HMI He	33.517	ppb	1.80	20813.73	40	83.79	80	120	
Nb	93	72	HMI He	-0.142	ppb	-8.28	276.67	40	-0.35	80	120	>+/-20%
Mo	95	115	HMI He	32.210	ppb	4.82	40829.30	40	80.52	80	120	
Pd	105	115	HMI He	-0.013	ppb	-97.23	116.67	40	-0.03	80	120	>+/-20%
Ag	107	115	HMI He	32.865	ppb	1.39	139334.40	40	82.16	80	120	
Cd	111	115	HMI He	32.798	ppb	4.27	16248.57	40	82	80	120	
Sn	120	115	HMI He	31.634	ppb	2.59	41080.67	40	79.09	80	120	>+/-20%
Sb	121	115	HMI He	32.181	ppb	1.53	38019.77	40	80.45	80	120	
Ba	137	115	HMI He	32.296	ppb	4.26	11577.80	40	80.74	80	120	
W	182	165	HMI He	32.949	ppb	1.41	162647.29	40	82.37	80	120	
Pt	195	165	HMI He	0.164	ppb	5.09	760.03	40	0.41	80	120	>+/-20%
Tl	205	165	HMI He	33.673	ppb	3.36	287067.07	40	84.18	80	120	
Pb	208	165	HMI He	34.007	ppb	1.18	383757.40	40	85.02	80	120	
Th	232	165	HMI He	33.449	ppb	2.30	410889.44	40	83.62	80	120	
U	238	165	HMI He	33.442	ppb	1.90	440645.29	40	83.61	80	120	
Li	7	45	No Gas	39.918	ppb	8.75	11964927.29	400	9.98	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	935280.84	4.15	956003.023333333	97.83	60	125	
Ge Internal Standard	72	HMI H2	17635271.16	0.82	18947224.0133333	93.08	60	125	
Sc (IS)	45	HMI He	999312.58	1.06	1144561.88333333	87.31	60	125	
Ge Internal Standard	72	HMI He	1342672.35	1.87	1545458.59	86.88	60	125	
In Internal standard	115	HMI He	3538678.06	1.50	3925517.65666667	90.15	60	125	
Ho-165	165	HMI He	17185843.89	1.18	18306963.8366667	93.88	60	125	
Sc IS)	45	No Gas	116112584.78	0.49	132851188.07	87.4	60	120	

Sample Report

Sample Name	280-105016-a-1-a
File Name	060SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:03:17 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.034	ppb	93.84	28.33	2000	
B	11	6	HMI H2	37.864	ppb	6.30	24845.10	100	
Se	78	72	HMI H2	0.578	ppb	17.64	296.00	2000	
Na	23	45	HMI He	141401.277	ppb	0.82	34561059.45	400000	
Mg	24	45	HMI He	8137.502	ppb	2.79	850432.72	400000	
Al	27	45	HMI He	67.175	ppb	8.34	1646.78	400000	
K	39	45	HMI He	19254.412	ppb	0.88	1102451.02	400000	
Ca	44	45	HMI He	21801.660	ppb	1.82	66630.73	400000	
V	51	72	HMI He	-0.928	ppb	-19.22	2006.81	2000	
Cr	52	72	HMI He	1.456	ppb	10.68	2776.93	5000	
Mn	55	72	HMI He	378.644	ppb	2.61	220922.53	10000	
Fe	57	72	HMI He	87.850	ppb	6.60	2950.31	400000	
Co	59	72	HMI He	0.330	ppb	25.64	1063.39	2000	
Ni	60	72	HMI He	47.108	ppb	0.83	42990.11	5000	
Cu	63	72	HMI He	307.980	ppb	1.26	767191.51	5000	
Zn	66	72	HMI He	21.878	ppb	9.30	7618.54	5000	
As	75	72	HMI He	0.280	ppb	44.52	96.08	2000	
Sr	88	45	HMI He	238.163	ppb	1.90	139675.22	2000	
Zr	90	72	HMI He	45.932	ppb	14.63	650.02	1000	
Nb	93	72	HMI He	-0.088	ppb	-21.78	503.35	200	
Mo	95	115	HMI He	2.366	ppb	13.00	2823.62	2000	
Pd	105	115	HMI He	0.297	ppb	28.72	670.02	100	
Ag	107	115	HMI He	0.779	ppb	2.77	3100.33	100	
Cd	111	115	HMI He	0.131	ppb	24.65	63.33	2000	
Sn	120	115	HMI He	246.205	ppb	0.84	294582.66	2000	
Sb	121	115	HMI He	0.333	ppb	24.87	616.69	1000	
Ba	137	115	HMI He	1813.529	ppb	2.01	603360.52	5000	
W	182	165	HMI He	0.115	ppb	24.82	1870.14	100	
Pt	195	165	HMI He	0.014	ppb	44.65	126.67	100	
Tl	205	165	HMI He	0.045	ppb	26.34	513.35	2000	
Pb	208	165	HMI He	6.330	ppb	3.18	69698.48	5000	
Th	232	165	HMI He	0.088	ppb	5.88	1320.08	2000	
U	238	165	HMI He	0.838	ppb	9.26	10660.72	2000	
Li	7	45	No Gas	0.181	ppb	5039.50	10278320.72	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	804788.45	1.26	956003.023333333	84.18	60	125	
Ge Internal Standard	72	HMI H2	16959040.57	1.78	18947224.0133333	89.51	60	125	
Sc (IS)	45	HMI He	945389.35	1.68	1144561.88333333	82.6	60	125	
Ge Internal Standard	72	HMI He	1273155.56	0.54	1545458.59	82.38	60	125	
In Internal standard	115	HMI He	3287660.48	1.47	3925517.65666667	83.75	60	125	
Ho-165	165	HMI He	16452264.98	1.79	18306963.8366667	89.87	60	125	
Sc IS)	45	No Gas	111343000.03	1.44	132851188.07	83.81	60	120	

Sample Report

Sample Name	280-105016-a-1-b ms
File Name	061SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:07:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	29.446	ppb	8.00	14077.55	2000	
B	11	6	HMI H2	59.036	ppb	6.08	39385.91	100	
Se	78	72	HMI H2	29.575	ppb	2.56	12500.89	2000	
Na	23	45	HMI He	143504.630	ppb	2.71	35060277.76	400000	
Mg	24	45	HMI He	8210.345	ppb	1.75	858001.14	400000	
Al	27	45	HMI He	371.934	ppb	2.78	8672.34	400000	
K	39	45	HMI He	19387.488	ppb	2.49	1109517.43	400000	
Ca	44	45	HMI He	22410.760	ppb	2.16	68484.80	400000	
V	51	72	HMI He	30.122	ppb	4.46	43240.54	2000	
Cr	52	72	HMI He	31.987	ppb	1.56	56122.43	5000	
Mn	55	72	HMI He	412.086	ppb	0.32	242269.06	10000	
Fe	57	72	HMI He	379.729	ppb	1.36	12288.06	400000	
Co	59	72	HMI He	31.376	ppb	2.19	100349.27	2000	
Ni	60	72	HMI He	79.181	ppb	2.53	72647.58	5000	
Cu	63	72	HMI He	339.119	ppb	1.10	850968.66	5000	
Zn	66	72	HMI He	53.260	ppb	5.23	17956.80	5000	
As	75	72	HMI He	30.094	ppb	2.02	7088.49	2000	
Sr	88	45	HMI He	272.697	ppb	2.34	159893.08	2000	
Zr	90	72	HMI He	5001.956	ppb	2.09	58824.89	1000	>LDR
Nb	93	72	HMI He	-0.090	ppb	-28.19	500.01	200	
Mo	95	115	HMI He	32.843	ppb	1.95	39355.50	2000	
Pd	105	115	HMI He	0.371	ppb	27.56	816.70	100	
Ag	107	115	HMI He	29.981	ppb	2.83	120242.29	100	
Cd	111	115	HMI He	30.808	ppb	4.12	14440.13	2000	
Sn	120	115	HMI He	268.263	ppb	1.73	326668.83	2000	
Sb	121	115	HMI He	30.276	ppb	3.10	33846.76	1000	
Ba	137	115	HMI He	1834.897	ppb	0.67	621514.97	5000	
W	182	165	HMI He	28.735	ppb	0.64	139980.82	100	
Pt	195	165	HMI He	0.091	ppb	18.20	446.68	100	
Tl	205	165	HMI He	29.145	ppb	2.26	244968.86	2000	
Pb	208	165	HMI He	35.293	ppb	1.88	392530.01	5000	
Th	232	165	HMI He	29.679	ppb	0.79	359474.49	2000	
U	238	165	HMI He	31.025	ppb	1.17	403006.66	2000	
Li	7	45	No Gas	36.449	ppb	5.44	11371811.38	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	827992.33	6.21	956003.023333333	86.61	60	125	
Ge Internal Standard	72	HMI H2	16738323.71	2.41	18947224.0133333	88.34	60	125	
Sc (IS)	45	HMI He	945214.98	1.39	1144561.88333333	82.58	60	125	
Ge Internal Standard	72	HMI He	1282915.47	1.04	1545458.59	83.01	60	125	
In Internal standard	115	HMI He	3346523.23	0.85	3925517.65666667	85.25	60	125	
Ho-165	165	HMI He	16939982.87	0.85	18306963.8366667	92.53	60	125	
Sc IS)	45	No Gas	111369750.03	0.56	132851188.07	83.83	60	120	

Sample Report

Sample Name	280-105016-a-1-c msd
File Name	062SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:10:41 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	31.036	ppb	2.67	14050.89	2000	
B	11	6	HMI H2	63.238	ppb	1.34	39873.79	100	
Se	78	72	HMI H2	28.802	ppb	1.67	12344.74	2000	
Na	23	45	HMI He	144636.226	ppb	1.67	35275575.66	400000	
Mg	24	45	HMI He	8227.345	ppb	1.25	858271.86	400000	
Al	27	45	HMI He	374.234	ppb	1.12	8712.35	400000	
K	39	45	HMI He	19364.286	ppb	0.96	1106415.48	400000	
Ca	44	45	HMI He	22198.696	ppb	1.03	67715.02	400000	
V	51	72	HMI He	29.623	ppb	1.77	42505.15	2000	
Cr	52	72	HMI He	31.981	ppb	1.59	55995.55	5000	
Mn	55	72	HMI He	410.469	ppb	1.23	240868.83	10000	
Fe	57	72	HMI He	386.591	ppb	3.09	12481.56	400000	
Co	59	72	HMI He	31.448	ppb	2.92	100376.24	2000	
Ni	60	72	HMI He	80.099	ppb	1.76	73354.02	5000	
Cu	63	72	HMI He	340.538	ppb	1.33	852921.41	5000	
Zn	66	72	HMI He	52.496	ppb	0.65	17676.47	5000	
As	75	72	HMI He	29.485	ppb	1.09	6933.52	2000	
Sr	88	45	HMI He	267.276	ppb	1.28	156451.83	2000	
Zr	90	72	HMI He	5011.334	ppb	1.36	58828.37	1000	>LDR
Nb	93	72	HMI He	-0.110	ppb	-25.53	406.68	200	
Mo	95	115	HMI He	32.613	ppb	3.89	39125.04	2000	
Pd	105	115	HMI He	0.277	ppb	33.94	643.35	100	
Ag	107	115	HMI He	29.782	ppb	1.05	119600.61	100	
Cd	111	115	HMI He	31.055	ppb	1.01	14576.91	2000	
Sn	120	115	HMI He	276.531	ppb	0.64	337221.26	2000	
Sb	121	115	HMI He	30.138	ppb	4.08	33729.85	1000	
Ba	137	115	HMI He	1845.658	ppb	1.68	625980.59	5000	
W	182	165	HMI He	29.130	ppb	0.75	139520.40	100	
Pt	195	165	HMI He	0.014	ppb	123.09	130.00	100	
Tl	205	165	HMI He	29.745	ppb	1.24	245877.48	2000	
Pb	208	165	HMI He	35.859	ppb	0.82	392175.24	5000	
Th	232	165	HMI He	30.015	ppb	2.72	357454.74	2000	
U	238	165	HMI He	31.457	ppb	1.07	401825.94	2000	
Li	7	45	No Gas	31.629	ppb	14.61	11209161.60	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	781506.05	0.97	956003.023333333	81.75	60	125	
Ge Internal Standard	72	HMI H2	16966795.37	1.08	18947224.0133333	89.55	60	125	
Sc (IS)	45	HMI He	943512.57	1.38	1144561.88333333	82.43	60	125	
Ge Internal Standard	72	HMI He	1280428.97	0.89	1545458.59	82.85	60	125	
In Internal standard	115	HMI He	3351212.66	1.05	3925517.65666667	85.37	60	125	
Ho-165	165	HMI He	16658228.09	0.64	18306963.8366667	90.99	60	125	
Sc IS)	45	No Gas	111194975.87	0.40	132851188.07	83.7	60	120	

Sample Report

Sample Name	280-104890-b-1-a
File Name	063SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:14:07 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.023	ppb	123.93	25.00	2000	
B	11	6	HMI H2	1.136	ppb	5.83	1470.08	100	
Se	78	72	HMI H2	0.091	ppb	29.64	90.67	2000	
Na	23	45	HMI He	168.420	ppb	3.73	62024.41	400000	
Mg	24	45	HMI He	17.133	ppb	6.03	2170.18	400000	
Al	27	45	HMI He	21.863	ppb	30.16	636.71	400000	
K	39	45	HMI He	10.772	ppb	222.46	32492.05	400000	
Ca	44	45	HMI He	253.700	ppb	12.21	920.04	400000	
V	51	72	HMI He	-0.711	ppb	-28.06	2446.88	2000	
Cr	52	72	HMI He	0.251	ppb	23.50	730.03	5000	
Mn	55	72	HMI He	1.526	ppb	16.35	1003.37	10000	
Fe	57	72	HMI He	16.483	ppb	15.18	736.69	400000	
Co	59	72	HMI He	0.040	ppb	32.32	150.00	2000	
Ni	60	72	HMI He	0.724	ppb	22.95	946.71	5000	
Cu	63	72	HMI He	0.781	ppb	24.20	4077.25	5000	
Zn	66	72	HMI He	288.252	ppb	2.72	100251.46	5000	
As	75	72	HMI He	0.014	ppb	223.30	35.95	2000	
Sr	88	45	HMI He	1.048	ppb	5.30	686.69	2000	
Zr	90	72	HMI He	5.526	ppb	104.59	190.00	1000	
Nb	93	72	HMI He	-0.154	ppb	-4.13	220.00	200	
Mo	95	115	HMI He	0.019	ppb	80.11	70.00	2000	
Pd	105	115	HMI He	-0.057	ppb	-45.88	30.00	100	
Ag	107	115	HMI He	0.009	ppb	29.44	73.33	100	
Cd	111	115	HMI He	0.027	ppb	152.25	16.67	2000	
Sn	120	115	HMI He	-0.031	ppb	-15.87	363.34	2000	
Sb	121	115	HMI He	-0.107	ppb	-24.61	150.00	1000	
Ba	137	115	HMI He	1.938	ppb	21.26	716.70	5000	
W	182	165	HMI He	-0.024	ppb	-93.75	1253.40	100	
Pt	195	165	HMI He	0.019	ppb	54.31	150.00	100	
Tl	205	165	HMI He	0.033	ppb	24.76	430.01	2000	
Pb	208	165	HMI He	0.110	ppb	10.24	2900.16	5000	
Th	232	165	HMI He	0.025	ppb	17.11	593.35	2000	
U	238	165	HMI He	0.003	ppb	41.36	150.00	2000	
Li	7	45	No Gas	3.327	ppb	154.18	10803428.81	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	882942.25	3.86	956003.023333333	92.36	60	125	
Ge Internal Standard	72	HMI H2	17447583.47	2.74	18947224.0133333	92.09	60	125	
Sc (IS)	45	HMI He	1002450.69	0.80	1144561.88333333	87.58	60	125	
Ge Internal Standard	72	HMI He	1355142.29	5.55	1545458.59	87.69	60	125	
In Internal standard	115	HMI He	3578159.46	1.05	3925517.65666667	91.15	60	125	
Ho-165	165	HMI He	16918358.08	0.91	18306963.8366667	92.41	60	125	
Sc IS)	45	No Gas	115964463.95	1.85	132851188.07	87.29	60	120	

Sample Report

Sample Name	280-104890-b-2-a
File Name	064SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:17:35 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.017	ppb	102.73	21.67	2000	
B	11	6	HMI H2	2.646	ppb	27.15	2436.88	100	
Se	78	72	HMI H2	0.059	ppb	66.68	77.33	2000	
Na	23	45	HMI He	1110.625	ppb	1.37	304068.77	400000	
Mg	24	45	HMI He	146.339	ppb	1.31	16378.16	400000	
Al	27	45	HMI He	109.615	ppb	12.72	2763.61	400000	
K	39	45	HMI He	722.731	ppb	0.65	74057.72	400000	
Ca	44	45	HMI He	3497.664	ppb	2.06	11344.05	400000	
V	51	72	HMI He	0.595	ppb	47.44	4163.93	2000	
Cr	52	72	HMI He	0.816	ppb	9.61	1730.11	5000	
Mn	55	72	HMI He	12.074	ppb	3.62	7358.44	10000	
Fe	57	72	HMI He	223.957	ppb	8.44	7525.17	400000	
Co	59	72	HMI He	0.155	ppb	16.07	526.68	2000	
Ni	60	72	HMI He	4.252	ppb	4.48	4247.28	5000	
Cu	63	72	HMI He	5.328	ppb	2.61	15704.32	5000	
Zn	66	72	HMI He	109.026	ppb	2.48	37289.44	5000	
As	75	72	HMI He	0.242	ppb	28.28	90.20	2000	
Sr	88	45	HMI He	13.288	ppb	3.08	8242.24	2000	
Zr	90	72	HMI He	17.425	ppb	8.37	330.01	1000	
Nb	93	72	HMI He	-0.167	ppb	-8.72	153.33	200	
Mo	95	115	HMI He	0.058	ppb	96.52	116.67	2000	
Pd	105	115	HMI He	-0.041	ppb	-68.09	60.00	100	
Ag	107	115	HMI He	0.000	ppb	1674.91	36.67	100	
Cd	111	115	HMI He	0.042	ppb	25.87	23.33	2000	
Sn	120	115	HMI He	0.075	ppb	112.27	483.35	2000	
Sb	121	115	HMI He	0.180	ppb	42.01	473.35	1000	
Ba	137	115	HMI He	8.643	ppb	10.85	3040.34	5000	
W	182	165	HMI He	-0.020	ppb	-105.70	1253.40	100	
Pt	195	165	HMI He	0.050	ppb	19.31	276.68	100	
Tl	205	165	HMI He	-0.001	ppb	-299.06	140.00	2000	
Pb	208	165	HMI He	2.117	ppb	1.12	24798.62	5000	
Th	232	165	HMI He	0.013	ppb	6.35	443.34	2000	
U	238	165	HMI He	0.023	ppb	34.74	400.01	2000	
Li	7	45	No Gas	0.966	ppb	591.01	10638287.26	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	858571.89	8.88	956003.023333333	89.81	60	125	
Ge Internal Standard	72	HMI H2	17616030.75	0.84	18947224.0133333	92.97	60	125	
Sc (IS)	45	HMI He	995890.58	1.27	1144561.88333333	87.01	60	125	
Ge Internal Standard	72	HMI He	1320145.03	0.72	1545458.59	85.42	60	125	
In Internal standard	115	HMI He	3458284.94	2.03	3925517.65666667	88.1	60	125	
Ho-165	165	HMI He	16710826.00	1.10	18306963.8366667	91.28	60	125	
Sc IS)	45	No Gas	114958719.00	0.43	132851188.07	86.53	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	065_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:21:04 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	537.658	ppb	3.80	310856.66	500	107.53	90	110	
Be	9	6	HMI H2	46.700	ppb	6.54	23788.28	50	93.4	90	110	
B	11	6	HMI H2	39.692	ppb	10.72	28367.31	50	79.38	90	110	>+\-10%
Se	78	72	HMI H2	49.843	ppb	2.29	22131.22	50	99.69	90	110	
Na	23	45	HMI He	5206.408	ppb	4.49	1355747.69	5000	104.13	90	110	
Mg	24	45	HMI He	5003.754	ppb	0.58	550346.60	5000	100.08	90	110	
Al	27	45	HMI He	5053.290	ppb	1.22	122719.27	5000	101.07	90	110	
K	39	45	HMI He	4964.768	ppb	1.03	322516.29	5000	99.3	90	110	
Ca	44	45	HMI He	5075.245	ppb	3.08	16391.65	5000	101.5	90	110	
V	51	72	HMI He	49.723	ppb	2.54	71153.21	50	99.45	90	110	
Cr	52	72	HMI He	51.297	ppb	3.42	92264.15	50	102.59	90	110	
Mn	55	72	HMI He	52.165	ppb	1.28	31550.71	50	104.33	90	110	
Fe	57	72	HMI He	5264.439	ppb	1.74	172722.55	5000	105.29	90	110	
Co	59	72	HMI He	51.297	ppb	0.60	168510.33	50	102.59	90	110	
Ni	60	72	HMI He	51.790	ppb	0.90	48896.41	50	103.58	90	110	
Cu	63	72	HMI He	52.514	ppb	1.26	137021.76	50	105.03	90	110	
Zn	66	72	HMI He	51.314	ppb	2.34	17796.62	50	102.63	90	110	
As	75	72	HMI He	51.485	ppb	3.35	12432.23	50	102.97	90	110	
Sr	88	45	HMI He	50.297	ppb	4.08	31053.66	50	100.59	90	110	
Zr	90	72	HMI He	58.985	ppb	7.00	830.03	50	117.97	90	110	>+\-10%
Nb	93	72	HMI He	104.239	ppb	1.08	486539.90	100	104.24	90	110	
Mo	95	115	HMI He	48.281	ppb	2.77	60019.91	50	96.56	90	110	
Pd	105	115	HMI He	50.317	ppb	2.07	96286.00	50	100.63	90	110	
Ag	107	115	HMI He	50.153	ppb	2.31	208698.25	50	100.31	90	110	
Cd	111	115	HMI He	49.543	ppb	3.92	24095.27	50	99.09	90	110	
Sn	120	115	HMI He	48.381	ppb	1.70	61470.71	50	96.76	90	110	
Sb	121	115	HMI He	48.059	ppb	2.86	55598.92	50	96.12	90	110	
Ba	137	115	HMI He	49.570	ppb	4.06	17436.67	50	99.14	90	110	
W	182	165	HMI He	51.680	ppb	1.82	249762.57	50	103.36	90	110	
Pt	195	165	HMI He	50.041	ppb	3.71	204925.52	50	100.08	90	110	
Tl	205	165	HMI He	51.148	ppb	4.59	428002.87	50	102.3	90	110	
Pb	208	165	HMI He	51.012	ppb	2.80	564352.60	50	102.02	90	110	
Th	232	165	HMI He	50.927	ppb	4.15	614016.94	50	101.85	90	110	
U	238	165	HMI He	51.192	ppb	2.82	662290.30	50	102.38	90	110	
Li	7	45	No Gas	510.711	ppb	1.85	27034108.17	500	102.14	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	882485.46	7.54	956003.023333333	92.31	60	125	
Ge Internal Standard	72	HMI H2	17602656.37	0.63	18947224.0133333	92.9	60	125	
Sc (IS)	45	HMI He	994526.76	1.39	1144561.88333333	86.89	60	125	
Ge Internal Standard	72	HMI He	1317761.23	1.24	1545458.59	85.27	60	125	
In Internal standard	115	HMI He	3472880.09	0.68	3925517.65666667	88.47	60	125	
Ho-165	165	HMI He	16880339.95	2.50	18306963.8366667	92.21	60	125	
Sc IS)	45	No Gas	117559263.87	0.95	132851188.07	88.49	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	066_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:24:32 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	16.433	ppb	96.45	128200.19	0.1	>RL
Be	9	6	HMI H2	0.032	ppb	67.75	30.00	0.5	
B	11	6	HMI H2	0.544	ppb	16.63	1066.72	0.1	>RL
Se	78	72	HMI H2	0.034	ppb	93.90	65.33	1	
Na	23	45	HMI He	23.934	ppb	6.05	24397.82	25	
Mg	24	45	HMI He	2.584	ppb	50.65	553.35	25	
Al	27	45	HMI He	2.395	ppb	139.47	160.00	15	
K	39	45	HMI He	-7.541	ppb	-308.53	31149.48	50	
Ca	44	45	HMI He	11.835	ppb	107.19	136.67	25	
V	51	72	HMI He	-0.284	ppb	-57.19	3020.31	1	
Cr	52	72	HMI He	-0.019	ppb	-148.58	233.34	1	
Mn	55	72	HMI He	0.101	ppb	66.44	120.00	0.5	
Fe	57	72	HMI He	-0.329	ppb	-576.43	166.67	25	
Co	59	72	HMI He	0.011	ppb	126.60	53.33	0.5	
Ni	60	72	HMI He	-0.020	ppb	-165.70	230.00	1	
Cu	63	72	HMI He	0.098	ppb	39.46	2276.86	1	
Zn	66	72	HMI He	-0.067	ppb	-629.73	503.35	5	
As	75	72	HMI He	-0.017	ppb	-227.04	28.10	1	
Sr	88	45	HMI He	0.030	ppb	278.63	53.33	1	
Zr	90	72	HMI He	2.308	ppb	164.85	150.00	1	>RL
Nb	93	72	HMI He	0.146	ppb	16.71	1650.11	2	
Mo	95	115	HMI He	0.041	ppb	11.29	96.67	0.5	
Pd	105	115	HMI He	0.024	ppb	30.03	186.67	1	
Ag	107	115	HMI He	0.007	ppb	161.20	63.33	1	
Cd	111	115	HMI He	0.048	ppb	23.18	26.67	0.5	
Sn	120	115	HMI He	-0.084	ppb	-86.44	290.01	1	
Sb	121	115	HMI He	0.264	ppb	38.16	580.02	1	
Ba	137	115	HMI He	0.070	ppb	38.40	40.00	0.5	
W	182	165	HMI He	0.004	ppb	540.89	1400.09	1	
Pt	195	165	HMI He	0.030	ppb	45.99	200.01	1	
Tl	205	165	HMI He	0.015	ppb	33.09	280.01	0.1	
Pb	208	165	HMI He	0.471	ppb	7.54	6944.07	0.5	
Th	232	165	HMI He	0.018	ppb	22.23	513.35	1	
U	238	165	HMI He	0.013	ppb	32.42	280.00	0.5	
Li	7	45	No Gas	-0.050	ppb	-22743.67	11166900.67	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	890679.10	4.88	956003.023333333	93.17	60	125	
Ge Internal Standard	72	HMI H2	17321915.76	0.74	18947224.0133333	91.42	60	125	
Sc (IS)	45	HMI He	994411.12	1.00	1144561.88333333	86.88	60	125	
Ge Internal Standard	72	HMI He	1346629.46	1.84	1545458.59	87.13	60	125	
In Internal standard	115	HMI He	3511126.80	1.51	3925517.65666667	89.44	60	125	
Ho-165	165	HMI He	17049282.23	1.79	18306963.8366667	93.13	60	125	
Sc IS)	45	No Gas	121088073.68	2.28	132851188.07	91.15	60	120	

Blank Report

Sample Name	mb 280-399636/1-a
File Name	067_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:28:02 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	20.727	ppb	7.51	129012.98	0.1	>DL
Be	9	6	HMI H2	0.005	ppb	406.92	16.67	0.5	
Se	78	72	HMI H2	0.007	ppb	116.36	53.33	1	
Na	23	45	HMI He	57.964	ppb	4.19	33774.12	25	>DL
Mg	24	45	HMI He	4.214	ppb	36.95	746.70	25	
Al	27	45	HMI He	4.292	ppb	107.83	210.01	15	
K	39	45	HMI He	-4.463	ppb	-281.10	31937.71	50	
Ca	44	45	HMI He	11.158	ppb	142.48	136.67	25	
V	51	72	HMI He	-0.211	ppb	-137.96	3097.00	1	
Cr	52	72	HMI He	-0.025	ppb	-100.71	220.00	1	
Mn	55	72	HMI He	0.156	ppb	94.87	153.34	0.5	
Fe	57	72	HMI He	0.330	ppb	468.69	186.67	25	
Co	59	72	HMI He	0.002	ppb	349.18	23.33	0.5	
Ni	60	72	HMI He	0.695	ppb	11.42	910.04	1	
Cu	63	72	HMI He	0.003	ppb	2447.37	2010.15	1	
Zn	66	72	HMI He	0.672	ppb	34.62	753.36	5	
As	75	72	HMI He	-0.020	ppb	-178.84	27.45	1	
Sr	88	45	HMI He	0.039	ppb	71.04	60.00	1	
Zr	90	72	HMI He	-0.348	ppb	-947.41	116.67	1	
Nb	93	72	HMI He	-0.067	ppb	-31.70	626.69	2	
Mo	95	115	HMI He	0.584	ppb	9.87	790.03	0.5	>DL
Pd	105	115	HMI He	-0.013	ppb	-247.20	116.67	1	
Ag	107	115	HMI He	0.002	ppb	135.37	46.67	1	
Cd	111	115	HMI He	0.001	ppb	1577.66	3.33	0.5	
Sn	120	115	HMI He	-0.085	ppb	-86.74	293.34	1	
Sb	121	115	HMI He	-0.012	ppb	-614.95	263.34	1	
Ba	137	115	HMI He	0.088	ppb	120.94	46.67	0.5	
W	182	165	HMI He	-0.086	ppb	-30.49	966.71	1	
Pt	195	165	HMI He	-0.002	ppb	-247.36	66.67	1	
Tl	205	165	HMI He	0.005	ppb	111.77	196.67	0.1	
Pb	208	165	HMI He	0.016	ppb	24.04	1896.74	0.5	
Th	232	165	HMI He	0.005	ppb	69.16	360.01	1	
U	238	165	HMI He	-0.001	ppb	-127.14	93.33	0.5	
Li	7	45	No Gas	-0.823	ppb	-324.97	10976756.51	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	902932.56	3.52	956003.023333333	94.45	60	125	
Ge Internal Standard	72	HMI H2	17345363.47	2.16	18947224.0133333	91.55	60	125	
Sc (IS)	45	HMI He	1013372.15	0.80	1144561.88333333	88.54	60	125	
Ge Internal Standard	72	HMI He	1336046.36	0.11	1545458.59	86.45	60	125	
In Internal standard	115	HMI He	3561191.87	3.14	3925517.65666667	90.72	60	125	
Ho-165	165	HMI He	17162275.35	1.98	18306963.8366667	93.75	60	125	
Sc IS)	45	No Gas	119241726.28	1.32	132851188.07	89.76	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399636/2-a
File Name	068_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:31:35 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	27.650	ppb	2.07	14623.04	40	69.13	80	120	>+/-20%
Se	78	72	HMI H2	30.323	ppb	3.34	13328.24	40	75.81	80	120	>+/-20%
Na	23	45	HMI He	38.453	ppb	9.89	28410.99	40	96.13	80	120	
Mg	24	45	HMI He	1.994	ppb	46.03	493.35	40	4.99	80	120	>+/-20%
Al	27	45	HMI He	319.749	ppb	3.25	7938.64	40	799.37	80	120	>+/-20%
K	39	45	HMI He	11.365	ppb	183.38	32588.96	40	28.41	80	120	>+/-20%
Ca	44	45	HMI He	198.554	ppb	11.13	743.36	40	496.39	80	120	>+/-20%
V	51	72	HMI He	31.273	ppb	1.41	46412.32	40	78.18	80	120	>+/-20%
Cr	52	72	HMI He	31.878	ppb	1.26	57979.05	40	79.7	80	120	>+/-20%
Mn	55	72	HMI He	33.461	ppb	2.92	20442.99	40	83.65	80	120	
Fe	57	72	HMI He	324.980	ppb	4.30	10923.76	40	812.45	80	120	>+/-20%
Co	59	72	HMI He	31.927	ppb	2.12	105840.88	40	79.82	80	120	>+/-20%
Ni	60	72	HMI He	32.606	ppb	1.62	31156.58	40	81.52	80	120	
Cu	63	72	HMI He	33.432	ppb	2.60	88760.31	40	83.58	80	120	
Zn	66	72	HMI He	32.711	ppb	1.90	11637.68	40	81.78	80	120	
As	75	72	HMI He	30.702	ppb	1.87	7497.17	40	76.76	80	120	>+/-20%
Sr	88	45	HMI He	30.012	ppb	4.12	18734.56	40	75.03	80	120	>+/-20%
Nb	93	72	HMI He	-0.107	ppb	-2.78	436.68	40	-0.27	80	120	>+/-20%
Mo	95	115	HMI He	29.596	ppb	3.26	37581.24	40	73.99	80	120	>+/-20%
Pd	105	115	HMI He	-0.032	ppb	-40.29	80.00	40	-0.08	80	120	>+/-20%
Ag	107	115	HMI He	30.430	ppb	4.59	129259.48	40	76.08	80	120	>+/-20%
Cd	111	115	HMI He	30.442	ppb	1.88	15130.76	40	76.11	80	120	>+/-20%
Sn	120	115	HMI He	29.148	ppb	2.10	37976.37	40	72.87	80	120	>+/-20%
Sb	121	115	HMI He	30.043	ppb	2.39	35590.77	40	75.11	80	120	>+/-20%
Ba	137	115	HMI He	30.002	ppb	4.07	10793.94	40	75	80	120	>+/-20%
W	182	165	HMI He	32.695	ppb	0.60	159904.17	40	81.74	80	120	
Pt	195	165	HMI He	-0.003	ppb	-574.38	63.33	40	-0.01	80	120	>+/-20%
Tl	205	165	HMI He	31.136	ppb	1.49	263094.27	40	77.84	80	120	>+/-20%
Pb	208	165	HMI He	31.440	ppb	1.88	351666.03	40	78.6	80	120	>+/-20%
Th	232	165	HMI He	30.638	ppb	1.31	373007.59	40	76.6	80	120	>+/-20%
U	238	165	HMI He	30.963	ppb	0.19	404287.37	40	77.41	80	120	>+/-20%
Li	7	45	No Gas	30.005	ppb	25.44	11859910.63	400	7.5	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	912956.48	0.77	956003.023333333	95.5	60	125	
Ge Internal Standard	72	HMI H2	17411344.92	2.91	18947224.0133333	91.89	60	125	
Sc (IS)	45	HMI He	1004362.98	0.24	1144561.88333333	87.75	60	125	
Ge Internal Standard	72	HMI He	1329906.70	0.72	1545458.59	86.05	60	125	
In Internal standard	115	HMI He	3547884.32	2.68	3925517.65666667	90.38	60	125	
Ho-165	165	HMI He	17027493.90	0.79	18306963.8366667	93.01	60	125	
Sc IS)	45	No Gas	118189633.00	1.80	132851188.07	88.96	60	120	

Sample Report

Sample Name	280-104896-b-1-
File Name	069SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:35:06 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.031	ppb	23.07	28.33	2000	
B	11	6	HMI H2	23.892	ppb	6.69	16401.49	100	
Se	78	72	HMI H2	0.059	ppb	54.55	76.00	2000	
Na	23	45	HMI He	19938.838	ppb	1.30	5099221.19	400000	
Mg	24	45	HMI He	11217.386	ppb	0.52	1223091.38	400000	
Al	27	45	HMI He	27.830	ppb	12.31	770.03	400000	
K	39	45	HMI He	697.223	ppb	6.01	71841.79	400000	
Ca	44	45	HMI He	70762.981	ppb	2.52	225405.79	400000	
V	51	72	HMI He	0.779	ppb	33.05	4427.34	2000	
Cr	52	72	HMI He	0.426	ppb	18.28	1033.38	5000	
Mn	55	72	HMI He	1385.225	ppb	2.04	840815.84	10000	
Fe	57	72	HMI He	120.843	ppb	3.05	4157.25	400000	
Co	59	72	HMI He	3.045	ppb	5.15	10069.91	2000	
Ni	60	72	HMI He	1.843	ppb	9.87	1986.81	5000	
Cu	63	72	HMI He	5.442	ppb	3.35	16054.71	5000	
Zn	66	72	HMI He	5.212	ppb	7.42	2283.53	5000	
As	75	72	HMI He	0.311	ppb	32.63	107.19	2000	
Sr	88	45	HMI He	257.340	ppb	1.57	157454.83	2000	
Zr	90	72	HMI He	44.038	ppb	19.69	653.35	1000	
Nb	93	72	HMI He	-0.130	ppb	-10.46	326.68	200	
Mo	95	115	HMI He	0.430	ppb	26.99	576.68	2000	
Pd	105	115	HMI He	-0.027	ppb	-76.64	86.67	100	
Ag	107	115	HMI He	0.005	ppb	88.97	53.33	100	
Cd	111	115	HMI He	0.008	ppb	308.19	6.67	2000	
Sn	120	115	HMI He	1.128	ppb	6.99	1803.46	2000	
Sb	121	115	HMI He	-0.027	ppb	-30.20	236.67	1000	
Ba	137	115	HMI He	183.078	ppb	1.21	63975.94	5000	
W	182	165	HMI He	0.042	ppb	108.42	1593.44	100	
Pt	195	165	HMI He	-0.004	ppb	-134.10	60.00	100	
Tl	205	165	HMI He	0.016	ppb	48.58	293.34	2000	
Pb	208	165	HMI He	0.166	ppb	7.66	3573.55	5000	
Th	232	165	HMI He	0.048	ppb	11.30	883.37	2000	
U	238	165	HMI He	1.546	ppb	2.54	20441.49	2000	
Li	7	45	No Gas	-2.551	ppb	-134.58	10777929.13	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	833075.58	7.73	956003.023333333	87.14	60	125	
Ge Internal Standard	72	HMI H2	17315205.56	0.66	18947224.0133333	91.39	60	125	
Sc (IS)	45	HMI He	986122.86	0.70	1144561.88333333	86.16	60	125	
Ge Internal Standard	72	HMI He	1324837.29	0.98	1545458.59	85.72	60	125	
In Internal standard	115	HMI He	3452351.43	2.16	3925517.65666667	87.95	60	125	
Ho-165	165	HMI He	17155835.14	1.03	18306963.8366667	93.71	60	125	
Sc IS)	45	No Gas	117680666.36	1.14	132851188.07	88.58	60	120	

Sample Report

Sample Name	280-104896-b-1-b ms
File Name	070SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:38:35 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	32.001	ppb	1.95	14778.11	2000	
B	11	6	HMI H2	47.119	ppb	1.02	30464.20	100	
Se	78	72	HMI H2	29.773	ppb	0.50	12885.17	2000	
Na	23	45	HMI He	20905.623	ppb	1.57	5361614.88	400000	
Mg	24	45	HMI He	11915.152	ppb	3.02	1302984.92	400000	
Al	27	45	HMI He	368.212	ppb	5.96	8985.90	400000	
K	39	45	HMI He	740.725	ppb	1.08	74597.17	400000	
Ca	44	45	HMI He	74370.473	ppb	0.85	237602.06	400000	
V	51	72	HMI He	33.074	ppb	1.43	47746.10	2000	
Cr	52	72	HMI He	32.170	ppb	3.80	57135.87	5000	
Mn	55	72	HMI He	1544.990	ppb	2.27	919316.89	10000	
Fe	57	72	HMI He	444.549	ppb	3.26	14533.26	400000	
Co	59	72	HMI He	35.337	ppb	1.19	114398.01	2000	
Ni	60	72	HMI He	34.051	ppb	3.22	31761.18	5000	
Cu	63	72	HMI He	38.560	ppb	2.13	99680.51	5000	
Zn	66	72	HMI He	41.462	ppb	3.68	14266.38	5000	
As	75	72	HMI He	32.280	ppb	2.85	7695.30	2000	
Sr	88	45	HMI He	300.638	ppb	1.28	184499.21	2000	
Zr	90	72	HMI He	4838.920	ppb	1.83	57614.02	1000	
Nb	93	72	HMI He	-0.140	ppb	-6.31	276.68	200	
Mo	95	115	HMI He	32.054	ppb	1.08	39161.74	2000	
Pd	105	115	HMI He	-0.023	ppb	-86.16	93.33	100	
Ag	107	115	HMI He	30.538	ppb	3.11	124773.91	100	
Cd	111	115	HMI He	30.611	ppb	4.01	14620.31	2000	
Sn	120	115	HMI He	30.546	ppb	3.91	38240.30	2000	
Sb	121	115	HMI He	30.671	ppb	0.67	34949.30	1000	
Ba	137	115	HMI He	224.858	ppb	2.93	77621.43	5000	
W	182	165	HMI He	34.285	ppb	1.43	162440.88	100	
Pt	195	165	HMI He	0.008	ppb	98.39	103.33	100	
Tl	205	165	HMI He	32.338	ppb	1.90	264787.93	2000	
Pb	208	165	HMI He	31.869	ppb	0.55	345458.44	5000	
Th	232	165	HMI He	30.706	ppb	0.28	362287.17	2000	
U	238	165	HMI He	33.586	ppb	1.04	424998.51	2000	
Li	7	45	No Gas	39.530	ppb	4.62	11800509.49	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	797144.60	1.78	956003.023333333	83.38	60	125	
Ge Internal Standard	72	HMI H2	17131772.86	0.95	18947224.0133333	90.42	60	125	
Sc (IS)	45	HMI He	989093.20	0.49	1144561.88333333	86.42	60	125	
Ge Internal Standard	72	HMI He	1298681.75	0.53	1545458.59	84.03	60	125	
In Internal standard	115	HMI He	3411663.29	2.56	3925517.65666667	86.91	60	125	
Ho-165	165	HMI He	16502639.56	0.41	18306963.8366667	90.14	60	125	
Sc IS)	45	No Gas	114634635.69	0.49	132851188.07	86.29	60	120	

Sample Report

Sample Name	280-104896-b-1-c msd
File Name	071SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:42:03 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	30.908	ppb	5.55	15258.55	2000	
B	11	6	HMI H2	45.291	ppb	7.45	31299.06	100	
Se	78	72	HMI H2	31.757	ppb	4.25	13525.73	2000	
Na	23	45	HMI He	20686.806	ppb	0.53	5297302.54	400000	
Mg	24	45	HMI He	11989.495	ppb	0.62	1309067.41	400000	
Al	27	45	HMI He	348.812	ppb	2.83	8505.61	400000	
K	39	45	HMI He	709.365	ppb	0.75	72658.47	400000	
Ca	44	45	HMI He	74282.437	ppb	1.30	236932.36	400000	
V	51	72	HMI He	32.704	ppb	1.10	47796.33	2000	
Cr	52	72	HMI He	32.372	ppb	1.95	58152.79	5000	
Mn	55	72	HMI He	1551.105	ppb	2.03	933532.34	10000	
Fe	57	72	HMI He	448.127	ppb	3.19	14813.51	400000	
Co	59	72	HMI He	34.824	ppb	1.74	114035.99	2000	
Ni	60	72	HMI He	32.804	ppb	5.30	30949.46	5000	
Cu	63	72	HMI He	37.435	ppb	1.76	97939.10	5000	
Zn	66	72	HMI He	36.719	ppb	5.96	12835.20	5000	
As	75	72	HMI He	31.621	ppb	1.96	7625.33	2000	
Sr	88	45	HMI He	300.356	ppb	0.40	184031.46	2000	
Zr	90	72	HMI He	4406.600	ppb	1.43	53085.16	1000	
Nb	93	72	HMI He	-0.133	ppb	-21.92	313.34	200	
Mo	95	115	HMI He	31.121	ppb	3.22	37764.97	2000	
Pd	105	115	HMI He	-0.039	ppb	-30.94	63.33	100	
Ag	107	115	HMI He	30.859	ppb	1.30	125348.65	100	
Cd	111	115	HMI He	31.254	ppb	2.64	14837.17	2000	
Sn	120	115	HMI He	30.174	ppb	3.03	37565.39	2000	
Sb	121	115	HMI He	29.869	ppb	2.25	33823.52	1000	
Ba	137	115	HMI He	225.934	ppb	2.11	77527.22	5000	
W	182	165	HMI He	33.308	ppb	1.95	157364.24	100	
Pt	195	165	HMI He	-0.003	ppb	-230.57	60.00	100	
Tl	205	165	HMI He	31.666	ppb	1.56	258521.25	2000	
Pb	208	165	HMI He	31.131	ppb	4.88	336303.53	5000	
Th	232	165	HMI He	29.414	ppb	3.91	345874.74	2000	
U	238	165	HMI He	33.370	ppb	2.69	420954.89	2000	
Li	7	45	No Gas	39.479	ppb	8.16	11813550.22	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	854208.96	6.83	956003.023333333	89.35	60	125	
Ge Internal Standard	72	HMI H2	16872099.12	1.88	18947224.0133333	89.05	60	125	
Sc (IS)	45	HMI He	987540.92	1.13	1144561.88333333	86.28	60	125	
Ge Internal Standard	72	HMI He	1313825.06	1.70	1545458.59	85.01	60	125	
In Internal standard	115	HMI He	3389724.60	0.98	3925517.65666667	86.35	60	125	
Ho-165	165	HMI He	16455876.43	2.27	18306963.8366667	89.89	60	125	
Sc IS)	45	No Gas	114779356.51	1.04	132851188.07	86.4	60	120	

Sample Report

Sample Name	280-104896-b-2-a
File Name	072SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:45:31 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.021	ppb	34.52	23.33	2000	
B	11	6	HMI H2	27.930	ppb	5.40	19514.81	100	
Se	78	72	HMI H2	0.168	ppb	29.18	121.33	2000	
Na	23	45	HMI He	29759.837	ppb	2.19	7499610.08	400000	
Mg	24	45	HMI He	9934.474	ppb	0.90	1068788.12	400000	
Al	27	45	HMI He	57.750	ppb	8.71	1470.09	400000	
K	39	45	HMI He	796.495	ppb	3.03	76575.84	400000	
Ca	44	45	HMI He	79188.344	ppb	1.46	248861.55	400000	
V	51	72	HMI He	0.756	ppb	13.45	4380.65	2000	
Cr	52	72	HMI He	0.650	ppb	6.79	1430.08	5000	
Mn	55	72	HMI He	5.339	ppb	14.98	3283.72	10000	
Fe	57	72	HMI He	100.183	ppb	5.23	3463.77	400000	
Co	59	72	HMI He	0.061	ppb	13.68	216.67	2000	
Ni	60	72	HMI He	0.945	ppb	13.56	1133.39	5000	
Cu	63	72	HMI He	1.347	ppb	11.33	5447.65	5000	
Zn	66	72	HMI He	2.617	ppb	4.10	1400.08	5000	
As	75	72	HMI He	0.567	ppb	10.84	168.63	2000	
Sr	88	45	HMI He	269.785	ppb	2.00	162865.05	2000	
Zr	90	72	HMI He	18.535	ppb	10.49	343.34	1000	
Nb	93	72	HMI He	-0.168	ppb	-10.06	150.00	200	
Mo	95	115	HMI He	0.321	ppb	13.35	450.01	2000	
Pd	105	115	HMI He	-0.054	ppb	-13.93	36.67	100	
Ag	107	115	HMI He	0.002	ppb	507.77	43.33	100	
Cd	111	115	HMI He	0.014	ppb	144.02	10.00	2000	
Sn	120	115	HMI He	0.345	ppb	17.64	843.37	2000	
Sb	121	115	HMI He	-0.085	ppb	-46.25	173.33	1000	
Ba	137	115	HMI He	213.137	ppb	2.68	76341.73	5000	
W	182	165	HMI He	0.049	ppb	103.37	1553.44	100	
Pt	195	165	HMI He	-0.001	ppb	-592.22	66.67	100	
Tl	205	165	HMI He	0.023	ppb	85.97	336.68	2000	
Pb	208	165	HMI He	0.130	ppb	16.30	3036.84	5000	
Th	232	165	HMI He	0.069	ppb	23.03	1086.72	2000	
U	238	165	HMI He	1.222	ppb	4.07	15498.55	2000	
Li	7	45	No Gas	5.018	ppb	101.21	10748061.42	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	850562.00	3.96	956003.023333333	88.97	60	125	
Ge Internal Standard	72	HMI H2	17027985.78	1.12	18947224.0133333	89.87	60	125	
Sc (IS)	45	HMI He	972993.87	0.64	1144561.88333333	85.01	60	125	
Ge Internal Standard	72	HMI He	1319925.92	0.79	1545458.59	85.41	60	125	
In Internal standard	115	HMI He	3539524.29	2.28	3925517.65666667	90.17	60	125	
Ho-165	165	HMI He	16422794.56	1.87	18306963.8366667	89.71	60	125	
Sc IS)	45	No Gas	114789319.85	0.50	132851188.07	86.4	60	120	

Sample Report

Sample Name	280-104896-b-2-b ms
File Name	073SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:49:00 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	30.149	ppb	8.03	14704.74	2000	
B	11	6	HMI H2	49.334	ppb	10.93	33650.34	100	
Se	78	72	HMI H2	31.107	ppb	0.36	13082.66	2000	
Na	23	45	HMI He	31493.061	ppb	3.07	8006834.32	400000	
Mg	24	45	HMI He	10504.103	ppb	2.02	1140226.71	400000	
Al	27	45	HMI He	420.044	ppb	1.40	10163.25	400000	
K	39	45	HMI He	845.693	ppb	3.89	80112.33	400000	
Ca	44	45	HMI He	83510.492	ppb	1.74	264827.65	400000	
V	51	72	HMI He	33.118	ppb	2.22	47304.73	2000	
Cr	52	72	HMI He	33.285	ppb	0.14	58487.18	5000	
Mn	55	72	HMI He	39.485	ppb	3.24	23300.19	10000	
Fe	57	72	HMI He	441.373	ppb	2.65	14276.42	400000	
Co	59	72	HMI He	31.845	ppb	3.27	102003.25	2000	
Ni	60	72	HMI He	31.901	ppb	5.43	29463.36	5000	
Cu	63	72	HMI He	34.101	ppb	1.40	87450.09	5000	
Zn	66	72	HMI He	33.880	ppb	5.68	11630.93	5000	
As	75	72	HMI He	32.246	ppb	1.36	7607.04	2000	
Sr	88	45	HMI He	317.094	ppb	2.03	193144.35	2000	
Zr	90	72	HMI He	8061.580	ppb	2.71	94918.80	1000	>LDR
Nb	93	72	HMI He	-0.166	ppb	-2.16	153.33	200	
Mo	95	115	HMI He	31.815	ppb	1.59	39188.54	2000	
Pd	105	115	HMI He	-0.055	ppb	-5.33	33.33	100	
Ag	107	115	HMI He	30.639	ppb	0.39	126298.56	100	
Cd	111	115	HMI He	31.003	ppb	4.77	14933.91	2000	
Sn	120	115	HMI He	29.901	ppb	2.79	37775.72	2000	
Sb	121	115	HMI He	30.255	ppb	3.44	34758.89	1000	
Ba	137	115	HMI He	261.703	ppb	2.32	91127.39	5000	
W	182	165	HMI He	34.492	ppb	1.18	166161.23	100	
Pt	195	165	HMI He	0.009	ppb	239.71	110.00	100	
Tl	205	165	HMI He	31.164	ppb	2.08	259437.94	2000	
Pb	208	165	HMI He	31.294	ppb	2.90	344846.23	5000	
Th	232	165	HMI He	30.889	ppb	2.09	370523.09	2000	
U	238	165	HMI He	32.733	ppb	1.64	421123.25	2000	
Li	7	45	No Gas	38.944	ppb	5.24	11496556.69	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	845553.18	8.43	956003.023333333	88.45	60	125	
Ge Internal Standard	72	HMI H2	16651152.47	0.67	18947224.0133333	87.88	60	125	
Sc (IS)	45	HMI He	981990.29	1.92	1144561.88333333	85.8	60	125	
Ge Internal Standard	72	HMI He	1285096.07	0.79	1545458.59	83.15	60	125	
In Internal standard	115	HMI He	3440118.48	0.81	3925517.65666667	87.63	60	125	
Ho-165	165	HMI He	16782303.29	2.46	18306963.8366667	91.67	60	125	
Sc IS)	45	No Gas	111857260.00	1.04	132851188.07	84.2	60	120	

Sample Report

Sample Name	280-104896-b-2-c msd
File Name	074SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:52:28 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	30.235	ppb	8.64	15173.48	2000	
B	11	6	HMI H2	47.524	ppb	10.66	33373.02	100	
Se	78	72	HMI H2	31.320	ppb	1.26	13365.57	2000	
Na	23	45	HMI He	30097.761	ppb	2.09	7436631.80	400000	
Mg	24	45	HMI He	10091.081	ppb	1.60	1064298.75	400000	
Al	27	45	HMI He	376.461	ppb	1.99	8859.12	400000	
K	39	45	HMI He	822.684	ppb	7.40	76525.42	400000	
Ca	44	45	HMI He	80024.371	ppb	0.80	246612.23	400000	
V	51	72	HMI He	33.080	ppb	1.24	47154.33	2000	
Cr	52	72	HMI He	33.087	ppb	1.29	58019.03	5000	
Mn	55	72	HMI He	37.969	ppb	1.87	22362.12	10000	
Fe	57	72	HMI He	418.846	ppb	5.02	13532.43	400000	
Co	59	72	HMI He	31.864	ppb	2.91	101852.08	2000	
Ni	60	72	HMI He	31.787	ppb	2.30	29296.42	5000	
Cu	63	72	HMI He	33.185	ppb	4.08	84960.75	5000	
Zn	66	72	HMI He	33.298	ppb	4.93	11410.80	5000	
As	75	72	HMI He	31.935	ppb	2.02	7518.75	2000	
Sr	88	45	HMI He	300.996	ppb	1.22	178144.97	2000	
Zr	90	72	HMI He	4676.918	ppb	1.64	54988.33	1000	
Nb	93	72	HMI He	-0.162	ppb	-0.76	173.33	200	
Mo	95	115	HMI He	31.118	ppb	4.33	37915.38	2000	
Pd	105	115	HMI He	-0.044	ppb	-17.48	53.33	100	
Ag	107	115	HMI He	30.485	ppb	2.72	124343.19	100	
Cd	111	115	HMI He	31.417	ppb	1.81	14990.61	2000	
Sn	120	115	HMI He	30.464	ppb	3.74	38073.16	2000	
Sb	121	115	HMI He	30.148	ppb	3.03	34277.72	1000	
Ba	137	115	HMI He	245.194	ppb	4.36	84500.88	5000	
W	182	165	HMI He	32.814	ppb	1.56	160585.01	100	
Pt	195	165	HMI He	-0.004	ppb	-83.75	56.67	100	
Tl	205	165	HMI He	30.664	ppb	3.03	259198.31	2000	
Pb	208	165	HMI He	30.830	ppb	0.96	345071.47	5000	
Th	232	165	HMI He	29.872	ppb	1.00	363868.87	2000	
U	238	165	HMI He	32.270	ppb	1.71	421584.49	2000	
Li	7	45	No Gas	37.971	ppb	22.45	11406338.99	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	869405.47	6.23	956003.023333333	90.94	60	125	
Ge Internal Standard	72	HMI H2	16898633.08	2.02	18947224.0133333	89.19	60	125	
Sc (IS)	45	HMI He	954035.82	1.65	1144561.88333333	83.35	60	125	
Ge Internal Standard	72	HMI He	1282409.39	0.79	1545458.59	82.98	60	125	
In Internal standard	115	HMI He	3405861.02	3.06	3925517.65666667	86.76	60	125	
Ho-165	165	HMI He	17038510.57	1.32	18306963.8366667	93.07	60	125	
Sc IS)	45	No Gas	111271764.20	0.61	132851188.07	83.76	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	075_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:55:55 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	610.469	ppb	2.52	313475.05	500	122.09	90	110	>+\-10%
Be	9	6	HMI H2	44.817	ppb	3.69	23883.42	50	89.63	90	110	>+\-10%
B	11	6	HMI H2	39.545	ppb	4.42	29619.45	50	79.09	90	110	>+\-10%
Se	78	72	HMI H2	49.288	ppb	1.25	20816.13	50	98.58	90	110	
Na	23	45	HMI He	5194.898	ppb	1.75	1318632.12	5000	103.9	90	110	
Mg	24	45	HMI He	4971.220	ppb	1.32	532787.63	5000	99.42	90	110	
Al	27	45	HMI He	5101.058	ppb	1.76	120715.08	5000	102.02	90	110	
K	39	45	HMI He	4981.662	ppb	0.74	315233.56	5000	99.63	90	110	
Ca	44	45	HMI He	5103.594	ppb	3.55	16064.61	5000	102.07	90	110	
V	51	72	HMI He	49.721	ppb	1.75	68626.24	50	99.44	90	110	
Cr	52	72	HMI He	51.827	ppb	1.39	89935.08	50	103.65	90	110	
Mn	55	72	HMI He	52.742	ppb	3.94	30765.83	50	105.48	90	110	
Fe	57	72	HMI He	5163.072	ppb	1.91	163404.30	5000	103.26	90	110	
Co	59	72	HMI He	50.999	ppb	0.63	161591.07	50	102	90	110	
Ni	60	72	HMI He	50.901	ppb	2.81	46352.48	50	101.8	90	110	
Cu	63	72	HMI He	53.363	ppb	2.32	134293.37	50	106.73	90	110	
Zn	66	72	HMI He	52.958	ppb	2.42	17696.43	50	105.92	90	110	
As	75	72	HMI He	51.983	ppb	2.19	12111.07	50	103.97	90	110	
Sr	88	45	HMI He	51.260	ppb	3.02	30846.53	50	102.52	90	110	
Zr	90	72	HMI He	112.578	ppb	18.66	1423.42	50	225.16	90	110	>+\-10%
Nb	93	72	HMI He	105.654	ppb	1.08	475692.75	100	105.65	90	110	
Mo	95	115	HMI He	47.965	ppb	3.14	58383.99	50	95.93	90	110	
Pd	105	115	HMI He	50.268	ppb	3.18	94199.64	50	100.54	90	110	
Ag	107	115	HMI He	49.260	ppb	2.53	200753.82	50	98.52	90	110	
Cd	111	115	HMI He	48.688	ppb	2.83	23190.65	50	97.38	90	110	
Sn	120	115	HMI He	48.041	ppb	1.32	59791.06	50	96.08	90	110	
Sb	121	115	HMI He	47.681	ppb	3.09	54013.14	50	95.36	90	110	
Ba	137	115	HMI He	52.118	ppb	9.13	17933.91	50	104.24	90	110	
W	182	165	HMI He	50.749	ppb	1.84	241894.34	50	101.5	90	110	
Pt	195	165	HMI He	48.750	ppb	0.36	197005.38	50	97.5	90	110	
Tl	205	165	HMI He	49.825	ppb	1.33	411495.15	50	99.65	90	110	
Pb	208	165	HMI He	50.304	ppb	0.45	549112.68	50	100.61	90	110	
Th	232	165	HMI He	50.423	ppb	2.58	599885.63	50	100.85	90	110	
U	238	165	HMI He	49.937	ppb	2.05	637350.09	50	99.87	90	110	
Li	7	45	No Gas	527.408	ppb	2.35	26040575.10	500	105.48	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	921314.96	4.96	956003.023333333	96.37	60	125	
Ge Internal Standard	72	HMI H2	16745802.04	1.24	18947224.0133333	88.38	60	125	
Sc (IS)	45	HMI He	969074.39	0.37	1144561.88333333	84.67	60	125	
Ge Internal Standard	72	HMI He	1271080.73	0.54	1545458.59	82.25	60	125	
In Internal standard	115	HMI He	3402802.34	2.81	3925517.65666667	86.68	60	125	
Ho-165	165	HMI He	16647800.17	0.94	18306963.8366667	90.94	60	125	
Sc IS)	45	No Gas	111072770.04	1.40	132851188.07	83.61	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	076_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 2:59:24 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	16.768	ppb	93.35	126278.51	0.1	>RL
Be	9	6	HMI H2	0.066	ppb	79.50	48.33	0.5	
B	11	6	HMI H2	1.097	ppb	15.34	1460.08	0.1	>RL
Se	78	72	HMI H2	0.015	ppb	108.08	56.00	1	
Na	23	45	HMI He	25.633	ppb	5.28	24324.37	25	>RL
Mg	24	45	HMI He	1.855	ppb	33.68	463.35	25	
Al	27	45	HMI He	1.151	ppb	202.24	126.67	15	
K	39	45	HMI He	-35.885	ppb	-19.56	28892.08	50	
Ca	44	45	HMI He	19.134	ppb	110.25	156.67	25	
V	51	72	HMI He	-0.334	ppb	-63.92	2873.62	1	
Cr	52	72	HMI He	0.009	ppb	433.78	276.67	1	
Mn	55	72	HMI He	0.062	ppb	140.81	93.33	0.5	
Fe	57	72	HMI He	-0.072	ppb	-1941.41	170.00	25	
Co	59	72	HMI He	0.011	ppb	13.43	53.33	0.5	
Ni	60	72	HMI He	-0.036	ppb	-134.36	210.00	1	
Cu	63	72	HMI He	0.063	ppb	152.31	2126.84	1	
Zn	66	72	HMI He	-0.085	ppb	-338.26	486.68	5	
As	75	72	HMI He	0.051	ppb	92.70	43.79	1	
Sr	88	45	HMI He	0.026	ppb	109.99	50.00	1	
Zr	90	72	HMI He	0.359	ppb	675.97	123.33	1	
Nb	93	72	HMI He	0.116	ppb	16.18	1466.76	2	
Mo	95	115	HMI He	0.043	ppb	53.53	96.67	0.5	
Pd	105	115	HMI He	-0.001	ppb	-3860.41	136.67	1	
Ag	107	115	HMI He	0.013	ppb	95.94	90.00	1	
Cd	111	115	HMI He	0.001	ppb	1353.18	3.33	0.5	
Sn	120	115	HMI He	-0.101	ppb	-39.36	263.34	1	
Sb	121	115	HMI He	0.270	ppb	31.05	576.68	1	
Ba	137	115	HMI He	0.025	ppb	65.19	23.33	0.5	
W	182	165	HMI He	0.016	ppb	115.18	1436.76	1	
Pt	195	165	HMI He	0.009	ppb	61.40	110.00	1	
Tl	205	165	HMI He	0.022	ppb	37.69	330.01	0.1	
Pb	208	165	HMI He	0.453	ppb	5.33	6660.71	0.5	
Th	232	165	HMI He	0.023	ppb	56.28	566.68	1	
U	238	165	HMI He	0.006	ppb	13.56	186.67	0.5	
Li	7	45	No Gas	6.934	ppb	45.95	10776990.58	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	892695.66	1.54	956003.023333333	93.38	60	125	
Ge Internal Standard	72	HMI H2	17105544.94	1.34	18947224.0133333	90.28	60	125	
Sc (IS)	45	HMI He	974006.88	0.69	1144561.88333333	85.1	60	125	
Ge Internal Standard	72	HMI He	1313063.73	1.63	1545458.59	84.96	60	125	
In Internal standard	115	HMI He	3459721.85	0.87	3925517.65666667	88.13	60	125	
Ho-165	165	HMI He	16827202.87	2.27	18306963.8366667	91.92	60	125	
Sc IS)	45	No Gas	114472469.86	1.07	132851188.07	86.17	60	120	

Sample Report

Sample Name	280-104896-b-3-a
File Name	077SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:02:54 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.003	ppb	107.85	15.00	2000	
B	11	6	HMI H2	36.010	ppb	15.92	25629.57	100	
Se	78	72	HMI H2	0.024	ppb	197.81	58.67	2000	
Na	23	45	HMI He	47178.507	ppb	0.12	11765657.93	400000	
Mg	24	45	HMI He	14769.649	ppb	2.08	1573592.39	400000	
Al	27	45	HMI He	101.523	ppb	16.34	2483.56	400000	
K	39	45	HMI He	583.682	ppb	5.62	63755.51	400000	
Ca	44	45	HMI He	91040.506	ppb	1.09	283357.01	400000	
V	51	72	HMI He	1.730	ppb	4.83	5567.70	2000	
Cr	52	72	HMI He	0.524	ppb	0.95	1173.39	5000	
Mn	55	72	HMI He	2719.726	ppb	2.27	1603435.22	10000	
Fe	57	72	HMI He	108.139	ppb	0.27	3630.49	400000	
Co	59	72	HMI He	4.993	ppb	0.52	16031.39	2000	
Ni	60	72	HMI He	3.614	ppb	5.21	3553.77	5000	
Cu	63	72	HMI He	2.718	ppb	1.28	8752.47	5000	
Zn	66	72	HMI He	5.413	ppb	13.88	2283.52	5000	
As	75	72	HMI He	0.791	ppb	18.58	216.99	2000	
Sr	88	45	HMI He	281.364	ppb	1.43	168207.42	2000	
Zr	90	72	HMI He	30.065	ppb	29.50	470.01	1000	
Nb	93	72	HMI He	-0.066	ppb	-23.20	610.02	200	
Mo	95	115	HMI He	0.538	ppb	15.94	710.03	2000	
Pd	105	115	HMI He	-0.029	ppb	-12.52	83.33	100	
Ag	107	115	HMI He	0.002	ppb	76.20	43.33	100	
Cd	111	115	HMI He	0.043	ppb	158.01	23.33	2000	
Sn	120	115	HMI He	0.822	ppb	8.81	1423.41	2000	
Sb	121	115	HMI He	0.127	ppb	56.23	413.34	1000	
Ba	137	115	HMI He	319.368	ppb	2.47	111849.03	5000	
W	182	165	HMI He	-0.004	ppb	-561.71	1313.41	100	
Pt	195	165	HMI He	-0.006	ppb	-115.04	50.00	100	
Tl	205	165	HMI He	0.012	ppb	14.32	243.34	2000	
Pb	208	165	HMI He	0.131	ppb	15.09	3060.16	5000	
Th	232	165	HMI He	0.025	ppb	27.75	570.02	2000	
U	238	165	HMI He	1.467	ppb	4.13	18642.25	2000	
Li	7	45	No Gas	1.818	ppb	418.12	10632592.16	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	880273.80	8.94	956003.023333333	92.08	60	125	
Ge Internal Standard	72	HMI H2	16728573.71	0.88	18947224.0133333	88.29	60	125	
Sc (IS)	45	HMI He	963653.45	1.32	1144561.88333333	84.19	60	125	
Ge Internal Standard	72	HMI He	1286739.03	0.68	1545458.59	83.26	60	125	
In Internal standard	115	HMI He	3460468.99	1.43	3925517.65666667	88.15	60	125	
Ho-165	165	HMI He	16488191.23	1.68	18306963.8366667	90.07	60	125	
Sc IS)	45	No Gas	114646586.52	2.17	132851188.07	86.3	60	120	

Sample Report

Sample Name	280-104896-b-4-d
File Name	078SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:06:25 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.024	ppb	142.82	23.33	2000	
B	11	6	HMI H2	20.478	ppb	3.93	13628.97	100	
Se	78	72	HMI H2	0.111	ppb	37.39	96.00	2000	
Na	23	45	HMI He	4917.383	ppb	3.07	1252524.28	400000	
Mg	24	45	HMI He	5439.634	ppb	1.04	584397.91	400000	
Al	27	45	HMI He	65.882	ppb	7.58	1660.11	400000	
K	39	45	HMI He	2337.058	ppb	0.77	164641.26	400000	
Ca	44	45	HMI He	67656.931	ppb	1.11	212297.51	400000	
V	51	72	HMI He	2.695	ppb	10.54	6861.51	2000	
Cr	52	72	HMI He	5.823	ppb	99.44	10514.67	5000	
Mn	55	72	HMI He	9.724	ppb	4.55	5797.78	10000	
Fe	57	72	HMI He	73.647	ppb	4.09	2530.23	400000	
Co	59	72	HMI He	0.140	ppb	13.10	466.68	2000	
Ni	60	72	HMI He	1.652	ppb	3.63	1756.78	5000	
Cu	63	72	HMI He	7.790	ppb	1.37	21524.37	5000	
Zn	66	72	HMI He	9.221	ppb	10.17	3540.43	5000	
As	75	72	HMI He	0.498	ppb	18.93	148.37	2000	
Sr	88	45	HMI He	195.609	ppb	1.03	117911.36	2000	
Zr	90	72	HMI He	25.169	ppb	31.82	413.35	1000	
Nb	93	72	HMI He	-0.097	ppb	-16.78	470.01	200	
Mo	95	115	HMI He	1.672	ppb	3.83	2100.17	2000	
Pd	105	115	HMI He	-0.022	ppb	-75.81	96.67	100	
Ag	107	115	HMI He	0.009	ppb	74.44	73.33	100	
Cd	111	115	HMI He	0.063	ppb	74.55	33.33	2000	
Sn	120	115	HMI He	1.010	ppb	8.68	1650.14	2000	
Sb	121	115	HMI He	0.059	ppb	66.66	333.34	1000	
Ba	137	115	HMI He	48.317	ppb	2.12	16826.05	5000	
W	182	165	HMI He	0.058	ppb	28.01	1600.11	100	
Pt	195	165	HMI He	0.000	ppb	3968.71	73.33	100	
Tl	205	165	HMI He	0.002	ppb	154.59	163.33	2000	
Pb	208	165	HMI He	0.191	ppb	15.96	3696.92	5000	
Th	232	165	HMI He	0.005	ppb	46.28	336.68	2000	
U	238	165	HMI He	0.936	ppb	1.92	11911.75	2000	
Li	7	45	No Gas	5.320	ppb	52.49	10522936.53	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	800047.11	1.12	956003.023333333	83.69	60	125	
Ge Internal Standard	72	HMI H2	16819215.37	2.71	18947224.0133333	88.77	60	125	
Sc (IS)	45	HMI He	971463.95	1.11	1144561.88333333	84.88	60	125	
Ge Internal Standard	72	HMI He	1288723.38	0.81	1545458.59	83.39	60	125	
In Internal standard	115	HMI He	3438080.40	1.13	3925517.65666667	87.58	60	125	
Ho-165	165	HMI He	16457576.95	2.36	18306963.8366667	89.9	60	125	
Sc IS)	45	No Gas	112288694.14	0.43	132851188.07	84.52	60	120	

Sample Report

Sample Name	280-104896-b-5-b
File Name	079SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:09:53 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.016	ppb	232.88	21.67	2000	
B	11	6	HMI H2	25.828	ppb	6.00	17742.76	100	
Se	78	72	HMI H2	0.278	ppb	21.33	166.67	2000	
Na	23	45	HMI He	38083.108	ppb	1.82	9577142.00	400000	
Mg	24	45	HMI He	8664.734	ppb	1.80	930622.23	400000	
Al	27	45	HMI He	144.469	ppb	2.16	3523.75	400000	
K	39	45	HMI He	871.823	ppb	4.38	80758.86	400000	
Ca	44	45	HMI He	74652.192	ppb	2.21	234238.55	400000	
V	51	72	HMI He	1.968	ppb	20.27	5834.45	2000	
Cr	52	72	HMI He	1.048	ppb	19.42	2073.49	5000	
Mn	55	72	HMI He	8.542	ppb	4.87	5047.51	10000	
Fe	57	72	HMI He	155.568	ppb	6.49	5104.20	400000	
Co	59	72	HMI He	0.139	ppb	4.90	460.01	2000	
Ni	60	72	HMI He	1.473	ppb	13.99	1576.76	5000	
Cu	63	72	HMI He	2.751	ppb	4.13	8759.12	5000	
Zn	66	72	HMI He	7.416	ppb	10.44	2916.98	5000	
As	75	72	HMI He	0.964	ppb	8.88	255.56	2000	
Sr	88	45	HMI He	223.190	ppb	0.83	134534.32	2000	
Zr	90	72	HMI He	13.823	ppb	44.26	276.68	1000	
Nb	93	72	HMI He	-0.139	ppb	-19.35	276.67	200	
Mo	95	115	HMI He	0.219	ppb	22.14	310.01	2000	
Pd	105	115	HMI He	-0.021	ppb	-83.09	96.67	100	
Ag	107	115	HMI He	0.016	ppb	72.75	100.00	100	
Cd	111	115	HMI He	0.224	ppb	23.31	110.00	2000	
Sn	120	115	HMI He	1.308	ppb	19.84	2003.50	2000	
Sb	121	115	HMI He	-0.057	ppb	-43.89	200.01	1000	
Ba	137	115	HMI He	233.221	ppb	2.48	80492.44	5000	
W	182	165	HMI He	0.086	ppb	27.12	1760.13	100	
Pt	195	165	HMI He	-0.011	ppb	-39.10	30.00	100	
Tl	205	165	HMI He	-0.004	ppb	-39.28	120.00	2000	
Pb	208	165	HMI He	0.273	ppb	6.29	4653.69	5000	
Th	232	165	HMI He	0.013	ppb	41.77	443.35	2000	
U	238	165	HMI He	1.805	ppb	1.61	23258.90	2000	
Li	7	45	No Gas	7.493	ppb	32.56	10632322.47	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	834929.41	5.64	956003.023333333	87.34	60	125	
Ge Internal Standard	72	HMI H2	16837642.25	1.16	18947224.0133333	88.87	60	125	
Sc (IS)	45	HMI He	971494.12	1.49	1144561.88333333	84.88	60	125	
Ge Internal Standard	72	HMI He	1275788.38	0.52	1545458.59	82.55	60	125	
In Internal standard	115	HMI He	3410396.78	2.20	3925517.65666667	86.88	60	125	
Ho-165	165	HMI He	16731748.71	1.32	18306963.8366667	91.4	60	125	
Sc IS)	45	No Gas	112757694.12	1.75	132851188.07	84.88	60	120	

Sample Report

Sample Name	280-104896-b-6-b
File Name	080SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:13:22 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.210	ppb	14.67	113.33	2000	
B	11	6	HMI H2	53.286	ppb	5.02	35707.64	100	
Se	78	72	HMI H2	0.276	ppb	25.26	162.67	2000	
Na	23	45	HMI He	57708.394	ppb	2.27	13899856.25	400000	
Mg	24	45	HMI He	14574.150	ppb	2.48	1500212.27	400000	
Al	27	45	HMI He	4459.421	ppb	3.40	101395.80	400000	
K	39	45	HMI He	2109.536	ppb	2.63	145325.53	400000	
Ca	44	45	HMI He	95846.290	ppb	1.79	288227.58	400000	
V	51	72	HMI He	15.691	ppb	2.08	23500.26	2000	
Cr	52	72	HMI He	5.004	ppb	3.69	8779.18	5000	
Mn	55	72	HMI He	4810.190	ppb	1.94	2758882.69	10000	
Fe	57	72	HMI He	3454.226	ppb	2.42	107710.58	400000	
Co	59	72	HMI He	5.684	ppb	1.02	17749.78	2000	
Ni	60	72	HMI He	8.722	ppb	3.81	8015.39	5000	
Cu	63	72	HMI He	5.530	ppb	2.51	15384.10	5000	
Zn	66	72	HMI He	14.865	ppb	5.13	5244.25	5000	
As	75	72	HMI He	2.599	ppb	12.29	625.50	2000	
Sr	88	45	HMI He	315.469	ppb	2.10	182221.51	2000	
Zr	90	72	HMI He	758.741	ppb	10.04	8808.32	1000	
Nb	93	72	HMI He	0.495	ppb	103.06	3090.17	200	
Mo	95	115	HMI He	0.337	ppb	2.75	443.35	2000	
Pd	105	115	HMI He	-0.003	ppb	-484.76	126.67	100	
Ag	107	115	HMI He	0.117	ppb	7.40	500.02	100	
Cd	111	115	HMI He	0.215	ppb	20.33	103.33	2000	
Sn	120	115	HMI He	0.828	ppb	17.52	1376.75	2000	
Sb	121	115	HMI He	-0.097	ppb	-33.36	150.00	1000	
Ba	137	115	HMI He	461.802	ppb	1.74	155674.20	5000	
W	182	165	HMI He	0.158	ppb	18.69	1990.18	100	
Pt	195	165	HMI He	-0.006	ppb	-121.46	46.67	100	
Tl	205	165	HMI He	0.084	ppb	18.15	803.36	2000	
Pb	208	165	HMI He	2.399	ppb	3.73	26402.93	5000	
Th	232	165	HMI He	1.087	ppb	15.97	12541.98	2000	
U	238	165	HMI He	1.175	ppb	3.46	14364.06	2000	
Li	7	45	No Gas	16.377	ppb	32.62	10476112.68	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	829828.94	6.42	956003.023333333	86.8	60	125	
Ge Internal Standard	72	HMI H2	16550774.55	1.63	18947224.0133333	87.35	60	125	
Sc (IS)	45	HMI He	931068.87	0.72	1144561.88333333	81.35	60	125	
Ge Internal Standard	72	HMI He	1251818.90	0.95	1545458.59	81	60	125	
In Internal standard	115	HMI He	3330739.13	1.67	3925517.65666667	84.85	60	125	
Ho-165	165	HMI He	15837480.84	2.26	18306963.8366667	86.51	60	125	
Sc IS)	45	No Gas	108340811.02	0.66	132851188.07	81.55	60	120	

Sample Report

Sample Name	280-104896-b-7-b
File Name	081SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:16:50 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.012	ppb	134.75	18.33	2000	
B	11	6	HMI H2	39.177	ppb	2.17	25666.24	100	
Se	78	72	HMI H2	1.125	ppb	15.86	526.68	2000	
Na	23	45	HMI He	31769.103	ppb	1.20	8019830.10	400000	
Mg	24	45	HMI He	13575.061	ppb	1.18	1463148.30	400000	
Al	27	45	HMI He	94.412	ppb	14.58	2343.53	400000	
K	39	45	HMI He	1267.350	ppb	0.69	103768.61	400000	
Ca	44	45	HMI He	69739.374	ppb	1.13	219580.79	400000	
V	51	72	HMI He	1.361	ppb	10.48	5027.50	2000	
Cr	52	72	HMI He	0.879	ppb	15.21	1776.78	5000	
Mn	55	72	HMI He	204.986	ppb	0.97	119737.22	10000	
Fe	57	72	HMI He	132.561	ppb	15.22	4367.38	400000	
Co	59	72	HMI He	0.177	ppb	21.65	580.02	2000	
Ni	60	72	HMI He	1.252	ppb	17.11	1373.42	5000	
Cu	63	72	HMI He	2.914	ppb	2.72	9155.98	5000	
Zn	66	72	HMI He	7.836	ppb	5.49	3050.32	5000	
As	75	72	HMI He	0.732	ppb	15.50	201.31	2000	
Sr	88	45	HMI He	225.098	ppb	1.44	136158.18	2000	
Zr	90	72	HMI He	22.711	ppb	21.55	380.01	1000	
Nb	93	72	HMI He	-0.165	ppb	-1.93	156.67	200	
Mo	95	115	HMI He	0.471	ppb	8.46	610.02	2000	
Pd	105	115	HMI He	-0.015	ppb	-228.45	106.67	100	
Ag	107	115	HMI He	0.042	ppb	58.82	206.67	100	
Cd	111	115	HMI He	0.234	ppb	7.47	113.33	2000	
Sn	120	115	HMI He	1.339	ppb	15.10	2020.17	2000	
Sb	121	115	HMI He	-0.126	ppb	-14.95	120.00	1000	
Ba	137	115	HMI He	371.039	ppb	3.01	126672.33	5000	
W	182	165	HMI He	0.014	ppb	310.13	1400.08	100	
Pt	195	165	HMI He	0.001	ppb	1321.83	76.67	100	
Tl	205	165	HMI He	-0.002	ppb	-49.08	130.00	2000	
Pb	208	165	HMI He	0.253	ppb	8.37	4373.66	5000	
Th	232	165	HMI He	0.014	ppb	19.83	450.01	2000	
U	238	165	HMI He	0.763	ppb	3.43	9760.09	2000	
Li	7	45	No Gas	25.215	ppb	29.70	10905943.29	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	804638.96	1.43	956003.023333333	84.17	60	125	
Ge Internal Standard	72	HMI H2	16888728.70	1.58	18947224.0133333	89.14	60	125	
Sc (IS)	45	HMI He	974787.41	0.78	1144561.88333333	85.17	60	125	
Ge Internal Standard	72	HMI He	1274406.24	0.93	1545458.59	82.46	60	125	
In Internal standard	115	HMI He	3373892.96	2.28	3925517.65666667	85.95	60	125	
Ho-165	165	HMI He	16508066.43	1.05	18306963.8366667	90.17	60	125	
Sc IS)	45	No Gas	110111790.09	2.58	132851188.07	82.88	60	120	

Sample Report

Sample Name	280-104896-b-8-b
File Name	082SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:20:20 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.015	ppb	183.57	20.00	2000	
B	11	6	HMI H2	34.545	ppb	0.96	23082.51	100	
Se	78	72	HMI H2	0.117	ppb	46.03	97.33	2000	
Na	23	45	HMI He	47930.936	ppb	1.53	11838001.15	400000	
Mg	24	45	HMI He	7564.179	ppb	1.72	798273.17	400000	
Al	27	45	HMI He	146.719	ppb	8.51	3517.11	400000	
K	39	45	HMI He	1443.664	ppb	0.45	111518.37	400000	
Ca	44	45	HMI He	70446.783	ppb	1.31	217168.54	400000	
V	51	72	HMI He	0.803	ppb	13.83	4277.28	2000	
Cr	52	72	HMI He	0.747	ppb	5.68	1543.43	5000	
Mn	55	72	HMI He	151.763	ppb	0.87	88353.65	10000	
Fe	57	72	HMI He	146.375	ppb	1.99	4790.77	400000	
Co	59	72	HMI He	0.131	ppb	40.80	430.01	2000	
Ni	60	72	HMI He	1.100	ppb	30.10	1230.06	5000	
Cu	63	72	HMI He	0.303	ppb	27.36	2653.58	5000	
Zn	66	72	HMI He	1.437	ppb	33.79	963.37	5000	
As	75	72	HMI He	0.324	ppb	28.77	105.88	2000	
Sr	88	45	HMI He	152.083	ppb	1.40	90065.99	2000	
Zr	90	72	HMI He	16.811	ppb	36.68	310.01	1000	
Nb	93	72	HMI He	-0.151	ppb	-10.05	220.00	200	
Mo	95	115	HMI He	0.482	ppb	23.13	633.36	2000	
Pd	105	115	HMI He	-0.049	ppb	-28.24	43.33	100	
Ag	107	115	HMI He	-0.004	ppb	-125.19	20.00	100	
Cd	111	115	HMI He	0.021	ppb	110.71	13.33	2000	
Sn	120	115	HMI He	0.231	ppb	23.03	673.36	2000	
Sb	121	115	HMI He	-0.137	ppb	-21.36	110.00	1000	
Ba	137	115	HMI He	297.478	ppb	3.27	102974.69	5000	
W	182	165	HMI He	-0.010	ppb	-440.94	1263.40	100	
Pt	195	165	HMI He	-0.010	ppb	-81.95	33.33	100	
Tl	205	165	HMI He	-0.003	ppb	-63.36	123.33	2000	
Pb	208	165	HMI He	0.094	ppb	23.87	2616.80	5000	
Th	232	165	HMI He	0.038	ppb	21.46	720.03	2000	
U	238	165	HMI He	0.514	ppb	8.70	6498.24	2000	
Li	7	45	No Gas	11.657	ppb	21.61	10493726.85	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	817922.48	0.43	956003.023333333	85.56	60	125	
Ge Internal Standard	72	HMI H2	16668749.13	0.60	18947224.0133333	87.97	60	125	
Sc (IS)	45	HMI He	954462.05	1.63	1144561.88333333	83.39	60	125	
Ge Internal Standard	72	HMI He	1269842.87	0.76	1545458.59	82.17	60	125	
In Internal standard	115	HMI He	3421152.57	2.21	3925517.65666667	87.15	60	125	
Ho-165	165	HMI He	16233928.43	2.63	18306963.8366667	88.68	60	125	
Sc IS)	45	No Gas	109970738.43	1.13	132851188.07	82.78	60	120	

Sample Report

Sample Name	280-104896-b-9-b
File Name	083SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:23:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.533	ppb	17.44	258.33	2000	
B	11	6	HMI H2	67.873	ppb	3.32	43749.97	100	
Se	78	72	HMI H2	0.077	ppb	18.58	78.67	2000	
Na	23	45	HMI He	66264.246	ppb	1.25	15925122.09	400000	
Mg	24	45	HMI He	15144.263	ppb	2.70	1555557.20	400000	
Al	27	45	HMI He	7260.328	ppb	3.37	164640.91	400000	
K	39	45	HMI He	2529.617	ppb	1.79	168002.40	400000	
Ca	44	45	HMI He	136527.031	ppb	0.33	409660.42	400000	
V	51	72	HMI He	28.914	ppb	1.76	40216.05	2000	
Cr	52	72	HMI He	8.961	ppb	2.77	15360.68	5000	
Mn	55	72	HMI He	1484.792	ppb	2.19	842879.25	10000	
Fe	57	72	HMI He	9228.005	ppb	1.58	284570.00	400000	
Co	59	72	HMI He	8.445	ppb	4.75	26094.39	2000	
Ni	60	72	HMI He	10.743	ppb	8.33	9719.71	5000	
Cu	63	72	HMI He	9.697	ppb	1.95	25306.61	5000	
Zn	66	72	HMI He	25.068	ppb	1.89	8422.29	5000	
As	75	72	HMI He	7.472	ppb	1.56	1722.32	2000	
Sr	88	45	HMI He	254.115	ppb	0.55	146490.00	2000	
Zr	90	72	HMI He	447.903	ppb	9.66	5191.07	1000	
Nb	93	72	HMI He	0.002	ppb	2097.94	883.38	200	
Mo	95	115	HMI He	0.231	ppb	24.38	313.34	2000	
Pd	105	115	HMI He	-0.041	ppb	-53.57	56.67	100	
Ag	107	115	HMI He	0.009	ppb	79.19	70.00	100	
Cd	111	115	HMI He	0.276	ppb	2.79	130.00	2000	
Sn	120	115	HMI He	0.909	ppb	12.39	1460.09	2000	
Sb	121	115	HMI He	0.009	ppb	523.97	263.34	1000	
Ba	137	115	HMI He	416.551	ppb	4.08	138821.97	5000	
W	182	165	HMI He	0.031	ppb	184.55	1456.77	100	
Pt	195	165	HMI He	-0.008	ppb	-54.73	40.00	100	
Tl	205	165	HMI He	0.077	ppb	8.12	766.70	2000	
Pb	208	165	HMI He	4.674	ppb	2.36	51169.07	5000	
Th	232	165	HMI He	2.679	ppb	1.23	31314.32	2000	
U	238	165	HMI He	1.328	ppb	4.43	16606.51	2000	
Li	7	45	No Gas	21.424	ppb	20.93	10243232.49	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	799590.85	2.16	956003.023333333	83.64	60	125	
Ge Internal Standard	72	HMI H2	16232429.57	1.28	18947224.0133333	85.67	60	125	
Sc (IS)	45	HMI He	929138.12	1.44	1144561.88333333	81.18	60	125	
Ge Internal Standard	72	HMI He	1239013.03	0.41	1545458.59	80.17	60	125	
In Internal standard	115	HMI He	3294768.24	2.72	3925517.65666667	83.93	60	125	
Ho-165	165	HMI He	16217877.18	1.20	18306963.8366667	88.59	60	125	
Sc IS)	45	No Gas	104471215.38	1.19	132851188.07	78.64	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	084_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:27:18 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	594.405	ppb	6.99	308017.20	500	118.88	90	110	>+\-10%
Be	9	6	HMI H2	46.475	ppb	6.58	23224.21	50	92.95	90	110	
B	11	6	HMI H2	41.841	ppb	7.92	29322.26	50	83.68	90	110	>+\-10%
Se	78	72	HMI H2	49.477	ppb	3.98	20523.75	50	98.95	90	110	
Na	23	45	HMI He	5060.945	ppb	1.04	1258723.48	5000	101.22	90	110	
Mg	24	45	HMI He	4991.940	ppb	1.56	524021.06	5000	99.84	90	110	
Al	27	45	HMI He	5153.668	ppb	0.80	119459.74	5000	103.07	90	110	
K	39	45	HMI He	5022.914	ppb	1.08	311074.36	5000	100.46	90	110	
Ca	44	45	HMI He	5195.004	ppb	2.06	16017.88	5000	103.9	90	110	
V	51	72	HMI He	49.013	ppb	0.52	68425.13	50	98.03	90	110	
Cr	52	72	HMI He	49.478	ppb	4.04	86788.38	50	98.96	90	110	
Mn	55	72	HMI He	51.370	ppb	2.01	30291.38	50	102.74	90	110	
Fe	57	72	HMI He	5045.546	ppb	0.71	161415.52	5000	100.91	90	110	
Co	59	72	HMI He	49.448	ppb	2.13	158346.90	50	98.9	90	110	
Ni	60	72	HMI He	50.210	ppb	2.54	46225.46	50	100.42	90	110	
Cu	63	72	HMI He	49.801	ppb	2.18	126789.48	50	99.6	90	110	
Zn	66	72	HMI He	49.617	ppb	4.90	16788.82	50	99.23	90	110	
As	75	72	HMI He	50.960	ppb	0.86	12000.53	50	101.92	90	110	
Sr	88	45	HMI He	51.764	ppb	4.52	30505.99	50	103.53	90	110	
Zr	90	72	HMI He	69.531	ppb	6.99	933.37	50	139.06	90	110	>+\-10%
Nb	93	72	HMI He	101.329	ppb	0.85	461174.07	100	101.33	90	110	
Mo	95	115	HMI He	47.023	ppb	0.63	57296.77	50	94.05	90	110	
Pd	105	115	HMI He	49.322	ppb	2.55	92512.83	50	98.64	90	110	
Ag	107	115	HMI He	49.074	ppb	0.75	200163.19	50	98.15	90	110	
Cd	111	115	HMI He	48.065	ppb	0.25	22916.88	50	96.13	90	110	
Sn	120	115	HMI He	48.284	ppb	1.85	60128.78	50	96.57	90	110	
Sb	121	115	HMI He	47.349	ppb	1.38	53698.98	50	94.7	90	110	
Ba	137	115	HMI He	48.480	ppb	3.95	16722.62	50	96.96	90	110	
W	182	165	HMI He	49.919	ppb	1.29	238909.91	50	99.84	90	110	
Pt	195	165	HMI He	47.318	ppb	2.38	191963.77	50	94.64	90	110	
Tl	205	165	HMI He	49.341	ppb	3.28	409038.56	50	98.68	90	110	
Pb	208	165	HMI He	49.899	ppb	2.69	546718.77	50	99.8	90	110	
Th	232	165	HMI He	49.260	ppb	3.17	588254.57	50	98.52	90	110	
U	238	165	HMI He	48.992	ppb	2.36	627687.79	50	97.98	90	110	
Li	7	45	No Gas	523.615	ppb	1.62	25761465.32	500	104.72	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	864778.46	6.88	956003.023333333	90.46	60	125	
Ge Internal Standard	72	HMI H2	16452423.93	1.66	18947224.0133333	86.83	60	125	
Sc (IS)	45	HMI He	949247.02	1.21	1144561.88333333	82.94	60	125	
Ge Internal Standard	72	HMI He	1284769.89	0.69	1545458.59	83.13	60	125	
In Internal standard	115	HMI He	3404425.93	1.00	3925517.65666667	86.73	60	125	
Ho-165	165	HMI He	16715108.51	2.12	18306963.8366667	91.3	60	125	
Sc IS)	45	No Gas	110359965.91	1.82	132851188.07	83.07	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	085_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:30:46 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	34.765	ppb	21.85	128673.50	0.1	>RL
Be	9	6	HMI H2	0.018	ppb	186.24	23.33	0.5	
B	11	6	HMI H2	1.184	ppb	6.17	1513.42	0.1	>RL
Se	78	72	HMI H2	0.005	ppb	1399.09	50.67	1	
Na	23	45	HMI He	37.190	ppb	14.43	27035.22	25	>RL
Mg	24	45	HMI He	1.918	ppb	66.56	466.68	25	
Al	27	45	HMI He	3.165	ppb	29.23	173.33	15	
K	39	45	HMI He	-18.507	ppb	-51.94	29696.76	50	
Ca	44	45	HMI He	4.639	ppb	137.01	110.00	25	
V	51	72	HMI He	-0.433	ppb	-26.09	2703.60	1	
Cr	52	72	HMI He	0.030	ppb	94.50	310.01	1	
Mn	55	72	HMI He	0.154	ppb	72.93	146.67	0.5	
Fe	57	72	HMI He	0.820	ppb	252.56	196.67	25	
Co	59	72	HMI He	0.006	ppb	116.67	36.67	0.5	
Ni	60	72	HMI He	-0.022	ppb	-43.26	220.00	1	
Cu	63	72	HMI He	0.188	ppb	19.11	2413.54	1	
Zn	66	72	HMI He	-0.082	ppb	-224.46	480.01	5	
As	75	72	HMI He	0.028	ppb	146.04	37.91	1	
Sr	88	45	HMI He	0.016	ppb	221.65	43.33	1	
Zr	90	72	HMI He	2.210	ppb	109.95	143.33	1	>RL
Nb	93	72	HMI He	0.166	ppb	16.45	1676.78	2	
Mo	95	115	HMI He	0.002	ppb	735.57	46.67	0.5	
Pd	105	115	HMI He	-0.006	ppb	-429.47	126.67	1	
Ag	107	115	HMI He	0.000	ppb	680.77	36.67	1	
Cd	111	115	HMI He	0.001	ppb	1199.29	3.33	0.5	
Sn	120	115	HMI He	-0.114	ppb	-47.57	246.67	1	
Sb	121	115	HMI He	0.349	ppb	21.40	666.69	1	
Ba	137	115	HMI He	-0.004	ppb	-1096.09	13.33	0.5	
W	182	165	HMI He	-0.038	ppb	-16.46	1173.40	1	
Pt	195	165	HMI He	0.019	ppb	31.76	150.00	1	
Tl	205	165	HMI He	0.018	ppb	22.13	296.68	0.1	
Pb	208	165	HMI He	0.428	ppb	3.86	6357.31	0.5	
Th	232	165	HMI He	0.022	ppb	46.64	546.69	1	
U	238	165	HMI He	0.011	ppb	80.99	243.34	0.5	
Li	7	45	No Gas	10.844	ppb	50.18	10486111.85	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	887334.51	3.39	956003.023333333	92.82	60	125	
Ge Internal Standard	72	HMI H2	16730953.50	0.63	18947224.0133333	88.3	60	125	
Sc (IS)	45	HMI He	967537.22	2.09	1144561.88333333	84.53	60	125	
Ge Internal Standard	72	HMI He	1294615.45	1.11	1545458.59	83.77	60	125	
In Internal standard	115	HMI He	3456125.22	1.62	3925517.65666667	88.04	60	125	
Ho-165	165	HMI He	16739299.13	1.79	18306963.8366667	91.44	60	125	
Sc IS)	45	No Gas	110142155.09	0.47	132851188.07	82.91	60	120	

Sample Report

Sample Name	280-104896-b-10-b
File Name	086SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:34:17 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.126	ppb	21.05	70.00	2000	
B	11	6	HMI H2	3119.814	ppb	5.41	1956267.32	100	>LDR
Se	78	72	HMI H2	0.579	ppb	10.56	266.67	2000	
Na	23	45	HMI He	551240.143	ppb	1.46	129185323.26	400000	
Mg	24	45	HMI He	71604.881	ppb	1.09	7178445.51	400000	
Al	27	45	HMI He	3135.800	ppb	4.12	69472.08	400000	
K	39	45	HMI He	4062.488	ppb	1.01	245886.18	400000	
Ca	44	45	HMI He	178630.656	ppb	0.49	523169.15	400000	
V	51	72	HMI He	6.555	ppb	4.08	10990.50	2000	
Cr	52	72	HMI He	5.688	ppb	7.54	9362.79	5000	
Mn	55	72	HMI He	304.491	ppb	1.63	164577.44	10000	
Fe	57	72	HMI He	26267.556	ppb	0.82	770707.90	400000	
Co	59	72	HMI He	11.508	ppb	1.24	33841.88	2000	
Ni	60	72	HMI He	35.703	ppb	4.19	30228.16	5000	
Cu	63	72	HMI He	14.335	ppb	2.38	34763.77	5000	
Zn	66	72	HMI He	11.932	ppb	7.38	4057.22	5000	
As	75	72	HMI He	512.950	ppb	1.06	110618.96	2000	
Sr	88	45	HMI He	1883.137	ppb	2.61	1059257.44	2000	
Zr	90	72	HMI He	430.710	ppb	4.61	4754.12	1000	
Nb	93	72	HMI He	0.098	ppb	51.80	1243.41	200	
Mo	95	115	HMI He	4.148	ppb	2.06	4794.12	2000	
Pd	105	115	HMI He	0.007	ppb	385.09	140.00	100	
Ag	107	115	HMI He	0.030	ppb	62.51	146.67	100	
Cd	111	115	HMI He	0.083	ppb	54.35	40.00	2000	
Sn	120	115	HMI He	1.113	ppb	8.99	1656.77	2000	
Sb	121	115	HMI He	0.124	ppb	85.04	380.01	1000	
Ba	137	115	HMI He	965.396	ppb	4.18	313000.26	5000	
W	182	165	HMI He	0.070	ppb	33.58	1583.44	100	
Pt	195	165	HMI He	-0.002	ppb	-115.87	60.00	100	
Tl	205	165	HMI He	0.024	ppb	58.33	330.01	2000	
Pb	208	165	HMI He	2.923	ppb	2.81	31617.11	5000	
Th	232	165	HMI He	0.688	ppb	5.50	7995.66	2000	
U	238	165	HMI He	0.188	ppb	1.22	2366.89	2000	
Li	7	45	No Gas	8.866	ppb	5.31	9452853.36	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789739.10	3.75	956003.023333333	82.61	60	125	
Ge Internal Standard	72	HMI H2	15272633.89	1.08	18947224.0133333	80.61	60	125	
Sc (IS)	45	HMI He	906953.01	1.71	1144561.88333333	79.24	60	125	
Ge Internal Standard	72	HMI He	1179309.17	0.66	1545458.59	76.31	60	125	
In Internal standard	115	HMI He	3204639.21	1.75	3925517.65666667	81.64	60	125	
Ho-165	165	HMI He	15722035.53	0.72	18306963.8366667	85.88	60	125	
Sc IS)	45	No Gas	99849373.96	1.08	132851188.07	75.16	60	120	

Sample Report

Sample Name	280-104896-b-11-b
File Name	087SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:37:45 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.007	ppb	-286.58	10.00	2000	
B	11	6	HMI H2	50.981	ppb	2.96	35557.35	100	
Se	78	72	HMI H2	0.029	ppb	8.82	58.67	2000	
Na	23	45	HMI He	440.173	ppb	3.57	126200.08	400000	
Mg	24	45	HMI He	18.826	ppb	31.22	2250.20	400000	
Al	27	45	HMI He	1.271	ppb	227.64	126.67	400000	
K	39	45	HMI He	-1.994	ppb	-127.81	30241.22	400000	
Ca	44	45	HMI He	50.215	ppb	60.48	250.00	400000	
V	51	72	HMI He	-1.220	ppb	-13.87	1616.77	2000	
Cr	52	72	HMI He	0.047	ppb	60.08	333.34	5000	
Mn	55	72	HMI He	0.262	ppb	34.38	206.67	10000	
Fe	57	72	HMI He	12.769	ppb	9.17	570.02	400000	
Co	59	72	HMI He	0.007	ppb	224.70	40.00	2000	
Ni	60	72	HMI He	0.602	ppb	24.11	780.03	5000	
Cu	63	72	HMI He	0.312	ppb	3.61	2673.58	5000	
Zn	66	72	HMI He	0.522	ppb	20.19	666.69	5000	
As	75	72	HMI He	0.122	ppb	26.04	58.82	2000	
Sr	88	45	HMI He	0.511	ppb	33.77	336.67	2000	
Zr	90	72	HMI He	2.450	ppb	238.57	143.33	1000	
Nb	93	72	HMI He	-0.117	ppb	-6.14	373.34	200	
Mo	95	115	HMI He	0.081	ppb	5.31	143.33	2000	
Pd	105	115	HMI He	-0.041	ppb	-34.57	60.00	100	
Ag	107	115	HMI He	-0.003	ppb	-132.62	23.33	100	
Cd	111	115	HMI He	0.015	ppb	242.64	10.00	2000	
Sn	120	115	HMI He	-0.094	ppb	-100.96	270.01	2000	
Sb	121	115	HMI He	-0.140	ppb	-36.41	106.67	1000	
Ba	137	115	HMI He	0.188	ppb	40.71	80.00	5000	
W	182	165	HMI He	-0.026	ppb	-42.09	1240.07	100	
Pt	195	165	HMI He	-0.003	ppb	-195.78	63.33	100	
Tl	205	165	HMI He	-0.002	ppb	-252.04	136.67	2000	
Pb	208	165	HMI He	0.418	ppb	10.20	6300.62	5000	
Th	232	165	HMI He	0.003	ppb	155.62	320.01	2000	
U	238	165	HMI He	-0.002	ppb	-101.35	80.00	2000	
Li	7	45	No Gas	10.937	ppb	56.09	10047220.52	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	861323.88	0.72	956003.023333333	90.1	60	125	
Ge Internal Standard	72	HMI H2	16129918.01	2.36	18947224.0133333	85.13	60	125	
Sc (IS)	45	HMI He	955203.09	0.94	1144561.88333333	83.46	60	125	
Ge Internal Standard	72	HMI He	1268775.08	0.54	1545458.59	82.1	60	125	
In Internal standard	115	HMI He	3433139.75	0.49	3925517.65666667	87.46	60	125	
Ho-165	165	HMI He	16910300.58	3.18	18306963.8366667	92.37	60	125	
Sc IS)	45	No Gas	105518136.16	1.19	132851188.07	79.43	60	120	

Sample Report

Sample Name	280-104896-b-12-b
File Name	088SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:41:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.007	ppb	-354.78	10.00	2000	
B	11	6	HMI H2	19.658	ppb	0.62	14509.68	100	
Se	78	72	HMI H2	0.022	ppb	317.32	57.33	2000	
Na	23	45	HMI He	193.394	ppb	5.21	65276.31	400000	
Mg	24	45	HMI He	2.664	ppb	21.68	540.01	400000	
Al	27	45	HMI He	2.245	ppb	47.84	150.00	400000	
K	39	45	HMI He	30.149	ppb	62.64	32057.98	400000	
Ca	44	45	HMI He	19.048	ppb	128.77	153.33	400000	
V	51	72	HMI He	-1.078	ppb	-0.70	1846.80	2000	
Cr	52	72	HMI He	0.029	ppb	121.00	310.01	5000	
Mn	55	72	HMI He	0.091	ppb	104.85	110.00	10000	
Fe	57	72	HMI He	6.286	ppb	51.12	373.34	400000	
Co	59	72	HMI He	0.004	ppb	77.85	30.00	2000	
Ni	60	72	HMI He	0.698	ppb	25.32	886.70	5000	
Cu	63	72	HMI He	0.271	ppb	45.60	2630.24	5000	
Zn	66	72	HMI He	0.482	ppb	85.75	670.02	5000	
As	75	72	HMI He	0.011	ppb	432.53	33.99	2000	
Sr	88	45	HMI He	0.027	ppb	382.28	50.00	2000	
Zr	90	72	HMI He	4.401	ppb	48.45	170.00	1000	
Nb	93	72	HMI He	-0.133	ppb	-15.27	310.01	200	
Mo	95	115	HMI He	0.166	ppb	35.00	253.34	2000	
Pd	105	115	HMI He	-0.048	ppb	-7.37	46.67	100	
Ag	107	115	HMI He	-0.003	ppb	-116.68	23.33	100	
Cd	111	115	HMI He	0.015	ppb	241.08	10.00	2000	
Sn	120	115	HMI He	-0.089	ppb	-46.42	283.34	2000	
Sb	121	115	HMI He	-0.168	ppb	-9.75	76.67	1000	
Ba	137	115	HMI He	0.060	ppb	114.40	36.67	5000	
W	182	165	HMI He	-0.027	ppb	-136.57	1243.40	100	
Pt	195	165	HMI He	0.009	ppb	143.11	110.00	100	
Tl	205	165	HMI He	-0.004	ppb	-173.19	120.00	2000	
Pb	208	165	HMI He	0.005	ppb	114.83	1753.40	5000	
Th	232	165	HMI He	-0.001	ppb	-383.44	273.34	2000	
U	238	165	HMI He	-0.003	ppb	-98.11	63.33	2000	
Li	7	45	No Gas	8.904	ppb	35.75	10220149.26	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	885391.12	0.96	956003.023333333	92.61	60	125	
Ge Internal Standard	72	HMI H2	16639160.38	2.02	18947224.0133333	87.82	60	125	
Sc (IS)	45	HMI He	955608.11	0.97	1144561.88333333	83.49	60	125	
Ge Internal Standard	72	HMI He	1299263.84	1.53	1545458.59	84.07	60	125	
In Internal standard	115	HMI He	3511513.89	3.77	3925517.65666667	89.45	60	125	
Ho-165	165	HMI He	16967622.66	2.00	18306963.8366667	92.68	60	125	
Sc IS)	45	No Gas	107948826.87	1.07	132851188.07	81.26	60	120	

Sample Report

Sample Name	280-104896-b-13-b
File Name	089SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:44:43 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399636 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.050	ppb	101.43	35.00	2000	
B	11	6	HMI H2	52.141	ppb	1.92	33326.36	100	
Se	78	72	HMI H2	0.015	ppb	480.49	54.67	2000	
Na	23	45	HMI He	53428.744	ppb	0.46	12778438.61	400000	
Mg	24	45	HMI He	14933.632	ppb	1.01	1526026.78	400000	
Al	27	45	HMI He	951.322	ppb	4.63	21541.03	400000	
K	39	45	HMI He	648.541	ppb	1.83	64695.61	400000	
Ca	44	45	HMI He	96723.456	ppb	0.44	288742.14	400000	
V	51	72	HMI He	3.346	ppb	4.88	7421.77	2000	
Cr	52	72	HMI He	1.338	ppb	11.87	2496.89	5000	
Mn	55	72	HMI He	3853.974	ppb	2.12	2184610.04	10000	
Fe	57	72	HMI He	676.501	ppb	1.67	20983.71	400000	
Co	59	72	HMI He	6.993	ppb	5.17	21574.47	2000	
Ni	60	72	HMI He	4.468	ppb	8.47	4167.26	5000	
Cu	63	72	HMI He	3.073	ppb	4.57	9272.75	5000	
Zn	66	72	HMI He	4.997	ppb	12.38	2063.49	5000	
As	75	72	HMI He	1.151	ppb	6.25	290.20	2000	
Sr	88	45	HMI He	301.953	ppb	3.20	173115.05	2000	
Zr	90	72	HMI He	785.581	ppb	133.37	8923.69	1000	
Nb	93	72	HMI He	-0.083	ppb	-7.74	513.36	200	
Mo	95	115	HMI He	0.943	ppb	10.36	1176.72	2000	
Pd	105	115	HMI He	-0.055	ppb	-24.92	33.33	100	
Ag	107	115	HMI He	0.003	ppb	160.80	46.67	100	
Cd	111	115	HMI He	0.036	ppb	99.17	20.00	2000	
Sn	120	115	HMI He	0.412	ppb	10.10	883.37	2000	
Sb	121	115	HMI He	-0.048	ppb	-107.02	206.67	1000	
Ba	137	115	HMI He	396.944	ppb	0.94	135093.73	5000	
W	182	165	HMI He	0.044	ppb	105.35	1503.44	100	
Pt	195	165	HMI He	-0.009	ppb	-35.63	36.67	100	
Tl	205	165	HMI He	0.016	ppb	31.45	270.01	2000	
Pb	208	165	HMI He	0.766	ppb	1.63	9678.05	5000	
Th	232	165	HMI He	0.170	ppb	9.90	2236.88	2000	
U	238	165	HMI He	1.446	ppb	0.74	17968.00	2000	
Li	7	45	No Gas	14.078	ppb	13.29	9918678.02	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789648.41	0.40	956003.023333333	82.6	60	125	
Ge Internal Standard	72	HMI H2	16639052.47	0.48	18947224.0133333	87.82	60	125	
Sc (IS)	45	HMI He	924301.32	1.32	1144561.88333333	80.76	60	125	
Ge Internal Standard	72	HMI He	1237267.29	1.26	1545458.59	80.06	60	125	
In Internal standard	115	HMI He	3362471.16	1.66	3925517.65666667	85.66	60	125	
Ho-165	165	HMI He	16120493.43	1.38	18306963.8366667	88.06	60	125	
Sc IS)	45	No Gas	103237479.62	1.19	132851188.07	77.71	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	090_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:48:12 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	594.487	ppb	3.39	295929.21	500	118.9	90	110	>+\-10%
Be	9	6	HMI H2	47.150	ppb	3.39	21682.21	50	94.3	90	110	
B	11	6	HMI H2	51.575	ppb	1.91	33169.39	50	103.15	90	110	
Se	78	72	HMI H2	49.779	ppb	1.91	20490.36	50	99.56	90	110	
Na	23	45	HMI He	4759.389	ppb	12.37	1201939.05	5000	95.19	90	110	
Mg	24	45	HMI He	4637.355	ppb	13.13	493638.64	5000	92.75	90	110	
Al	27	45	HMI He	4723.705	ppb	14.26	110959.73	5000	94.47	90	110	
K	39	45	HMI He	4736.832	ppb	11.77	299537.24	5000	94.74	90	110	
Ca	44	45	HMI He	4703.980	ppb	12.55	14716.75	5000	94.08	90	110	
V	51	72	HMI He	44.608	ppb	12.43	63258.49	50	89.22	90	110	>+\-10%
Cr	52	72	HMI He	46.345	ppb	13.29	82158.66	50	92.69	90	110	
Mn	55	72	HMI He	50.153	ppb	11.51	29907.38	50	100.31	90	110	
Fe	57	72	HMI He	4665.235	ppb	13.04	150820.25	5000	93.3	90	110	
Co	59	72	HMI He	46.206	ppb	11.85	149605.94	50	92.41	90	110	
Ni	60	72	HMI He	45.556	ppb	10.46	42455.45	50	91.11	90	110	
Cu	63	72	HMI He	46.879	ppb	10.36	120882.63	50	93.76	90	110	
Zn	66	72	HMI He	46.208	ppb	11.89	15847.91	50	92.42	90	110	
As	75	72	HMI He	49.091	ppb	11.05	11693.78	50	98.18	90	110	
Sr	88	45	HMI He	48.976	ppb	11.64	29297.06	50	97.95	90	110	
Zr	90	72	HMI He	62.824	ppb	18.77	863.37	50	125.65	90	110	>+\-10%
Nb	93	72	HMI He	96.322	ppb	11.89	443251.96	100	96.32	90	110	
Mo	95	115	HMI He	42.977	ppb	8.74	54630.89	50	85.95	90	110	>+\-10%
Pd	105	115	HMI He	45.071	ppb	8.91	88209.65	50	90.14	90	110	
Ag	107	115	HMI He	43.388	ppb	7.43	184670.52	50	86.78	90	110	>+\-10%
Cd	111	115	HMI He	44.379	ppb	9.43	22068.99	50	88.76	90	110	>+\-10%
Sn	120	115	HMI He	43.171	ppb	9.17	56131.57	50	86.34	90	110	>+\-10%
Sb	121	115	HMI He	42.779	ppb	8.70	50632.31	50	85.56	90	110	>+\-10%
Ba	137	115	HMI He	44.600	ppb	9.84	16041.92	50	89.2	90	110	>+\-10%
W	182	165	HMI He	46.225	ppb	9.95	226509.72	50	92.45	90	110	
Pt	195	165	HMI He	44.507	ppb	8.32	184857.08	50	89.01	90	110	>+\-10%
Tl	205	165	HMI He	46.288	ppb	6.69	393056.51	50	92.58	90	110	
Pb	208	165	HMI He	46.306	ppb	9.13	519550.63	50	92.61	90	110	
Th	232	165	HMI He	46.081	ppb	8.90	563477.59	50	92.16	90	110	
U	238	165	HMI He	46.239	ppb	9.08	606498.17	50	92.48	90	110	
Li	7	45	No Gas	532.416	ppb	2.50	24541826.01	500	106.48	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	794312.00	1.84	956003.023333333	83.09	60	125	
Ge Internal Standard	72	HMI H2	16322595.40	1.92	18947224.0133333	86.15	60	125	
Sc (IS)	45	HMI He	968396.76	7.12	1144561.88333333	84.61	60	125	
Ge Internal Standard	72	HMI He	1306239.27	7.13	1545458.59	84.52	60	125	
In Internal standard	115	HMI He	3558254.57	3.38	3925517.65666667	90.64	60	125	
Ho-165	165	HMI He	17141942.02	3.43	18306963.8366667	93.64	60	125	
Sc IS)	45	No Gas	104080603.74	1.59	132851188.07	78.34	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	091_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:51:40 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	24.375	ppb	29.55	122920.95	0.1	>RL
Be	9	6	HMI H2	0.003	ppb	514.20	15.00	0.5	
B	11	6	HMI H2	7.300	ppb	1.15	5597.65	0.1	>RL
Se	78	72	HMI H2	0.008	ppb	386.34	52.00	1	
Na	23	45	HMI He	56.487	ppb	10.46	31222.63	25	>RL
Mg	24	45	HMI He	1.470	ppb	54.01	410.01	25	
Al	27	45	HMI He	2.913	ppb	123.36	163.34	15	
K	39	45	HMI He	-7.394	ppb	-244.21	29703.51	50	
Ca	44	45	HMI He	3.246	ppb	468.26	103.33	25	
V	51	72	HMI He	-0.513	ppb	-13.01	2536.89	1	
Cr	52	72	HMI He	0.024	ppb	116.55	293.34	1	
Mn	55	72	HMI He	0.222	ppb	19.91	183.33	0.5	
Fe	57	72	HMI He	0.018	ppb	8982.86	166.67	25	
Co	59	72	HMI He	0.005	ppb	245.48	33.33	0.5	
Ni	60	72	HMI He	-0.038	ppb	-104.66	200.00	1	
Cu	63	72	HMI He	0.145	ppb	23.19	2253.52	1	
Zn	66	72	HMI He	0.096	ppb	198.74	526.68	5	
As	75	72	HMI He	0.049	ppb	128.84	41.83	1	
Sr	88	45	HMI He	0.023	ppb	187.80	46.67	1	
Zr	90	72	HMI He	-1.243	ppb	-73.80	100.00	1	
Nb	93	72	HMI He	0.196	ppb	38.52	1770.12	2	
Mo	95	115	HMI He	0.039	ppb	101.13	90.00	0.5	
Pd	105	115	HMI He	-0.012	ppb	-193.11	113.33	1	
Ag	107	115	HMI He	0.012	ppb	137.32	80.00	1	
Cd	111	115	HMI He	0.009	ppb	293.96	6.67	0.5	
Sn	120	115	HMI He	-0.086	ppb	-38.40	276.67	1	
Sb	121	115	HMI He	0.309	ppb	13.62	610.02	1	
Ba	137	115	HMI He	0.046	ppb	69.27	30.00	0.5	
W	182	165	HMI He	-0.017	ppb	-336.94	1260.07	1	
Pt	195	165	HMI He	0.035	ppb	8.12	213.34	1	
Tl	205	165	HMI He	0.014	ppb	55.38	266.67	0.1	
Pb	208	165	HMI He	0.444	ppb	2.50	6450.64	0.5	
Th	232	165	HMI He	0.016	ppb	22.11	466.68	1	
U	238	165	HMI He	0.013	ppb	59.02	273.34	0.5	
Li	7	45	No Gas	-0.192	ppb	-4914.15	10088252.39	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	852492.55	1.53	956003.023333333	89.17	60	125	
Ge Internal Standard	72	HMI H2	16626430.17	1.66	18947224.0133333	87.75	60	125	
Sc (IS)	45	HMI He	948053.18	1.60	1144561.88333333	82.83	60	125	
Ge Internal Standard	72	HMI He	1264538.49	0.66	1545458.59	81.82	60	125	
In Internal standard	115	HMI He	3391431.23	3.18	3925517.65666667	86.39	60	125	
Ho-165	165	HMI He	16548405.80	1.78	18306963.8366667	90.39	60	125	
Sc IS)	45	No Gas	109426236.79	2.17	132851188.07	82.37	60	120	

Blank Report

Sample Name	mb 280-399637/1-a
File Name	092_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:55:09 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	26.905	ppb	49.99	125524.45	0.1	>DL
Be	9	6	HMI H2	0.023	ppb	78.74	25.00	0.5	
Se	78	72	HMI H2	-0.049	ppb	-17.33	28.00	1	
Na	23	45	HMI He	86.057	ppb	3.17	38180.17	25	>DL
Mg	24	45	HMI He	2.426	ppb	15.03	506.68	25	
Al	27	45	HMI He	10.321	ppb	43.12	333.34	15	
K	39	45	HMI He	-3.329	ppb	-1029.43	29696.88	50	
Ca	44	45	HMI He	2.359	ppb	519.22	100.00	25	
V	51	72	HMI He	-0.347	ppb	-17.64	2790.28	1	
Cr	52	72	HMI He	-0.003	ppb	-1086.61	250.01	1	
Mn	55	72	HMI He	0.168	ppb	26.13	153.33	0.5	
Fe	57	72	HMI He	0.905	ppb	210.31	196.67	25	
Co	59	72	HMI He	0.000	ppb	-199643.87	16.67	0.5	
Ni	60	72	HMI He	0.812	ppb	35.54	976.71	1	
Cu	63	72	HMI He	0.055	ppb	215.41	2053.49	1	
Zn	66	72	HMI He	0.336	ppb	56.63	613.35	5	
As	75	72	HMI He	0.018	ppb	364.35	35.29	1	
Sr	88	45	HMI He	0.029	ppb	115.88	50.00	1	
Zr	90	72	HMI He	10.636	ppb	46.06	240.00	1	>DL
Nb	93	72	HMI He	-0.071	ppb	-27.22	583.35	2	
Mo	95	115	HMI He	0.046	ppb	33.32	100.00	0.5	
Pd	105	115	HMI He	-0.036	ppb	-40.49	70.00	1	
Ag	107	115	HMI He	-0.003	ppb	-97.02	23.33	1	
Cd	111	115	HMI He	0.008	ppb	310.53	6.67	0.5	
Sn	120	115	HMI He	-0.148	ppb	-6.69	203.33	1	
Sb	121	115	HMI He	-0.043	ppb	-157.08	216.67	1	
Ba	137	115	HMI He	0.073	ppb	105.98	40.00	0.5	
W	182	165	HMI He	-0.069	ppb	-60.59	1043.39	1	
Pt	195	165	HMI He	-0.002	ppb	-197.44	66.67	1	
Tl	205	165	HMI He	-0.004	ppb	-196.78	120.00	0.1	
Pb	208	165	HMI He	0.022	ppb	33.17	1943.41	0.5	
Th	232	165	HMI He	-0.003	ppb	-38.84	250.01	1	
U	238	165	HMI He	0.000	ppb	-184.47	100.00	0.5	
Li	7	45	No Gas	6.451	ppb	51.39	10190206.34	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	857245.11	4.41	956003.023333333	89.67	60	125	
Ge Internal Standard	72	HMI H2	16702177.88	2.10	18947224.0133333	88.15	60	125	
Sc (IS)	45	HMI He	940800.82	1.36	1144561.88333333	82.2	60	125	
Ge Internal Standard	72	HMI He	1281624.71	2.07	1545458.59	82.93	60	125	
In Internal standard	115	HMI He	3453094.31	1.67	3925517.65666667	87.97	60	125	
Ho-165	165	HMI He	17033819.53	0.59	18306963.8366667	93.05	60	125	
Sc IS)	45	No Gas	108388932.68	1.48	132851188.07	81.59	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399637/2-a
File Name	093_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 3:58:40 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	29.174	ppb	5.13	14301.11	40	72.93	80	120	>+/-20%
Se	78	72	HMI H2	30.921	ppb	4.06	12826.46	40	77.3	80	120	>+/-20%
Na	23	45	HMI He	49.325	ppb	5.42	29412.58	40	123.31	80	120	>+/-20%
Mg	24	45	HMI He	0.866	ppb	99.15	346.68	40	2.16	80	120	>+/-20%
Al	27	45	HMI He	315.221	ppb	2.15	7371.70	40	788.05	80	120	>+/-20%
K	39	45	HMI He	-7.937	ppb	-261.19	29616.63	40	-19.84	80	120	>+/-20%
Ca	44	45	HMI He	175.656	ppb	21.27	630.02	40	439.14	80	120	>+/-20%
V	51	72	HMI He	30.494	ppb	0.57	43674.79	40	76.24	80	120	>+/-20%
Cr	52	72	HMI He	31.357	ppb	0.57	54938.68	40	78.39	80	120	>+/-20%
Mn	55	72	HMI He	31.496	ppb	1.83	18540.73	40	78.74	80	120	>+/-20%
Fe	57	72	HMI He	325.597	ppb	1.78	10543.52	40	813.99	80	120	>+/-20%
Co	59	72	HMI He	31.613	ppb	2.44	100956.50	40	79.03	80	120	>+/-20%
Ni	60	72	HMI He	32.886	ppb	0.70	30268.34	40	82.22	80	120	
Cu	63	72	HMI He	32.520	ppb	0.23	83224.72	40	81.3	80	120	
Zn	66	72	HMI He	31.820	ppb	5.91	10917.14	40	79.55	80	120	>+/-20%
As	75	72	HMI He	30.875	ppb	2.10	7261.77	40	77.19	80	120	>+/-20%
Sr	88	45	HMI He	32.931	ppb	1.41	19355.29	40	82.33	80	120	
Nb	93	72	HMI He	-0.102	ppb	-6.34	443.34	40	-0.26	80	120	>+/-20%
Mo	95	115	HMI He	30.622	ppb	2.07	36929.69	40	76.55	80	120	>+/-20%
Pd	105	115	HMI He	-0.033	ppb	-86.12	73.33	40	-0.08	80	120	>+/-20%
Ag	107	115	HMI He	31.211	ppb	3.78	125902.23	40	78.03	80	120	>+/-20%
Cd	111	115	HMI He	30.677	ppb	7.28	14460.16	40	76.69	80	120	>+/-20%
Sn	120	115	HMI He	29.923	ppb	3.68	36997.36	40	74.81	80	120	>+/-20%
Sb	121	115	HMI He	31.268	ppb	3.59	35169.84	40	78.17	80	120	>+/-20%
Ba	137	115	HMI He	31.396	ppb	8.26	10717.23	40	78.49	80	120	>+/-20%
W	182	165	HMI He	33.134	ppb	1.82	156910.62	40	82.84	80	120	
Pt	195	165	HMI He	-0.001	ppb	-122.79	66.67	40	0	80	120	>+/-20%
Tl	205	165	HMI He	31.610	ppb	2.60	258606.58	40	79.02	80	120	>+/-20%
Pb	208	165	HMI He	31.601	ppb	1.95	342265.38	40	79	80	120	>+/-20%
Th	232	165	HMI He	30.920	ppb	2.94	364508.55	40	77.3	80	120	>+/-20%
U	238	165	HMI He	31.590	ppb	2.77	399363.33	40	78.97	80	120	>+/-20%
Li	7	45	No Gas	34.026	ppb	8.59	11044829.94	400	8.51	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	846857.71	2.61	956003.023333333	88.58	60	125	
Ge Internal Standard	72	HMI H2	16424063.52	1.21	18947224.0133333	86.68	60	125	
Sc (IS)	45	HMI He	945862.51	0.28	1144561.88333333	82.64	60	125	
Ge Internal Standard	72	HMI He	1281007.65	0.18	1545458.59	82.89	60	125	
In Internal standard	115	HMI He	3367619.97	1.32	3925517.65666667	85.79	60	125	
Ho-165	165	HMI He	16491378.62	1.58	18306963.8366667	90.08	60	125	
Sc IS)	45	No Gas	108870083.49	1.20	132851188.07	81.95	60	120	

Sample Report

Sample Name	310-121018-b-2-a
File Name	094SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:02:11 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.004	ppb	-155.65	11.67	2000	
B	11	6	HMI H2	4.154	ppb	5.44	3520.42	100	
Se	78	72	HMI H2	0.095	ppb	41.81	86.67	2000	
Na	23	45	HMI He	37.469	ppb	5.88	26741.43	400000	
Mg	24	45	HMI He	1.250	ppb	20.03	390.01	400000	
Al	27	45	HMI He	0.975	ppb	132.97	120.00	400000	
K	39	45	HMI He	-6.754	ppb	-300.01	29933.99	400000	
Ca	44	45	HMI He	-15.511	ppb	-11.94	46.67	400000	
V	51	72	HMI He	-0.512	ppb	-26.24	2576.90	2000	
Cr	52	72	HMI He	0.023	ppb	127.47	296.68	5000	
Mn	55	72	HMI He	0.065	ppb	58.38	93.33	10000	
Fe	57	72	HMI He	-1.407	ppb	-127.82	123.33	400000	
Co	59	72	HMI He	0.004	ppb	260.62	30.00	2000	
Ni	60	72	HMI He	0.597	ppb	24.57	783.37	5000	
Cu	63	72	HMI He	-0.018	ppb	-291.39	1876.80	5000	
Zn	66	72	HMI He	0.802	ppb	43.49	766.70	5000	
As	75	72	HMI He	-0.038	ppb	-63.45	22.22	2000	
Sr	88	45	HMI He	-0.040	ppb	-74.00	10.00	2000	
Zr	90	72	HMI He	11.918	ppb	20.36	256.67	1000	
Nb	93	72	HMI He	-0.149	ppb	-17.78	230.00	200	
Mo	95	115	HMI He	0.123	ppb	16.36	193.33	2000	
Pd	105	115	HMI He	-0.050	ppb	-16.39	43.33	100	
Ag	107	115	HMI He	0.001	ppb	1148.47	36.67	100	
Cd	111	115	HMI He	0.015	ppb	139.47	10.00	2000	
Sn	120	115	HMI He	-0.133	ppb	-34.50	220.00	2000	
Sb	121	115	HMI He	-0.169	ppb	-19.68	73.33	1000	
Ba	137	115	HMI He	-0.003	ppb	-1006.38	13.33	5000	
W	182	165	HMI He	0.048	ppb	65.90	1563.44	100	
Pt	195	165	HMI He	0.009	ppb	95.12	110.00	100	
Tl	205	165	HMI He	0.010	ppb	93.11	226.67	2000	
Pb	208	165	HMI He	0.002	ppb	318.91	1673.39	5000	
Th	232	165	HMI He	0.036	ppb	35.70	710.03	2000	
U	238	165	HMI He	0.008	ppb	72.86	203.34	2000	
Li	7	45	No Gas	4.888	ppb	159.33	10181749.47	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	866601.29	3.54	956003.023333333	90.65	60	125	
Ge Internal Standard	72	HMI H2	16404454.56	2.41	18947224.0133333	86.58	60	125	
Sc (IS)	45	HMI He	953919.03	0.17	1144561.88333333	83.34	60	125	
Ge Internal Standard	72	HMI He	1284935.04	1.81	1545458.59	83.14	60	125	
In Internal standard	115	HMI He	3410834.37	0.73	3925517.65666667	86.89	60	125	
Ho-165	165	HMI He	16533417.47	1.52	18306963.8366667	90.31	60	125	
Sc IS)	45	No Gas	108789973.49	1.99	132851188.07	81.89	60	120	

Sample Report

Sample Name	310-121018-b-3-a
File Name	095SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:05:40 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.007	ppb	-239.65	8.33	2000	
B	11	6	HMI H2	6770.633	ppb	5.14	4067425.05	100	>LDR
Se	78	72	HMI H2	3.713	ppb	16.05	1433.40	2000	
Na	23	45	HMI He	729780.101	ppb	0.51	165615511.36	400000	
Mg	24	45	HMI He	72047.781	ppb	0.33	6994217.40	400000	
Al	27	45	HMI He	21.651	ppb	25.84	553.35	400000	
K	39	45	HMI He	161497.185	ppb	2.13	8383217.48	400000	
Ca	44	45	HMI He	26359.381	ppb	4.00	74836.00	400000	
V	51	72	HMI He	6.476	ppb	5.86	10560.18	2000	
Cr	52	72	HMI He	20.738	ppb	1.76	32495.75	5000	
Mn	55	72	HMI He	147.910	ppb	2.18	77516.15	10000	
Fe	57	72	HMI He	1102.508	ppb	3.72	31503.75	400000	
Co	59	72	HMI He	9.396	ppb	2.95	26785.51	2000	
Ni	60	72	HMI He	64.192	ppb	1.75	52517.81	5000	
Cu	63	72	HMI He	1.461	ppb	6.14	4970.83	5000	
Zn	66	72	HMI He	4.298	ppb	3.87	1703.45	5000	
As	75	72	HMI He	9.156	ppb	2.99	1940.65	2000	
Sr	88	45	HMI He	1182.250	ppb	2.17	643972.10	2000	
Zr	90	72	HMI He	6225.131	ppb	2.19	65212.76	1000	>LDR
Nb	93	72	HMI He	0.957	ppb	4.15	4677.43	200	
Mo	95	115	HMI He	10.387	ppb	2.99	11390.88	2000	
Pd	105	115	HMI He	-0.015	ppb	-31.27	96.67	100	
Ag	107	115	HMI He	0.011	ppb	141.00	73.33	100	
Cd	111	115	HMI He	0.017	ppb	133.41	10.00	2000	
Sn	120	115	HMI He	0.986	ppb	12.64	1440.08	2000	
Sb	121	115	HMI He	0.548	ppb	17.24	790.03	1000	
Ba	137	115	HMI He	519.107	ppb	2.43	160415.05	5000	
W	182	165	HMI He	14.729	ppb	2.70	65064.59	100	
Pt	195	165	HMI He	0.018	ppb	21.14	133.33	100	
Tl	205	165	HMI He	0.001	ppb	154.95	146.67	2000	
Pb	208	165	HMI He	0.586	ppb	6.27	7350.82	5000	
Th	232	165	HMI He	0.016	ppb	51.78	430.01	2000	
U	238	165	HMI He	0.204	ppb	8.25	2473.59	2000	
Li	7	45	No Gas	46.666	ppb	4.71	9562336.27	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	756862.64	4.61	956003.023333333	79.17	60	125	
Ge Internal Standard	72	HMI H2	14877435.27	0.78	18947224.0133333	78.52	60	125	
Sc (IS)	45	HMI He	878173.00	1.10	1144561.88333333	76.73	60	125	
Ge Internal Standard	72	HMI He	1143036.28	0.80	1545458.59	73.96	60	125	
In Internal standard	115	HMI He	3054748.75	3.82	3925517.65666667	77.82	60	125	
Ho-165	165	HMI He	15224150.87	1.92	18306963.8366667	83.16	60	125	
Sc IS)	45	No Gas	91194273.58	1.44	132851188.07	68.64	60	120	

Sample Report

Sample Name	310-121018-b-4-a
File Name	096SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:09:08 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.050	ppb	78.05	36.67	2000	
B	11	6	HMI H2	142.248	ppb	3.53	92755.19	100	
Se	78	72	HMI H2	0.861	ppb	16.95	397.34	2000	
Na	23	45	HMI He	10342.550	ppb	2.47	2516748.93	400000	
Mg	24	45	HMI He	27524.490	ppb	1.55	2846090.34	400000	
Al	27	45	HMI He	1344.081	ppb	2.43	30771.90	400000	
K	39	45	HMI He	11536.753	ppb	0.92	665565.75	400000	
Ca	44	45	HMI He	40127.569	ppb	1.34	121292.16	400000	
V	51	72	HMI He	4.434	ppb	2.22	8875.84	2000	
Cr	52	72	HMI He	4.558	ppb	1.82	7978.68	5000	
Mn	55	72	HMI He	916.185	ppb	2.31	522884.63	10000	
Fe	57	72	HMI He	10182.500	ppb	1.55	315689.75	400000	
Co	59	72	HMI He	3.982	ppb	3.51	12381.55	2000	
Ni	60	72	HMI He	5.247	ppb	6.56	4890.78	5000	
Cu	63	72	HMI He	13.963	ppb	2.74	35809.60	5000	
Zn	66	72	HMI He	64.182	ppb	5.13	20923.65	5000	
As	75	72	HMI He	8.312	ppb	3.14	1922.99	2000	
Sr	88	45	HMI He	208.377	ppb	2.35	120944.57	2000	
Zr	90	72	HMI He	122.297	ppb	6.89	1506.76	1000	
Nb	93	72	HMI He	0.014	ppb	244.26	943.37	200	
Mo	95	115	HMI He	4.478	ppb	8.31	5444.32	2000	
Pd	105	115	HMI He	-0.030	ppb	-18.15	80.00	100	
Ag	107	115	HMI He	0.029	ppb	22.33	150.00	100	
Cd	111	115	HMI He	0.319	ppb	31.42	153.33	2000	
Sn	120	115	HMI He	0.111	ppb	45.92	516.68	2000	
Sb	121	115	HMI He	2.215	ppb	8.81	2736.94	1000	
Ba	137	115	HMI He	96.662	ppb	2.70	33005.53	5000	
W	182	165	HMI He	0.379	ppb	12.71	3140.37	100	
Pt	195	165	HMI He	0.002	ppb	382.15	80.00	100	
Tl	205	165	HMI He	0.021	ppb	14.71	323.34	2000	
Pb	208	165	HMI He	47.124	ppb	2.70	514659.34	5000	
Th	232	165	HMI He	0.151	ppb	6.29	2083.53	2000	
U	238	165	HMI He	0.098	ppb	19.52	1346.75	2000	
Li	7	45	No Gas	10.106	ppb	69.39	10035862.39	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	815410.58	2.84	956003.023333333	85.29	60	125	
Ge Internal Standard	72	HMI H2	16174110.41	0.46	18947224.0133333	85.36	60	125	
Sc (IS)	45	HMI He	935391.78	0.79	1144561.88333333	81.72	60	125	
Ge Internal Standard	72	HMI He	1245812.73	1.46	1545458.59	80.61	60	125	
In Internal standard	115	HMI He	3372185.85	0.53	3925517.65666667	85.9	60	125	
Ho-165	165	HMI He	16660662.67	2.77	18306963.8366667	91.01	60	125	
Sc IS)	45	No Gas	105649264.49	1.47	132851188.07	79.52	60	120	

Sample Report

Sample Name	310-121018-b-5-a
File Name	097SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:12:37 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.026	ppb	51.94	25.00	2000	
B	11	6	HMI H2	209.035	ppb	8.39	138125.06	100	
Se	78	72	HMI H2	0.177	ppb	49.22	117.33	2000	
Na	23	45	HMI He	23759.288	ppb	1.34	5782871.00	400000	
Mg	24	45	HMI He	30107.536	ppb	1.84	3125766.95	400000	
Al	27	45	HMI He	188.151	ppb	1.51	4407.29	400000	
K	39	45	HMI He	3872.951	ppb	1.31	244141.07	400000	
Ca	44	45	HMI He	70531.550	ppb	0.46	213963.43	400000	
V	51	72	HMI He	0.275	ppb	39.46	3550.43	2000	
Cr	52	72	HMI He	1.329	ppb	9.55	2526.90	5000	
Mn	55	72	HMI He	2496.492	ppb	2.05	1439302.52	10000	
Fe	57	72	HMI He	5832.389	ppb	2.62	182725.59	400000	
Co	59	72	HMI He	0.749	ppb	14.21	2366.87	2000	
Ni	60	72	HMI He	2.642	ppb	5.83	2603.57	5000	
Cu	63	72	HMI He	2.650	ppb	4.97	8392.25	5000	
Zn	66	72	HMI He	6.936	ppb	10.72	2723.59	5000	
As	75	72	HMI He	1.218	ppb	8.72	310.46	2000	
Sr	88	45	HMI He	304.231	ppb	1.60	177264.35	2000	
Zr	90	72	HMI He	29.774	ppb	18.89	456.68	1000	
Nb	93	72	HMI He	-0.118	ppb	-2.13	363.34	200	
Mo	95	115	HMI He	2.341	ppb	3.07	2873.63	2000	
Pd	105	115	HMI He	-0.038	ppb	-30.18	63.33	100	
Ag	107	115	HMI He	0.002	ppb	229.37	43.33	100	
Cd	111	115	HMI He	0.064	ppb	48.64	33.33	2000	
Sn	120	115	HMI He	-0.009	ppb	-343.12	370.01	2000	
Sb	121	115	HMI He	-0.042	ppb	-233.96	213.34	1000	
Ba	137	115	HMI He	59.192	ppb	1.36	20266.87	5000	
W	182	165	HMI He	1.000	ppb	1.90	6044.63	100	
Pt	195	165	HMI He	0.009	ppb	122.73	106.67	100	
Tl	205	165	HMI He	-0.002	ppb	-382.82	126.67	2000	
Pb	208	165	HMI He	0.907	ppb	1.18	11451.87	5000	
Th	232	165	HMI He	0.055	ppb	26.71	936.71	2000	
U	238	165	HMI He	0.079	ppb	7.77	1100.06	2000	
Li	7	45	No Gas	9.873	ppb	10.54	9925614.07	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	830804.07	7.05	956003.023333333	86.9	60	125	
Ge Internal Standard	72	HMI H2	15897823.44	1.36	18947224.0133333	83.91	60	125	
Sc (IS)	45	HMI He	939157.64	0.93	1144561.88333333	82.05	60	125	
Ge Internal Standard	72	HMI He	1258309.74	0.09	1545458.59	81.42	60	125	
In Internal standard	115	HMI He	3380284.40	1.43	3925517.65666667	86.11	60	125	
Ho-165	165	HMI He	16531701.64	2.65	18306963.8366667	90.3	60	125	
Sc IS)	45	No Gas	104539037.05	2.04	132851188.07	78.69	60	120	

Sample Report

Sample Name	310-121018-b-6-a
File Name	098SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:16:06 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.043	ppb	58.98	33.33	2000	
B	11	6	HMI H2	395.678	ppb	3.76	257987.56	100	
Se	78	72	HMI H2	0.163	ppb	58.81	112.00	2000	
Na	23	45	HMI He	63586.877	ppb	1.65	15585086.37	400000	
Mg	24	45	HMI He	42373.940	ppb	0.55	4438571.18	400000	
Al	27	45	HMI He	663.080	ppb	3.67	15427.27	400000	
K	39	45	HMI He	9043.865	ppb	1.72	534961.48	400000	
Ca	44	45	HMI He	76427.716	ppb	2.06	233895.40	400000	
V	51	72	HMI He	1.332	ppb	20.57	4964.16	2000	
Cr	52	72	HMI He	3.389	ppb	5.59	6101.19	5000	
Mn	55	72	HMI He	958.525	ppb	2.89	556490.60	10000	
Fe	57	72	HMI He	1353.673	ppb	2.53	42836.36	400000	
Co	59	72	HMI He	2.552	ppb	3.24	8075.40	2000	
Ni	60	72	HMI He	8.874	ppb	7.45	8252.20	5000	
Cu	63	72	HMI He	7.044	ppb	2.63	19318.26	5000	
Zn	66	72	HMI He	11.041	ppb	7.84	4070.57	5000	
As	75	72	HMI He	0.652	ppb	15.85	181.70	2000	
Sr	88	45	HMI He	234.184	ppb	0.66	137692.11	2000	
Zr	90	72	HMI He	311.926	ppb	11.23	3733.83	1000	
Nb	93	72	HMI He	-0.046	ppb	-15.68	690.02	200	
Mo	95	115	HMI He	0.637	ppb	17.35	796.70	2000	
Pd	105	115	HMI He	-0.043	ppb	-40.34	53.33	100	
Ag	107	115	HMI He	0.008	ppb	71.13	63.33	100	
Cd	111	115	HMI He	0.109	ppb	81.49	53.33	2000	
Sn	120	115	HMI He	0.118	ppb	13.54	516.68	2000	
Sb	121	115	HMI He	-0.103	ppb	-22.34	143.33	1000	
Ba	137	115	HMI He	61.531	ppb	1.17	20654.11	5000	
W	182	165	HMI He	0.425	ppb	17.86	3367.08	100	
Pt	195	165	HMI He	0.005	ppb	72.67	93.33	100	
Tl	205	165	HMI He	0.006	ppb	42.02	196.67	2000	
Pb	208	165	HMI He	0.902	ppb	5.85	11485.27	5000	
Th	232	165	HMI He	0.140	ppb	8.63	1956.84	2000	
U	238	165	HMI He	1.983	ppb	1.19	25439.34	2000	
Li	7	45	No Gas	0.780	ppb	350.78	9733582.10	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	818817.42	2.44	956003.023333333	85.65	60	125	
Ge Internal Standard	72	HMI H2	15951243.75	0.84	18947224.0133333	84.19	60	125	
Sc (IS)	45	HMI He	947560.67	1.25	1144561.88333333	82.79	60	125	
Ge Internal Standard	72	HMI He	1267305.10	1.11	1545458.59	82	60	125	
In Internal standard	115	HMI He	3314200.06	1.17	3925517.65666667	84.43	60	125	
Ho-165	165	HMI He	16662886.42	0.50	18306963.8366667	91.02	60	125	
Sc IS)	45	No Gas	105248658.68	1.93	132851188.07	79.22	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	099_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:19:36 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	600.579	ppb	6.92	306522.39	500	120.12	90	110	>+\-10%
Be	9	6	HMI H2	47.504	ppb	1.80	22493.24	50	95.01	90	110	
B	11	6	HMI H2	70.666	ppb	5.40	46517.47	50	141.33	90	110	>+\-10%
Se	78	72	HMI H2	48.852	ppb	1.93	20243.37	50	97.7	90	110	
Na	23	45	HMI He	5118.660	ppb	4.43	1264462.42	5000	102.37	90	110	
Mg	24	45	HMI He	4918.016	ppb	1.83	512926.67	5000	98.36	90	110	
Al	27	45	HMI He	5200.789	ppb	1.46	119768.17	5000	104.02	90	110	
K	39	45	HMI He	5008.630	ppb	1.14	308288.47	5000	100.17	90	110	
Ca	44	45	HMI He	5130.818	ppb	0.96	15717.66	5000	102.62	90	110	
V	51	72	HMI He	48.513	ppb	3.80	66551.08	50	97.03	90	110	
Cr	52	72	HMI He	49.886	ppb	1.55	85957.38	50	99.77	90	110	
Mn	55	72	HMI He	53.642	ppb	1.43	31069.63	50	107.28	90	110	
Fe	57	72	HMI He	5118.346	ppb	0.95	160849.51	5000	102.37	90	110	
Co	59	72	HMI He	49.667	ppb	1.05	156249.96	50	99.33	90	110	
Ni	60	72	HMI He	50.347	ppb	3.49	45520.11	50	100.69	90	110	
Cu	63	72	HMI He	50.193	ppb	1.56	125515.71	50	100.39	90	110	
Zn	66	72	HMI He	51.094	ppb	4.03	16975.73	50	102.19	90	110	
As	75	72	HMI He	51.457	ppb	1.31	11903.07	50	102.91	90	110	
Sr	88	45	HMI He	53.443	ppb	0.71	31297.57	50	106.89	90	110	
Zr	90	72	HMI He	64.298	ppb	12.15	856.70	50	128.6	90	110	>+\-10%
Nb	93	72	HMI He	103.784	ppb	1.25	464032.77	100	103.78	90	110	
Mo	95	115	HMI He	46.879	ppb	1.86	57620.89	50	93.76	90	110	
Pd	105	115	HMI He	48.526	ppb	1.43	91822.24	50	97.05	90	110	
Ag	107	115	HMI He	47.518	ppb	2.49	195489.46	50	95.04	90	110	
Cd	111	115	HMI He	48.757	ppb	0.21	23451.06	50	97.51	90	110	
Sn	120	115	HMI He	47.280	ppb	1.04	59415.97	50	94.56	90	110	
Sb	121	115	HMI He	46.359	ppb	1.70	53036.77	50	92.72	90	110	
Ba	137	115	HMI He	47.890	ppb	2.32	16659.09	50	95.78	90	110	
W	182	165	HMI He	49.190	ppb	3.60	237210.01	50	98.38	90	110	
Pt	195	165	HMI He	47.108	ppb	2.33	192613.09	50	94.22	90	110	
Tl	205	165	HMI He	48.961	ppb	3.95	408960.34	50	97.92	90	110	
Pb	208	165	HMI He	49.117	ppb	5.01	542133.18	50	98.23	90	110	
Th	232	165	HMI He	49.131	ppb	2.70	591376.11	50	98.26	90	110	
U	238	165	HMI He	49.504	ppb	2.33	639265.10	50	99.01	90	110	
Li	7	45	No Gas	513.378	ppb	1.95	24435762.68	500	102.68	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	817762.81	2.31	956003.023333333	85.54	60	125	
Ge Internal Standard	72	HMI H2	16433614.35	2.48	18947224.0133333	86.73	60	125	
Sc (IS)	45	HMI He	943090.03	0.83	1144561.88333333	82.4	60	125	
Ge Internal Standard	72	HMI He	1262111.68	1.13	1545458.59	81.67	60	125	
In Internal standard	115	HMI He	3434380.19	1.58	3925517.65666667	87.49	60	125	
Ho-165	165	HMI He	16850902.14	3.47	18306963.8366667	92.05	60	125	
Sc IS)	45	No Gas	105928316.14	0.97	132851188.07	79.73	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	100_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:23:04 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	34.372	ppb	25.15	126631.21	0.1	>RL
Be	9	6	HMI H2	0.011	ppb	427.04	20.00	0.5	
B	11	6	HMI H2	18.328	ppb	6.19	13295.33	0.1	>RL
Se	78	72	HMI H2	0.072	ppb	77.32	77.33	1	
Na	23	45	HMI He	84.125	ppb	2.78	37845.98	25	>RL
Mg	24	45	HMI He	3.967	ppb	18.00	670.02	25	
Al	27	45	HMI He	2.319	ppb	62.00	150.00	15	
K	39	45	HMI He	0.324	ppb	6349.98	30017.32	50	
Ca	44	45	HMI He	6.617	ppb	230.05	113.33	25	
V	51	72	HMI He	-0.340	ppb	-50.62	2780.28	1	
Cr	52	72	HMI He	0.031	ppb	77.97	306.68	1	
Mn	55	72	HMI He	0.174	ppb	42.41	156.67	0.5	
Fe	57	72	HMI He	0.398	ppb	371.00	180.00	25	
Co	59	72	HMI He	0.002	ppb	87.87	23.33	0.5	
Ni	60	72	HMI He	-0.029	ppb	-139.21	210.00	1	
Cu	63	72	HMI He	0.112	ppb	29.10	2186.85	1	
Zn	66	72	HMI He	0.022	ppb	516.34	506.68	5	
As	75	72	HMI He	-0.020	ppb	-104.37	26.14	1	
Sr	88	45	HMI He	0.035	ppb	151.75	53.33	1	
Zr	90	72	HMI He	-3.038	ppb	-122.64	80.00	1	
Nb	93	72	HMI He	0.208	ppb	33.22	1836.80	2	
Mo	95	115	HMI He	-0.009	ppb	-105.83	33.33	0.5	
Pd	105	115	HMI He	-0.008	ppb	-287.49	123.33	1	
Ag	107	115	HMI He	0.012	ppb	53.16	86.67	1	
Cd	111	115	HMI He	0.001	ppb	1161.43	3.33	0.5	
Sn	120	115	HMI He	-0.107	ppb	-3.64	256.67	1	
Sb	121	115	HMI He	0.263	ppb	42.82	570.02	1	
Ba	137	115	HMI He	0.043	ppb	60.44	30.00	0.5	
W	182	165	HMI He	-0.013	ppb	-351.13	1293.41	1	
Pt	195	165	HMI He	0.026	ppb	56.79	180.00	1	
Tl	205	165	HMI He	0.010	ppb	13.88	236.67	0.1	
Pb	208	165	HMI He	0.444	ppb	0.49	6533.99	0.5	
Th	232	165	HMI He	0.010	ppb	44.49	410.01	1	
U	238	165	HMI He	0.007	ppb	83.78	193.34	0.5	
Li	7	45	No Gas	10.077	ppb	62.32	10161643.95	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	868314.27	3.99	956003.023333333	90.83	60	125	
Ge Internal Standard	72	HMI H2	16379502.48	0.75	18947224.0133333	86.45	60	125	
Sc (IS)	45	HMI He	943986.97	1.22	1144561.88333333	82.48	60	125	
Ge Internal Standard	72	HMI He	1273550.39	1.54	1545458.59	82.41	60	125	
In Internal standard	115	HMI He	3478867.82	3.06	3925517.65666667	88.62	60	125	
Ho-165	165	HMI He	16743434.75	0.22	18306963.8366667	91.46	60	125	
Sc IS)	45	No Gas	106989752.75	2.03	132851188.07	80.53	60	120	

Sample Report

Sample Name	310-121018-b-7-a
File Name	101SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:26:31 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.002	ppb	-354.84	11.67	2000	
B	11	6	HMI H2	917.447	ppb	5.85	590387.48	100	>LDR
Se	78	72	HMI H2	0.164	ppb	11.12	114.67	2000	
Na	23	45	HMI He	128014.310	ppb	1.28	31088323.38	400000	
Mg	24	45	HMI He	48483.667	ppb	1.06	5034633.44	400000	
Al	27	45	HMI He	109.727	ppb	7.38	2610.24	400000	
K	39	45	HMI He	17301.684	ppb	1.72	987336.73	400000	
Ca	44	45	HMI He	72960.866	ppb	2.40	221356.46	400000	
V	51	72	HMI He	0.124	ppb	157.44	3347.06	2000	
Cr	52	72	HMI He	1.316	ppb	10.17	2500.23	5000	
Mn	55	72	HMI He	1568.920	ppb	0.83	902490.30	10000	
Fe	57	72	HMI He	4246.079	ppb	0.86	132764.20	400000	
Co	59	72	HMI He	21.530	ppb	3.08	67372.38	2000	
Ni	60	72	HMI He	15.648	ppb	6.00	14229.72	5000	
Cu	63	72	HMI He	10.332	ppb	3.77	27202.89	5000	
Zn	66	72	HMI He	17.811	ppb	6.67	6204.58	5000	
As	75	72	HMI He	2.566	ppb	13.18	619.62	2000	
Sr	88	45	HMI He	251.415	ppb	1.69	146520.36	2000	
Zr	90	72	HMI He	145.185	ppb	8.15	1780.12	1000	
Nb	93	72	HMI He	-0.018	ppb	-44.58	806.70	200	
Mo	95	115	HMI He	0.735	ppb	20.34	910.04	2000	
Pd	105	115	HMI He	-0.022	ppb	-49.82	93.33	100	
Ag	107	115	HMI He	0.009	ppb	49.22	70.00	100	
Cd	111	115	HMI He	0.396	ppb	36.74	186.67	2000	
Sn	120	115	HMI He	0.086	ppb	159.56	476.68	2000	
Sb	121	115	HMI He	0.097	ppb	41.08	363.34	1000	
Ba	137	115	HMI He	84.928	ppb	5.39	28493.21	5000	
W	182	165	HMI He	0.041	ppb	34.51	1523.43	100	
Pt	195	165	HMI He	-0.008	ppb	-52.85	40.00	100	
Tl	205	165	HMI He	0.005	ppb	204.50	186.67	2000	
Pb	208	165	HMI He	1.339	ppb	6.85	16063.70	5000	
Th	232	165	HMI He	0.048	ppb	11.69	846.70	2000	
U	238	165	HMI He	4.445	ppb	1.90	56273.23	2000	
Li	7	45	No Gas	9.185	ppb	44.02	9635101.27	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	809795.59	3.40	956003.023333333	84.71	60	125	
Ge Internal Standard	72	HMI H2	16328015.82	0.95	18947224.0133333	86.18	60	125	
Sc (IS)	45	HMI He	939324.38	0.73	1144561.88333333	82.07	60	125	
Ge Internal Standard	72	HMI He	1255471.89	1.36	1545458.59	81.24	60	125	
In Internal standard	115	HMI He	3316879.56	3.30	3925517.65666667	84.5	60	125	
Ho-165	165	HMI He	16487520.81	1.50	18306963.8366667	90.06	60	125	
Sc IS)	45	No Gas	101683140.53	2.25	132851188.07	76.54	60	120	

Sample Report

Sample Name	310-121018-b-8-a
File Name	102SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:29:55 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.010	ppb	-218.63	8.33	2000	
B	11	6	HMI H2	187.557	ppb	2.58	124077.98	100	
Se	78	72	HMI H2	0.171	ppb	37.48	116.00	2000	
Na	23	45	HMI He	95724.788	ppb	1.52	23555037.10	400000	
Mg	24	45	HMI He	87494.777	ppb	1.28	9203813.69	400000	
Al	27	45	HMI He	47.935	ppb	11.94	1210.06	400000	
K	39	45	HMI He	5819.643	ppb	2.05	356529.42	400000	
Ca	44	45	HMI He	187422.117	ppb	1.04	575931.83	400000	
V	51	72	HMI He	-1.350	ppb	-3.76	1430.08	2000	
Cr	52	72	HMI He	0.797	ppb	2.92	1610.10	5000	
Mn	55	72	HMI He	89.046	ppb	1.93	51240.27	10000	
Fe	57	72	HMI He	145.542	ppb	5.65	4707.41	400000	
Co	59	72	HMI He	0.314	ppb	5.89	996.71	2000	
Ni	60	72	HMI He	17.689	ppb	5.01	16054.69	5000	
Cu	63	72	HMI He	3.260	ppb	0.21	9863.06	5000	
Zn	66	72	HMI He	3.861	ppb	13.77	1730.12	5000	
As	75	72	HMI He	0.338	ppb	15.74	107.84	2000	
Sr	88	45	HMI He	1284.616	ppb	0.86	758334.07	2000	
Zr	90	72	HMI He	16.541	ppb	21.69	303.34	1000	
Nb	93	72	HMI He	-0.099	ppb	-12.29	446.68	200	
Mo	95	115	HMI He	0.160	ppb	16.32	236.67	2000	
Pd	105	115	HMI He	-0.021	ppb	-88.34	96.67	100	
Ag	107	115	HMI He	0.004	ppb	67.15	50.00	100	
Cd	111	115	HMI He	0.050	ppb	48.33	26.67	2000	
Sn	120	115	HMI He	-0.129	ppb	-36.63	223.34	2000	
Sb	121	115	HMI He	-0.067	ppb	-15.56	186.67	1000	
Ba	137	115	HMI He	146.874	ppb	1.82	50372.13	5000	
W	182	165	HMI He	-0.048	ppb	-101.34	1126.73	100	
Pt	195	165	HMI He	-0.005	ppb	-69.75	53.33	100	
Tl	205	165	HMI He	-0.002	ppb	-80.05	133.33	2000	
Pb	208	165	HMI He	0.105	ppb	19.16	2830.14	5000	
Th	232	165	HMI He	0.005	ppb	120.08	350.01	2000	
U	238	165	HMI He	2.377	ppb	2.77	30773.26	2000	
Li	7	45	No Gas	-6.956	ppb	-121.22	9496322.53	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	827959.49	1.14	956003.023333333	86.61	60	125	
Ge Internal Standard	72	HMI H2	16056918.02	1.85	18947224.0133333	84.75	60	125	
Sc (IS)	45	HMI He	951589.89	0.42	1144561.88333333	83.14	60	125	
Ge Internal Standard	72	HMI He	1254672.37	0.27	1545458.59	81.18	60	125	
In Internal standard	115	HMI He	3387558.64	1.71	3925517.65666667	86.3	60	125	
Ho-165	165	HMI He	16833184.75	1.70	18306963.8366667	91.95	60	125	
Sc IS)	45	No Gas	105071793.69	1.82	132851188.07	79.09	60	120	

Sample Report

Sample Name	310-121018-b-9-a
File Name	103SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:33:20 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.002	ppb	1024.87	13.33	2000	
B	11	6	HMI H2	213.308	ppb	1.39	134686.41	100	
Se	78	72	HMI H2	0.213	ppb	5.11	132.00	2000	
Na	23	45	HMI He	22570.382	ppb	2.52	5263626.34	400000	
Mg	24	45	HMI He	15306.328	ppb	1.30	1522520.62	400000	
Al	27	45	HMI He	231.515	ppb	2.36	5174.20	400000	
K	39	45	HMI He	7222.480	ppb	0.40	411449.57	400000	
Ca	44	45	HMI He	42252.040	ppb	0.55	122829.63	400000	
V	51	72	HMI He	0.269	ppb	53.06	3470.41	2000	
Cr	52	72	HMI He	0.760	ppb	4.07	1520.09	5000	
Mn	55	72	HMI He	3119.975	ppb	0.93	1761854.37	10000	
Fe	57	72	HMI He	23367.684	ppb	1.39	716522.03	400000	
Co	59	72	HMI He	4.998	ppb	1.98	15370.72	2000	
Ni	60	72	HMI He	9.985	ppb	3.97	8999.22	5000	
Cu	63	72	HMI He	6.835	ppb	3.60	18283.77	5000	
Zn	66	72	HMI He	21.509	ppb	3.24	7255.08	5000	
As	75	72	HMI He	14.148	ppb	3.91	3217.33	2000	
Sr	88	45	HMI He	250.868	ppb	1.15	140038.55	2000	
Zr	90	72	HMI He	68.225	ppb	19.07	880.04	1000	
Nb	93	72	HMI He	-0.085	ppb	-5.94	503.35	200	
Mo	95	115	HMI He	1.042	ppb	14.22	1263.40	2000	
Pd	105	115	HMI He	-0.049	ppb	-36.78	43.33	100	
Ag	107	115	HMI He	0.000	ppb	51362.49	33.33	100	
Cd	111	115	HMI He	0.176	ppb	38.15	83.33	2000	
Sn	120	115	HMI He	0.000	ppb	79163.73	370.01	2000	
Sb	121	115	HMI He	-0.080	ppb	-47.90	166.67	1000	
Ba	137	115	HMI He	148.122	ppb	2.48	49158.23	5000	
W	182	165	HMI He	-0.008	ppb	-577.58	1293.41	100	
Pt	195	165	HMI He	0.003	ppb	364.76	83.33	100	
Tl	205	165	HMI He	0.004	ppb	24.79	180.00	2000	
Pb	208	165	HMI He	0.483	ppb	5.71	6830.71	5000	
Th	232	165	HMI He	0.081	ppb	9.15	1226.74	2000	
U	238	165	HMI He	0.611	ppb	6.72	7795.54	2000	
Li	7	45	No Gas	-7.606	ppb	-77.64	9063191.61	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	790950.77	1.49	956003.023333333	82.74	60	125	
Ge Internal Standard	72	HMI H2	15947282.81	0.32	18947224.0133333	84.17	60	125	
Sc (IS)	45	HMI He	899692.99	0.37	1144561.88333333	78.61	60	125	
Ge Internal Standard	72	HMI He	1232435.17	1.00	1545458.59	79.75	60	125	
In Internal standard	115	HMI He	3278119.96	0.37	3925517.65666667	83.51	60	125	
Ho-165	165	HMI He	16422941.85	1.21	18306963.8366667	89.71	60	125	
Sc IS)	45	No Gas	100474531.42	2.54	132851188.07	75.63	60	120	

Sample Report

Sample Name	280-104920-e-1-a
File Name	104SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:36:45 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.001	ppb	-1152.23	11.67	2000	
B	11	6	HMI H2	140.112	ppb	2.35	88121.35	100	
Se	78	72	HMI H2	5.344	ppb	10.36	2140.16	2000	
Na	23	45	HMI He	151926.196	ppb	1.25	35148710.67	400000	
Mg	24	45	HMI He	24858.184	ppb	0.30	2459487.69	400000	
Al	27	45	HMI He	544.118	ppb	3.69	11974.53	400000	
K	39	45	HMI He	5129.672	ppb	1.83	298890.20	400000	
Ca	44	45	HMI He	127265.089	ppb	2.31	367831.51	400000	
V	51	72	HMI He	0.017	ppb	849.48	3060.33	2000	
Cr	52	72	HMI He	0.440	ppb	4.54	956.71	5000	
Mn	55	72	HMI He	170.816	ppb	0.73	93833.57	10000	
Fe	57	72	HMI He	260.842	ppb	3.02	7932.00	400000	
Co	59	72	HMI He	0.455	ppb	15.48	1373.41	2000	
Ni	60	72	HMI He	1.965	ppb	10.56	1900.14	5000	
Cu	63	72	HMI He	2.330	ppb	6.94	7245.04	5000	
Zn	66	72	HMI He	10.699	ppb	11.66	3747.15	5000	
As	75	72	HMI He	0.626	ppb	29.16	166.02	2000	
Sr	88	45	HMI He	1819.942	ppb	1.77	1010240.48	2000	
Zr	90	72	HMI He	28.458	ppb	34.62	420.02	1000	
Nb	93	72	HMI He	-0.124	ppb	-6.12	323.34	200	
Mo	95	115	HMI He	2.624	ppb	0.70	3077.00	2000	
Pd	105	115	HMI He	-0.026	ppb	-69.38	83.33	100	
Ag	107	115	HMI He	0.004	ppb	272.48	46.67	100	
Cd	111	115	HMI He	0.016	ppb	137.45	10.00	2000	
Sn	120	115	HMI He	-0.041	ppb	-46.37	316.68	2000	
Sb	121	115	HMI He	-0.007	ppb	-905.74	243.34	1000	
Ba	137	115	HMI He	66.266	ppb	2.20	21712.08	5000	
W	182	165	HMI He	0.007	ppb	611.05	1323.42	100	
Pt	195	165	HMI He	-0.005	ppb	-96.26	50.00	100	
Tl	205	165	HMI He	-0.003	ppb	-73.67	116.67	2000	
Pb	208	165	HMI He	0.353	ppb	12.58	5273.80	5000	
Th	232	165	HMI He	0.014	ppb	3.28	433.34	2000	
U	238	165	HMI He	18.200	ppb	2.51	222941.48	2000	
Li	7	45	No Gas	20.984	ppb	24.26	9733711.37	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	786279.50	3.09	956003.023333333	82.25	60	125	
Ge Internal Standard	72	HMI H2	15596599.29	1.87	18947224.0133333	82.32	60	125	
Sc (IS)	45	HMI He	894982.96	1.67	1144561.88333333	78.19	60	125	
Ge Internal Standard	72	HMI He	1198292.96	0.59	1545458.59	77.54	60	125	
In Internal standard	115	HMI He	3235377.34	0.48	3925517.65666667	82.42	60	125	
Ho-165	165	HMI He	15975415.31	1.51	18306963.8366667	87.26	60	125	
Sc IS)	45	No Gas	99395339.82	1.26	132851188.07	74.82	60	120	

Sample Report

Sample Name	280-104920-e-2-a
File Name	105SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:40:10 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.001	ppb	-1429.34	11.67	2000	
B	11	6	HMI H2	138.731	ppb	5.38	85270.43	100	
Se	78	72	HMI H2	5.281	ppb	4.07	2136.15	2000	
Na	23	45	HMI He	154732.312	ppb	2.29	35978341.87	400000	
Mg	24	45	HMI He	26972.288	ppb	1.50	2682272.70	400000	
Al	27	45	HMI He	147.220	ppb	10.30	3320.41	400000	
K	39	45	HMI He	5151.532	ppb	0.62	301643.06	400000	
Ca	44	45	HMI He	138943.978	ppb	1.84	403623.91	400000	
V	51	72	HMI He	-0.185	ppb	-73.21	2826.95	2000	
Cr	52	72	HMI He	0.185	ppb	47.64	543.35	5000	
Mn	55	72	HMI He	129.213	ppb	1.64	71408.53	10000	
Fe	57	72	HMI He	242.689	ppb	0.91	7435.12	400000	
Co	59	72	HMI He	0.571	ppb	3.41	1730.11	2000	
Ni	60	72	HMI He	2.203	ppb	11.44	2116.83	5000	
Cu	63	72	HMI He	1.938	ppb	3.93	6364.67	5000	
Zn	66	72	HMI He	10.600	ppb	1.30	3737.16	5000	
As	75	72	HMI He	0.494	ppb	10.23	137.91	2000	
Sr	88	45	HMI He	1950.306	ppb	1.12	1088297.52	2000	
Zr	90	72	HMI He	47.529	ppb	15.17	633.36	1000	
Nb	93	72	HMI He	-0.141	ppb	-15.59	253.34	200	
Mo	95	115	HMI He	2.354	ppb	14.18	2786.96	2000	
Pd	105	115	HMI He	-0.017	ppb	-35.45	100.00	100	
Ag	107	115	HMI He	0.001	ppb	416.09	36.67	100	
Cd	111	115	HMI He	0.030	ppb	110.07	16.67	2000	
Sn	120	115	HMI He	-0.057	ppb	-32.88	300.01	2000	
Sb	121	115	HMI He	0.048	ppb	120.50	303.34	1000	
Ba	137	115	HMI He	44.630	ppb	3.50	14723.87	5000	
W	182	165	HMI He	-0.036	ppb	-124.14	1143.39	100	
Pt	195	165	HMI He	-0.002	ppb	-194.45	63.33	100	
Tl	205	165	HMI He	-0.005	ppb	-59.76	103.33	2000	
Pb	208	165	HMI He	0.334	ppb	6.21	5163.74	5000	
Th	232	165	HMI He	0.026	ppb	11.92	573.35	2000	
U	238	165	HMI He	21.394	ppb	0.78	266277.99	2000	
Li	7	45	No Gas	12.192	ppb	58.99	9664192.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	768586.85	2.45	956003.023333333	80.4	60	125	
Ge Internal Standard	72	HMI H2	15731495.32	1.72	18947224.0133333	83.03	60	125	
Sc (IS)	45	HMI He	899577.39	1.28	1144561.88333333	78.6	60	125	
Ge Internal Standard	72	HMI He	1205357.45	0.26	1545458.59	77.99	60	125	
In Internal standard	115	HMI He	3257266.70	1.05	3925517.65666667	82.98	60	125	
Ho-165	165	HMI He	16229629.36	0.58	18306963.8366667	88.65	60	125	
Sc IS)	45	No Gas	101139328.06	1.23	132851188.07	76.13	60	120	

Sample Report

Sample Name	280-104920-e-2-b ms
File Name	106SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:43:37 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399637 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	31.203	ppb	3.04	13447.03	2000	
B	11	6	HMI H2	161.309	ppb	3.74	95939.94	100	
Se	78	72	HMI H2	35.174	ppb	2.72	13979.43	2000	
Na	23	45	HMI He	158106.835	ppb	2.41	36788011.42	400000	
Mg	24	45	HMI He	27050.517	ppb	1.78	2691714.50	400000	
Al	27	45	HMI He	463.506	ppb	2.26	10273.34	400000	
K	39	45	HMI He	5247.477	ppb	0.31	306909.11	400000	
Ca	44	45	HMI He	140222.122	ppb	0.94	407652.26	400000	
V	51	72	HMI He	29.443	ppb	3.07	40088.90	2000	
Cr	52	72	HMI He	29.726	ppb	0.64	49400.81	5000	
Mn	55	72	HMI He	158.713	ppb	1.40	88386.96	10000	
Fe	57	72	HMI He	550.669	ppb	2.40	16798.78	400000	
Co	59	72	HMI He	29.749	ppb	2.78	90077.31	2000	
Ni	60	72	HMI He	31.568	ppb	1.65	27563.48	5000	
Cu	63	72	HMI He	31.842	ppb	2.07	77302.29	5000	
Zn	66	72	HMI He	41.074	ppb	1.65	13225.53	5000	
As	75	72	HMI He	31.060	ppb	1.61	6927.63	2000	
Sr	88	45	HMI He	1987.762	ppb	2.49	1109904.17	2000	
Zr	90	72	HMI He	4850.719	ppb	2.00	54028.08	1000	
Nb	93	72	HMI He	-0.140	ppb	-10.14	260.01	200	
Mo	95	115	HMI He	31.288	ppb	1.18	36358.35	2000	
Pd	105	115	HMI He	-0.030	ppb	-57.05	76.67	100	
Ag	107	115	HMI He	28.479	ppb	1.70	110749.82	100	
Cd	111	115	HMI He	28.743	ppb	1.84	13065.53	2000	
Sn	120	115	HMI He	29.322	ppb	2.34	34955.95	2000	
Sb	121	115	HMI He	29.938	ppb	2.50	32457.25	1000	
Ba	137	115	HMI He	74.614	ppb	1.07	24522.94	5000	
W	182	165	HMI He	31.282	ppb	1.37	148619.52	100	
Pt	195	165	HMI He	0.001	ppb	691.85	76.67	100	
Tl	205	165	HMI He	28.053	ppb	3.49	230108.04	2000	
Pb	208	165	HMI He	29.018	ppb	2.97	315232.08	5000	
Th	232	165	HMI He	28.637	ppb	0.82	338560.98	2000	
U	238	165	HMI He	51.809	ppb	1.37	656764.08	2000	
Li	7	45	No Gas	43.328	ppb	21.68	10618979.97	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744191.00	1.97	956003.023333333	77.84	60	125	
Ge Internal Standard	72	HMI H2	15745160.85	1.84	18947224.0133333	83.1	60	125	
Sc (IS)	45	HMI He	900148.16	0.87	1144561.88333333	78.65	60	125	
Ge Internal Standard	72	HMI He	1214747.81	0.81	1545458.59	78.6	60	125	
In Internal standard	115	HMI He	3245466.74	0.33	3925517.65666667	82.68	60	125	
Ho-165	165	HMI He	16535346.22	1.51	18306963.8366667	90.32	60	125	
Sc IS)	45	No Gas	102164261.34	1.42	132851188.07	76.9	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	108_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:50:28 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	557.127	ppb	3.21	285361.41	500	111.43	90	110	>+\-10%
Be	9	6	HMI H2	48.201	ppb	4.62	21513.67	50	96.4	90	110	
B	11	6	HMI H2	46.590	ppb	2.97	29135.23	50	93.18	90	110	
Se	78	72	HMI H2	49.146	ppb	3.03	19999.11	50	98.29	90	110	
Na	23	45	HMI He	4975.373	ppb	3.05	1174526.62	5000	99.51	90	110	
Mg	24	45	HMI He	4802.844	ppb	0.55	478435.57	5000	96.06	90	110	
Al	27	45	HMI He	5003.810	ppb	1.32	110058.64	5000	100.08	90	110	
K	39	45	HMI He	4853.965	ppb	1.94	286238.03	5000	97.08	90	110	
Ca	44	45	HMI He	4966.635	ppb	3.38	14533.20	5000	99.33	90	110	
V	51	72	HMI He	46.638	ppb	1.26	62552.03	50	93.28	90	110	
Cr	52	72	HMI He	48.957	ppb	2.78	82298.46	50	97.91	90	110	
Mn	55	72	HMI He	52.138	ppb	2.43	29466.67	50	104.28	90	110	
Fe	57	72	HMI He	4843.111	ppb	2.36	148481.12	5000	96.86	90	110	
Co	59	72	HMI He	49.471	ppb	3.04	151818.63	50	98.94	90	110	
Ni	60	72	HMI He	48.749	ppb	1.11	43016.77	50	97.5	90	110	
Cu	63	72	HMI He	49.322	ppb	1.41	120371.41	50	98.64	90	110	
Zn	66	72	HMI He	48.654	ppb	2.52	15791.11	50	97.31	90	110	
As	75	72	HMI He	50.809	ppb	2.65	11466.16	50	101.62	90	110	
Sr	88	45	HMI He	54.651	ppb	3.12	30562.66	50	109.3	90	110	
Zr	90	72	HMI He	53.434	ppb	4.19	713.36	50	106.87	90	110	
Nb	93	72	HMI He	102.060	ppb	0.12	445156.94	100	102.06	90	110	
Mo	95	115	HMI He	46.205	ppb	1.15	54302.69	50	92.41	90	110	
Pd	105	115	HMI He	48.100	ppb	1.72	87018.56	50	96.2	90	110	
Ag	107	115	HMI He	47.500	ppb	3.24	186828.69	50	95	90	110	
Cd	111	115	HMI He	48.554	ppb	3.77	22322.73	50	97.11	90	110	
Sn	120	115	HMI He	47.536	ppb	2.75	57094.32	50	95.07	90	110	
Sb	121	115	HMI He	46.088	ppb	1.51	50408.09	50	92.18	90	110	
Ba	137	115	HMI He	48.512	ppb	5.80	16138.68	50	97.02	90	110	
W	182	165	HMI He	49.552	ppb	2.16	226849.42	50	99.1	90	110	
Pt	195	165	HMI He	47.501	ppb	2.82	184296.55	50	95	90	110	
Tl	205	165	HMI He	49.234	ppb	1.77	390436.31	50	98.47	90	110	
Pb	208	165	HMI He	49.717	ppb	3.35	521050.56	50	99.43	90	110	
Th	232	165	HMI He	49.775	ppb	3.78	568558.01	50	99.55	90	110	
U	238	165	HMI He	49.335	ppb	1.59	604680.15	50	98.67	90	110	
Li	7	45	No Gas	503.244	ppb	2.21	23648996.89	500	100.65	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	770996.74	1.25	956003.023333333	80.65	60	125	
Ge Internal Standard	72	HMI H2	16134263.43	0.53	18947224.0133333	85.15	60	125	
Sc (IS)	45	HMI He	900699.10	0.61	1144561.88333333	78.69	60	125	
Ge Internal Standard	72	HMI He	1231263.06	0.68	1545458.59	79.67	60	125	
In Internal standard	115	HMI He	3283306.06	0.83	3925517.65666667	83.64	60	125	
Ho-165	165	HMI He	15987805.52	1.67	18306963.8366667	87.33	60	125	
Sc IS)	45	No Gas	103758122.92	1.82	132851188.07	78.1	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	109_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:54:43 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	39.951	ppb	14.03	124079.29	0.1	>RL
Be	9	6	HMI H2	0.022	ppb	219.26	23.33	0.5	
B	11	6	HMI H2	7.978	ppb	1.70	5817.74	0.1	>RL
Se	78	72	HMI H2	0.027	ppb	71.15	57.33	1	
Na	23	45	HMI He	100.878	ppb	5.74	41013.54	25	>RL
Mg	24	45	HMI He	6.480	ppb	26.75	910.04	25	
Al	27	45	HMI He	1.429	ppb	96.28	126.67	15	
K	39	45	HMI He	35.851	ppb	65.10	31286.48	50	
Ca	44	45	HMI He	5.254	ppb	312.06	106.67	25	
V	51	72	HMI He	-0.832	ppb	-10.05	2110.17	1	
Cr	52	72	HMI He	-0.012	ppb	-161.61	230.00	1	
Mn	55	72	HMI He	0.102	ppb	24.53	113.33	0.5	
Fe	57	72	HMI He	-1.453	ppb	-60.28	120.00	25	
Co	59	72	HMI He	0.002	ppb	297.98	23.33	0.5	
Ni	60	72	HMI He	-0.008	ppb	-589.77	226.67	1	
Cu	63	72	HMI He	-0.024	ppb	-177.92	1826.80	1	
Zn	66	72	HMI He	-0.011	ppb	-2353.93	490.01	5	
As	75	72	HMI He	-0.018	ppb	-144.56	26.14	1	
Sr	88	45	HMI He	0.054	ppb	78.95	63.33	1	
Zr	90	72	HMI He	0.790	ppb	618.19	123.33	1	
Nb	93	72	HMI He	0.067	ppb	63.12	1190.06	2	
Mo	95	115	HMI He	0.008	ppb	116.87	53.33	0.5	
Pd	105	115	HMI He	-0.004	ppb	-766.52	130.00	1	
Ag	107	115	HMI He	0.000	ppb	1348.51	36.67	1	
Cd	111	115	HMI He	0.008	ppb	305.36	6.67	0.5	
Sn	120	115	HMI He	-0.069	ppb	-60.76	303.34	1	
Sb	121	115	HMI He	0.233	ppb	48.20	533.35	1	
Ba	137	115	HMI He	0.063	ppb	67.74	36.67	0.5	
W	182	165	HMI He	0.002	ppb	1150.34	1336.74	1	
Pt	195	165	HMI He	0.016	ppb	66.38	133.33	1	
Tl	205	165	HMI He	0.015	ppb	31.45	270.01	0.1	
Pb	208	165	HMI He	0.269	ppb	1.89	4520.32	0.5	
Th	232	165	HMI He	0.009	ppb	66.95	383.34	1	
U	238	165	HMI He	0.006	ppb	42.65	180.00	0.5	
Li	7	45	No Gas	4.832	ppb	18.61	9844035.53	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	818830.44	1.87	956003.023333333	85.65	60	125	
Ge Internal Standard	72	HMI H2	15990046.77	1.18	18947224.0133333	84.39	60	125	
Sc (IS)	45	HMI He	923501.55	1.33	1144561.88333333	80.69	60	125	
Ge Internal Standard	72	HMI He	1259588.53	0.79	1545458.59	81.5	60	125	
In Internal standard	115	HMI He	3450173.92	1.44	3925517.65666667	87.89	60	125	
Ho-165	165	HMI He	16383631.85	2.36	18306963.8366667	89.49	60	125	
Sc IS)	45	No Gas	105188327.85	0.90	132851188.07	79.18	60	120	

Blank Report

Sample Name	mb 280-399751/1-a
File Name	110_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 4:58:15 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	20.387	ppb	67.56	120376.08	0.1	>DL
Be	9	6	HMI H2	-0.004	ppb	-841.67	11.67	0.5	
Se	78	72	HMI H2	-0.005	ppb	-632.56	45.33	1	
Na	23	45	HMI He	84.696	ppb	5.30	38090.07	25	>DL
Mg	24	45	HMI He	5.456	ppb	13.83	826.69	25	
Al	27	45	HMI He	4.305	ppb	66.08	196.67	15	
K	39	45	HMI He	21.456	ppb	75.44	31289.94	50	
Ca	44	45	HMI He	5.457	ppb	377.79	110.00	25	
V	51	72	HMI He	-0.853	ppb	-5.43	2110.17	1	
Cr	52	72	HMI He	0.019	ppb	183.60	286.68	1	
Mn	55	72	HMI He	0.243	ppb	25.10	196.67	0.5	
Fe	57	72	HMI He	3.750	ppb	20.38	286.67	25	
Co	59	72	HMI He	0.008	ppb	42.66	43.33	0.5	
Ni	60	72	HMI He	0.642	ppb	19.35	820.03	1	
Cu	63	72	HMI He	0.049	ppb	33.19	2033.49	1	
Zn	66	72	HMI He	0.205	ppb	116.90	566.68	5	
As	75	72	HMI He	-0.037	ppb	-80.93	22.22	1	
Sr	88	45	HMI He	0.023	ppb	116.19	46.67	1	
Zr	90	72	HMI He	6.124	ppb	114.42	186.67	1	>DL
Nb	93	72	HMI He	-0.091	ppb	-21.82	493.35	2	
Mo	95	115	HMI He	0.050	ppb	36.20	103.33	0.5	
Pd	105	115	HMI He	-0.029	ppb	-51.06	80.00	1	
Ag	107	115	HMI He	-0.001	ppb	-439.64	30.00	1	
Cd	111	115	HMI He	0.008	ppb	296.97	6.67	0.5	
Sn	120	115	HMI He	-0.174	ppb	-9.86	166.67	1	
Sb	121	115	HMI He	-0.037	ppb	-204.60	220.00	1	
Ba	137	115	HMI He	0.143	ppb	41.10	63.33	0.5	
W	182	165	HMI He	-0.036	ppb	-105.85	1123.39	1	
Pt	195	165	HMI He	0.011	ppb	110.67	110.00	1	
Tl	205	165	HMI He	0.001	ppb	579.03	150.00	0.1	
Pb	208	165	HMI He	0.019	ppb	56.76	1790.07	0.5	
Th	232	165	HMI He	0.004	ppb	95.13	320.01	1	
U	238	165	HMI He	-0.003	ppb	-134.63	66.67	0.5	
Li	7	45	No Gas	2.768	ppb	33.85	9686887.20	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	851277.06	5.75	956003.023333333	89.05	60	125	
Ge Internal Standard	72	HMI H2	16321398.11	0.56	18947224.0133333	86.14	60	125	
Sc (IS)	45	HMI He	946876.99	1.42	1144561.88333333	82.73	60	125	
Ge Internal Standard	72	HMI He	1275551.33	0.47	1545458.59	82.54	60	125	
In Internal standard	115	HMI He	3367413.82	1.38	3925517.65666667	85.78	60	125	
Ho-165	165	HMI He	15934340.63	1.88	18306963.8366667	87.04	60	125	
Sc IS)	45	No Gas	104128948.74	0.52	132851188.07	78.38	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399751/2-a
File Name	111_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:01:47 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	29.123	ppb	7.48	14386.13	40	72.81	80	120	>+/-20%
Se	78	72	HMI H2	31.594	ppb	2.05	12899.87	40	78.98	80	120	>+/-20%
Na	23	45	HMI He	173.630	ppb	2.71	58157.21	40	434.08	80	120	>+/-20%
Mg	24	45	HMI He	2.243	ppb	59.23	476.68	40	5.61	80	120	>+/-20%
Al	27	45	HMI He	321.294	ppb	5.14	7305.00	40	803.23	80	120	>+/-20%
K	39	45	HMI He	28.477	ppb	120.72	30778.86	40	71.19	80	120	>+/-20%
Ca	44	45	HMI He	152.039	ppb	46.93	543.35	40	380.1	80	120	>+/-20%
V	51	72	HMI He	30.834	ppb	2.13	43654.74	40	77.08	80	120	>+/-20%
Cr	52	72	HMI He	32.389	ppb	2.79	56142.69	40	80.97	80	120	
Mn	55	72	HMI He	34.066	ppb	3.22	19835.58	40	85.17	80	120	
Fe	57	72	HMI He	322.474	ppb	8.03	10333.39	40	806.18	80	120	>+/-20%
Co	59	72	HMI He	32.164	ppb	0.40	101626.97	40	80.41	80	120	
Ni	60	72	HMI He	32.326	ppb	0.68	29443.36	40	80.82	80	120	
Cu	63	72	HMI He	32.199	ppb	2.42	81543.19	40	80.5	80	120	
Zn	66	72	HMI He	33.960	ppb	9.05	11490.89	40	84.9	80	120	
As	75	72	HMI He	31.371	ppb	1.65	7299.69	40	78.43	80	120	>+/-20%
Sr	88	45	HMI He	33.399	ppb	2.52	19091.65	40	83.5	80	120	
Nb	93	72	HMI He	-0.119	ppb	-5.05	363.34	40	-0.3	80	120	>+/-20%
Mo	95	115	HMI He	31.262	ppb	0.30	37761.62	40	78.15	80	120	>+/-20%
Pd	105	115	HMI He	-0.033	ppb	-68.30	73.33	40	-0.08	80	120	>+/-20%
Ag	107	115	HMI He	30.728	ppb	2.61	124171.52	40	76.82	80	120	>+/-20%
Cd	111	115	HMI He	30.146	ppb	4.15	14236.64	40	75.36	80	120	>+/-20%
Sn	120	115	HMI He	29.375	ppb	3.46	36385.83	40	73.44	80	120	>+/-20%
Sb	121	115	HMI He	31.496	ppb	1.14	35477.14	40	78.74	80	120	>+/-20%
Ba	137	115	HMI He	32.177	ppb	2.76	10997.34	40	80.44	80	120	
W	182	165	HMI He	33.679	ppb	1.66	157581.62	40	84.2	80	120	
Pt	195	165	HMI He	0.011	ppb	105.01	113.33	40	0.03	80	120	>+/-20%
Tl	205	165	HMI He	32.145	ppb	1.00	259925.21	40	80.36	80	120	
Pb	208	165	HMI He	32.418	ppb	1.20	346999.53	40	81.04	80	120	
Th	232	165	HMI He	32.236	ppb	5.13	375317.09	40	80.59	80	120	
U	238	165	HMI He	32.230	ppb	2.79	402624.51	40	80.57	80	120	
Li	7	45	No Gas	30.823	ppb	26.88	10617782.15	400	7.71	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	854590.70	4.86	956003.023333333	89.39	60	125	
Ge Internal Standard	72	HMI H2	16166570.83	0.30	18947224.0133333	85.32	60	125	
Sc (IS)	45	HMI He	919966.33	0.50	1144561.88333333	80.38	60	125	
Ge Internal Standard	72	HMI He	1267460.13	0.62	1545458.59	82.01	60	125	
In Internal standard	115	HMI He	3373466.08	1.84	3925517.65666667	85.94	60	125	
Ho-165	165	HMI He	16298409.26	2.40	18306963.8366667	89.03	60	125	
Sc IS)	45	No Gas	105590106.16	2.32	132851188.07	79.48	60	120	

Sample Report

Sample Name	280-104916-b-1-g
File Name	112SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:06:48 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.006	ppb	-183.69	10.00	2000	
B	11	6	HMI H2	55.633	ppb	8.43	36576.20	100	
Se	78	72	HMI H2	1.280	ppb	8.37	561.35	2000	
Na	23	45	HMI He	77069.107	ppb	1.79	18126108.85	400000	
Mg	24	45	HMI He	15175.803	ppb	2.23	1525676.87	400000	
Al	27	45	HMI He	45.390	ppb	17.18	1100.05	400000	
K	39	45	HMI He	5542.443	ppb	3.01	325830.71	400000	
Ca	44	45	HMI He	78187.414	ppb	1.80	229651.58	400000	
V	51	72	HMI He	1.851	ppb	2.30	5457.63	2000	
Cr	52	72	HMI He	0.152	ppb	12.98	496.68	5000	
Mn	55	72	HMI He	26.435	ppb	2.80	14900.32	10000	
Fe	57	72	HMI He	39.869	ppb	8.38	1376.75	400000	
Co	59	72	HMI He	0.281	ppb	17.44	873.37	2000	
Ni	60	72	HMI He	2.496	ppb	12.90	2406.89	5000	
Cu	63	72	HMI He	0.567	ppb	22.83	3190.36	5000	
Zn	66	72	HMI He	6.594	ppb	8.32	2546.90	5000	
As	75	72	HMI He	1.555	ppb	10.77	377.78	2000	
Sr	88	45	HMI He	848.289	ppb	1.31	478550.89	2000	
Zr	90	72	HMI He	55.211	ppb	26.27	730.05	1000	
Nb	93	72	HMI He	-0.131	ppb	-13.80	300.01	200	
Mo	95	115	HMI He	1.783	ppb	10.62	2103.49	2000	
Pd	105	115	HMI He	-0.015	ppb	-237.31	103.33	100	
Ag	107	115	HMI He	0.000	ppb	5250.25	33.33	100	
Cd	111	115	HMI He	0.024	ppb	55.44	13.33	2000	
Sn	120	115	HMI He	-0.126	ppb	-32.12	216.67	2000	
Sb	121	115	HMI He	0.033	ppb	279.10	286.67	1000	
Ba	137	115	HMI He	96.039	ppb	1.92	31465.50	5000	
W	182	165	HMI He	0.075	ppb	51.48	1646.78	100	
Pt	195	165	HMI He	0.009	ppb	101.50	106.67	100	
Tl	205	165	HMI He	0.000	ppb	-1487.25	140.00	2000	
Pb	208	165	HMI He	0.210	ppb	4.20	3826.92	5000	
Th	232	165	HMI He	0.047	ppb	34.64	816.71	2000	
U	238	165	HMI He	16.097	ppb	1.55	199217.18	2000	
Li	7	45	No Gas	16.671	ppb	10.50	9799152.93	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	815648.96	5.65	956003.023333333	85.32	60	125	
Ge Internal Standard	72	HMI H2	15977301.88	0.51	18947224.0133333	84.33	60	125	
Sc (IS)	45	HMI He	909415.08	0.83	1144561.88333333	79.46	60	125	
Ge Internal Standard	72	HMI He	1225922.90	1.03	1545458.59	79.32	60	125	
In Internal standard	115	HMI He	3235458.66	0.95	3925517.65666667	82.42	60	125	
Ho-165	165	HMI He	16138522.60	1.91	18306963.8366667	88.16	60	125	
Sc IS)	45	No Gas	101254134.72	0.92	132851188.07	76.22	60	120	

Sample Report

Sample Name	280-104916-b-1-h ms
File Name	113SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:10:21 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	29.842	ppb	1.04	13523.78	2000	
B	11	6	HMI H2	74.809	ppb	4.61	47072.11	100	
Se	78	72	HMI H2	30.998	ppb	3.20	12466.20	2000	
Na	23	45	HMI He	74574.627	ppb	2.73	17341057.43	400000	
Mg	24	45	HMI He	14770.342	ppb	2.18	1468272.01	400000	
Al	27	45	HMI He	341.857	ppb	1.45	7591.83	400000	
K	39	45	HMI He	5566.647	ppb	0.99	323480.28	400000	
Ca	44	45	HMI He	75098.093	ppb	2.22	218087.55	400000	
V	51	72	HMI He	31.813	ppb	1.99	44680.84	2000	
Cr	52	72	HMI He	29.586	ppb	0.42	51002.38	5000	
Mn	55	72	HMI He	55.787	ppb	2.72	32255.15	10000	
Fe	57	72	HMI He	330.923	ppb	4.15	10540.17	400000	
Co	59	72	HMI He	28.965	ppb	2.17	90972.36	2000	
Ni	60	72	HMI He	30.448	ppb	1.80	27580.18	5000	
Cu	63	72	HMI He	30.513	ppb	1.43	76927.79	5000	
Zn	66	72	HMI He	31.141	ppb	0.78	10520.18	5000	
As	75	72	HMI He	31.203	ppb	1.82	7217.96	2000	
Sr	88	45	HMI He	863.381	ppb	1.17	481589.33	2000	
Zr	90	72	HMI He	4555.091	ppb	2.82	52620.24	1000	
Nb	93	72	HMI He	-0.133	ppb	-14.17	300.00	200	
Mo	95	115	HMI He	31.652	ppb	1.80	36899.63	2000	
Pd	105	115	HMI He	-0.015	ppb	-204.06	103.33	100	
Ag	107	115	HMI He	29.188	ppb	0.66	113881.78	100	
Cd	111	115	HMI He	29.812	ppb	0.59	13596.03	2000	
Sn	120	115	HMI He	29.954	ppb	2.41	35817.86	2000	
Sb	121	115	HMI He	31.431	ppb	2.12	34174.42	1000	
Ba	137	115	HMI He	121.744	ppb	2.62	40135.67	5000	
W	182	165	HMI He	31.643	ppb	1.13	150593.44	100	
Pt	195	165	HMI He	0.010	ppb	145.26	113.33	100	
Tl	205	165	HMI He	29.657	ppb	3.15	243713.09	2000	
Pb	208	165	HMI He	29.151	ppb	1.36	317302.86	5000	
Th	232	165	HMI He	28.934	ppb	2.95	342582.54	2000	
U	238	165	HMI He	45.336	ppb	3.00	575640.06	2000	
Li	7	45	No Gas	41.748	ppb	9.57	10460526.02	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	782470.70	3.76	956003.023333333	81.85	60	125	
Ge Internal Standard	72	HMI H2	15924802.29	0.71	18947224.0133333	84.05	60	125	
Sc (IS)	45	HMI He	899224.19	1.47	1144561.88333333	78.56	60	125	
Ge Internal Standard	72	HMI He	1260070.26	1.03	1545458.59	81.53	60	125	
In Internal standard	115	HMI He	3256091.48	0.40	3925517.65666667	82.95	60	125	
Ho-165	165	HMI He	16565453.30	1.76	18306963.8366667	90.49	60	125	
Sc IS)	45	No Gas	101035199.73	0.77	132851188.07	76.05	60	120	

Sample Report

Sample Name	280-104916-b-1-i msd
File Name	114SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:13:52 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	29.054	ppb	5.17	13723.96	2000	
B	11	6	HMI H2	75.556	ppb	5.03	49585.68	100	
Se	78	72	HMI H2	30.926	ppb	2.23	12570.26	2000	
Na	23	45	HMI He	77251.892	ppb	1.69	18226599.46	400000	
Mg	24	45	HMI He	14863.739	ppb	1.22	1499055.21	400000	
Al	27	45	HMI He	360.289	ppb	2.39	8112.09	400000	
K	39	45	HMI He	5628.014	ppb	2.13	331468.69	400000	
Ca	44	45	HMI He	79546.319	ppb	1.09	234380.01	400000	
V	51	72	HMI He	32.010	ppb	2.95	44483.54	2000	
Cr	52	72	HMI He	30.541	ppb	1.87	52109.42	5000	
Mn	55	72	HMI He	57.401	ppb	2.23	32856.43	10000	
Fe	57	72	HMI He	345.871	ppb	3.93	10895.43	400000	
Co	59	72	HMI He	30.516	ppb	1.63	94897.03	2000	
Ni	60	72	HMI He	32.372	ppb	2.56	29019.35	5000	
Cu	63	72	HMI He	31.348	ppb	1.99	78180.51	5000	
Zn	66	72	HMI He	31.627	ppb	5.59	10566.86	5000	
As	75	72	HMI He	31.698	ppb	1.76	7258.50	2000	
Sr	88	45	HMI He	901.052	ppb	0.77	509941.47	2000	
Zr	90	72	HMI He	4835.579	ppb	0.33	55306.09	1000	
Nb	93	72	HMI He	-0.160	ppb	-11.23	176.67	200	
Mo	95	115	HMI He	31.366	ppb	0.49	37504.27	2000	
Pd	105	115	HMI He	-0.029	ppb	-56.71	80.00	100	
Ag	107	115	HMI He	29.362	ppb	1.67	117494.40	100	
Cd	111	115	HMI He	28.991	ppb	3.16	13559.32	2000	
Sn	120	115	HMI He	30.310	ppb	3.34	37167.69	2000	
Sb	121	115	HMI He	31.137	ppb	2.27	34722.13	1000	
Ba	137	115	HMI He	127.078	ppb	1.81	42963.25	5000	
W	182	165	HMI He	32.454	ppb	2.12	153155.86	100	
Pt	195	165	HMI He	0.010	ppb	57.03	110.00	100	
Tl	205	165	HMI He	30.097	ppb	1.80	245383.14	2000	
Pb	208	165	HMI He	30.523	ppb	1.80	329469.76	5000	
Th	232	165	HMI He	29.046	ppb	2.22	341188.47	2000	
U	238	165	HMI He	47.597	ppb	1.04	599649.02	2000	
Li	7	45	No Gas	48.293	ppb	21.65	10540680.28	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	816705.39	5.25	956003.023333333	85.43	60	125	
Ge Internal Standard	72	HMI H2	16093003.95	0.14	18947224.0133333	84.94	60	125	
Sc (IS)	45	HMI He	912254.47	0.86	1144561.88333333	79.7	60	125	
Ge Internal Standard	72	HMI He	1247464.92	1.06	1545458.59	80.72	60	125	
In Internal standard	115	HMI He	3339349.49	0.37	3925517.65666667	85.07	60	125	
Ho-165	165	HMI He	16432814.14	1.70	18306963.8366667	89.76	60	125	
Sc IS)	45	No Gas	100134825.61	2.21	132851188.07	75.37	60	120	

Sample Report

Sample Name	280-104916-b-2-c
File Name	115SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:17:20 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.029	ppb	153.00	25.00	2000	
B	11	6	HMI H2	62.939	ppb	4.36	38657.54	100	
Se	78	72	HMI H2	1.389	ppb	6.00	618.68	2000	
Na	23	45	HMI He	77023.507	ppb	0.46	18377879.88	400000	
Mg	24	45	HMI He	14554.138	ppb	2.85	1484127.80	400000	
Al	27	45	HMI He	62.809	ppb	13.56	1506.76	400000	
K	39	45	HMI He	5200.093	ppb	2.61	311907.57	400000	
Ca	44	45	HMI He	79010.042	ppb	1.59	235401.64	400000	
V	51	72	HMI He	1.533	ppb	18.99	5164.24	2000	
Cr	52	72	HMI He	0.051	ppb	63.97	336.68	5000	
Mn	55	72	HMI He	45.103	ppb	3.15	25934.42	10000	
Fe	57	72	HMI He	77.653	ppb	5.77	2583.58	400000	
Co	59	72	HMI He	0.269	ppb	4.12	856.71	2000	
Ni	60	72	HMI He	2.215	ppb	2.32	2210.17	5000	
Cu	63	72	HMI He	0.726	ppb	15.59	3650.46	5000	
Zn	66	72	HMI He	1.383	ppb	38.21	933.38	5000	
As	75	72	HMI He	1.469	ppb	2.84	366.67	2000	
Sr	88	45	HMI He	810.613	ppb	2.21	463841.81	2000	
Zr	90	72	HMI He	36.357	ppb	12.32	530.02	1000	
Nb	93	72	HMI He	-0.156	ppb	-8.38	193.34	200	
Mo	95	115	HMI He	1.618	ppb	3.42	1993.49	2000	
Pd	105	115	HMI He	-0.024	ppb	-45.65	90.00	100	
Ag	107	115	HMI He	0.009	ppb	48.08	70.00	100	
Cd	111	115	HMI He	0.015	ppb	138.87	10.00	2000	
Sn	120	115	HMI He	-0.044	ppb	-42.61	326.68	2000	
Sb	121	115	HMI He	-0.037	ppb	-107.88	220.00	1000	
Ba	137	115	HMI He	87.577	ppb	1.97	29885.67	5000	
W	182	165	HMI He	0.110	ppb	51.81	1826.81	100	
Pt	195	165	HMI He	0.002	ppb	791.87	76.67	100	
Tl	205	165	HMI He	0.016	ppb	59.21	273.34	2000	
Pb	208	165	HMI He	0.137	ppb	11.09	3083.51	5000	
Th	232	165	HMI He	0.086	ppb	13.35	1276.74	2000	
U	238	165	HMI He	15.755	ppb	3.88	196713.69	2000	
Li	7	45	No Gas	13.037	ppb	62.43	9712764.39	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	761347.80	1.22	956003.023333333	79.64	60	125	
Ge Internal Standard	72	HMI H2	16341989.77	1.17	18947224.0133333	86.25	60	125	
Sc (IS)	45	HMI He	922499.56	1.05	1144561.88333333	80.6	60	125	
Ge Internal Standard	72	HMI He	1252350.35	0.32	1545458.59	81.03	60	125	
In Internal standard	115	HMI He	3370347.53	0.89	3925517.65666667	85.86	60	125	
Ho-165	165	HMI He	16293064.57	3.48	18306963.8366667	89	60	125	
Sc IS)	45	No Gas	101414043.88	1.69	132851188.07	76.34	60	120	

Sample Report

Sample Name	280-104916-b-3-c
File Name	116SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:20:50 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.007	ppb	291.23	15.00	2000	
B	11	6	HMI H2	58.138	ppb	3.28	36422.79	100	
Se	78	72	HMI H2	1.910	ppb	3.34	825.36	2000	
Na	23	45	HMI He	76345.753	ppb	1.91	18390953.00	400000	
Mg	24	45	HMI He	15247.927	ppb	1.83	1570108.64	400000	
Al	27	45	HMI He	136.074	ppb	16.58	3183.83	400000	
K	39	45	HMI He	4959.667	ppb	3.51	301730.24	400000	
Ca	44	45	HMI He	79474.545	ppb	2.15	239079.37	400000	
V	51	72	HMI He	1.463	ppb	20.06	5077.52	2000	
Cr	52	72	HMI He	0.205	ppb	26.92	600.02	5000	
Mn	55	72	HMI He	45.461	ppb	1.92	26171.09	10000	
Fe	57	72	HMI He	138.713	ppb	6.23	4490.69	400000	
Co	59	72	HMI He	0.305	ppb	20.47	970.04	2000	
Ni	60	72	HMI He	2.231	ppb	6.42	2226.84	5000	
Cu	63	72	HMI He	0.945	ppb	6.02	4190.59	5000	
Zn	66	72	HMI He	2.346	ppb	20.45	1243.39	5000	
As	75	72	HMI He	1.631	ppb	9.16	403.93	2000	
Sr	88	45	HMI He	822.171	ppb	1.74	475052.52	2000	
Zr	90	72	HMI He	44.428	ppb	19.76	623.36	1000	
Nb	93	72	HMI He	-0.148	ppb	-13.16	230.00	200	
Mo	95	115	HMI He	1.881	ppb	10.40	2313.53	2000	
Pd	105	115	HMI He	-0.031	ppb	-80.42	76.67	100	
Ag	107	115	HMI He	-0.005	ppb	-72.96	13.33	100	
Cd	111	115	HMI He	0.050	ppb	158.61	26.67	2000	
Sn	120	115	HMI He	-0.077	ppb	-83.96	286.68	2000	
Sb	121	115	HMI He	-0.042	ppb	-160.37	213.34	1000	
Ba	137	115	HMI He	84.501	ppb	4.30	28873.87	5000	
W	182	165	HMI He	0.036	ppb	131.97	1510.10	100	
Pt	195	165	HMI He	-0.005	ppb	-158.04	53.33	100	
Tl	205	165	HMI He	-0.002	ppb	-270.80	133.33	2000	
Pb	208	165	HMI He	0.197	ppb	10.42	3776.91	5000	
Th	232	165	HMI He	0.052	ppb	10.33	903.38	2000	
U	238	165	HMI He	15.536	ppb	1.43	197107.73	2000	
Li	7	45	No Gas	8.181	ppb	21.51	9726311.79	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	775279.01	3.97	956003.023333333	81.1	60	125	
Ge Internal Standard	72	HMI H2	16190663.42	1.90	18947224.0133333	85.45	60	125	
Sc (IS)	45	HMI He	931498.46	1.26	1144561.88333333	81.38	60	125	
Ge Internal Standard	72	HMI He	1253829.15	0.46	1545458.59	81.13	60	125	
In Internal standard	115	HMI He	3374705.54	0.49	3925517.65666667	85.97	60	125	
Ho-165	165	HMI He	16541492.47	1.11	18306963.8366667	90.36	60	125	
Sc IS)	45	No Gas	102941860.47	0.96	132851188.07	77.49	60	120	

Sample Report

Sample Name	280-104916-b-4-c
File Name	117SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:24:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.015	ppb	233.19	18.33	2000	
B	11	6	HMI H2	63.928	ppb	2.99	38781.24	100	
Se	78	72	HMI H2	1.920	ppb	10.81	820.03	2000	
Na	23	45	HMI He	78383.596	ppb	1.88	18667022.15	400000	
Mg	24	45	HMI He	15062.621	ppb	1.78	1533598.83	400000	
Al	27	45	HMI He	106.453	ppb	13.41	2483.56	400000	
K	39	45	HMI He	5089.395	ppb	3.08	305338.69	400000	
Ca	44	45	HMI He	81858.465	ppb	2.35	243441.43	400000	
V	51	72	HMI He	1.343	ppb	14.25	4847.44	2000	
Cr	52	72	HMI He	0.136	ppb	18.66	473.35	5000	
Mn	55	72	HMI He	25.715	ppb	4.88	14596.58	10000	
Fe	57	72	HMI He	126.510	ppb	8.45	4047.23	400000	
Co	59	72	HMI He	0.282	ppb	9.59	883.37	2000	
Ni	60	72	HMI He	1.918	ppb	5.19	1916.80	5000	
Cu	63	72	HMI He	1.764	ppb	4.92	6097.88	5000	
Zn	66	72	HMI He	3.021	ppb	5.50	1436.75	5000	
As	75	72	HMI He	1.342	ppb	23.25	332.68	2000	
Sr	88	45	HMI He	819.673	ppb	2.98	468263.77	2000	
Zr	90	72	HMI He	16.364	ppb	71.77	296.67	1000	
Nb	93	72	HMI He	-0.153	ppb	-7.71	206.67	200	
Mo	95	115	HMI He	1.716	ppb	13.71	2103.50	2000	
Pd	105	115	HMI He	-0.020	ppb	-133.37	96.67	100	
Ag	107	115	HMI He	0.000	ppb	-859.10	33.33	100	
Cd	111	115	HMI He	0.022	ppb	145.35	13.33	2000	
Sn	120	115	HMI He	-0.144	ppb	-36.84	203.34	2000	
Sb	121	115	HMI He	-0.033	ppb	-105.01	223.33	1000	
Ba	137	115	HMI He	88.277	ppb	1.83	30016.12	5000	
W	182	165	HMI He	0.054	ppb	116.57	1570.11	100	
Pt	195	165	HMI He	0.017	ppb	241.47	140.02	100	
Tl	205	165	HMI He	-0.001	ppb	-1044.45	140.00	2000	
Pb	208	165	HMI He	0.291	ppb	3.37	4743.68	5000	
Th	232	165	HMI He	0.031	ppb	31.02	646.69	2000	
U	238	165	HMI He	14.737	ppb	0.22	184705.75	2000	
Li	7	45	No Gas	13.524	ppb	20.76	9596313.35	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	751897.71	0.82	956003.023333333	78.65	60	125	
Ge Internal Standard	72	HMI H2	16010837.19	0.51	18947224.0133333	84.5	60	125	
Sc (IS)	45	HMI He	920938.22	1.52	1144561.88333333	80.46	60	125	
Ge Internal Standard	72	HMI He	1234351.75	0.22	1545458.59	79.87	60	125	
In Internal standard	115	HMI He	3357914.44	0.43	3925517.65666667	85.54	60	125	
Ho-165	165	HMI He	16339696.44	0.46	18306963.8366667	89.25	60	125	
Sc IS)	45	No Gas	100036386.45	0.31	132851188.07	75.3	60	120	

Sample Report

Sample Name	280-104865-a-1-b
File Name	118SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:27:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399751 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.009	ppb	60.48	16.67	2000	
B	11	6	HMI H2	16.785	ppb	3.05	11297.19	100	
Se	78	72	HMI H2	0.159	ppb	50.44	112.00	2000	
Na	23	45	HMI He	51522.797	ppb	3.15	12357028.52	400000	
Mg	24	45	HMI He	10014.626	ppb	3.17	1026308.13	400000	
Al	27	45	HMI He	5.402	ppb	18.42	216.67	400000	
K	39	45	HMI He	2191.560	ppb	2.78	149144.63	400000	
Ca	44	45	HMI He	33584.012	ppb	0.15	100613.97	400000	
V	51	72	HMI He	-1.069	ppb	-14.16	1813.46	2000	
Cr	52	72	HMI He	0.263	ppb	15.33	706.69	5000	
Mn	55	72	HMI He	16.504	ppb	3.58	9636.26	10000	
Fe	57	72	HMI He	36.831	ppb	23.83	1326.74	400000	
Co	59	72	HMI He	0.258	ppb	33.21	833.37	2000	
Ni	60	72	HMI He	1.146	ppb	11.94	1270.07	5000	
Cu	63	72	HMI He	0.953	ppb	11.57	4253.95	5000	
Zn	66	72	HMI He	7.876	ppb	9.78	3046.99	5000	
As	75	72	HMI He	0.040	ppb	61.85	39.87	2000	
Sr	88	45	HMI He	618.448	ppb	2.82	355635.71	2000	
Zr	90	72	HMI He	5.064	ppb	26.00	173.33	1000	
Nb	93	72	HMI He	-0.180	ppb	-2.20	90.00	200	
Mo	95	115	HMI He	1.710	ppb	14.20	2123.50	2000	
Pd	105	115	HMI He	-0.025	ppb	-80.02	90.00	100	
Ag	107	115	HMI He	0.004	ppb	53.41	50.00	100	
Cd	111	115	HMI He	0.029	ppb	87.27	16.67	2000	
Sn	120	115	HMI He	-0.146	ppb	-16.76	203.34	2000	
Sb	121	115	HMI He	-0.213	ppb	-9.67	23.33	1000	
Ba	137	115	HMI He	43.328	ppb	6.39	14957.40	5000	
W	182	165	HMI He	0.180	ppb	29.02	2156.85	100	
Pt	195	165	HMI He	-0.005	ppb	-125.62	50.00	100	
Tl	205	165	HMI He	-0.006	ppb	-30.74	93.33	2000	
Pb	208	165	HMI He	0.049	ppb	48.15	2156.76	5000	
Th	232	165	HMI He	0.005	ppb	136.33	343.34	2000	
U	238	165	HMI He	2.923	ppb	2.50	36733.62	2000	
Li	7	45	No Gas	66.959	ppb	15.09	10989570.47	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	801330.82	2.28	956003.023333333	83.82	60	125	
Ge Internal Standard	72	HMI H2	16245097.70	0.81	18947224.0133333	85.74	60	125	
Sc (IS)	45	HMI He	927028.85	1.07	1144561.88333333	80.99	60	125	
Ge Internal Standard	72	HMI He	1266892.15	0.82	1545458.59	81.98	60	125	
In Internal standard	115	HMI He	3412495.38	3.75	3925517.65666667	86.93	60	125	
Ho-165	165	HMI He	16348179.77	1.15	18306963.8366667	89.3	60	125	
Sc IS)	45	No Gas	99586751.47	1.00	132851188.07	74.96	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	119_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:31:17 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	558.093	ppb	2.69	288521.93	500	111.62	90	110	>+\-10%
Be	9	6	HMI H2	47.439	ppb	1.14	21802.38	50	94.88	90	110	
B	11	6	HMI H2	36.333	ppb	5.04	23523.15	50	72.67	90	110	>+\-10%
Se	78	72	HMI H2	47.889	ppb	2.11	19688.06	50	95.78	90	110	
Na	23	45	HMI He	4738.762	ppb	4.26	1162815.13	5000	94.78	90	110	
Mg	24	45	HMI He	4624.772	ppb	0.64	478640.74	5000	92.5	90	110	
Al	27	45	HMI He	4802.757	ppb	2.45	109754.07	5000	96.06	90	110	
K	39	45	HMI He	4785.605	ppb	0.41	293585.04	5000	95.71	90	110	
Ca	44	45	HMI He	4668.866	ppb	1.77	14199.63	5000	93.38	90	110	
V	51	72	HMI He	47.201	ppb	2.01	65135.27	50	94.4	90	110	
Cr	52	72	HMI He	47.507	ppb	2.39	82231.50	50	95.01	90	110	
Mn	55	72	HMI He	50.428	ppb	1.88	29343.06	50	100.86	90	110	
Fe	57	72	HMI He	4690.086	ppb	2.59	148046.69	5000	93.8	90	110	
Co	59	72	HMI He	48.698	ppb	0.30	153878.79	50	97.4	90	110	
Ni	60	72	HMI He	48.083	ppb	0.69	43685.28	50	96.17	90	110	
Cu	63	72	HMI He	48.695	ppb	1.62	122367.12	50	97.39	90	110	
Zn	66	72	HMI He	49.007	ppb	3.90	16368.44	50	98.01	90	110	
As	75	72	HMI He	50.167	ppb	1.14	11657.14	50	100.33	90	110	
Sr	88	45	HMI He	51.947	ppb	2.94	30185.29	50	103.89	90	110	
Zr	90	72	HMI He	45.865	ppb	13.73	646.69	50	91.73	90	110	
Nb	93	72	HMI He	100.296	ppb	1.07	450399.40	100	100.3	90	110	
Mo	95	115	HMI He	45.535	ppb	2.37	54831.19	50	91.07	90	110	
Pd	105	115	HMI He	47.037	ppb	1.38	87210.08	50	94.07	90	110	
Ag	107	115	HMI He	45.642	ppb	0.73	183992.60	50	91.28	90	110	
Cd	111	115	HMI He	46.779	ppb	1.21	22042.34	50	93.56	90	110	
Sn	120	115	HMI He	46.448	ppb	2.08	57184.69	50	92.9	90	110	
Sb	121	115	HMI He	46.065	ppb	2.12	51628.99	50	92.13	90	110	
Ba	137	115	HMI He	50.780	ppb	1.40	17306.49	50	101.56	90	110	
W	182	165	HMI He	48.628	ppb	1.21	227210.27	50	97.26	90	110	
Pt	195	165	HMI He	46.019	ppb	1.54	182237.06	50	92.04	90	110	
Tl	205	165	HMI He	48.711	ppb	1.10	394261.83	50	97.42	90	110	
Pb	208	165	HMI He	48.650	ppb	2.23	520477.09	50	97.3	90	110	
Th	232	165	HMI He	48.711	ppb	1.12	567996.43	50	97.42	90	110	
U	238	165	HMI He	49.009	ppb	1.63	612994.75	50	98.02	90	110	
Li	7	45	No Gas	501.665	ppb	2.50	23187076.29	500	100.33	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	793641.83	1.62	956003.023333333	83.02	60	125	
Ge Internal Standard	72	HMI H2	16299593.32	0.51	18947224.0133333	86.03	60	125	
Sc (IS)	45	HMI He	935758.42	0.67	1144561.88333333	81.76	60	125	
Ge Internal Standard	72	HMI He	1267608.59	0.44	1545458.59	82.02	60	125	
In Internal standard	115	HMI He	3364697.34	0.91	3925517.65666667	85.71	60	125	
Ho-165	165	HMI He	16314051.44	0.71	18306963.8366667	89.11	60	125	
Sc IS)	45	No Gas	101902675.52	0.54	132851188.07	76.7	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	120_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:34:47 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	24.076	ppb	39.55	120572.53	0.1	>RL
Be	9	6	HMI H2	0.029	ppb	19.34	26.67	0.5	
B	11	6	HMI H2	3.894	ppb	7.14	3193.68	0.1	>RL
Se	78	72	HMI H2	0.013	ppb	135.99	52.00	1	
Na	23	45	HMI He	65.054	ppb	2.22	33854.34	25	>RL
Mg	24	45	HMI He	5.848	ppb	16.08	883.37	25	
Al	27	45	HMI He	1.791	ppb	150.07	140.00	15	
K	39	45	HMI He	22.583	ppb	118.52	31881.03	50	
Ca	44	45	HMI He	30.203	ppb	156.49	190.00	25	>RL
V	51	72	HMI He	-0.801	ppb	-20.41	2186.86	1	
Cr	52	72	HMI He	0.026	ppb	59.45	300.01	1	
Mn	55	72	HMI He	0.133	ppb	38.02	133.33	0.5	
Fe	57	72	HMI He	1.298	ppb	155.08	210.00	25	
Co	59	72	HMI He	0.011	ppb	87.13	53.33	0.5	
Ni	60	72	HMI He	0.028	ppb	372.75	263.34	1	
Cu	63	72	HMI He	-0.037	ppb	-138.64	1826.80	1	
Zn	66	72	HMI He	0.066	ppb	557.38	523.35	5	
As	75	72	HMI He	-0.026	ppb	-257.29	24.84	1	
Sr	88	45	HMI He	0.083	ppb	69.28	83.33	1	
Zr	90	72	HMI He	-0.219	ppb	-874.17	113.33	1	
Nb	93	72	HMI He	0.161	ppb	18.93	1633.43	2	
Mo	95	115	HMI He	0.027	ppb	33.30	76.67	0.5	
Pd	105	115	HMI He	-0.006	ppb	-475.76	126.67	1	
Ag	107	115	HMI He	0.003	ppb	176.98	46.67	1	
Cd	111	115	HMI He	0.015	ppb	140.27	10.00	0.5	
Sn	120	115	HMI He	-0.009	ppb	-516.24	376.68	1	
Sb	121	115	HMI He	0.511	ppb	24.87	850.04	1	
Ba	137	115	HMI He	0.025	ppb	176.30	23.33	0.5	
W	182	165	HMI He	-0.002	ppb	-1384.62	1356.75	1	
Pt	195	165	HMI He	0.038	ppb	40.02	230.00	1	
Tl	205	165	HMI He	0.011	ppb	21.72	246.68	0.1	
Pb	208	165	HMI He	0.242	ppb	0.88	4356.99	0.5	
Th	232	165	HMI He	0.011	ppb	79.49	423.35	1	
U	238	165	HMI He	0.008	ppb	39.65	206.67	0.5	
Li	7	45	No Gas	0.291	ppb	1201.81	9497703.05	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	827638.37	1.15	956003.023333333	86.57	60	125	
Ge Internal Standard	72	HMI H2	16133372.59	0.10	18947224.0133333	85.15	60	125	
Sc (IS)	45	HMI He	962877.59	1.05	1144561.88333333	84.13	60	125	
Ge Internal Standard	72	HMI He	1280098.77	0.85	1545458.59	82.83	60	125	
In Internal standard	115	HMI He	3441656.82	0.71	3925517.65666667	87.67	60	125	
Ho-165	165	HMI He	16877381.62	0.02	18306963.8366667	92.19	60	125	
Sc IS)	45	No Gas	102835646.30	0.93	132851188.07	77.41	60	120	

Blank Report

Sample Name	mb 280-398947/1-b
File Name	121_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:38:17 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	24.526	ppb	17.39	121444.05	0.1	>DL
Be	9	6	HMI H2	-0.011	ppb	-265.95	8.33	0.5	
Se	78	72	HMI H2	-0.019	ppb	-128.73	40.00	1	
Na	23	45	HMI He	52.223	ppb	11.17	29836.65	25	>DL
Mg	24	45	HMI He	1.128	ppb	64.10	370.01	25	
Al	27	45	HMI He	1.514	ppb	91.41	130.00	15	
K	39	45	HMI He	36.197	ppb	44.81	31784.08	50	
Ca	44	45	HMI He	-12.038	ppb	-113.32	56.67	25	
V	51	72	HMI He	-0.518	ppb	-25.75	2533.56	1	
Cr	52	72	HMI He	-0.007	ppb	-699.92	240.00	1	
Mn	55	72	HMI He	0.199	ppb	21.92	170.00	0.5	
Fe	57	72	HMI He	0.216	ppb	171.68	173.33	25	
Co	59	72	HMI He	0.000	ppb	11606.27	16.67	0.5	
Ni	60	72	HMI He	0.611	ppb	14.29	786.70	1	
Cu	63	72	HMI He	0.039	ppb	75.79	1993.49	1	
Zn	66	72	HMI He	1.074	ppb	51.64	843.36	5	
As	75	72	HMI He	-0.005	ppb	-665.31	29.41	1	
Sr	88	45	HMI He	0.018	ppb	143.32	43.33	1	
Zr	90	72	HMI He	0.181	ppb	549.82	116.67	1	
Nb	93	72	HMI He	-0.043	ppb	-45.56	703.36	2	
Mo	95	115	HMI He	0.024	ppb	36.25	73.33	0.5	
Pd	105	115	HMI He	-0.028	ppb	-119.76	83.33	1	
Ag	107	115	HMI He	-0.007	ppb	-20.63	6.67	1	
Cd	111	115	HMI He	0.008	ppb	306.13	6.67	0.5	
Sn	120	115	HMI He	-0.161	ppb	-19.40	186.67	1	
Sb	121	115	HMI He	-0.002	ppb	-1807.44	263.34	1	
Ba	137	115	HMI He	0.063	ppb	138.81	36.67	0.5	
W	182	165	HMI He	-0.025	ppb	-115.97	1213.40	1	
Pt	195	165	HMI He	0.013	ppb	51.04	123.33	1	
Tl	205	165	HMI He	-0.001	ppb	-894.89	140.00	0.1	
Pb	208	165	HMI He	-0.020	ppb	-80.15	1423.38	0.5	
Th	232	165	HMI He	0.004	ppb	325.08	323.34	1	
U	238	165	HMI He	0.000	ppb	-192.43	96.67	0.5	
Li	7	45	No Gas	-3.290	ppb	-96.25	9580565.02	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	836083.93	5.01	956003.023333333	87.46	60	125	
Ge Internal Standard	72	HMI H2	16515796.01	0.81	18947224.0133333	87.17	60	125	
Sc (IS)	45	HMI He	937255.62	1.26	1144561.88333333	81.89	60	125	
Ge Internal Standard	72	HMI He	1266180.23	0.78	1545458.59	81.93	60	125	
In Internal standard	115	HMI He	3442141.16	1.32	3925517.65666667	87.69	60	125	
Ho-165	165	HMI He	16470636.85	2.36	18306963.8366667	89.97	60	125	
Sc IS)	45	No Gas	104826829.53	1.72	132851188.07	78.91	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-398947/2-b
File Name	122_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:41:47 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	28.612	ppb	5.87	13950.78	40	71.53	80	120	>+/-20%
Se	78	72	HMI H2	30.939	ppb	2.75	12845.18	40	77.35	80	120	>+/-20%
Na	23	45	HMI He	39.417	ppb	10.59	27015.30	40	98.54	80	120	
Mg	24	45	HMI He	1.791	ppb	84.80	443.35	40	4.48	80	120	>+/-20%
Al	27	45	HMI He	316.259	ppb	4.04	7401.75	40	790.65	80	120	>+/-20%
K	39	45	HMI He	31.669	ppb	47.13	31847.51	40	79.17	80	120	>+/-20%
Ca	44	45	HMI He	224.900	ppb	30.89	780.03	40	562.25	80	120	>+/-20%
V	51	72	HMI He	29.867	ppb	3.27	43113.21	40	74.67	80	120	>+/-20%
Cr	52	72	HMI He	31.392	ppb	2.63	55342.94	40	78.48	80	120	>+/-20%
Mn	55	72	HMI He	32.654	ppb	1.23	19348.26	40	81.64	80	120	
Fe	57	72	HMI He	310.300	ppb	4.92	10116.55	40	775.75	80	120	>+/-20%
Co	59	72	HMI He	31.235	ppb	0.81	100396.48	40	78.09	80	120	>+/-20%
Ni	60	72	HMI He	31.927	ppb	2.63	29583.61	40	79.82	80	120	>+/-20%
Cu	63	72	HMI He	31.305	ppb	3.35	80685.45	40	78.26	80	120	>+/-20%
Zn	66	72	HMI He	33.038	ppb	3.50	11387.46	40	82.59	80	120	
As	75	72	HMI He	31.964	ppb	1.65	7565.18	40	79.91	80	120	>+/-20%
Sr	88	45	HMI He	31.312	ppb	4.94	18424.13	40	78.28	80	120	>+/-20%
Nb	93	72	HMI He	-0.104	ppb	-15.37	440.02	40	-0.26	80	120	>+/-20%
Mo	95	115	HMI He	29.823	ppb	2.09	36355.11	40	74.56	80	120	>+/-20%
Pd	105	115	HMI He	-0.048	ppb	-11.77	46.67	40	-0.12	80	120	>+/-20%
Ag	107	115	HMI He	30.081	ppb	3.20	122690.38	40	75.2	80	120	>+/-20%
Cd	111	115	HMI He	30.335	ppb	2.24	14463.47	40	75.84	80	120	>+/-20%
Sn	120	115	HMI He	29.615	ppb	2.87	37047.48	40	74.04	80	120	>+/-20%
Sb	121	115	HMI He	31.045	ppb	1.53	35299.95	40	77.61	80	120	>+/-20%
Ba	137	115	HMI He	32.004	ppb	4.74	11045.76	40	80.01	80	120	
W	182	165	HMI He	31.284	ppb	1.07	148468.38	40	78.21	80	120	>+/-20%
Pt	195	165	HMI He	-0.003	ppb	-229.39	60.00	40	-0.01	80	120	>+/-20%
Tl	205	165	HMI He	30.710	ppb	4.04	251623.63	40	76.78	80	120	>+/-20%
Pb	208	165	HMI He	31.607	ppb	1.28	342917.18	40	79.02	80	120	>+/-20%
Th	232	165	HMI He	30.724	ppb	4.00	362767.21	40	76.81	80	120	>+/-20%
U	238	165	HMI He	30.548	ppb	1.52	386882.90	40	76.37	80	120	>+/-20%
Li	7	45	No Gas	31.375	ppb	16.35	10402991.12	400	7.84	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	843428.08	5.57	956003.023333333	88.22	60	125	
Ge Internal Standard	72	HMI H2	16438727.68	0.55	18947224.0133333	86.76	60	125	
Sc (IS)	45	HMI He	946729.22	0.88	1144561.88333333	82.72	60	125	
Ge Internal Standard	72	HMI He	1289506.99	2.16	1545458.59	83.44	60	125	
In Internal standard	115	HMI He	3405187.96	1.95	3925517.65666667	86.74	60	125	
Ho-165	165	HMI He	16518167.47	1.52	18306963.8366667	90.23	60	125	
Sc IS)	45	No Gas	103271829.62	0.79	132851188.07	77.73	60	120	

Sample Report

Sample Name	280-104731-b-1-e
File Name	123SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:45:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.100	ppb	52.43	58.33	2000	
B	11	6	HMI H2	3.683	ppb	12.78	2933.62	100	
Se	78	72	HMI H2	0.459	ppb	10.65	234.67	2000	
Na	23	45	HMI He	2795.869	ppb	0.70	679237.54	400000	
Mg	24	45	HMI He	23948.507	ppb	0.52	2427573.26	400000	
Al	27	45	HMI He	14.745	ppb	28.31	423.35	400000	
K	39	45	HMI He	496.188	ppb	7.47	55944.32	400000	
Ca	44	45	HMI He	29226.375	ppb	0.67	86612.35	400000	
V	51	72	HMI He	-0.802	ppb	-22.18	2146.85	2000	
Cr	52	72	HMI He	0.415	ppb	12.17	960.04	5000	
Mn	55	72	HMI He	163.481	ppb	2.37	94222.45	10000	
Fe	57	72	HMI He	291.417	ppb	4.87	9279.39	400000	
Co	59	72	HMI He	1.634	ppb	4.80	5137.56	2000	
Ni	60	72	HMI He	4.609	ppb	7.95	4363.97	5000	
Cu	63	72	HMI He	13.000	ppb	1.80	33785.15	5000	
Zn	66	72	HMI He	1262.385	ppb	2.35	406027.98	5000	
As	75	72	HMI He	0.431	ppb	27.00	129.41	2000	
Sr	88	45	HMI He	164.558	ppb	1.43	93626.55	2000	
Zr	90	72	HMI He	29.525	ppb	28.48	453.35	1000	
Nb	93	72	HMI He	-0.159	ppb	-2.06	183.33	200	
Mo	95	115	HMI He	3.160	ppb	11.83	3763.83	2000	
Pd	105	115	HMI He	-0.038	ppb	-60.13	63.33	100	
Ag	107	115	HMI He	0.006	ppb	62.60	56.67	100	
Cd	111	115	HMI He	3.594	ppb	8.22	1656.77	2000	
Sn	120	115	HMI He	-0.134	ppb	-30.72	210.00	2000	
Sb	121	115	HMI He	1.115	ppb	0.70	1470.09	1000	
Ba	137	115	HMI He	32.621	ppb	4.18	10870.61	5000	
W	182	165	HMI He	0.177	ppb	38.87	2150.19	100	
Pt	195	165	HMI He	-0.001	ppb	-637.90	66.67	100	
Tl	205	165	HMI He	0.016	ppb	45.50	276.67	2000	
Pb	208	165	HMI He	0.307	ppb	2.09	4923.74	5000	
Th	232	165	HMI He	0.060	ppb	12.81	980.05	2000	
U	238	165	HMI He	14.342	ppb	2.83	180223.22	2000	
Li	7	45	No Gas	-6.747	ppb	-127.94	9097319.73	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	795322.66	0.99	956003.023333333	83.19	60	125	
Ge Internal Standard	72	HMI H2	16213834.36	1.51	18947224.0133333	85.57	60	125	
Sc (IS)	45	HMI He	916885.41	0.36	1144561.88333333	80.11	60	125	
Ge Internal Standard	72	HMI He	1257296.59	0.39	1545458.59	81.35	60	125	
In Internal standard	115	HMI He	3289444.61	2.34	3925517.65666667	83.8	60	125	
Ho-165	165	HMI He	16382896.23	1.42	18306963.8366667	89.49	60	125	
Sc IS)	45	No Gas	100586001.42	1.45	132851188.07	75.71	60	120	

Sample Report

Sample Name	280-104731-b-1-f ms
File Name	124SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:48:48 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	29.721	ppb	3.78	13387.01	2000	
B	11	6	HMI H2	22.984	ppb	10.06	14783.30	100	
Se	78	72	HMI H2	29.907	ppb	2.93	12143.28	2000	
Na	23	45	HMI He	2850.380	ppb	1.16	683561.31	400000	
Mg	24	45	HMI He	24568.789	ppb	3.60	2458938.68	400000	
Al	27	45	HMI He	331.638	ppb	3.15	7418.38	400000	
K	39	45	HMI He	491.327	ppb	3.46	54984.20	400000	
Ca	44	45	HMI He	29590.407	ppb	0.94	86602.81	400000	
V	51	72	HMI He	29.540	ppb	4.88	41211.79	2000	
Cr	52	72	HMI He	29.774	ppb	0.27	50715.16	5000	
Mn	55	72	HMI He	197.837	ppb	0.80	112916.43	10000	
Fe	57	72	HMI He	579.325	ppb	4.50	18103.52	400000	
Co	59	72	HMI He	30.598	ppb	0.14	94974.29	2000	
Ni	60	72	HMI He	32.999	ppb	2.51	29516.94	5000	
Cu	63	72	HMI He	42.692	ppb	1.69	105613.86	5000	
Zn	66	72	HMI He	1294.827	ppb	0.87	412420.31	5000	
As	75	72	HMI He	31.056	ppb	1.43	7099.61	2000	
Sr	88	45	HMI He	196.047	ppb	3.10	110126.78	2000	
Zr	90	72	HMI He	4869.719	ppb	2.13	55583.68	1000	
Nb	93	72	HMI He	-0.153	ppb	-8.41	206.67	200	
Mo	95	115	HMI He	31.210	ppb	1.76	37036.74	2000	
Pd	105	115	HMI He	-0.032	ppb	-34.82	73.33	100	
Ag	107	115	HMI He	29.005	ppb	1.69	115184.65	100	
Cd	111	115	HMI He	32.662	ppb	2.22	15160.76	2000	
Sn	120	115	HMI He	28.767	ppb	2.60	35026.22	2000	
Sb	121	115	HMI He	31.197	ppb	1.47	34528.34	1000	
Ba	137	115	HMI He	61.105	ppb	1.49	20510.49	5000	
W	182	165	HMI He	32.180	ppb	0.66	148047.61	100	
Pt	195	165	HMI He	-0.003	ppb	-481.16	60.00	100	
Tl	205	165	HMI He	30.125	ppb	0.23	239405.55	2000	
Pb	208	165	HMI He	30.878	ppb	3.25	324800.99	5000	
Th	232	165	HMI He	29.985	ppb	1.86	343289.20	2000	
U	238	165	HMI He	45.531	ppb	0.41	559089.39	2000	
Li	7	45	No Gas	17.445	ppb	10.17	9838933.13	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	777380.41	2.38	956003.023333333	81.32	60	125	
Ge Internal Standard	72	HMI H2	16078339.68	1.91	18947224.0133333	84.86	60	125	
Sc (IS)	45	HMI He	905583.96	1.59	1144561.88333333	79.12	60	125	
Ge Internal Standard	72	HMI He	1245099.67	0.72	1545458.59	80.57	60	125	
In Internal standard	115	HMI He	3314364.38	0.88	3925517.65666667	84.43	60	125	
Ho-165	165	HMI He	16014693.02	0.93	18306963.8366667	87.48	60	125	
Sc IS)	45	No Gas	101445008.88	2.03	132851188.07	76.36	60	120	

Sample Report

Sample Name	280-104731-b-1-g msd
File Name	125SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:52:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	31.480	ppb	5.12	13864.03	2000	
B	11	6	HMI H2	22.454	ppb	4.29	14156.10	100	
Se	78	72	HMI H2	31.711	ppb	0.57	12548.91	2000	
Na	23	45	HMI He	2909.572	ppb	1.82	679565.09	400000	
Mg	24	45	HMI He	25101.096	ppb	4.28	2448050.44	400000	
Al	27	45	HMI He	323.271	ppb	2.48	7051.59	400000	
K	39	45	HMI He	522.287	ppb	4.97	55201.75	400000	
Ca	44	45	HMI He	30897.092	ppb	4.35	88107.38	400000	
V	51	72	HMI He	30.769	ppb	2.59	41412.34	2000	
Cr	52	72	HMI He	31.436	ppb	1.78	51798.44	5000	
Mn	55	72	HMI He	206.079	ppb	2.26	113813.32	10000	
Fe	57	72	HMI He	597.706	ppb	4.16	18076.87	400000	
Co	59	72	HMI He	33.082	ppb	3.40	99333.80	2000	
Ni	60	72	HMI He	36.732	ppb	2.67	31771.14	5000	
Cu	63	72	HMI He	44.475	ppb	1.23	106378.14	5000	
Zn	66	72	HMI He	1349.018	ppb	1.05	415762.59	5000	
As	75	72	HMI He	33.058	ppb	2.07	7309.50	2000	
Sr	88	45	HMI He	200.575	ppb	2.11	109814.93	2000	
Zr	90	72	HMI He	4762.350	ppb	1.29	52606.63	1000	
Nb	93	72	HMI He	-0.148	ppb	-1.76	220.00	200	
Mo	95	115	HMI He	32.154	ppb	1.44	37253.90	2000	
Pd	105	115	HMI He	-0.037	ppb	-46.89	63.33	100	
Ag	107	115	HMI He	30.649	ppb	1.54	118838.54	100	
Cd	111	115	HMI He	35.128	ppb	1.51	15921.51	2000	
Sn	120	115	HMI He	28.585	ppb	4.78	33977.15	2000	
Sb	121	115	HMI He	31.651	ppb	1.75	34204.46	1000	
Ba	137	115	HMI He	63.577	ppb	1.03	20840.97	5000	
W	182	165	HMI He	33.062	ppb	2.96	147196.36	100	
Pt	195	165	HMI He	-0.001	ppb	-448.12	63.33	100	
Tl	205	165	HMI He	32.740	ppb	1.76	251878.18	2000	
Pb	208	165	HMI He	32.552	ppb	2.34	331436.45	5000	
Th	232	165	HMI He	32.333	ppb	2.85	358327.89	2000	
U	238	165	HMI He	47.828	ppb	2.06	568513.22	2000	
Li	7	45	No Gas	27.019	ppb	28.00	9789973.76	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	760707.25	1.71	956003.023333333	79.57	60	125	
Ge Internal Standard	72	HMI H2	15669198.66	0.51	18947224.0133333	82.7	60	125	
Sc (IS)	45	HMI He	882420.14	1.01	1144561.88333333	77.1	60	125	
Ge Internal Standard	72	HMI He	1204798.58	1.21	1545458.59	77.96	60	125	
In Internal standard	115	HMI He	3236364.68	1.44	3925517.65666667	82.44	60	125	
Ho-165	165	HMI He	15506428.88	1.72	18306963.8366667	84.7	60	125	
Sc IS)	45	No Gas	98341186.54	1.54	132851188.07	74.02	60	120	

Sample Report

Sample Name	280-104731-a-2-b
File Name	126SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:55:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.020	ppb	26.20	21.67	2000	
B	11	6	HMI H2	3.341	ppb	7.15	2710.26	100	
Se	78	72	HMI H2	0.385	ppb	44.02	198.67	2000	
Na	23	45	HMI He	2171.640	ppb	0.50	520394.30	400000	
Mg	24	45	HMI He	21263.252	ppb	0.92	2111107.31	400000	
Al	27	45	HMI He	7.891	ppb	88.80	263.34	400000	
K	39	45	HMI He	586.328	ppb	3.74	59549.90	400000	
Ca	44	45	HMI He	29972.086	ppb	1.19	86994.05	400000	
V	51	72	HMI He	-0.808	ppb	-13.49	2070.16	2000	
Cr	52	72	HMI He	0.083	ppb	41.27	380.01	5000	
Mn	55	72	HMI He	118.946	ppb	0.67	66394.46	10000	
Fe	57	72	HMI He	141.581	ppb	3.34	4447.33	400000	
Co	59	72	HMI He	0.962	ppb	19.36	2933.64	2000	
Ni	60	72	HMI He	3.255	ppb	4.33	3050.32	5000	
Cu	63	72	HMI He	5.786	ppb	0.88	15570.89	5000	
Zn	66	72	HMI He	769.034	ppb	1.03	239677.35	5000	
As	75	72	HMI He	0.194	ppb	7.84	72.55	2000	
Sr	88	45	HMI He	167.805	ppb	1.29	93498.94	2000	
Zr	90	72	HMI He	19.443	ppb	7.59	326.67	1000	
Nb	93	72	HMI He	-0.165	ppb	-1.38	150.00	200	
Mo	95	115	HMI He	1.800	ppb	12.38	2096.84	2000	
Pd	105	115	HMI He	-0.039	ppb	-14.62	60.00	100	
Ag	107	115	HMI He	-0.002	ppb	-172.82	23.33	100	
Cd	111	115	HMI He	2.371	ppb	4.77	1063.38	2000	
Sn	120	115	HMI He	-0.078	ppb	-22.64	270.01	2000	
Sb	121	115	HMI He	0.673	ppb	12.59	960.04	1000	
Ba	137	115	HMI He	37.458	ppb	0.94	12124.88	5000	
W	182	165	HMI He	0.121	ppb	59.49	1810.14	100	
Pt	195	165	HMI He	-0.009	ppb	-46.06	33.33	100	
Tl	205	165	HMI He	0.021	ppb	29.88	303.34	2000	
Pb	208	165	HMI He	0.336	ppb	5.76	5020.40	5000	
Th	232	165	HMI He	0.048	ppb	15.68	806.70	2000	
U	238	165	HMI He	10.976	ppb	1.07	132436.00	2000	
Li	7	45	No Gas	-15.616	ppb	-4.32	8851582.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	793496.53	3.03	956003.023333333	83	60	125	
Ge Internal Standard	72	HMI H2	15802819.80	0.52	18947224.0133333	83.4	60	125	
Sc (IS)	45	HMI He	897997.81	1.18	1144561.88333333	78.46	60	125	
Ge Internal Standard	72	HMI He	1217334.54	0.36	1545458.59	78.77	60	125	
In Internal standard	115	HMI He	3194829.25	1.49	3925517.65666667	81.39	60	125	
Ho-165	165	HMI He	15730110.22	2.51	18306963.8366667	85.92	60	125	
Sc IS)	45	No Gas	100506563.09	1.05	132851188.07	75.65	60	120	

Sample Report

Sample Name	280-104855-a-1-b
File Name	127SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 5:59:17 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.008	ppb	-86.60	8.33	2000	
B	11	6	HMI H2	106.536	ppb	1.27	63836.53	100	
Se	78	72	HMI H2	0.337	ppb	18.64	180.00	2000	
Na	23	45	HMI He	48277.777	ppb	0.91	11194314.31	400000	
Mg	24	45	HMI He	6178.545	ppb	2.53	612181.84	400000	
Al	27	45	HMI He	20.354	ppb	23.20	536.68	400000	
K	39	45	HMI He	11478.236	ppb	0.85	634436.76	400000	
Ca	44	45	HMI He	21103.057	ppb	1.11	61139.55	400000	
V	51	72	HMI He	-0.620	ppb	-9.33	2276.85	2000	
Cr	52	72	HMI He	0.307	ppb	45.89	743.36	5000	
Mn	55	72	HMI He	18.211	ppb	2.02	10076.55	10000	
Fe	57	72	HMI He	52.855	ppb	10.57	1736.78	400000	
Co	59	72	HMI He	0.166	ppb	11.87	513.35	2000	
Ni	60	72	HMI He	1.706	ppb	10.06	1683.44	5000	
Cu	63	72	HMI He	4.841	ppb	4.49	13152.16	5000	
Zn	66	72	HMI He	56.324	ppb	1.07	17763.23	5000	
As	75	72	HMI He	0.232	ppb	47.37	79.74	2000	
Sr	88	45	HMI He	172.867	ppb	2.00	96113.41	2000	
Zr	90	72	HMI He	45.301	ppb	11.68	606.69	1000	
Nb	93	72	HMI He	-0.164	ppb	-7.17	153.34	200	
Mo	95	115	HMI He	0.798	ppb	3.99	943.37	2000	
Pd	105	115	HMI He	-0.050	ppb	-22.65	40.00	100	
Ag	107	115	HMI He	0.011	ppb	26.97	73.33	100	
Cd	111	115	HMI He	-0.006	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.195	ppb	33.73	580.02	2000	
Sb	121	115	HMI He	0.307	ppb	9.80	566.69	1000	
Ba	137	115	HMI He	13.841	ppb	1.62	4444.03	5000	
W	182	165	HMI He	-0.063	ppb	-8.14	983.38	100	
Pt	195	165	HMI He	0.005	ppb	119.73	86.67	100	
Tl	205	165	HMI He	0.002	ppb	278.98	153.33	2000	
Pb	208	165	HMI He	0.583	ppb	4.29	7527.56	5000	
Th	232	165	HMI He	0.012	ppb	75.10	403.35	2000	
U	238	165	HMI He	0.076	ppb	9.12	1013.38	2000	
Li	7	45	No Gas	-5.797	ppb	-161.34	9060440.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	747128.15	0.34	956003.023333333	78.15	60	125	
Ge Internal Standard	72	HMI H2	15787327.09	3.11	18947224.0133333	83.32	60	125	
Sc (IS)	45	HMI He	896026.32	0.50	1144561.88333333	78.29	60	125	
Ge Internal Standard	72	HMI He	1201615.33	1.08	1545458.59	77.75	60	125	
In Internal standard	115	HMI He	3162920.81	1.06	3925517.65666667	80.57	60	125	
Ho-165	165	HMI He	15663161.26	2.78	18306963.8366667	85.56	60	125	
Sc IS)	45	No Gas	99891370.63	1.95	132851188.07	75.19	60	120	

Sample Report

Sample Name	280-104865-a-1-c
File Name	128SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:02:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.010	ppb	377.50	16.67	2000	
B	11	6	HMI H2	15.325	ppb	6.29	10123.14	100	
Se	78	72	HMI H2	0.130	ppb	18.05	97.33	2000	
Na	23	45	HMI He	52300.194	ppb	2.53	12218128.01	400000	
Mg	24	45	HMI He	10169.104	ppb	1.62	1015272.34	400000	
Al	27	45	HMI He	3.824	ppb	35.68	176.67	400000	
K	39	45	HMI He	2271.046	ppb	2.52	149506.42	400000	
Ca	44	45	HMI He	33921.431	ppb	1.22	98984.42	400000	
V	51	72	HMI He	-0.643	ppb	-26.62	2266.86	2000	
Cr	52	72	HMI He	0.177	ppb	9.59	533.35	5000	
Mn	55	72	HMI He	16.767	ppb	5.37	9356.11	10000	
Fe	57	72	HMI He	37.540	ppb	15.75	1290.07	400000	
Co	59	72	HMI He	0.244	ppb	1.47	753.36	2000	
Ni	60	72	HMI He	1.095	ppb	6.33	1170.05	5000	
Cu	63	72	HMI He	1.005	ppb	15.05	4190.59	5000	
Zn	66	72	HMI He	16.745	ppb	0.78	5657.72	5000	
As	75	72	HMI He	0.021	ppb	99.33	33.99	2000	
Sr	88	45	HMI He	620.164	ppb	1.29	347416.26	2000	
Zr	90	72	HMI He	10.865	ppb	74.09	230.00	1000	
Nb	93	72	HMI He	-0.170	ppb	-1.27	130.00	200	
Mo	95	115	HMI He	1.689	ppb	11.79	1970.15	2000	
Pd	105	115	HMI He	-0.033	ppb	-78.54	70.00	100	
Ag	107	115	HMI He	-0.004	ppb	-100.92	16.67	100	
Cd	111	115	HMI He	0.017	ppb	137.06	10.00	2000	
Sn	120	115	HMI He	-0.048	ppb	-45.14	303.34	2000	
Sb	121	115	HMI He	-0.164	ppb	-11.28	73.33	1000	
Ba	137	115	HMI He	45.828	ppb	3.12	14793.91	5000	
W	182	165	HMI He	0.176	ppb	22.06	2056.83	100	
Pt	195	165	HMI He	-0.004	ppb	-77.06	53.33	100	
Tl	205	165	HMI He	-0.006	ppb	-66.62	93.33	2000	
Pb	208	165	HMI He	0.021	ppb	37.04	1786.73	5000	
Th	232	165	HMI He	0.012	ppb	47.67	403.35	2000	
U	238	165	HMI He	2.997	ppb	2.88	36178.95	2000	
Li	7	45	No Gas	57.717	ppb	5.90	10895490.89	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	783244.68	3.84	956003.023333333	81.93	60	125	
Ge Internal Standard	72	HMI H2	15764124.80	1.26	18947224.0133333	83.2	60	125	
Sc (IS)	45	HMI He	903037.96	1.33	1144561.88333333	78.9	60	125	
Ge Internal Standard	72	HMI He	1211320.77	0.85	1545458.59	78.38	60	125	
In Internal standard	115	HMI He	3187973.77	2.70	3925517.65666667	81.21	60	125	
Ho-165	165	HMI He	15705053.45	1.34	18306963.8366667	85.79	60	125	
Sc IS)	45	No Gas	101034318.90	0.66	132851188.07	76.05	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	129_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:06:16 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	564.182	ppb	4.17	281107.12	500	112.84	90	110	>+\-10%
Be	9	6	HMI H2	45.935	ppb	1.79	20549.16	50	91.87	90	110	
B	11	6	HMI H2	34.654	ppb	7.78	21861.07	50	69.31	90	110	>+\-10%
Se	78	72	HMI H2	46.448	ppb	1.42	18674.86	50	92.9	90	110	
Na	23	45	HMI He	4601.219	ppb	2.82	1086151.86	5000	92.02	90	110	
Mg	24	45	HMI He	4575.672	ppb	0.99	455322.30	5000	91.51	90	110	
Al	27	45	HMI He	4746.188	ppb	4.09	104272.20	5000	94.92	90	110	
K	39	45	HMI He	4825.586	ppb	0.44	284417.96	5000	96.51	90	110	
Ca	44	45	HMI He	4556.176	ppb	2.43	13325.45	5000	91.12	90	110	
V	51	72	HMI He	45.793	ppb	2.44	61243.75	50	91.59	90	110	
Cr	52	72	HMI He	46.899	ppb	2.34	78557.20	50	93.8	90	110	
Mn	55	72	HMI He	49.994	ppb	1.26	28151.03	50	99.99	90	110	
Fe	57	72	HMI He	4631.602	ppb	1.90	141483.50	5000	92.63	90	110	
Co	59	72	HMI He	46.440	ppb	1.87	141998.35	50	92.88	90	110	
Ni	60	72	HMI He	46.936	ppb	1.70	41268.97	50	93.87	90	110	
Cu	63	72	HMI He	47.787	ppb	1.54	116241.39	50	95.57	90	110	
Zn	66	72	HMI He	48.153	ppb	5.53	15574.30	50	96.31	90	110	
As	75	72	HMI He	48.459	ppb	0.99	10897.14	50	96.92	90	110	
Sr	88	45	HMI He	50.363	ppb	1.72	28141.71	50	100.73	90	110	
Zr	90	72	HMI He	48.308	ppb	22.85	653.36	50	96.62	90	110	
Nb	93	72	HMI He	96.947	ppb	0.31	421319.04	100	96.95	90	110	
Mo	95	115	HMI He	44.509	ppb	3.54	52606.97	50	89.02	90	110	>+\-10%
Pd	105	115	HMI He	45.352	ppb	2.85	82541.51	50	90.7	90	110	
Ag	107	115	HMI He	44.561	ppb	3.28	176309.87	50	89.12	90	110	>+\-10%
Cd	111	115	HMI He	45.761	ppb	6.16	21151.07	50	91.52	90	110	
Sn	120	115	HMI He	44.854	ppb	4.38	54200.68	50	89.71	90	110	>+\-10%
Sb	121	115	HMI He	44.544	ppb	2.02	49026.90	50	89.09	90	110	>+\-10%
Ba	137	115	HMI He	47.189	ppb	3.77	15784.86	50	94.38	90	110	
W	182	165	HMI He	47.703	ppb	0.86	216063.08	50	95.41	90	110	
Pt	195	165	HMI He	44.598	ppb	1.44	171156.86	50	89.2	90	110	>+\-10%
Tl	205	165	HMI He	46.995	ppb	2.01	368607.35	50	93.99	90	110	
Pb	208	165	HMI He	46.813	ppb	1.11	485424.93	50	93.63	90	110	
Th	232	165	HMI He	46.339	ppb	1.64	523610.99	50	92.68	90	110	
U	238	165	HMI He	47.150	ppb	2.69	571532.14	50	94.3	90	110	
Li	7	45	No Gas	485.075	ppb	1.26	22882206.93	500	97.02	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	772565.02	1.28	956003.023333333	80.81	60	125	
Ge Internal Standard	72	HMI H2	15938269.27	0.72	18947224.0133333	84.12	60	125	
Sc (IS)	45	HMI He	899751.84	0.81	1144561.88333333	78.61	60	125	
Ge Internal Standard	72	HMI He	1226669.98	0.43	1545458.59	79.37	60	125	
In Internal standard	115	HMI He	3304405.17	3.02	3925517.65666667	84.18	60	125	
Ho-165	165	HMI He	15811295.63	1.38	18306963.8366667	86.37	60	125	
Sc IS)	45	No Gas	102584373.82	0.43	132851188.07	77.22	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	130_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:09:46 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	35.752	ppb	13.41	120154.22	0.1	>RL
Be	9	6	HMI H2	-0.002	ppb	-301.43	11.67	0.5	
B	11	6	HMI H2	1.991	ppb	11.20	1910.14	0.1	>RL
Se	78	72	HMI H2	-0.038	ppb	-28.20	30.67	1	
Na	23	45	HMI He	48.052	ppb	4.79	27826.65	25	>RL
Mg	24	45	HMI He	6.455	ppb	9.46	890.03	25	
Al	27	45	HMI He	0.502	ppb	228.29	103.33	15	
K	39	45	HMI He	58.138	ppb	45.85	31830.93	50	>RL
Ca	44	45	HMI He	28.727	ppb	48.86	173.33	25	>RL
V	51	72	HMI He	-0.641	ppb	-9.37	2290.19	1	
Cr	52	72	HMI He	-0.018	ppb	-125.40	213.33	1	
Mn	55	72	HMI He	0.138	ppb	58.71	130.00	0.5	
Fe	57	72	HMI He	-1.553	ppb	-90.16	113.33	25	
Co	59	72	HMI He	-0.001	ppb	-219.28	13.33	0.5	
Ni	60	72	HMI He	-0.058	ppb	-75.77	176.67	1	
Cu	63	72	HMI He	-0.046	ppb	-200.53	1720.12	1	
Zn	66	72	HMI He	0.057	ppb	476.87	496.68	5	
As	75	72	HMI He	0.005	ppb	652.05	30.72	1	
Sr	88	45	HMI He	0.038	ppb	132.87	53.33	1	
Zr	90	72	HMI He	-0.970	ppb	-415.70	100.00	1	
Nb	93	72	HMI He	0.137	ppb	30.50	1456.76	2	
Mo	95	115	HMI He	0.016	ppb	104.80	60.00	0.5	
Pd	105	115	HMI He	-0.010	ppb	-174.92	113.33	1	
Ag	107	115	HMI He	0.002	ppb	429.78	40.00	1	
Cd	111	115	HMI He	0.009	ppb	294.54	6.67	0.5	
Sn	120	115	HMI He	-0.105	ppb	-77.45	243.34	1	
Sb	121	115	HMI He	0.447	ppb	18.39	736.70	1	
Ba	137	115	HMI He	0.079	ppb	101.29	40.00	0.5	
W	182	165	HMI He	-0.036	ppb	-60.74	1100.06	1	
Pt	195	165	HMI He	0.029	ppb	34.19	176.67	1	
Tl	205	165	HMI He	0.023	ppb	15.60	313.34	0.1	
Pb	208	165	HMI He	0.264	ppb	7.31	4243.63	0.5	
Th	232	165	HMI He	0.025	ppb	58.56	543.35	1	
U	238	165	HMI He	0.011	ppb	16.61	223.34	0.5	
Li	7	45	No Gas	-8.141	ppb	-27.97	9261716.81	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	813364.28	2.40	956003.023333333	85.08	60	125	
Ge Internal Standard	72	HMI H2	15749199.49	1.10	18947224.0133333	83.12	60	125	
Sc (IS)	45	HMI He	904352.46	0.61	1144561.88333333	79.01	60	125	
Ge Internal Standard	72	HMI He	1222176.14	0.85	1545458.59	79.08	60	125	
In Internal standard	115	HMI He	3266959.63	1.38	3925517.65666667	83.22	60	125	
Ho-165	165	HMI He	15604237.20	2.91	18306963.8366667	85.24	60	125	
Sc IS)	45	No Gas	102810253.80	0.49	132851188.07	77.39	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	131SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:13:16 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.004	ppb	-626.28	10.00	2000	
B	11	6	HMI H2	2.130	ppb	11.56	1830.12	100	
Se	78	72	HMI H2	0.075	ppb	89.74	66.67	2000	
Na	23	45	HMI He	42.678	ppb	8.36	22445.17	400000	
Mg	24	45	HMI He	2.335	ppb	37.48	403.35	400000	
Al	27	45	HMI He	4.609	ppb	144.27	163.34	400000	
K	39	45	HMI He	43.991	ppb	55.55	26250.93	400000	
Ca	44	45	HMI He	-14.590	ppb	-118.66	40.00	400000	
V	51	72	HMI He	0.896	ppb	16.58	3607.12	2000	
Cr	52	72	HMI He	0.134	ppb	29.94	396.68	5000	
Mn	55	72	HMI He	0.681	ppb	8.29	370.01	10000	
Fe	57	72	HMI He	1.788	ppb	80.84	183.33	400000	
Co	59	72	HMI He	0.002	ppb	152.90	20.00	2000	
Ni	60	72	HMI He	0.109	ppb	129.15	273.34	5000	
Cu	63	72	HMI He	0.025	ppb	138.88	1610.11	5000	
Zn	66	72	HMI He	1.058	ppb	26.78	690.02	5000	
As	75	72	HMI He	0.095	ppb	66.97	43.14	2000	
Sr	88	45	HMI He	-0.007	ppb	-485.77	23.33	2000	
Zr	90	72	HMI He	7.223	ppb	69.00	163.33	1000	
Nb	93	72	HMI He	0.089	ppb	37.08	1063.38	200	
Mo	95	115	HMI He	0.022	ppb	112.29	60.00	2000	
Pd	105	115	HMI He	0.066	ppb	39.25	220.00	100	
Ag	107	115	HMI He	0.010	ppb	165.94	63.33	100	
Cd	111	115	HMI He	0.035	ppb	106.65	16.67	2000	
Sn	120	115	HMI He	0.581	ppb	16.35	936.72	2000	
Sb	121	115	HMI He	0.512	ppb	5.45	713.36	1000	
Ba	137	115	HMI He	0.038	ppb	138.07	23.33	5000	
W	182	165	HMI He	0.075	ppb	2.07	1453.43	100	
Pt	195	165	HMI He	-0.003	ppb	-177.65	53.33	100	
Tl	205	165	HMI He	0.011	ppb	74.71	206.67	2000	
Pb	208	165	HMI He	0.121	ppb	11.52	2543.45	5000	
Th	232	165	HMI He	0.065	ppb	11.74	906.71	2000	
U	238	165	HMI He	-0.002	ppb	-59.27	63.33	2000	
Li	7	45	No Gas	-5.747	ppb	-117.50	7906201.05	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	745449.71	1.30	956003.023333333	77.98	60	125	
Ge Internal Standard	72	HMI H2	13914936.56	2.64	18947224.0133333	73.44	60	125	
Sc (IS)	45	HMI He	763923.17	1.64	1144561.88333333	66.74	60	125	
Ge Internal Standard	72	HMI He	1041200.26	0.98	1545458.59	67.37	60	125	
In Internal standard	115	HMI He	2888477.21	1.38	3925517.65666667	73.58	60	125	
Ho-165	165	HMI He	14221206.76	0.75	18306963.8366667	77.68	60	125	
Sc IS)	45	No Gas	87153808.79	1.41	132851188.07	65.6	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	132SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:16:44 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.012	ppb	-54.15	6.67	2000	
B	11	6	HMI H2	0.947	ppb	23.02	1196.72	100	
Se	78	72	HMI H2	-0.011	ppb	-457.37	41.33	2000	
Na	23	45	HMI He	-0.543	ppb	-437.22	16458.29	400000	
Mg	24	45	HMI He	1.086	ppb	7.66	353.34	400000	
Al	27	45	HMI He	-1.181	ppb	-138.97	66.67	400000	
K	39	45	HMI He	33.921	ppb	59.98	30524.87	400000	
Ca	44	45	HMI He	-4.571	ppb	-289.87	76.67	400000	
V	51	72	HMI He	-0.889	ppb	-11.46	1983.48	2000	
Cr	52	72	HMI He	-0.024	ppb	-99.11	203.33	5000	
Mn	55	72	HMI He	0.084	ppb	55.52	100.00	10000	
Fe	57	72	HMI He	-2.552	ppb	-16.03	83.33	400000	
Co	59	72	HMI He	0.001	ppb	477.29	20.00	2000	
Ni	60	72	HMI He	0.136	ppb	122.21	346.68	5000	
Cu	63	72	HMI He	-0.114	ppb	-29.75	1563.43	5000	
Zn	66	72	HMI He	-0.309	ppb	-83.68	383.34	5000	
As	75	72	HMI He	-0.015	ppb	-234.68	26.14	2000	
Sr	88	45	HMI He	-0.015	ppb	-304.65	23.33	2000	
Zr	90	72	HMI He	-0.983	ppb	-174.10	100.00	1000	
Nb	93	72	HMI He	-0.132	ppb	-3.14	296.68	200	
Mo	95	115	HMI He	0.004	ppb	902.92	46.67	2000	
Pd	105	115	HMI He	-0.027	ppb	-13.25	83.33	100	
Ag	107	115	HMI He	-0.006	ppb	-43.12	10.00	100	
Cd	111	115	HMI He	0.008	ppb	298.91	6.67	2000	
Sn	120	115	HMI He	-0.141	ppb	-32.95	203.34	2000	
Sb	121	115	HMI He	-0.212	ppb	-10.96	23.33	1000	
Ba	137	115	HMI He	-0.022	ppb	-159.54	6.67	5000	
W	182	165	HMI He	-0.011	ppb	-278.77	1216.73	100	
Pt	195	165	HMI He	-0.002	ppb	-110.03	60.00	100	
Tl	205	165	HMI He	-0.001	ppb	-734.02	130.00	2000	
Pb	208	165	HMI He	0.012	ppb	159.16	1686.74	5000	
Th	232	165	HMI He	-0.003	ppb	-189.36	233.34	2000	
U	238	165	HMI He	-0.003	ppb	-90.73	56.67	2000	
Li	7	45	No Gas	-5.706	ppb	-119.16	9083674.84	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789480.68	2.01	956003.023333333	82.58	60	125	
Ge Internal Standard	72	HMI H2	15703287.30	0.64	18947224.0133333	82.88	60	125	
Sc (IS)	45	HMI He	904130.33	1.99	1144561.88333333	78.99	60	125	
Ge Internal Standard	72	HMI He	1226161.10	1.36	1545458.59	79.34	60	125	
In Internal standard	115	HMI He	3296848.50	1.27	3925517.65666667	83.99	60	125	
Ho-165	165	HMI He	15633756.68	2.55	18306963.8366667	85.4	60	125	
Sc IS)	45	No Gas	100102483.95	0.88	132851188.07	75.35	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	133SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:20:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.009	ppb	-69.96	8.33	2000	
B	11	6	HMI H2	1.065	ppb	11.03	1270.07	100	
Se	78	72	HMI H2	-0.030	ppb	-90.99	33.33	2000	
Na	23	45	HMI He	-0.070	ppb	-6491.88	16581.67	400000	
Mg	24	45	HMI He	8.052	ppb	151.09	1041.35	400000	
Al	27	45	HMI He	0.812	ppb	155.06	110.00	400000	
K	39	45	HMI He	75.484	ppb	9.97	32772.73	400000	
Ca	44	45	HMI He	-5.577	ppb	-125.42	73.33	400000	
V	51	72	HMI He	-0.985	ppb	-7.05	1853.47	2000	
Cr	52	72	HMI He	-0.002	ppb	-1774.18	240.00	5000	
Mn	55	72	HMI He	0.108	ppb	74.35	113.33	10000	
Fe	57	72	HMI He	-1.335	ppb	-86.30	120.00	400000	
Co	59	72	HMI He	-0.001	ppb	-885.12	13.33	2000	
Ni	60	72	HMI He	0.199	ppb	10.83	400.01	5000	
Cu	63	72	HMI He	-0.075	ppb	-137.62	1650.11	5000	
Zn	66	72	HMI He	-0.370	ppb	-56.67	363.34	5000	
As	75	72	HMI He	0.000	ppb	-11803.15	29.41	2000	
Sr	88	45	HMI He	-0.009	ppb	-297.67	26.67	2000	
Zr	90	72	HMI He	-3.625	ppb	-88.94	70.00	1000	
Nb	93	72	HMI He	-0.154	ppb	-2.75	200.00	200	
Mo	95	115	HMI He	0.015	ppb	49.54	60.00	2000	
Pd	105	115	HMI He	-0.054	ppb	-6.45	33.33	100	
Ag	107	115	HMI He	-0.003	ppb	-122.18	20.00	100	
Cd	111	115	HMI He	-0.006	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.101	ppb	-38.12	253.34	2000	
Sb	121	115	HMI He	-0.173	ppb	-8.47	66.67	1000	
Ba	137	115	HMI He	0.028	ppb	66.77	23.33	5000	
W	182	165	HMI He	-0.066	ppb	-49.49	963.38	100	
Pt	195	165	HMI He	0.000	ppb	-3172.95	66.67	100	
Tl	205	165	HMI He	-0.010	ppb	-40.21	63.33	2000	
Pb	208	165	HMI He	-0.003	ppb	-319.11	1523.39	5000	
Th	232	165	HMI He	-0.006	ppb	-13.11	200.00	2000	
U	238	165	HMI He	-0.004	ppb	-35.79	53.33	2000	
Li	7	45	No Gas	-4.643	ppb	-9.65	9137467.34	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	788578.50	1.11	956003.023333333	82.49	60	125	
Ge Internal Standard	72	HMI H2	15646672.31	3.01	18947224.0133333	82.58	60	125	
Sc (IS)	45	HMI He	904766.56	1.38	1144561.88333333	79.05	60	125	
Ge Internal Standard	72	HMI He	1221487.79	0.47	1545458.59	79.04	60	125	
In Internal standard	115	HMI He	3313815.96	1.97	3925517.65666667	84.42	60	125	
Ho-165	165	HMI He	15522495.96	0.70	18306963.8366667	84.79	60	125	
Sc IS)	45	No Gas	100379609.76	0.29	132851188.07	75.56	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	134SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:23:44 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	040CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.009	ppb	-70.14	8.33	2000	
B	11	6	HMI H2	0.857	ppb	26.19	1140.05	100	
Se	78	72	HMI H2	-0.011	ppb	-328.56	41.33	2000	
Na	23	45	HMI He	-2.346	ppb	-91.07	16217.97	400000	
Mg	24	45	HMI He	0.749	ppb	41.45	323.34	400000	
Al	27	45	HMI He	2.883	ppb	160.82	156.67	400000	
K	39	45	HMI He	39.283	ppb	30.76	31166.32	400000	
Ca	44	45	HMI He	-2.418	ppb	-571.60	83.33	400000	
V	51	72	HMI He	-0.994	ppb	-7.93	1803.46	2000	
Cr	52	72	HMI He	0.038	ppb	83.43	300.01	5000	
Mn	55	72	HMI He	0.052	ppb	161.37	80.00	10000	
Fe	57	72	HMI He	-1.139	ppb	-46.21	123.33	400000	
Co	59	72	HMI He	0.005	ppb	207.60	30.00	2000	
Ni	60	72	HMI He	0.147	ppb	24.95	346.68	5000	
Cu	63	72	HMI He	-0.106	ppb	-13.85	1543.43	5000	
Zn	66	72	HMI He	-0.192	ppb	-151.60	410.01	5000	
As	75	72	HMI He	-0.021	ppb	-282.54	24.19	2000	
Sr	88	45	HMI He	-0.056	ppb	0.00	0.00	2000	
Zr	90	72	HMI He	-0.744	ppb	-328.17	100.00	1000	
Nb	93	72	HMI He	-0.161	ppb	-2.21	166.67	200	
Mo	95	115	HMI He	0.024	ppb	65.86	70.00	2000	
Pd	105	115	HMI He	-0.051	ppb	-38.68	40.00	100	
Ag	107	115	HMI He	-0.003	ppb	-150.46	23.33	100	
Cd	111	115	HMI He	-0.006	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.128	ppb	-25.35	216.67	2000	
Sb	121	115	HMI He	-0.184	ppb	-12.98	53.33	1000	
Ba	137	115	HMI He	0.019	ppb	163.76	20.00	5000	
W	182	165	HMI He	-0.061	ppb	-24.00	993.38	100	
Pt	195	165	HMI He	-0.006	ppb	-69.33	46.67	100	
Tl	205	165	HMI He	-0.006	ppb	-116.56	93.33	2000	
Pb	208	165	HMI He	0.004	ppb	217.51	1603.40	5000	
Th	232	165	HMI He	-0.008	ppb	-43.19	180.00	2000	
U	238	165	HMI He	-0.001	ppb	-272.98	80.00	2000	
Li	7	45	No Gas	-12.570	ppb	-49.15	9166018.90	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789029.67	1.22	956003.023333333	82.53	60	125	
Ge Internal Standard	72	HMI H2	15842713.34	1.81	18947224.0133333	83.61	60	125	
Sc (IS)	45	HMI He	914205.93	1.42	1144561.88333333	79.87	60	125	
Ge Internal Standard	72	HMI He	1195442.41	0.32	1545458.59	77.35	60	125	
In Internal standard	115	HMI He	3257185.95	1.88	3925517.65666667	82.97	60	125	
Ho-165	165	HMI He	15621154.60	0.81	18306963.8366667	85.33	60	125	
Sc IS)	45	No Gas	103134857.96	1.70	132851188.07	77.63	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	135CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:27:14 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	118420.80	ppb	2.20
Be	9	6	HMI H2	5.00	ppb	173.21
B	11	6	HMI H2	1093.38	ppb	8.50
Se	78	72	HMI H2	41.33	ppb	14.78
Na	23	45	HMI He	27282.30	ppb	0.93
Mg	24	45	HMI He	400.01	ppb	25.37
Al	27	45	HMI He	93.33	ppb	40.56
K	39	45	HMI He	30481.62	ppb	2.04
Ca	44	45	HMI He	80.00	ppb	57.28
V	51	72	HMI He	1783.45	ppb	4.13
Cr	52	72	HMI He	263.34	ppb	9.56
Mn	55	72	HMI He	56.67	ppb	71.32
Fe	57	72	HMI He	93.33	ppb	44.61
Co	59	72	HMI He	6.67	ppb	173.21
Ni	60	72	HMI He	1576.77	ppb	12.85
Cu	63	72	HMI He	2326.87	ppb	2.03
Zn	66	72	HMI He	506.68	ppb	27.37
As	75	72	HMI He	25.49	ppb	15.38
Sr	88	45	HMI He	20.00	ppb	0.00
Zr	90	72	HMI He	116.67	ppb	27.55
Nb	93	72	HMI He	146.67	ppb	52.96
Mo	95	115	HMI He	43.33	ppb	48.04
Pd	105	115	HMI He	63.33	ppb	77.89
Ag	107	115	HMI He	26.67	ppb	43.30
Cd	111	115	HMI He	10.00	ppb	100.00
Sn	120	115	HMI He	636.69	ppb	14.25
Sb	121	115	HMI He	43.33	ppb	53.29
Ba	137	115	HMI He	16.67	ppb	124.90
W	182	165	HMI He	1030.05	ppb	16.59
Pt	195	165	HMI He	96.67	ppb	15.80
Tl	205	165	HMI He	110.00	ppb	9.09
Pb	208	165	HMI He	1410.05	ppb	13.53
Th	232	165	HMI He	183.33	ppb	19.16
U	238	165	HMI He	73.33	ppb	28.39
Li	7	45	No Gas	9347458.26	ppb	2.95

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	799595.30	1.57
Ge Internal Standard	72	HMI H2	15586986.69	0.80
Sc (IS)	45	HMI He	907670.65	1.76
Ge Internal Standard	72	HMI He	1221817.51	0.88
In Internal standard	115	HMI He	3292036.67	2.95
Ho-165	165	HMI He	15862929.38	1.79
Sc IS)	45	No Gas	103504237.93	1.22

Calibration Standard Report

Sample Name	IC-4905894
File Name	136CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:30:42 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	443691.60	ppb	3.10
Be	9	6	HMI H2	40085.41	ppb	1.22
B	11	6	HMI H2	53199.99	ppb	1.84
Se	78	72	HMI H2	37278.95	ppb	0.43
Na	23	45	HMI He	2252187.15	ppb	2.79
Mg	24	45	HMI He	929835.47	ppb	1.53
Al	27	45	HMI He	215104.18	ppb	0.58
K	39	45	HMI He	546623.69	ppb	0.37
Ca	44	45	HMI He	28771.98	ppb	3.21
V	51	72	HMI He	122269.02	ppb	0.45
Cr	52	72	HMI He	157107.37	ppb	0.94
Mn	55	72	HMI He	54908.63	ppb	1.21
Fe	57	72	HMI He	289747.86	ppb	1.31
Co	59	72	HMI He	289021.59	ppb	0.93
Ni	60	72	HMI He	82387.04	ppb	1.67
Cu	63	72	HMI He	230691.17	ppb	0.58
Zn	66	72	HMI He	30528.90	ppb	0.80
As	75	72	HMI He	22350.03	ppb	1.71
Sr	88	45	HMI He	56422.84	ppb	0.39
Zr	90	72	HMI He	1216.73	ppb	14.73
Nb	93	72	HMI He	862262.25	ppb	0.29
Mo	95	115	HMI He	105478.08	ppb	2.44
Pd	105	115	HMI He	161216.18	ppb	0.57
Ag	107	115	HMI He	359271.71	ppb	0.83
Cd	111	115	HMI He	42861.73	ppb	2.26
Sn	120	115	HMI He	106585.75	ppb	0.68
Sb	121	115	HMI He	99458.47	ppb	3.33
Ba	137	115	HMI He	30770.75	ppb	3.49
W	182	165	HMI He	435732.82	ppb	2.06
Pt	195	165	HMI He	353306.59	ppb	1.25
Tl	205	165	HMI He	748271.00	ppb	0.63
Pb	208	165	HMI He	970977.20	ppb	0.87
Th	232	165	HMI He	1076396.23	ppb	2.10
U	238	165	HMI He	1134023.95	ppb	0.99
Li	7	45	No Gas	35407957.74	ppb	1.64

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	788669.55	5.22	799595.296666667	98.63	60	125	
Ge Internal Standard	72	HMI H2	15571616.38	0.64	15586986.6866667	99.9	60	125	
Sc (IS)	45	HMI He	893439.61	0.74	907670.65	98.43	60	125	
Ge Internal Standard	72	HMI He	1183588.05	0.69	1221817.51333333	96.87	60	125	
In Internal standard	115	HMI He	3184657.31	1.42	3292036.66666667	96.74	60	125	
Ho-165	165	HMI He	15519391.07	2.58	15862929.38	97.83	60	125	
Sc IS)	45	No Gas	100555523.09	0.17	103504237.933333	97.15	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	137_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:34:13 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	499.052	ppb	2.41	278925.56	500	99.81	90	110	
Be	9	6	HMI H2	52.392	ppb	5.33	20896.21	50	104.78	90	110	
B	11	6	HMI H2	40.089	ppb	2.52	21880.95	50	80.18	90	110	>+\-10%
Se	78	72	HMI H2	51.686	ppb	2.41	19247.53	50	103.37	90	110	
Na	23	45	HMI He	4807.169	ppb	1.33	1085077.81	5000	96.14	90	110	
Mg	24	45	HMI He	5097.701	ppb	2.34	469197.29	5000	101.95	90	110	
Al	27	45	HMI He	4992.669	ppb	2.19	106315.27	5000	99.85	90	110	
K	39	45	HMI He	4920.707	ppb	1.54	281251.07	5000	98.41	90	110	
Ca	44	45	HMI He	4839.591	ppb	4.19	13815.94	5000	96.79	90	110	
V	51	72	HMI He	50.112	ppb	2.39	62879.92	50	100.22	90	110	
Cr	52	72	HMI He	50.124	ppb	2.08	79793.17	50	100.25	90	110	
Mn	55	72	HMI He	51.494	ppb	0.51	28635.18	50	102.99	90	110	
Fe	57	72	HMI He	4861.873	ppb	2.26	142562.94	5000	97.24	90	110	
Co	59	72	HMI He	49.845	ppb	0.32	145771.95	50	99.69	90	110	
Ni	60	72	HMI He	49.272	ppb	3.95	41840.46	50	98.54	90	110	
Cu	63	72	HMI He	48.965	ppb	2.31	115443.64	50	97.93	90	110	
Zn	66	72	HMI He	50.509	ppb	2.51	15851.23	50	101.02	90	110	
As	75	72	HMI He	48.961	ppb	2.90	11081.59	50	97.92	90	110	
Sr	88	45	HMI He	50.138	ppb	2.56	28004.89	50	100.28	90	110	
Zr	90	72	HMI He	31.604	ppb	23.63	466.68	50	63.21	90	110	>+\-10%
Nb	93	72	HMI He	100.435	ppb	2.95	438080.41	100	100.44	90	110	
Mo	95	115	HMI He	49.581	ppb	4.20	52479.92	50	99.16	90	110	
Pd	105	115	HMI He	51.814	ppb	3.01	83825.07	50	103.63	90	110	
Ag	107	115	HMI He	50.159	ppb	1.94	180799.30	50	100.32	90	110	
Cd	111	115	HMI He	49.085	ppb	1.74	21107.68	50	98.17	90	110	
Sn	120	115	HMI He	51.096	ppb	2.29	54936.57	50	102.19	90	110	
Sb	121	115	HMI He	50.148	ppb	3.23	50030.05	50	100.3	90	110	
Ba	137	115	HMI He	49.409	ppb	2.88	15261.07	50	98.82	90	110	
W	182	165	HMI He	48.491	ppb	2.72	214984.67	50	96.98	90	110	
Pt	195	165	HMI He	49.420	ppb	3.25	177269.46	50	98.84	90	110	
Tl	205	165	HMI He	49.493	ppb	0.72	376079.18	50	98.99	90	110	
Pb	208	165	HMI He	50.381	ppb	2.87	497302.50	50	100.76	90	110	
Th	232	165	HMI He	48.714	ppb	3.36	532314.82	50	97.43	90	110	
U	238	165	HMI He	50.429	ppb	2.69	580609.95	50	100.86	90	110	
Li	7	45	No Gas	520.571	ppb	4.07	22609827.16	500	104.11	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	783971.17	2.76	799595.296666667	98.05	60	125	
Ge Internal Standard	72	HMI H2	15539462.21	1.06	15586986.6866667	99.7	60	125	
Sc (IS)	45	HMI He	884158.75	1.05	907670.65	97.41	60	125	
Ge Internal Standard	72	HMI He	1197629.29	1.92	1221817.51333333	98.02	60	125	
In Internal standard	115	HMI He	3195365.92	2.49	3292036.66666667	97.06	60	125	
Ho-165	165	HMI He	15752993.66	2.53	15862929.38	99.31	60	125	
Sc IS)	45	No Gas	99786819.79	1.02	103504237.933333	96.41	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	138_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:37:43 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	8.220	ppb	10.05	119571.18	0.1	>RL
Be	9	6	HMI H2	0.082	ppb	32.97	38.33	0.5	
B	11	6	HMI H2	1.499	ppb	30.66	1886.79	0.1	>RL
Se	78	72	HMI H2	0.022	ppb	203.58	49.33	1	
Na	23	45	HMI He	-19.997	ppb	-6.36	22425.20	25	
Mg	24	45	HMI He	4.971	ppb	14.02	856.71	25	
Al	27	45	HMI He	5.219	ppb	87.10	203.34	15	
K	39	45	HMI He	18.183	ppb	73.73	30955.78	50	
Ca	44	45	HMI He	-4.315	ppb	-207.93	66.67	25	
V	51	72	HMI He	0.208	ppb	119.63	1993.48	1	
Cr	52	72	HMI He	-0.004	ppb	-995.66	250.01	1	
Mn	55	72	HMI He	0.086	ppb	52.44	103.33	0.5	
Fe	57	72	HMI He	2.929	ppb	48.57	176.67	25	
Co	59	72	HMI He	0.006	ppb	68.84	23.33	0.5	
Ni	60	72	HMI He	-1.432	ppb	-3.86	373.34	1	
Cu	63	72	HMI He	-0.331	ppb	-5.71	1510.08	1	
Zn	66	72	HMI He	-0.058	ppb	-485.98	476.68	5	
As	75	72	HMI He	-0.003	ppb	-1339.94	24.18	1	
Sr	88	45	HMI He	0.077	ppb	57.82	63.33	1	
Zr	90	72	HMI He	0.844	ppb	163.36	123.33	1	
Nb	93	72	HMI He	0.378	ppb	18.18	1783.46	2	
Mo	95	115	HMI He	0.095	ppb	18.85	140.00	0.5	
Pd	105	115	HMI He	0.041	ppb	109.03	126.67	1	
Ag	107	115	HMI He	0.011	ppb	80.74	63.33	1	
Cd	111	115	HMI He	0.009	ppb	301.01	13.33	0.5	
Sn	120	115	HMI He	-0.361	ppb	-30.89	233.34	1	
Sb	121	115	HMI He	0.955	ppb	13.92	980.05	1	
Ba	137	115	HMI He	0.057	ppb	86.99	33.33	0.5	
W	182	165	HMI He	0.055	ppb	4.35	1210.06	1	
Pt	195	165	HMI He	0.030	ppb	52.29	193.34	1	
Tl	205	165	HMI He	0.027	ppb	52.92	303.34	0.1	
Pb	208	165	HMI He	0.341	ppb	5.22	4543.68	0.5	
Th	232	165	HMI He	0.016	ppb	43.85	346.68	1	
U	238	165	HMI He	0.010	ppb	9.44	183.34	0.5	
Li	7	45	No Gas	7.549	ppb	84.69	9179869.00	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	800426.31	2.17	799595.296666667	100.1	60	125	
Ge Internal Standard	72	HMI H2	15499338.36	0.68	15586986.6866667	99.44	60	125	
Sc (IS)	45	HMI He	894035.80	1.53	907670.65	98.5	60	125	
Ge Internal Standard	72	HMI He	1193050.73	0.12	1221817.51333333	97.65	60	125	
In Internal standard	115	HMI He	3148665.55	1.32	3292036.66666667	95.64	60	125	
Ho-165	165	HMI He	15057661.61	1.52	15862929.38	94.92	60	125	
Sc IS)	45	No Gas	99447395.65	0.80	103504237.933333	96.08	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	139LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:41:14 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.099	ppb	18.55	453.34	1	109.85	70	130	
Se	78	72	HMI H2	4.787	ppb	11.52	1820.11	5	95.74	70	130	
Na	23	45	HMI He	-1.207	ppb	-206.51	26851.67	50	-2.41	70	130	>+/-30%
Mg	24	45	HMI He	50.883	ppb	4.73	5170.87	50	101.77	70	130	
Al	27	45	HMI He	25.202	ppb	15.14	640.02	30	84.01	70	130	
K	39	45	HMI He	126.009	ppb	17.39	36847.71	100	126.01	70	130	
Ca	44	45	HMI He	51.813	ppb	6.68	230.00	50	103.63	70	130	
V	51	72	HMI He	5.038	ppb	5.51	8042.06	5	100.77	70	130	
Cr	52	72	HMI He	2.015	ppb	9.15	3520.42	2	100.73	70	130	
Mn	55	72	HMI He	1.185	ppb	7.71	726.69	1	118.46	70	130	
Fe	57	72	HMI He	47.675	ppb	16.38	1516.75	50	95.35	70	130	
Co	59	72	HMI He	1.068	ppb	6.85	3190.35	1	106.84	70	130	
Ni	60	72	HMI He	0.613	ppb	10.74	2086.82	2	30.65	70	130	>+/-30%
Cu	63	72	HMI He	1.787	ppb	9.83	6534.72	2	89.37	70	130	
Zn	66	72	HMI He	9.553	ppb	4.45	3463.76	10	95.53	70	130	
As	75	72	HMI He	5.021	ppb	5.83	1181.09	5	100.42	70	130	
Sr	88	45	HMI He	0.745	ppb	27.62	443.34	1	74.51	70	130	
Zr	90	72	HMI He	76.169	ppb	5.57	983.38	0.5	15233.76	70	130	>+/-30%
Nb	93	72	HMI He	0.396	ppb	9.50	1906.81	2	19.81	70	130	>+/-30%
Mo	95	115	HMI He	1.918	ppb	14.01	2173.51	2	95.88	70	130	
Pd	105	115	HMI He	0.027	ppb	99.03	110.00	1	2.66	70	130	>+/-30%
Ag	107	115	HMI He	4.796	ppb	3.69	18197.34	5	95.92	70	130	
Cd	111	115	HMI He	0.961	ppb	28.19	443.35	1	96.11	70	130	
Sn	120	115	HMI He	9.466	ppb	6.51	11224.16	10	94.66	70	130	
Sb	121	115	HMI He	2.342	ppb	9.09	2496.90	2	117.12	70	130	
Ba	137	115	HMI He	0.958	ppb	42.30	326.67	1	95.8	70	130	
W	182	165	HMI He	4.973	ppb	3.01	22864.50	1	497.28	70	130	>+/-30%
Pt	195	165	HMI He	0.022	ppb	42.21	173.33	1	2.19	70	130	>+/-30%
Tl	205	165	HMI He	1.031	ppb	8.90	7898.87	1	103.14	70	130	
Pb	208	165	HMI He	1.106	ppb	4.99	12218.86	1	110.56	70	130	
Th	232	165	HMI He	2.020	ppb	1.21	22147.20	2	101.01	70	130	
U	238	165	HMI He	1.004	ppb	3.94	11571.44	1	100.39	70	130	
Li	7	45	No Gas	16.190	ppb	32.70	9501003.77	50	32.38	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	801957.97	1.80	799595.296666667	100.3	60	125	
Ge Internal Standard	72	HMI H2	15546279.92	2.18	15586986.6866667	99.74	60	125	
Sc (IS)	45	HMI He	901906.93	1.53	907670.65	99.36	60	125	
Ge Internal Standard	72	HMI He	1220254.60	0.20	1221817.51333333	99.87	60	125	
In Internal standard	115	HMI He	3358811.28	1.77	3292036.66666667	102.03	60	125	
Ho-165	165	HMI He	15672820.95	1.50	15862929.38	98.8	60	125	
Sc IS)	45	No Gas	100473433.93	1.74	103504237.933333	97.07	60	120	

CRI Report

Sample Name	CRI-4906831
File Name	140RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:44:43 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	Mn
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.004	ppb	738.08	6.67	1	0.38	80	120	>+\-20%
Se	78	72	HMI H2	-0.015	ppb	-190.68	36.00	1	-1.51	80	120	>+\-20%
Na	23	45	HMI He	-9.816	ppb	-35.27	24544.80	100	-9.82	80	120	>+\-20%
Mg	24	45	HMI He	-1.287	ppb	-34.80	273.34	100	-1.29	80	120	>+\-20%
Al	27	45	HMI He	-1.151	ppb	-24.35	66.67	100	-1.15	80	120	>+\-20%
K	39	45	HMI He	61.471	ppb	23.69	32996.59	100	61.47	80	120	>+\-20%
Ca	44	45	HMI He	-1.926	ppb	-634.42	73.33	100	-1.93	80	120	>+\-20%
V	51	72	HMI He	0.238	ppb	97.74	2040.15	1	23.75	80	120	>+\-20%
Cr	52	72	HMI He	0.006	ppb	1253.75	266.67	1	0.56	80	120	>+\-20%
Mn	55	72	HMI He	1.411	ppb	9.81	840.03	1	141.11	80	120	>+\-20%
Fe	57	72	HMI He	-0.168	ppb	-650.32	86.67	100	-0.17	80	120	>+\-20%
Co	59	72	HMI He	0.015	ppb	62.04	50.00	1	1.49	80	120	>+\-20%
Ni	60	72	HMI He	-0.092	ppb	-58.78	1473.42	1	-9.18	80	120	>+\-20%
Cu	63	72	HMI He	-0.218	ppb	-21.45	1780.12	1	-21.78	80	120	>+\-20%
Zn	66	72	HMI He	-0.003	ppb	-17920.33	496.68	1	-0.28	80	120	>+\-20%
As	75	72	HMI He	0.020	ppb	119.66	29.41	1	1.95	80	120	>+\-20%
Sr	88	45	HMI He	0.031	ppb	178.92	36.67	1	3.06	80	120	>+\-20%
Nb	93	72	HMI He	0.024	ppb	79.82	246.67	2	1.19	80	120	>+\-20%
Mo	95	115	HMI He	-0.027	ppb	-52.54	13.33	1	-2.73	80	120	>+\-20%
Pd	105	115	HMI He	0.004	ppb	133.86	70.00	1	0.39	80	120	>+\-20%
Ag	107	115	HMI He	0.000	ppb	34746.58	26.67	1	0	80	120	>+\-20%
Cd	111	115	HMI He	0.001	ppb	2923.95	10.00	1	0.08	80	120	>+\-20%
Sn	120	115	HMI He	-0.386	ppb	-20.83	213.34	1	-38.61	80	120	>+\-20%
Sb	121	115	HMI He	0.097	ppb	79.19	140.00	1	9.65	80	120	>+\-20%
Ba	137	115	HMI He	-0.042	ppb	-44.17	3.33	1	-4.19	80	120	>+\-20%
W	182	165	HMI He	-0.011	ppb	-399.43	963.38	1	-1.06	80	120	>+\-20%
Pt	195	165	HMI He	-0.005	ppb	-157.78	76.67	1	-0.49	80	120	>+\-20%
Tl	205	165	HMI He	-0.002	ppb	-567.32	93.33	1	-0.17	80	120	>+\-20%
Pb	208	165	HMI He	-0.014	ppb	-135.38	1236.71	1	-1.4	80	120	>+\-20%
Th	232	165	HMI He	0.008	ppb	139.61	263.34	1	0.8	80	120	>+\-20%
U	238	165	HMI He	0.000	ppb	-77.11	66.67	1	-0.04	80	120	>+\-20%
Li	7	45	No Gas	-0.005	ppb	-86985.49	9220037.65	10	-0.05	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	798916.85	1.51	799595.296666667	99.92	60	125	
Ge Internal Standard	72	HMI H2	15744623.97	0.91	15586986.6866667	101.01	60	125	
Sc (IS)	45	HMI He	888532.76	0.37	907670.65	97.89	60	125	
Ge Internal Standard	72	HMI He	1199100.87	0.97	1221817.51333333	98.14	60	125	
In Internal standard	115	HMI He	3271750.20	2.48	3292036.66666667	99.38	60	125	
Ho-165	165	HMI He	15502293.67	3.19	15862929.38	97.73	60	125	
Sc IS)	45	No Gas	102069928.85	1.19	103504237.933333	98.61	60	120	

Interference Check Solution A (ICS-A) Report

Sample Name	ICSA-4905066
File Name	141ICSA.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:48:15 PM
Sample Type	ICSA
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	-21.075	ppb	-16.86	107728.86			100	
Be	9	6	HMI H2	0.001	ppb	1011.65	5.00			100	
B	11	6	HMI H2	0.317	ppb	58.05	1133.39			100	
Se	78	72	HMI H2	0.342	ppb	12.36	161.33			100	
V	51	72	HMI He	-0.298	ppb	-58.04	1296.74			100	
Cr	52	72	HMI He	1.373	ppb	11.46	2280.19			100	>RL or LOD
Mn	55	72	HMI He	0.330	ppb	24.15	223.34			100	
Co	59	72	HMI He	0.014	ppb	55.66	43.33			100	
Ni	60	72	HMI He	-1.280	ppb	-9.20	466.68			100	
Cu	63	72	HMI He	0.616	ppb	13.58	3467.08			100	
Zn	66	72	HMI He	0.433	ppb	58.13	586.68			100	
As	75	72	HMI He	0.140	ppb	69.43	52.94			100	
Sr	88	45	HMI He	0.962	ppb	17.66	520.01			100	
Nb	93	72	HMI He	0.037	ppb	82.11	286.67			100	
Mo	95	115	HMI He	2000.774	ppb	1.26	1999592.87			100	>RL or LOD
Pd	105	115	HMI He	0.012	ppb	161.55	76.67			100	
Ag	107	115	HMI He	0.019	ppb	70.54	90.00			100	
Cd	111	115	HMI He	0.142	ppb	66.41	66.67			100	
Sn	120	115	HMI He	-0.278	ppb	-25.26	306.68			100	
Sb	121	115	HMI He	0.213	ppb	18.59	240.00			100	
Ba	137	115	HMI He	0.142	ppb	60.92	56.67			100	
W	182	165	HMI He	0.200	ppb	20.02	1830.13			100	
Pt	195	165	HMI He	-0.008	ppb	-109.43	63.33			100	
Tl	205	165	HMI He	0.004	ppb	132.23	133.33			100	
Pb	208	165	HMI He	0.038	ppb	24.93	1706.73			100	
Th	232	165	HMI He	0.020	ppb	18.70	380.01			100	
U	238	165	HMI He	0.008	ppb	24.85	160.00			100	
Li	7	45	No Gas	-13.248	ppb	-22.67	8328696.86			100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	718509.72	0.36	799595.296666667	89.86	60	125	
Ge Internal Standard	72	HMI H2	14862049.02	3.14	15586986.6866667	95.35	60	125	

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc (IS)	45	HMI He	828468.75	2.51	907670.65	91.27	60	125	
Ge Internal Standard	72	HMI He	1120248.54	1.07	1221817.51333333	91.69	60	125	
In Internal standard	115	HMI He	3018002.48	0.90	3292036.66666667	91.68	60	125	
Ho-165	165	HMI He	15145531.71	3.36	15862929.38	95.48	60	125	
Sc IS)	45	No Gas	95881609.17	1.42	103504237.933333	92.64	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Name	ICSAB-4905067
File Name	142ICSB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:51:44 PM
Sample Type	ICSB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	937.610	ppb	4.78	400155.40	100	80	120	
Be	9	6	HMI H2	104.306	ppb	1.32	37384.22	100	80	120	
B	11	6	HMI H2	68.515	ppb	2.70	32895.44	100	80	120	>+\-20%
Se	78	72	HMI H2	100.864	ppb	1.49	35086.10	100	80	120	
V	51	72	HMI He	98.359	ppb	1.46	113884.86	100	80	120	
Cr	52	72	HMI He	97.671	ppb	1.15	145280.39	100	80	120	
Mn	55	72	HMI He	97.891	ppb	2.03	50892.33	100	80	120	
Co	59	72	HMI He	96.181	ppb	0.63	263181.94	100	80	120	
Ni	60	72	HMI He	94.574	ppb	2.69	73836.43	100	80	120	
Cu	63	72	HMI He	96.684	ppb	2.16	211233.52	100	80	120	
Zn	66	72	HMI He	95.562	ppb	2.22	27640.44	100	80	120	
As	75	72	HMI He	96.648	ppb	1.78	20452.10	100	80	120	
Sr	88	45	HMI He	97.741	ppb	1.39	51726.91	100	80	120	
Zr	90	72	HMI He	14.635	ppb	5.37	260.01	100	80	120	>+\-20%
Nb	93	72	HMI He	165.941	ppb	2.05	677314.38	100	80	120	
Mo	95	115	HMI He	2120.670	ppb	2.20	2156412.60	100	80	120	
Pd	105	115	HMI He	90.445	ppb	1.36	140642.46	100	80	120	
Ag	107	115	HMI He	93.022	ppb	2.83	322319.63	100	80	120	
Cd	111	115	HMI He	96.040	ppb	3.84	39676.89	100	80	120	
Sn	120	115	HMI He	96.780	ppb	4.44	99468.65	100	80	120	
Sb	121	115	HMI He	101.373	ppb	5.07	97154.39	100	80	120	
Ba	137	115	HMI He	100.391	ppb	5.52	29785.85	100	80	120	
W	182	165	HMI He	96.685	ppb	2.21	407497.11	100	80	120	
Pt	195	165	HMI He	93.013	ppb	5.11	317617.89	100	80	120	
Tl	205	165	HMI He	95.731	ppb	3.61	692785.85	100	80	120	
Pb	208	165	HMI He	97.664	ppb	4.80	916732.08	100	80	120	
Th	232	165	HMI He	97.486	ppb	2.62	1015022.12	100	80	120	
U	238	165	HMI He	98.711	ppb	3.87	1082399.46	100	80	120	
Li	7	45	No Gas	923.840	ppb	0.55	31280919.41	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	703866.13	0.61	799595.296666667	88.03	60	125	
Ge Internal Standard	72	HMI H2	14531911.01	1.72	15586986.6866667	93.23	60	125	
Sc (IS)	45	HMI He	837919.91	1.80	907670.65	92.32	60	125	
Ge Internal Standard	72	HMI He	1120581.02	0.70	1221817.51333333	91.71	60	125	
In Internal standard	115	HMI He	3071458.50	2.13	3292036.66666667	93.3	60	125	
Ho-165	165	HMI He	15013398.70	4.12	15862929.38	94.64	60	125	
Sc IS)	45	No Gas	94167581.76	0.86	103504237.933333	90.98	60	120	

Sample Report

Sample Name	RINSE
File Name	143SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:55:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.070	ppb	78.07	46.67	2000	
B	11	6	HMI H2	-0.314	ppb	-52.13	1306.73	100	
Se	78	72	HMI H2	0.253	ppb	24.31	176.00	2000	
Na	23	45	HMI He	0.644	ppb	4202.44	37829.73	400000	
Mg	24	45	HMI He	58.321	ppb	60.23	8069.14	400000	
Al	27	45	HMI He	70.048	ppb	53.91	2220.20	400000	
K	39	45	HMI He	-189.467	ppb	-25.92	28394.77	400000	
Ca	44	45	HMI He	43.662	ppb	56.90	286.67	400000	
V	51	72	HMI He	-0.778	ppb	-18.04	1206.73	2000	
Cr	52	72	HMI He	-0.007	ppb	-689.39	366.68	5000	
Mn	55	72	HMI He	0.066	ppb	128.33	136.67	10000	
Fe	57	72	HMI He	72.437	ppb	67.43	3290.47	400000	
Co	59	72	HMI He	0.063	ppb	56.50	286.68	2000	
Ni	60	72	HMI He	-1.458	ppb	-8.32	530.02	5000	
Cu	63	72	HMI He	-0.191	ppb	-166.33	2716.97	5000	
Zn	66	72	HMI He	-0.786	ppb	-23.16	386.68	5000	
As	75	72	HMI He	-0.030	ppb	-111.16	26.80	2000	
Sr	88	45	HMI He	0.068	ppb	90.86	80.00	2000	
Zr	90	72	HMI He	3.890	ppb	104.99	236.67	1000	
Nb	93	72	HMI He	0.497	ppb	27.28	3443.77	200	
Mo	95	115	HMI He	1.687	ppb	48.75	2546.93	2000	
Pd	105	115	HMI He	0.140	ppb	26.47	406.68	100	
Ag	107	115	HMI He	0.039	ppb	70.59	236.67	100	
Cd	111	115	HMI He	0.041	ppb	135.22	36.67	2000	
Sn	120	115	HMI He	-0.333	ppb	-16.49	376.68	2000	
Sb	121	115	HMI He	0.122	ppb	28.09	230.01	1000	
Ba	137	115	HMI He	0.040	ppb	111.11	40.00	5000	
W	182	165	HMI He	0.252	ppb	15.88	3047.02	100	
Pt	195	165	HMI He	0.024	ppb	132.42	263.34	100	
Tl	205	165	HMI He	0.092	ppb	46.64	1133.40	2000	
Pb	208	165	HMI He	0.016	ppb	192.01	2206.76	5000	
Th	232	165	HMI He	0.080	ppb	42.75	1520.13	2000	
U	238	165	HMI He	0.045	ppb	94.94	846.71	2000	
Li	7	45	No Gas	21.324	ppb	16.01	15657679.91	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1128164.74	3.48	799595.296666667	141.09	60	125	IS Failed
Ge Internal Standard	72	HMI H2	20259131.44	0.49	15586986.6866667	129.97	60	125	IS Failed
Sc (IS)	45	HMI He	1260731.99	6.03	907670.65	138.9	60	125	IS Failed
Ge Internal Standard	72	HMI He	1799727.47	6.51	1221817.51333333	147.3	60	125	IS Failed
In Internal standard	115	HMI He	4545649.62	8.89	3292036.66666667	138.08	60	125	IS Failed
Ho-165	165	HMI He	22534220.07	7.42	15862929.38	142.06	60	125	IS Failed
Sc IS)	45	No Gas	163266141.49	5.34	103504237.933333	157.74	60	120	IS Failed

CRI Report

Sample Name	CRI-4906831
File Name	144RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 6:59:00 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	Mn
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.025	ppb	2.30	15.00	1	2.5	80	120	>+\-20%
Se	78	72	HMI H2	0.025	ppb	128.56	53.33	1	2.55	80	120	>+\-20%
Na	23	45	HMI He	-40.273	ppb	-9.66	18567.11	100	-40.27	80	120	>+\-20%
Mg	24	45	HMI He	0.075	ppb	1563.39	416.68	100	0.07	80	120	>+\-20%
Al	27	45	HMI He	-0.991	ppb	-127.45	73.33	100	-0.99	80	120	>+\-20%
K	39	45	HMI He	53.431	ppb	85.24	33978.46	100	53.43	80	120	>+\-20%
Ca	44	45	HMI He	-17.545	ppb	-18.75	30.00	100	-17.54	80	120	>+\-20%
V	51	72	HMI He	0.120	ppb	83.19	1980.15	1	11.96	80	120	>+\-20%
Cr	52	72	HMI He	-0.002	ppb	-1276.70	266.67	1	-0.16	80	120	>+\-20%
Mn	55	72	HMI He	1.323	ppb	14.76	826.70	1	132.33	80	120	>+\-20%
Fe	57	72	HMI He	0.584	ppb	258.33	113.33	100	0.58	80	120	>+\-20%
Co	59	72	HMI He	0.000	ppb	-3300.52	6.67	1	-0.01	80	120	>+\-20%
Ni	60	72	HMI He	-1.473	ppb	-8.57	356.67	1	-147.29	80	120	>+\-20%
Cu	63	72	HMI He	-0.531	ppb	-12.69	1103.39	1	-53.09	80	120	>+\-20%
Zn	66	72	HMI He	-0.427	ppb	-63.18	383.35	1	-42.73	80	120	>+\-20%
As	75	72	HMI He	0.014	ppb	314.69	29.41	1	1.45	80	120	>+\-20%
Sr	88	45	HMI He	0.034	ppb	176.63	40.00	1	3.36	80	120	>+\-20%
Nb	93	72	HMI He	0.186	ppb	25.92	1000.05	2	9.3	80	120	>+\-20%
Mo	95	115	HMI He	0.250	ppb	17.50	323.34	1	24.98	80	120	>+\-20%
Pd	105	115	HMI He	0.012	ppb	121.03	86.67	1	1.24	80	120	>+\-20%
Ag	107	115	HMI He	-0.003	ppb	-142.96	16.67	1	-0.28	80	120	>+\-20%
Cd	111	115	HMI He	-0.015	ppb	-86.47	3.33	1	-1.48	80	120	>+\-20%
Sn	120	115	HMI He	-0.411	ppb	-9.49	193.34	1	-41.09	80	120	>+\-20%
Sb	121	115	HMI He	0.078	ppb	68.20	126.67	1	7.83	80	120	>+\-20%
Ba	137	115	HMI He	-0.002	ppb	-2740.07	16.67	1	-0.17	80	120	>+\-20%
W	182	165	HMI He	-0.014	ppb	-246.62	966.71	1	-1.42	80	120	>+\-20%
Pt	195	165	HMI He	-0.014	ppb	-10.83	46.67	1	-1.39	80	120	>+\-20%
Tl	205	165	HMI He	0.007	ppb	144.58	163.33	1	0.71	80	120	>+\-20%
Pb	208	165	HMI He	-0.020	ppb	-20.84	1203.37	1	-2.05	80	120	>+\-20%
Th	232	165	HMI He	0.000	ppb	1616.17	186.67	1	0.04	80	120	>+\-20%
U	238	165	HMI He	-0.001	ppb	-301.08	66.67	1	-0.06	80	120	>+\-20%
Li	7	45	No Gas	-5.454	ppb	-138.72	9141986.61	10	-54.54	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789456.79	1.54	799595.296666667	98.73	60	125	
Ge Internal Standard	72	HMI H2	16300791.13	2.76	15586986.6866667	104.58	60	125	
Sc (IS)	45	HMI He	926639.55	1.30	907670.65	102.09	60	125	
Ge Internal Standard	72	HMI He	1252031.54	1.57	1221817.51333333	102.47	60	125	
In Internal standard	115	HMI He	3375108.11	0.80	3292036.66666667	102.52	60	125	
Ho-165	165	HMI He	15838444.80	1.57	15862929.38	99.85	60	125	
Sc IS)	45	No Gas	102844208.80	1.69	103504237.933333	99.36	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	145_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:02:30 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	455.217	ppb	1.80	278918.85	500	91.04	90	110	
Be	9	6	HMI H2	54.863	ppb	0.87	20964.67	50	109.73	90	110	
B	11	6	HMI H2	42.265	ppb	1.58	22024.59	50	84.53	90	110	>+\-10%
Se	78	72	HMI H2	48.790	ppb	1.86	18904.47	50	97.58	90	110	
Na	23	45	HMI He	4635.245	ppb	1.71	1090909.79	5000	92.7	90	110	
Mg	24	45	HMI He	4834.410	ppb	2.87	463518.14	5000	96.69	90	110	
Al	27	45	HMI He	4799.653	ppb	1.77	106489.88	5000	95.99	90	110	
K	39	45	HMI He	4849.281	ppb	0.72	289225.12	5000	96.99	90	110	
Ca	44	45	HMI He	4711.132	ppb	1.76	14016.13	5000	94.22	90	110	
V	51	72	HMI He	48.839	ppb	1.93	62997.14	50	97.68	90	110	
Cr	52	72	HMI He	50.303	ppb	1.15	82285.65	50	100.61	90	110	
Mn	55	72	HMI He	49.616	ppb	2.79	28348.11	50	99.23	90	110	
Fe	57	72	HMI He	4746.612	ppb	1.23	143012.27	5000	94.93	90	110	
Co	59	72	HMI He	49.033	ppb	1.27	147322.13	50	98.07	90	110	
Ni	60	72	HMI He	48.651	ppb	0.68	42478.71	50	97.3	90	110	
Cu	63	72	HMI He	48.872	ppb	1.68	118394.22	50	97.74	90	110	
Zn	66	72	HMI He	49.080	ppb	7.33	15834.56	50	98.16	90	110	
As	75	72	HMI He	48.536	ppb	0.73	11289.56	50	97.07	90	110	
Sr	88	45	HMI He	50.196	ppb	4.80	29200.17	50	100.39	90	110	
Zr	90	72	HMI He	26.671	ppb	30.78	423.34	50	53.34	90	110	>+\-10%
Nb	93	72	HMI He	96.339	ppb	0.63	431827.21	100	96.34	90	110	
Mo	95	115	HMI He	47.677	ppb	2.42	52212.29	50	95.35	90	110	
Pd	105	115	HMI He	49.581	ppb	1.77	82977.53	50	99.16	90	110	
Ag	107	115	HMI He	49.200	ppb	0.50	183453.08	50	98.4	90	110	
Cd	111	115	HMI He	50.041	ppb	2.32	22255.95	50	100.08	90	110	
Sn	120	115	HMI He	50.645	ppb	1.23	56331.65	50	101.29	90	110	
Sb	121	115	HMI He	47.993	ppb	1.44	49538.65	50	95.99	90	110	
Ba	137	115	HMI He	50.132	ppb	3.22	16018.49	50	100.26	90	110	
W	182	165	HMI He	47.351	ppb	2.39	211110.10	50	94.7	90	110	
Pt	195	165	HMI He	48.054	ppb	5.58	173197.52	50	96.11	90	110	
Tl	205	165	HMI He	49.128	ppb	2.11	375267.73	50	98.26	90	110	
Pb	208	165	HMI He	49.687	ppb	5.17	492869.69	50	99.37	90	110	
Th	232	165	HMI He	48.729	ppb	4.91	535147.08	50	97.46	90	110	
U	238	165	HMI He	49.105	ppb	2.86	568418.53	50	98.21	90	110	
Li	7	45	No Gas	502.998	ppb	5.05	22661515.90	500	100.6	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	750363.52	0.83	799595.296666667	93.84	60	125	
Ge Internal Standard	72	HMI H2	16165849.16	0.50	15586986.6866667	103.71	60	125	
Sc (IS)	45	HMI He	921057.27	1.06	907670.65	101.47	60	125	
Ge Internal Standard	72	HMI He	1230323.46	0.51	1221817.51333333	100.7	60	125	
In Internal standard	115	HMI He	3304384.34	0.75	3292036.66666667	100.38	60	125	
Ho-165	165	HMI He	15842629.70	3.88	15862929.38	99.87	60	125	
Sc IS)	45	No Gas	102121298.84	2.51	103504237.933333	98.66	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	146_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:06:00 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-7.717	ppb	-48.15	115130.09	0.1	
Be	9	6	HMI H2	0.059	ppb	75.29	28.33	0.5	
B	11	6	HMI H2	0.380	ppb	26.64	1270.07	0.1	>RL
Se	78	72	HMI H2	0.017	ppb	351.05	48.00	1	
Na	23	45	HMI He	-60.329	ppb	-3.72	13652.31	25	
Mg	24	45	HMI He	-0.295	ppb	-444.86	373.34	25	
Al	27	45	HMI He	-2.137	ppb	-75.01	46.67	15	
K	39	45	HMI He	26.785	ppb	83.82	31887.63	50	
Ca	44	45	HMI He	-21.906	ppb	-23.88	16.67	25	
V	51	72	HMI He	0.377	ppb	28.96	2266.85	1	
Cr	52	72	HMI He	-0.038	ppb	-106.50	203.33	1	
Mn	55	72	HMI He	0.040	ppb	191.49	80.00	0.5	
Fe	57	72	HMI He	-0.019	ppb	-4425.58	93.33	25	
Co	59	72	HMI He	0.009	ppb	57.88	33.33	0.5	
Ni	60	72	HMI He	-1.390	ppb	-9.08	420.01	1	
Cu	63	72	HMI He	-0.506	ppb	-22.93	1140.06	1	
Zn	66	72	HMI He	-0.851	ppb	-17.37	243.34	5	
As	75	72	HMI He	0.025	ppb	181.88	31.37	1	
Sr	88	45	HMI He	-0.006	ppb	-447.86	16.67	1	
Zr	90	72	HMI He	-2.397	ppb	-70.93	90.00	1	
Nb	93	72	HMI He	0.368	ppb	13.74	1793.46	2	
Mo	95	115	HMI He	0.068	ppb	143.49	116.67	0.5	
Pd	105	115	HMI He	0.064	ppb	32.46	170.00	1	
Ag	107	115	HMI He	0.009	ppb	52.37	60.00	1	
Cd	111	115	HMI He	-0.015	ppb	-91.06	3.33	0.5	
Sn	120	115	HMI He	-0.479	ppb	-8.93	113.33	1	
Sb	121	115	HMI He	0.788	ppb	4.03	846.70	1	
Ba	137	115	HMI He	-0.032	ppb	-115.47	6.67	0.5	
W	182	165	HMI He	0.030	ppb	129.99	1156.73	1	
Pt	195	165	HMI He	0.019	ppb	151.85	163.34	1	
Tl	205	165	HMI He	0.011	ppb	41.02	190.00	0.1	
Pb	208	165	HMI He	-0.013	ppb	-122.70	1266.71	0.5	
Th	232	165	HMI He	0.019	ppb	21.56	390.01	1	
U	238	165	HMI He	0.003	ppb	248.34	103.34	0.5	
Li	7	45	No Gas	-5.459	ppb	-23.63	8967493.81	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	784232.15	0.36	799595.296666667	98.08	60	125	
Ge Internal Standard	72	HMI H2	15507753.78	2.72	15586986.6866667	99.49	60	125	
Sc (IS)	45	HMI He	907701.33	0.57	907670.65	100	60	125	
Ge Internal Standard	72	HMI He	1229370.79	0.59	1221817.51333333	100.62	60	125	
In Internal standard	115	HMI He	3268315.41	0.99	3292036.66666667	99.28	60	125	
Ho-165	165	HMI He	15763846.26	1.94	15862929.38	99.38	60	125	
Sc IS)	45	No Gas	100860646.41	0.61	103504237.933333	97.45	60	120	

CRI Report

Sample Name	CRI-4906831
File Name	147RLST.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:09:30 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	Mn
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.000	ppb	3569.72	5.00	1	0.04	80	120	>+\-20%
Se	78	72	HMI H2	0.064	ppb	87.79	65.33	1	6.37	80	120	>+\-20%
Na	23	45	HMI He	-62.918	ppb	-5.46	12961.88	100	-62.92	80	120	>+\-20%
Mg	24	45	HMI He	-0.012	ppb	-7726.35	396.68	100	-0.01	80	120	>+\-20%
Al	27	45	HMI He	-2.119	ppb	-44.42	46.67	100	-2.12	80	120	>+\-20%
K	39	45	HMI He	22.173	ppb	42.93	31386.72	100	22.17	80	120	>+\-20%
Ca	44	45	HMI He	-18.419	ppb	-28.25	26.67	100	-18.42	80	120	>+\-20%
V	51	72	HMI He	0.231	ppb	62.84	2053.49	1	23.06	80	120	>+\-20%
Cr	52	72	HMI He	-0.007	ppb	-187.45	250.00	1	-0.69	80	120	>+\-20%
Mn	55	72	HMI He	1.140	ppb	15.78	696.69	1	113.96	80	120	
Fe	57	72	HMI He	-0.425	ppb	-76.20	80.00	100	-0.42	80	120	>+\-20%
Co	59	72	HMI He	0.000	ppb	82404.58	6.67	1	0	80	120	>+\-20%
Ni	60	72	HMI He	-1.467	ppb	-5.84	350.01	1	-146.74	80	120	>+\-20%
Cu	63	72	HMI He	-0.516	ppb	-13.51	1100.05	1	-51.63	80	120	>+\-20%
Zn	66	72	HMI He	-1.003	ppb	-17.80	193.34	1	-100.32	80	120	>+\-20%
As	75	72	HMI He	0.004	ppb	468.78	26.14	1	0.39	80	120	>+\-20%
Sr	88	45	HMI He	0.000	ppb	67008.12	20.00	1	0.01	80	120	>+\-20%
Nb	93	72	HMI He	0.136	ppb	37.40	743.36	2	6.78	80	120	>+\-20%
Mo	95	115	HMI He	0.043	ppb	71.98	90.00	1	4.27	80	120	>+\-20%
Pd	105	115	HMI He	0.014	ppb	198.34	86.67	1	1.35	80	120	>+\-20%
Ag	107	115	HMI He	-0.004	ppb	-45.28	13.33	1	-0.36	80	120	>+\-20%
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	1	-2.22	80	120	>+\-20%
Sn	120	115	HMI He	-0.413	ppb	-17.14	186.67	1	-41.31	80	120	>+\-20%
Sb	121	115	HMI He	0.231	ppb	15.02	280.01	1	23.14	80	120	>+\-20%
Ba	137	115	HMI He	-0.032	ppb	-57.52	6.67	1	-3.16	80	120	>+\-20%
W	182	165	HMI He	0.029	ppb	108.01	1136.73	1	2.93	80	120	>+\-20%
Pt	195	165	HMI He	-0.011	ppb	-55.86	56.67	1	-1.08	80	120	>+\-20%
Tl	205	165	HMI He	0.003	ppb	156.68	126.67	1	0.25	80	120	>+\-20%
Pb	208	165	HMI He	-0.040	ppb	-17.70	986.69	1	-4.04	80	120	>+\-20%
Th	232	165	HMI He	0.015	ppb	16.96	343.34	1	1.52	80	120	>+\-20%
U	238	165	HMI He	-0.002	ppb	-193.45	53.33	1	-0.16	80	120	>+\-20%
Li	7	45	No Gas	-8.505	ppb	-68.88	8934594.85	10	-85.05	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	770353.39	1.60	799595.296666667	96.34	60	125	
Ge Internal Standard	72	HMI H2	15594203.35	2.08	15586986.6866667	100.05	60	125	
Sc (IS)	45	HMI He	900203.03	1.04	907670.65	99.18	60	125	
Ge Internal Standard	72	HMI He	1211733.95	0.50	1221817.51333333	99.17	60	125	
In Internal standard	115	HMI He	3289478.00	2.03	3292036.66666667	99.92	60	125	
Ho-165	165	HMI He	15538955.44	1.24	15862929.38	97.96	60	125	
Sc IS)	45	No Gas	101391788.88	0.60	103504237.933333	97.96	60	120	

Blank Report

Sample Name	mb 280-399737/1-a
File Name	148_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:13:23 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-14.905	ppb	-27.35	114089.94	0.1	
Be	9	6	HMI H2	0.013	ppb	2.94	10.00	0.5	
Se	78	72	HMI H2	-0.065	ppb	-41.22	17.33	1	
Na	23	45	HMI He	-34.564	ppb	-6.13	19404.74	25	
Mg	24	45	HMI He	0.939	ppb	156.71	486.68	25	
Al	27	45	HMI He	2.325	ppb	202.24	143.34	15	
K	39	45	HMI He	16.118	ppb	162.22	31216.42	50	
Ca	44	45	HMI He	3.389	ppb	176.96	90.00	25	
V	51	72	HMI He	-0.459	ppb	-31.80	1203.40	1	
Cr	52	72	HMI He	0.039	ppb	162.29	323.34	1	
Mn	55	72	HMI He	0.089	ppb	98.87	106.67	0.5	
Fe	57	72	HMI He	1.824	ppb	46.94	146.67	25	
Co	59	72	HMI He	0.002	ppb	87.29	13.33	0.5	
Ni	60	72	HMI He	-1.355	ppb	-6.41	443.35	1	
Cu	63	72	HMI He	-0.401	ppb	-9.97	1370.08	1	
Zn	66	72	HMI He	0.212	ppb	114.19	566.69	5	
As	75	72	HMI He	-0.028	ppb	-33.29	18.96	1	
Sr	88	45	HMI He	0.052	ppb	55.71	50.00	1	
Zr	90	72	HMI He	3.633	ppb	80.77	156.67	1	>DL
Nb	93	72	HMI He	0.103	ppb	35.27	600.02	2	
Mo	95	115	HMI He	0.038	ppb	15.27	83.33	0.5	
Pd	105	115	HMI He	0.018	ppb	55.11	93.33	1	
Ag	107	115	HMI He	0.005	ppb	208.96	46.67	1	
Cd	111	115	HMI He	0.001	ppb	2988.96	10.00	0.5	
Sn	120	115	HMI He	-0.339	ppb	-14.10	263.34	1	
Sb	121	115	HMI He	0.060	ppb	52.39	103.33	1	
Ba	137	115	HMI He	0.010	ppb	814.78	20.00	0.5	
W	182	165	HMI He	0.137	ppb	150.84	1660.26	1	
Pt	195	165	HMI He	-0.006	ppb	-105.46	76.67	1	
Tl	205	165	HMI He	-0.004	ppb	-50.40	76.67	0.1	
Pb	208	165	HMI He	0.013	ppb	216.68	1533.39	0.5	
Th	232	165	HMI He	0.009	ppb	95.52	283.34	1	
U	238	165	HMI He	-0.001	ppb	-217.85	60.00	0.5	
Li	7	45	No Gas	-0.605	ppb	-1698.85	9019754.12	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	768062.36	1.52	799595.296666667	96.06	60	125	
Ge Internal Standard	72	HMI H2	15856271.88	0.62	15586986.6866667	101.73	60	125	
Sc (IS)	45	HMI He	904348.35	1.19	907670.65	99.63	60	125	
Ge Internal Standard	72	HMI He	1212125.72	0.79	1221817.51333333	99.21	60	125	
In Internal standard	115	HMI He	3253540.13	1.66	3292036.66666667	98.83	60	125	
Ho-165	165	HMI He	15905786.25	2.90	15862929.38	100.27	60	125	
Sc IS)	45	No Gas	100043557.28	1.31	103504237.933333	96.66	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399737/2-a
File Name	149_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:16:56 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	42.347	ppb	1.68	16950.17	40	105.87	80	120	
Se	78	72	HMI H2	40.053	ppb	2.84	15156.52	40	100.13	80	120	
Na	23	45	HMI He	-35.760	ppb	-8.98	19231.21	40	-89.4	80	120	>+/-20%
Mg	24	45	HMI He	0.692	ppb	46.03	466.68	40	1.73	80	120	>+/-20%
Al	27	45	HMI He	431.167	ppb	3.81	9522.78	40	1077.92	80	120	>+/-20%
K	39	45	HMI He	11.763	ppb	87.24	31132.70	40	29.41	80	120	>+/-20%
Ca	44	45	HMI He	274.379	ppb	18.12	880.04	40	685.95	80	120	>+/-20%
V	51	72	HMI He	39.443	ppb	0.35	51290.02	40	98.61	80	120	
Cr	52	72	HMI He	41.361	ppb	2.75	67786.39	40	103.4	80	120	
Mn	55	72	HMI He	40.718	ppb	1.68	23306.75	40	101.8	80	120	
Fe	57	72	HMI He	404.900	ppb	5.67	12298.09	40	1012.25	80	120	>+/-20%
Co	59	72	HMI He	40.468	ppb	2.79	121746.87	40	101.17	80	120	
Ni	60	72	HMI He	39.642	ppb	2.04	34950.83	40	99.1	80	120	
Cu	63	72	HMI He	40.125	ppb	2.47	97754.65	40	100.31	80	120	
Zn	66	72	HMI He	40.213	ppb	5.06	13085.44	40	100.53	80	120	
As	75	72	HMI He	38.306	ppb	2.43	8926.65	40	95.77	80	120	
Sr	88	45	HMI He	42.507	ppb	2.16	24398.83	40	106.27	80	120	
Nb	93	72	HMI He	0.096	ppb	19.47	576.68	40	0.24	80	120	>+/-20%
Mo	95	115	HMI He	40.570	ppb	1.63	44689.55	40	101.42	80	120	
Pd	105	115	HMI He	-0.011	ppb	-164.33	46.67	40	-0.03	80	120	>+/-20%
Ag	107	115	HMI He	39.305	ppb	2.67	147366.41	40	98.26	80	120	
Cd	111	115	HMI He	39.833	ppb	1.53	17820.22	40	99.58	80	120	
Sn	120	115	HMI He	40.943	ppb	2.82	45914.21	40	102.36	80	120	
Sb	121	115	HMI He	39.342	ppb	3.90	40840.04	40	98.35	80	120	
Ba	137	115	HMI He	41.229	ppb	5.83	13242.47	40	103.07	80	120	
W	182	165	HMI He	38.910	ppb	1.21	176160.65	40	97.28	80	120	
Pt	195	165	HMI He	-0.006	ppb	-228.01	76.67	40	-0.01	80	120	>+/-20%
Tl	205	165	HMI He	39.329	ppb	0.87	304750.00	40	98.32	80	120	
Pb	208	165	HMI He	40.219	ppb	0.87	405250.03	40	100.55	80	120	
Th	232	165	HMI He	38.748	ppb	1.51	432018.81	40	96.87	80	120	
U	238	165	HMI He	40.074	ppb	1.54	470632.75	40	100.18	80	120	
Li	7	45	No Gas	33.326	ppb	15.25	10076430.31	400	8.33	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	785875.32	1.40	799595.296666667	98.28	60	125	
Ge Internal Standard	72	HMI H2	15787510.74	2.64	15586986.6866667	101.29	60	125	
Sc (IS)	45	HMI He	908579.01	1.15	907670.65	100.1	60	125	
Ge Internal Standard	72	HMI He	1232045.82	1.04	1221817.51333333	100.84	60	125	
In Internal standard	115	HMI He	3323758.69	2.11	3292036.66666667	100.96	60	125	
Ho-165	165	HMI He	16061930.20	0.62	15862929.38	101.25	60	125	
Sc IS)	45	No Gas	101717289.69	0.77	103504237.933333	98.27	60	120	

Sample Report

Sample Name	280-104778-a-7-g
File Name	150SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:20:29 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.040	ppb	64.19	20.00	2000	
B	11	6	HMI H2	17.265	ppb	5.21	9516.11	100	
Se	78	72	HMI H2	1.690	ppb	20.42	673.35	2000	
Na	23	45	HMI He	21611.333	ppb	1.65	4855930.16	400000	
Mg	24	45	HMI He	8193.998	ppb	2.27	765083.29	400000	
Al	27	45	HMI He	4.371	ppb	49.15	186.67	400000	
K	39	45	HMI He	3417.026	ppb	1.94	207396.55	400000	
Ca	44	45	HMI He	20099.013	ppb	1.36	57988.44	400000	
V	51	72	HMI He	32.808	ppb	0.28	42000.44	2000	
Cr	52	72	HMI He	14.993	ppb	1.51	24187.96	5000	
Mn	55	72	HMI He	1.065	ppb	15.31	650.02	10000	
Fe	57	72	HMI He	26.077	ppb	19.36	860.03	400000	
Co	59	72	HMI He	0.090	ppb	46.68	270.01	2000	
Ni	60	72	HMI He	3.629	ppb	11.08	4540.69	5000	
Cu	63	72	HMI He	0.483	ppb	5.04	3417.07	5000	
Zn	66	72	HMI He	0.092	ppb	178.45	526.68	5000	
As	75	72	HMI He	3.163	ppb	5.70	743.81	2000	
Sr	88	45	HMI He	103.063	ppb	2.41	58393.46	2000	
Zr	90	72	HMI He	34.557	ppb	37.32	503.35	1000	
Nb	93	72	HMI He	0.058	ppb	22.94	400.01	200	
Mo	95	115	HMI He	12.014	ppb	4.73	13025.46	2000	
Pd	105	115	HMI He	-0.028	ppb	-24.73	16.67	100	
Ag	107	115	HMI He	0.058	ppb	28.17	240.01	100	
Cd	111	115	HMI He	-0.007	ppb	-371.60	6.67	2000	
Sn	120	115	HMI He	-0.366	ppb	-20.93	236.67	2000	
Sb	121	115	HMI He	0.653	ppb	13.97	706.69	1000	
Ba	137	115	HMI He	33.656	ppb	3.20	10627.13	5000	
W	182	165	HMI He	12.048	ppb	0.36	54907.42	100	
Pt	195	165	HMI He	-0.013	ppb	-76.83	50.00	100	
Tl	205	165	HMI He	0.025	ppb	24.32	306.68	2000	
Pb	208	165	HMI He	0.114	ppb	29.47	2550.13	5000	
Th	232	165	HMI He	0.057	ppb	19.10	816.70	2000	
U	238	165	HMI He	1.449	ppb	2.89	16980.25	2000	
Li	7	45	No Gas	-8.971	ppb	-76.75	8847774.75	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744297.89	4.10	799595.296666667	93.08	60	125	
Ge Internal Standard	72	HMI H2	15632759.91	2.14	15586986.6866667	100.29	60	125	
Sc (IS)	45	HMI He	897233.83	1.04	907670.65	98.85	60	125	
Ge Internal Standard	72	HMI He	1204384.48	0.59	1221817.51333333	98.57	60	125	
In Internal standard	115	HMI He	3265476.55	2.54	3292036.66666667	99.19	60	125	
Ho-165	165	HMI He	15956259.69	0.71	15862929.38	100.59	60	125	
Sc IS)	45	No Gas	100559515.59	1.07	103504237.933333	97.15	60	120	

Sample Report

Sample Name	280-104778-a-7-gSD@5
File Name	151SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:23:58 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.033	ppb	38.82	18.33	2000	
B	11	6	HMI H2	3.110	ppb	22.08	2703.58	100	
Se	78	72	HMI H2	0.343	ppb	8.71	172.00	2000	
Na	23	45	HMI He	4175.586	ppb	2.14	975584.21	400000	
Mg	24	45	HMI He	1620.563	ppb	1.74	154100.52	400000	
Al	27	45	HMI He	1.505	ppb	46.93	126.67	400000	
K	39	45	HMI He	686.100	ppb	4.77	66790.48	400000	
Ca	44	45	HMI He	3979.049	ppb	4.47	11734.29	400000	
V	51	72	HMI He	6.482	ppb	6.06	9863.10	2000	
Cr	52	72	HMI He	3.127	ppb	1.77	5337.60	5000	
Mn	55	72	HMI He	0.291	ppb	48.25	223.34	10000	
Fe	57	72	HMI He	4.327	ppb	21.89	223.34	400000	
Co	59	72	HMI He	0.022	ppb	10.54	73.33	2000	
Ni	60	72	HMI He	0.479	ppb	49.79	1983.48	5000	
Cu	63	72	HMI He	-0.170	ppb	-15.94	1930.14	5000	
Zn	66	72	HMI He	0.120	ppb	218.42	543.35	5000	
As	75	72	HMI He	0.619	ppb	6.55	168.63	2000	
Sr	88	45	HMI He	19.398	ppb	5.18	11184.05	2000	
Zr	90	72	HMI He	9.055	ppb	31.82	220.00	1000	
Nb	93	72	HMI He	0.028	ppb	47.63	273.34	200	
Mo	95	115	HMI He	2.852	ppb	6.98	3197.03	2000	
Pd	105	115	HMI He	-0.007	ppb	-326.03	53.33	100	
Ag	107	115	HMI He	0.022	ppb	118.47	110.00	100	
Cd	111	115	HMI He	-0.015	ppb	-89.27	3.33	2000	
Sn	120	115	HMI He	-0.394	ppb	-3.60	210.00	2000	
Sb	121	115	HMI He	0.230	ppb	19.42	283.34	1000	
Ba	137	115	HMI He	6.093	ppb	7.85	1983.49	5000	
W	182	165	HMI He	2.337	ppb	1.02	11447.84	100	
Pt	195	165	HMI He	-0.003	ppb	-575.19	86.67	100	
Tl	205	165	HMI He	0.016	ppb	31.28	233.34	2000	
Pb	208	165	HMI He	0.040	ppb	33.07	1813.40	5000	
Th	232	165	HMI He	0.013	ppb	46.89	323.34	2000	
U	238	165	HMI He	0.280	ppb	2.90	3330.42	2000	
Li	7	45	No Gas	-2.508	ppb	-418.71	9105646.92	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	790337.03	2.93	799595.296666667	98.84	60	125	
Ge Internal Standard	72	HMI H2	15849039.28	1.82	15586986.6866667	101.68	60	125	
Sc (IS)	45	HMI He	911821.61	1.06	907670.65	100.46	60	125	
Ge Internal Standard	72	HMI He	1224369.18	2.08	1221817.51333333	100.21	60	125	
In Internal standard	115	HMI He	3338457.70	1.68	3292036.66666667	101.41	60	125	
Ho-165	165	HMI He	15900490.94	0.45	15862929.38	100.24	60	125	
Sc IS)	45	No Gas	101556650.54	1.72	103504237.933333	98.12	60	120	

Sample Report

Sample Name	280-104778-a-7-h ms
File Name	152SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:27:29 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	42.595	ppb	4.67	16361.22	2000	
B	11	6	HMI H2	44.070	ppb	1.27	23062.52	100	
Se	78	72	HMI H2	42.503	ppb	3.62	15675.65	2000	
Na	23	45	HMI He	21220.148	ppb	1.07	4710910.01	400000	
Mg	24	45	HMI He	8055.869	ppb	0.77	743089.75	400000	
Al	27	45	HMI He	406.829	ppb	1.57	8769.04	400000	
K	39	45	HMI He	3393.638	ppb	2.57	203706.11	400000	
Ca	44	45	HMI He	20151.505	ppb	3.90	57439.81	400000	
V	51	72	HMI He	70.262	ppb	1.94	87665.64	2000	
Cr	52	72	HMI He	54.871	ppb	2.10	87568.72	5000	
Mn	55	72	HMI He	41.406	ppb	4.62	23093.23	10000	
Fe	57	72	HMI He	397.938	ppb	0.95	11784.40	400000	
Co	59	72	HMI He	39.573	ppb	2.69	116021.71	2000	
Ni	60	72	HMI He	42.849	ppb	0.70	36694.71	5000	
Cu	63	72	HMI He	41.206	ppb	1.67	97775.17	5000	
Zn	66	72	HMI He	36.910	ppb	3.17	11744.39	5000	
As	75	72	HMI He	41.535	ppb	2.73	9431.51	2000	
Sr	88	45	HMI He	141.028	ppb	1.13	78934.11	2000	
Zr	90	72	HMI He	6388.185	ppb	1.34	71646.57	1000	>LDR
Nb	93	72	HMI He	0.044	ppb	21.03	336.68	200	
Mo	95	115	HMI He	52.180	ppb	3.75	55878.14	2000	
Pd	105	115	HMI He	0.000	ppb	54628.21	63.33	100	
Ag	107	115	HMI He	39.470	ppb	1.53	143921.81	100	
Cd	111	115	HMI He	38.982	ppb	3.74	16952.62	2000	
Sn	120	115	HMI He	40.158	ppb	2.38	43808.35	2000	
Sb	121	115	HMI He	39.921	ppb	1.90	40305.54	1000	
Ba	137	115	HMI He	74.332	ppb	5.64	23204.39	5000	
W	182	165	HMI He	51.307	ppb	1.83	226049.97	100	
Pt	195	165	HMI He	-0.001	ppb	-2724.14	93.33	100	
Tl	205	165	HMI He	40.258	ppb	2.32	303993.03	2000	
Pb	208	165	HMI He	40.270	ppb	3.51	395351.73	5000	
Th	232	165	HMI He	40.076	ppb	1.86	435385.55	2000	
U	238	165	HMI He	40.777	ppb	2.53	466645.68	2000	
Li	7	45	No Gas	28.025	ppb	22.23	9627755.85	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	755143.46	3.82	799595.296666667	94.44	60	125	
Ge Internal Standard	72	HMI H2	15384051.70	0.85	15586986.6866667	98.7	60	125	
Sc (IS)	45	HMI He	886274.65	0.62	907670.65	97.64	60	125	
Ge Internal Standard	72	HMI He	1200649.81	0.41	1221817.51333333	98.27	60	125	
In Internal standard	115	HMI He	3231924.78	2.00	3292036.66666667	98.17	60	125	
Ho-165	165	HMI He	15653942.52	1.32	15862929.38	98.68	60	125	
Sc IS)	45	No Gas	98567699.02	0.08	103504237.933333	95.23	60	120	

Sample Report

Sample Name	280-104778-a-7-i msd
File Name	153SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:30:58 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	44.960	ppb	4.21	17223.75	2000	
B	11	6	HMI H2	47.082	ppb	4.33	24487.87	100	
Se	78	72	HMI H2	41.243	ppb	3.03	15378.03	2000	
Na	23	45	HMI He	21770.536	ppb	1.60	4885180.79	400000	
Mg	24	45	HMI He	8249.981	ppb	2.17	769284.08	400000	
Al	27	45	HMI He	393.697	ppb	6.12	8578.98	400000	
K	39	45	HMI He	3399.542	ppb	2.42	206205.71	400000	
Ca	44	45	HMI He	20422.506	ppb	4.31	58831.06	400000	
V	51	72	HMI He	70.499	ppb	1.75	89009.44	2000	
Cr	52	72	HMI He	56.189	ppb	0.59	90739.75	5000	
Mn	55	72	HMI He	42.802	ppb	1.83	24161.38	10000	
Fe	57	72	HMI He	448.750	ppb	1.52	13435.66	400000	
Co	59	72	HMI He	39.684	ppb	1.72	117741.53	2000	
Ni	60	72	HMI He	42.839	ppb	2.53	37125.71	5000	
Cu	63	72	HMI He	39.955	ppb	3.28	96004.65	5000	
Zn	66	72	HMI He	39.410	ppb	4.09	12658.43	5000	
As	75	72	HMI He	42.035	ppb	2.34	9659.10	2000	
Sr	88	45	HMI He	142.685	ppb	2.22	80723.20	2000	
Zr	90	72	HMI He	6378.800	ppb	2.36	72390.27	1000	>LDR
Nb	93	72	HMI He	0.039	ppb	28.49	320.01	200	
Mo	95	115	HMI He	53.894	ppb	2.48	57303.26	2000	
Pd	105	115	HMI He	-0.030	ppb	-11.90	13.33	100	
Ag	107	115	HMI He	40.138	ppb	2.36	145310.75	100	
Cd	111	115	HMI He	39.182	ppb	6.15	16922.59	2000	
Sn	120	115	HMI He	41.091	ppb	2.94	44489.99	2000	
Sb	121	115	HMI He	42.395	ppb	1.51	42491.23	1000	
Ba	137	115	HMI He	78.554	ppb	5.52	24359.40	5000	
W	182	165	HMI He	52.130	ppb	0.22	235418.12	100	
Pt	195	165	HMI He	-0.012	ppb	-53.25	53.33	100	
Tl	205	165	HMI He	39.819	ppb	0.22	308218.23	2000	
Pb	208	165	HMI He	40.237	ppb	1.29	405007.64	5000	
Th	232	165	HMI He	39.322	ppb	0.12	437931.00	2000	
U	238	165	HMI He	41.642	ppb	1.25	488508.48	2000	
Li	7	45	No Gas	30.348	ppb	19.83	9723809.70	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	752688.78	2.19	799595.296666667	94.13	60	125	
Ge Internal Standard	72	HMI H2	15558840.33	3.12	15586986.6866667	99.82	60	125	
Sc (IS)	45	HMI He	896039.06	1.21	907670.65	98.72	60	125	
Ge Internal Standard	72	HMI He	1215083.17	0.78	1221817.51333333	99.45	60	125	
In Internal standard	115	HMI He	3208116.26	0.46	3292036.66666667	97.45	60	125	
Ho-165	165	HMI He	16044849.16	1.07	15862929.38	101.15	60	125	
Sc IS)	45	No Gas	98932001.51	0.29	103504237.933333	95.58	60	120	

Sample Report

Sample Name	280-104778-a-7-g PDS
File Name	154SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:34:28 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	220.814	ppb	2.33	83751.16	2000	
B	11	6	HMI H2	16.713	ppb	6.43	9262.62	100	
Se	78	72	HMI H2	204.015	ppb	1.88	76628.58	2000	
Na	23	45	HMI He	20821.953	ppb	0.99	4680145.80	400000	
Mg	24	45	HMI He	7897.319	ppb	0.33	737507.88	400000	
Al	27	45	HMI He	2076.239	ppb	1.42	44930.52	400000	
K	39	45	HMI He	3248.647	ppb	2.85	198658.02	400000	
Ca	44	45	HMI He	20829.966	ppb	1.75	60095.75	400000	
V	51	72	HMI He	233.851	ppb	1.56	288839.78	2000	
Cr	52	72	HMI He	221.036	ppb	1.64	353335.06	5000	
Mn	55	72	HMI He	211.595	ppb	1.32	118260.68	10000	
Fe	57	72	HMI He	2048.822	ppb	3.69	60534.94	400000	
Co	59	72	HMI He	200.276	ppb	1.02	589536.97	2000	
Ni	60	72	HMI He	207.290	ppb	1.37	172255.98	5000	
Cu	63	72	HMI He	204.579	ppb	0.42	478271.61	5000	
Zn	66	72	HMI He	210.870	ppb	1.09	65012.90	5000	
As	75	72	HMI He	199.740	ppb	1.28	45441.15	2000	
Sr	88	45	HMI He	305.039	ppb	1.32	172808.28	2000	
Zr	90	72	HMI He	34199.896	ppb	1.05	384575.14	1000	>LDR
Nb	93	72	HMI He	0.617	ppb	8.07	2853.63	200	
Mo	95	115	HMI He	211.475	ppb	4.14	227852.43	2000	
Pd	105	115	HMI He	0.010	ppb	152.41	80.00	100	
Ag	107	115	HMI He	49.894	ppb	1.88	183186.18	100	
Cd	111	115	HMI He	201.950	ppb	4.48	88393.85	2000	
Sn	120	115	HMI He	207.342	ppb	1.36	225160.99	2000	
Sb	121	115	HMI He	212.074	ppb	2.60	215402.25	1000	
Ba	137	115	HMI He	245.867	ppb	5.02	77269.82	5000	
W	182	165	HMI He	216.306	ppb	1.91	951539.64	100	
Pt	195	165	HMI He	0.019	ppb	78.00	163.34	100	
Tl	205	165	HMI He	208.900	ppb	4.06	1578845.79	2000	
Pb	208	165	HMI He	205.149	ppb	4.72	2010684.23	5000	
Th	232	165	HMI He	218.268	ppb	5.26	2372509.09	2000	
U	238	165	HMI He	220.921	ppb	5.77	2529971.30	2000	
Li	7	45	No Gas	199.585	ppb	5.28	14099691.45	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744966.82	0.74	799595.296666667	93.17	60	125	
Ge Internal Standard	72	HMI H2	15700108.45	1.44	15586986.6866667	100.73	60	125	
Sc (IS)	45	HMI He	897236.52	0.96	907670.65	98.85	60	125	
Ge Internal Standard	72	HMI He	1205418.77	0.54	1221817.51333333	98.66	60	125	
In Internal standard	115	HMI He	3254539.65	2.01	3292036.66666667	98.86	60	125	
Ho-165	165	HMI He	15689427.20	4.43	15862929.38	98.91	60	125	
Sc IS)	45	No Gas	98868189.01	1.21	103504237.933333	95.52	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	155_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:37:56 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	489.211	ppb	5.58	273965.09	500	97.84	90	110	
Be	9	6	HMI H2	54.296	ppb	6.08	21216.57	50	108.59	90	110	
B	11	6	HMI H2	38.196	ppb	8.28	20442.53	50	76.39	90	110	>+\-10%
Se	78	72	HMI H2	51.021	ppb	1.89	18955.23	50	102.04	90	110	
Na	23	45	HMI He	4517.247	ppb	1.12	1059412.05	5000	90.34	90	110	
Mg	24	45	HMI He	4802.231	ppb	1.40	458573.55	5000	96.04	90	110	
Al	27	45	HMI He	4829.319	ppb	0.37	106697.32	5000	96.59	90	110	
K	39	45	HMI He	4869.225	ppb	1.29	289045.77	5000	97.38	90	110	
Ca	44	45	HMI He	4875.942	ppb	3.48	14443.19	5000	97.52	90	110	
V	51	72	HMI He	49.850	ppb	1.99	64268.58	50	99.7	90	110	
Cr	52	72	HMI He	50.249	ppb	0.79	82207.80	50	100.5	90	110	
Mn	55	72	HMI He	48.511	ppb	0.96	27723.63	50	97.02	90	110	
Fe	57	72	HMI He	4769.892	ppb	1.46	143747.25	5000	95.4	90	110	
Co	59	72	HMI He	49.172	ppb	1.52	147756.29	50	98.34	90	110	
Ni	60	72	HMI He	48.158	ppb	1.95	42067.76	50	96.32	90	110	
Cu	63	72	HMI He	49.298	ppb	1.80	119421.45	50	98.6	90	110	
Zn	66	72	HMI He	50.912	ppb	2.67	16411.82	50	101.82	90	110	
As	75	72	HMI He	49.405	ppb	1.63	11494.29	50	98.81	90	110	
Sr	88	45	HMI He	50.637	ppb	0.75	29340.46	50	101.27	90	110	
Zr	90	72	HMI He	39.160	ppb	25.33	566.68	50	78.32	90	110	>+\-10%
Nb	93	72	HMI He	99.446	ppb	1.88	445799.78	100	99.45	90	110	
Mo	95	115	HMI He	49.700	ppb	2.55	53643.65	50	99.4	90	110	
Pd	105	115	HMI He	49.462	ppb	2.96	81607.51	50	98.92	90	110	
Ag	107	115	HMI He	49.361	ppb	0.60	181412.13	50	98.72	90	110	
Cd	111	115	HMI He	50.410	ppb	3.59	22102.29	50	100.82	90	110	
Sn	120	115	HMI He	51.741	ppb	1.70	56709.48	50	103.48	90	110	
Sb	121	115	HMI He	50.302	ppb	1.17	51177.14	50	100.6	90	110	
Ba	137	115	HMI He	50.582	ppb	2.09	15928.44	50	101.16	90	110	
W	182	165	HMI He	48.999	ppb	1.62	219186.68	50	98	90	110	
Pt	195	165	HMI He	48.404	ppb	0.97	175227.12	50	96.81	90	110	
Tl	205	165	HMI He	50.014	ppb	0.56	383388.15	50	100.03	90	110	
Pb	208	165	HMI He	50.146	ppb	0.69	499521.32	50	100.29	90	110	
Th	232	165	HMI He	49.379	ppb	2.08	544541.64	50	98.76	90	110	
U	238	165	HMI He	49.906	ppb	3.11	579725.68	50	99.81	90	110	
Li	7	45	No Gas	489.833	ppb	0.68	21785643.24	500	97.97	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	769170.68	6.02	799595.296666667	96.19	60	125	
Ge Internal Standard	72	HMI H2	15500353.04	0.95	15586986.6866667	99.44	60	125	
Sc (IS)	45	HMI He	917190.04	1.25	907670.65	101.05	60	125	
Ge Internal Standard	72	HMI He	1230555.90	0.87	1221817.51333333	100.72	60	125	
In Internal standard	115	HMI He	3256978.10	0.57	3292036.66666667	98.94	60	125	
Ho-165	165	HMI He	15890634.48	1.15	15862929.38	100.17	60	125	
Sc IS)	45	No Gas	99670614.80	0.78	103504237.933333	96.3	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	156_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:41:26 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	3.772	ppb	152.48	118027.31	0.1	>RL
Be	9	6	HMI H2	0.075	ppb	33.24	35.00	0.5	
B	11	6	HMI H2	0.216	ppb	219.32	1193.39	0.1	>RL
Se	78	72	HMI H2	0.086	ppb	24.73	73.33	1	
Na	23	45	HMI He	-56.944	ppb	-5.79	14376.27	25	
Mg	24	45	HMI He	0.506	ppb	155.91	446.68	25	
Al	27	45	HMI He	-2.436	ppb	-18.30	40.00	15	
K	39	45	HMI He	32.905	ppb	128.29	32101.35	50	
Ca	44	45	HMI He	-15.141	ppb	-67.32	36.67	25	
V	51	72	HMI He	0.678	ppb	15.92	2666.92	1	
Cr	52	72	HMI He	0.002	ppb	2408.59	270.01	1	
Mn	55	72	HMI He	-0.013	ppb	-223.97	50.00	0.5	
Fe	57	72	HMI He	0.280	ppb	441.94	103.33	25	
Co	59	72	HMI He	0.010	ppb	18.96	36.67	0.5	
Ni	60	72	HMI He	-1.465	ppb	-4.58	360.01	1	
Cu	63	72	HMI He	-0.587	ppb	-8.13	956.71	1	
Zn	66	72	HMI He	-0.689	ppb	-41.44	296.68	5	
As	75	72	HMI He	-0.024	ppb	-191.26	20.26	1	
Sr	88	45	HMI He	-0.005	ppb	-711.78	16.67	1	
Zr	90	72	HMI He	-0.140	ppb	-3585.59	116.67	1	
Nb	93	72	HMI He	0.296	ppb	6.84	1486.75	2	
Mo	95	115	HMI He	0.109	ppb	32.27	160.00	0.5	
Pd	105	115	HMI He	0.068	ppb	9.14	176.67	1	
Ag	107	115	HMI He	0.005	ppb	89.09	43.33	1	
Cd	111	115	HMI He	-0.007	ppb	-392.38	6.67	0.5	
Sn	120	115	HMI He	-0.393	ppb	-10.53	206.67	1	
Sb	121	115	HMI He	0.666	ppb	30.15	723.36	1	
Ba	137	115	HMI He	0.011	ppb	291.22	20.00	0.5	
W	182	165	HMI He	0.047	ppb	79.90	1240.07	1	
Pt	195	165	HMI He	0.015	ppb	70.40	150.00	1	
Tl	205	165	HMI He	0.019	ppb	61.72	253.34	0.1	
Pb	208	165	HMI He	-0.028	ppb	-25.25	1133.37	0.5	
Th	232	165	HMI He	0.028	ppb	22.91	490.01	1	
U	238	165	HMI He	0.010	ppb	51.18	193.34	0.5	
Li	7	45	No Gas	-13.850	ppb	-19.02	8739942.15	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	789512.81	0.17	799595.296666667	98.74	60	125	
Ge Internal Standard	72	HMI H2	15560944.08	1.29	15586986.6866667	99.83	60	125	
Sc (IS)	45	HMI He	905341.26	2.17	907670.65	99.74	60	125	
Ge Internal Standard	72	HMI He	1240353.00	0.48	1221817.51333333	101.52	60	125	
In Internal standard	115	HMI He	3266669.85	1.50	3292036.66666667	99.23	60	125	
Ho-165	165	HMI He	15876169.28	2.04	15862929.38	100.08	60	125	
Sc IS)	45	No Gas	100800293.91	2.23	103504237.933333	97.39	60	120	

Sample Report

Sample Name	280-104844-a-2-d
File Name	157SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:44:57 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.042	ppb	6.63	20.00	2000	
B	11	6	HMI H2	6.446	ppb	10.29	4090.55	100	
Se	78	72	HMI H2	3.043	ppb	3.85	1125.38	2000	
Na	23	45	HMI He	19183.108	ppb	1.66	4061205.83	400000	
Mg	24	45	HMI He	17791.772	ppb	1.51	1563762.25	400000	
Al	27	45	HMI He	8.358	ppb	26.64	256.67	400000	
K	39	45	HMI He	7856.272	ppb	3.22	412125.02	400000	
Ca	44	45	HMI He	59798.258	ppb	0.46	162282.18	400000	
V	51	72	HMI He	22.042	ppb	0.94	28034.06	2000	
Cr	52	72	HMI He	3.628	ppb	2.88	5891.15	5000	
Mn	55	72	HMI He	0.956	ppb	10.42	573.35	10000	
Fe	57	72	HMI He	21.047	ppb	2.66	693.35	400000	
Co	59	72	HMI He	0.127	ppb	31.70	370.01	2000	
Ni	60	72	HMI He	15.234	ppb	5.46	13715.97	5000	
Cu	63	72	HMI He	0.159	ppb	41.73	2593.56	5000	
Zn	66	72	HMI He	0.194	ppb	79.94	543.35	5000	
As	75	72	HMI He	7.874	ppb	5.93	1766.11	2000	
Sr	88	45	HMI He	305.817	ppb	1.95	163110.90	2000	
Zr	90	72	HMI He	1.311	ppb	338.78	126.67	1000	
Nb	93	72	HMI He	0.145	ppb	4.62	760.03	200	
Mo	95	115	HMI He	1.857	ppb	5.15	1973.48	2000	
Pd	105	115	HMI He	0.010	ppb	38.96	76.67	100	
Ag	107	115	HMI He	0.008	ppb	20.57	53.33	100	
Cd	111	115	HMI He	0.017	ppb	77.06	16.67	2000	
Sn	120	115	HMI He	-0.303	ppb	-17.65	293.34	2000	
Sb	121	115	HMI He	0.730	ppb	9.91	756.70	1000	
Ba	137	115	HMI He	41.974	ppb	3.76	12748.73	5000	
W	182	165	HMI He	0.446	ppb	8.10	2910.32	100	
Pt	195	165	HMI He	-0.011	ppb	-104.68	56.67	100	
Tl	205	165	HMI He	0.010	ppb	8.29	176.67	2000	
Pb	208	165	HMI He	0.031	ppb	16.23	1653.39	5000	
Th	232	165	HMI He	0.023	ppb	34.47	426.68	2000	
U	238	165	HMI He	2.515	ppb	3.88	28231.40	2000	
Li	7	45	No Gas	-10.112	ppb	-110.82	8229267.12	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	726785.62	5.15	799595.296666667	90.89	60	125	
Ge Internal Standard	72	HMI H2	14918971.93	1.60	15586986.6866667	95.71	60	125	
Sc (IS)	45	HMI He	844706.44	0.07	907670.65	93.06	60	125	
Ge Internal Standard	72	HMI He	1172549.60	1.59	1221817.51333333	95.97	60	125	
In Internal standard	115	HMI He	3140860.61	1.83	3292036.66666667	95.41	60	125	
Ho-165	165	HMI He	15316205.87	0.83	15862929.38	96.55	60	125	
Sc IS)	45	No Gas	93882857.60	2.75	103504237.933333	90.7	60	120	

Sample Report

Sample Name	280-104844-a-2-e ms
File Name	158SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:48:28 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	47.317	ppb	21.73	16955.21	2000	
B	11	6	HMI H2	36.816	ppb	18.41	18183.27	100	
Se	78	72	HMI H2	46.428	ppb	13.88	15805.15	2000	
Na	23	45	HMI He	19047.771	ppb	0.38	4080077.39	400000	
Mg	24	45	HMI He	17696.203	ppb	1.52	1573489.23	400000	
Al	27	45	HMI He	451.598	ppb	1.21	9376.15	400000	
K	39	45	HMI He	7964.169	ppb	1.74	422239.23	400000	
Ca	44	45	HMI He	61068.216	ppb	1.59	167702.04	400000	
V	51	72	HMI He	63.872	ppb	2.00	77562.10	2000	
Cr	52	72	HMI He	43.786	ppb	1.69	67913.56	5000	
Mn	55	72	HMI He	42.019	ppb	0.82	22762.66	10000	
Fe	57	72	HMI He	428.732	ppb	5.92	12321.42	400000	
Co	59	72	HMI He	39.183	ppb	1.81	111578.80	2000	
Ni	60	72	HMI He	55.760	ppb	2.14	45924.59	5000	
Cu	63	72	HMI He	39.991	ppb	1.88	92226.04	5000	
Zn	66	72	HMI He	44.149	ppb	3.59	13549.11	5000	
As	75	72	HMI He	46.967	ppb	1.53	10355.61	2000	
Sr	88	45	HMI He	349.918	ppb	1.02	188814.06	2000	
Zr	90	72	HMI He	6293.783	ppb	1.58	68563.61	1000	>LDR
Nb	93	72	HMI He	0.083	ppb	32.65	490.01	200	
Mo	95	115	HMI He	41.846	ppb	5.02	44238.20	2000	
Pd	105	115	HMI He	0.009	ppb	320.11	76.67	100	
Ag	107	115	HMI He	38.427	ppb	1.33	138347.66	100	
Cd	111	115	HMI He	38.534	ppb	1.86	16555.63	2000	
Sn	120	115	HMI He	40.399	ppb	0.31	43517.53	2000	
Sb	121	115	HMI He	40.721	ppb	2.69	40589.55	1000	
Ba	137	115	HMI He	84.664	ppb	3.38	26102.28	5000	
W	182	165	HMI He	41.276	ppb	4.10	180003.18	100	
Pt	195	165	HMI He	-0.001	ppb	-239.48	90.00	100	
Tl	205	165	HMI He	39.618	ppb	1.81	295844.08	2000	
Pb	208	165	HMI He	40.444	ppb	1.29	392647.92	5000	
Th	232	165	HMI He	40.408	ppb	1.17	434089.27	2000	
U	238	165	HMI He	43.261	ppb	1.62	489541.58	2000	
Li	7	45	No Gas	25.345	ppb	24.10	8919515.16	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	716751.50	12.64	799595.296666667	89.64	60	125	
Ge Internal Standard	72	HMI H2	14289651.34	6.73	15586986.6866667	91.68	60	125	
Sc (IS)	45	HMI He	854651.92	1.44	907670.65	94.16	60	125	
Ge Internal Standard	72	HMI He	1166147.14	0.71	1221817.51333333	95.44	60	125	
In Internal standard	115	HMI He	3190865.38	1.49	3292036.66666667	96.93	60	125	
Ho-165	165	HMI He	15478462.63	1.84	15862929.38	97.58	60	125	
Sc IS)	45	No Gas	91988080.20	3.54	103504237.933333	88.87	60	120	

Sample Report

Sample Name	280-104844-a-2-f msd
File Name	159SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:51:58 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	43.368	ppb	6.10	16644.87	2000	
B	11	6	HMI H2	35.025	ppb	9.16	18486.98	100	
Se	78	72	HMI H2	43.663	ppb	2.69	15826.47	2000	
Na	23	45	HMI He	18184.779	ppb	0.68	3997470.70	400000	
Mg	24	45	HMI He	17293.638	ppb	2.47	1577480.44	400000	
Al	27	45	HMI He	404.998	ppb	7.20	8632.32	400000	
K	39	45	HMI He	7616.601	ppb	2.05	415571.89	400000	
Ca	44	45	HMI He	57501.686	ppb	2.15	161958.88	400000	
V	51	72	HMI He	61.937	ppb	1.03	77408.11	2000	
Cr	52	72	HMI He	43.264	ppb	1.19	69024.36	5000	
Mn	55	72	HMI He	40.796	ppb	0.70	22732.55	10000	
Fe	57	72	HMI He	411.719	ppb	6.28	12178.03	400000	
Co	59	72	HMI He	38.872	ppb	1.72	113853.81	2000	
Ni	60	72	HMI He	54.458	ppb	1.46	46168.63	5000	
Cu	63	72	HMI He	39.293	ppb	1.43	93252.18	5000	
Zn	66	72	HMI He	41.051	ppb	3.18	12992.01	5000	
As	75	72	HMI He	47.140	ppb	0.89	10689.80	2000	
Sr	88	45	HMI He	333.941	ppb	3.75	184841.34	2000	
Zr	90	72	HMI He	6365.668	ppb	1.17	71319.39	1000	>LDR
Nb	93	72	HMI He	0.039	ppb	21.75	313.34	200	
Mo	95	115	HMI He	43.294	ppb	1.78	46618.48	2000	
Pd	105	115	HMI He	0.022	ppb	115.39	100.00	100	
Ag	107	115	HMI He	38.325	ppb	3.14	140464.53	100	
Cd	111	115	HMI He	40.133	ppb	4.72	17550.05	2000	
Sn	120	115	HMI He	41.479	ppb	5.40	45446.09	2000	
Sb	121	115	HMI He	41.820	ppb	1.98	42444.41	1000	
Ba	137	115	HMI He	84.704	ppb	3.62	26589.83	5000	
W	182	165	HMI He	41.004	ppb	1.50	179679.05	100	
Pt	195	165	HMI He	-0.017	ppb	-34.13	36.67	100	
Tl	205	165	HMI He	40.219	ppb	3.65	301545.63	2000	
Pb	208	165	HMI He	41.081	ppb	2.69	400534.35	5000	
Th	232	165	HMI He	41.022	ppb	2.88	442561.29	2000	
U	238	165	HMI He	44.092	ppb	2.94	501076.34	2000	
Li	7	45	No Gas	3.821	ppb	239.73	8229202.28	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	755083.99	5.48	799595.296666667	94.43	60	125	
Ge Internal Standard	72	HMI H2	15120340.15	0.85	15586986.6866667	97.01	60	125	
Sc (IS)	45	HMI He	876833.81	1.35	907670.65	96.6	60	125	
Ge Internal Standard	72	HMI He	1199403.35	0.33	1221817.51333333	98.17	60	125	
In Internal standard	115	HMI He	3249467.94	2.39	3292036.66666667	98.71	60	125	
Ho-165	165	HMI He	15550250.13	2.70	15862929.38	98.03	60	125	
Sc IS)	45	No Gas	90112263.63	2.59	103504237.933333	87.06	60	120	

Sample Report

Sample Name	280-104844-a-5-a
File Name	160SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:55:31 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.056	ppb	47.18	25.00	2000	
B	11	6	HMI H2	23.407	ppb	5.27	12057.79	100	
Se	78	72	HMI H2	1.636	ppb	2.54	637.35	2000	
Na	23	45	HMI He	28235.078	ppb	1.43	6250158.22	400000	
Mg	24	45	HMI He	18390.595	ppb	2.57	1693425.53	400000	
Al	27	45	HMI He	5.917	ppb	46.38	216.67	400000	
K	39	45	HMI He	6232.920	ppb	1.18	348683.91	400000	
Ca	44	45	HMI He	94048.826	ppb	1.02	267364.86	400000	
V	51	72	HMI He	5.093	ppb	7.06	8088.73	2000	
Cr	52	72	HMI He	28.835	ppb	2.67	46770.01	5000	
Mn	55	72	HMI He	0.301	ppb	16.60	226.67	10000	
Fe	57	72	HMI He	11.965	ppb	29.12	450.01	400000	
Co	59	72	HMI He	0.120	ppb	17.72	363.35	2000	
Ni	60	72	HMI He	1.007	ppb	26.19	2410.21	5000	
Cu	63	72	HMI He	0.258	ppb	35.29	2923.64	5000	
Zn	66	72	HMI He	0.039	ppb	503.40	516.68	5000	
As	75	72	HMI He	1.960	ppb	9.12	475.17	2000	
Sr	88	45	HMI He	485.748	ppb	0.21	271426.18	2000	
Zr	90	72	HMI He	24.715	ppb	39.92	396.68	1000	
Nb	93	72	HMI He	0.024	ppb	43.79	250.01	200	
Mo	95	115	HMI He	1.796	ppb	1.42	1976.82	2000	
Pd	105	115	HMI He	-0.008	ppb	-191.70	50.00	100	
Ag	107	115	HMI He	0.014	ppb	61.69	76.67	100	
Cd	111	115	HMI He	-0.007	ppb	-387.52	6.67	2000	
Sn	120	115	HMI He	-0.389	ppb	-9.10	210.00	2000	
Sb	121	115	HMI He	0.961	ppb	21.70	1016.72	1000	
Ba	137	115	HMI He	73.845	ppb	1.62	23211.02	5000	
W	182	165	HMI He	0.214	ppb	16.00	1946.82	100	
Pt	195	165	HMI He	-0.011	ppb	-175.67	56.67	100	
Tl	205	165	HMI He	0.012	ppb	63.86	196.67	2000	
Pb	208	165	HMI He	0.032	ppb	13.34	1690.06	5000	
Th	232	165	HMI He	0.061	ppb	31.83	836.70	2000	
U	238	165	HMI He	23.561	ppb	3.19	268128.51	2000	
Li	7	45	No Gas	-42.890	ppb	-35.27	5515495.60	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	715112.25	1.62	799595.296666667	89.43	60	125	
Ge Internal Standard	72	HMI H2	15258414.52	1.10	15586986.6866667	97.89	60	125	
Sc (IS)	45	HMI He	885006.88	0.78	907670.65	97.5	60	125	
Ge Internal Standard	72	HMI He	1217302.03	1.01	1221817.51333333	99.63	60	125	
In Internal standard	115	HMI He	3252443.86	2.29	3292036.66666667	98.8	60	125	
Ho-165	165	HMI He	15570011.37	2.58	15862929.38	98.15	60	125	
Sc IS)	45	No Gas	70172749.26	20.90	103504237.933333	67.8	60	120	

Blank Report

Sample Name	mb 280-399581/1-a
File Name	161_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 7:59:03 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399581 Zn
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-23.392	ppb	-47.99	110845.31	0.1	
Be	9	6	HMI H2	0.044	ppb	16.92	21.67	0.5	
Se	78	72	HMI H2	0.039	ppb	205.50	56.00	1	
Na	23	45	HMI He	7.944	ppb	45.27	28761.45	25	
Mg	24	45	HMI He	10.817	ppb	22.80	1406.75	25	
Al	27	45	HMI He	12.716	ppb	27.50	366.68	15	
K	39	45	HMI He	50.332	ppb	31.40	32752.62	50	>DL
Ca	44	45	HMI He	40.588	ppb	25.00	196.67	25	>DL
V	51	72	HMI He	-0.309	ppb	-11.40	1390.08	1	
Cr	52	72	HMI He	0.105	ppb	24.50	430.01	1	
Mn	55	72	HMI He	0.504	ppb	4.39	340.01	0.5	>DL
Fe	57	72	HMI He	29.796	ppb	21.53	976.71	25	>DL
Co	59	72	HMI He	0.007	ppb	143.72	26.67	0.5	
Ni	60	72	HMI He	-1.243	ppb	-9.07	536.68	1	
Cu	63	72	HMI He	-0.130	ppb	-5.95	2006.82	1	
Zn	66	72	HMI He	3.631	ppb	23.22	1620.10	5	
As	75	72	HMI He	-0.031	ppb	-69.56	18.30	1	
Sr	88	45	HMI He	0.241	ppb	33.68	156.67	1	
Zr	90	72	HMI He	314.152	ppb	5.10	3673.84	1	>DL
Nb	93	72	HMI He	0.016	ppb	60.12	216.67	2	
Mo	95	115	HMI He	0.004	ppb	583.69	46.67	0.5	
Pd	105	115	HMI He	-0.006	ppb	-114.12	53.33	1	
Ag	107	115	HMI He	0.009	ppb	102.32	60.00	1	
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	-0.202	ppb	-41.73	410.01	1	
Sb	121	115	HMI He	0.256	ppb	27.76	300.01	1	
Ba	137	115	HMI He	0.449	ppb	47.66	156.67	0.5	
W	182	165	HMI He	0.096	ppb	11.41	1450.09	1	
Pt	195	165	HMI He	-0.015	ppb	-28.08	43.33	1	
Tl	205	165	HMI He	0.004	ppb	105.73	136.67	0.1	
Pb	208	165	HMI He	0.199	ppb	13.73	3360.20	0.5	
Th	232	165	HMI He	0.025	ppb	45.66	450.01	1	
U	238	165	HMI He	0.005	ppb	39.09	126.67	0.5	
Li	7	45	No Gas	-60.506	ppb	-13.32	6659930.38	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	751064.88	0.41	799595.296666667	93.93	60	125	
Ge Internal Standard	72	HMI H2	15582825.23	0.84	15586986.6866667	99.97	60	125	
Sc (IS)	45	HMI He	897532.82	0.74	907670.65	98.88	60	125	
Ge Internal Standard	72	HMI He	1214139.31	1.14	1221817.51333333	99.37	60	125	
In Internal standard	115	HMI He	3236909.90	1.33	3292036.66666667	98.33	60	125	
Ho-165	165	HMI He	15754529.28	1.15	15862929.38	99.32	60	125	
Sc IS)	45	No Gas	89378861.17	1.11	103504237.933333	86.35	60	120	

Sample Report

Sample Name	280-104850-b-2-b
File Name	162SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:02:36 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399581 Zn
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.018	ppb	103.93	11.67	2000	
B	11	6	HMI H2	4.994	ppb	1.64	3480.39	100	
Se	78	72	HMI H2	0.108	ppb	27.65	81.33	2000	
Na	23	45	HMI He	5032.449	ppb	1.40	1153360.94	400000	
Mg	24	45	HMI He	5187.115	ppb	2.92	485138.05	400000	
Al	27	45	HMI He	0.807	ppb	102.85	110.00	400000	
K	39	45	HMI He	689.863	ppb	7.25	65997.48	400000	
Ca	44	45	HMI He	10188.374	ppb	4.22	29466.57	400000	
V	51	72	HMI He	4.049	ppb	6.07	6794.83	2000	
Cr	52	72	HMI He	0.813	ppb	3.33	1573.42	5000	
Mn	55	72	HMI He	0.414	ppb	15.27	290.01	10000	
Fe	57	72	HMI He	6.281	ppb	10.81	280.01	400000	
Co	59	72	HMI He	0.011	ppb	103.90	40.00	2000	
Ni	60	72	HMI He	-0.627	ppb	-30.21	1050.05	5000	
Cu	63	72	HMI He	-0.250	ppb	-19.60	1730.12	5000	
Zn	66	72	HMI He	9.711	ppb	8.06	3503.77	5000	
As	75	72	HMI He	0.385	ppb	19.20	113.73	2000	
Sr	88	45	HMI He	63.422	ppb	5.21	35987.54	2000	
Zr	90	72	HMI He	4.142	ppb	176.66	163.33	1000	
Nb	93	72	HMI He	0.008	ppb	154.42	180.00	200	
Mo	95	115	HMI He	0.012	ppb	248.69	56.67	2000	
Pd	105	115	HMI He	-0.030	ppb	-22.79	13.33	100	
Ag	107	115	HMI He	0.002	ppb	507.26	33.33	100	
Cd	111	115	HMI He	0.007	ppb	466.89	13.33	2000	
Sn	120	115	HMI He	-0.372	ppb	-9.48	233.34	2000	
Sb	121	115	HMI He	0.279	ppb	21.53	333.34	1000	
Ba	137	115	HMI He	5.201	ppb	14.00	1690.12	5000	
W	182	165	HMI He	0.123	ppb	36.70	1540.11	100	
Pt	195	165	HMI He	-0.013	ppb	-94.54	50.00	100	
Tl	205	165	HMI He	0.000	ppb	-2485.22	106.67	2000	
Pb	208	165	HMI He	0.008	ppb	75.60	1456.71	5000	
Th	232	165	HMI He	0.007	ppb	64.59	253.34	2000	
U	238	165	HMI He	0.025	ppb	4.77	350.01	2000	
Li	7	45	No Gas	-61.152	ppb	-3.75	6499524.76	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744682.95	4.32	799595.296666667	93.13	60	125	
Ge Internal Standard	72	HMI H2	15487883.67	2.07	15586986.6866667	99.36	60	125	
Sc (IS)	45	HMI He	898690.17	1.96	907670.65	99.01	60	125	
Ge Internal Standard	72	HMI He	1216994.93	0.16	1221817.51333333	99.61	60	125	
In Internal standard	115	HMI He	3327054.67	1.63	3292036.66666667	101.06	60	125	
Ho-165	165	HMI He	15510678.67	1.51	15862929.38	97.78	60	125	
Sc IS)	45	No Gas	87431058.77	3.77	103504237.933333	84.47	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	163_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:06:08 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	458.940	ppb	3.64	273736.40	500	91.79	90	110	
Be	9	6	HMI H2	55.467	ppb	3.38	21413.49	50	110.93	90	110	>+\-10%
B	11	6	HMI H2	37.958	ppb	2.60	20095.38	50	75.92	90	110	>+\-10%
Se	78	72	HMI H2	50.309	ppb	3.54	19283.61	50	100.62	90	110	
Na	23	45	HMI He	4562.792	ppb	2.13	1063731.26	5000	91.26	90	110	
Mg	24	45	HMI He	4770.487	ppb	2.61	452934.53	5000	95.41	90	110	
Al	27	45	HMI He	4804.675	ppb	2.03	105543.49	5000	96.09	90	110	
K	39	45	HMI He	4860.367	ppb	2.06	286955.25	5000	97.21	90	110	
Ca	44	45	HMI He	4838.765	ppb	0.12	14252.93	5000	96.78	90	110	
V	51	72	HMI He	49.130	ppb	1.11	63940.85	50	98.26	90	110	
Cr	52	72	HMI He	48.984	ppb	1.26	80868.77	50	97.97	90	110	
Mn	55	72	HMI He	47.785	ppb	2.45	27553.45	50	95.57	90	110	
Fe	57	72	HMI He	4650.302	ppb	1.18	141379.07	5000	93.01	90	110	
Co	59	72	HMI He	47.776	ppb	0.73	144839.59	50	95.55	90	110	
Ni	60	72	HMI He	47.334	ppb	3.94	41736.88	50	94.67	90	110	
Cu	63	72	HMI He	48.104	ppb	3.51	117611.50	50	96.21	90	110	
Zn	66	72	HMI He	50.822	ppb	1.94	16525.23	50	101.64	90	110	
As	75	72	HMI He	48.933	ppb	1.42	11485.77	50	97.87	90	110	
Sr	88	45	HMI He	48.863	ppb	4.50	28161.72	50	97.73	90	110	
Zr	90	72	HMI He	37.856	ppb	19.08	556.68	50	75.71	90	110	>+\-10%
Nb	93	72	HMI He	95.590	ppb	0.95	432343.74	100	95.59	90	110	
Mo	95	115	HMI He	48.908	ppb	2.72	53018.58	50	97.82	90	110	
Pd	105	115	HMI He	50.076	ppb	2.38	82947.42	50	100.15	90	110	
Ag	107	115	HMI He	48.571	ppb	1.54	179262.85	50	97.14	90	110	
Cd	111	115	HMI He	48.411	ppb	1.67	21311.26	50	96.82	90	110	
Sn	120	115	HMI He	50.572	ppb	1.52	55675.69	50	101.14	90	110	
Sb	121	115	HMI He	50.497	ppb	0.85	51588.66	50	100.99	90	110	
Ba	137	115	HMI He	50.942	ppb	1.77	16108.61	50	101.88	90	110	
W	182	165	HMI He	48.313	ppb	0.96	216452.46	50	96.63	90	110	
Pt	195	165	HMI He	48.497	ppb	3.53	175750.79	50	96.99	90	110	
Tl	205	165	HMI He	48.586	ppb	3.86	372806.04	50	97.17	90	110	
Pb	208	165	HMI He	49.766	ppb	4.71	496197.41	50	99.53	90	110	
Th	232	165	HMI He	48.543	ppb	3.42	535945.21	50	97.09	90	110	
U	238	165	HMI He	49.197	ppb	3.27	572269.91	50	98.39	90	110	
Li	7	45	No Gas	336.635	ppb	3.76	15915509.79	500	67.33	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	758389.31	1.89	799595.296666667	94.85	60	125	
Ge Internal Standard	72	HMI H2	16000289.06	3.20	15586986.6866667	102.65	60	125	
Sc (IS)	45	HMI He	912055.99	1.14	907670.65	100.48	60	125	
Ge Internal Standard	72	HMI He	1241527.08	1.22	1221817.51333333	101.61	60	125	
In Internal standard	115	HMI He	3270519.51	0.71	3292036.66666667	99.35	60	125	
Ho-165	165	HMI He	15913958.34	2.01	15862929.38	100.32	60	125	
Sc IS)	45	No Gas	89204919.52	2.40	103504237.933333	86.18	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	164_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:09:43 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-3.844	ppb	-221.26	115452.49	0.1	
Be	9	6	HMI H2	0.056	ppb	55.62	26.67	0.5	
B	11	6	HMI H2	-0.055	ppb	-593.18	1020.05	0.1	
Se	78	72	HMI H2	-0.014	ppb	-142.96	36.00	1	
Na	23	45	HMI He	-63.360	ppb	-1.72	13061.87	25	
Mg	24	45	HMI He	-0.985	ppb	-88.48	310.01	25	
Al	27	45	HMI He	-1.992	ppb	-24.19	50.00	15	
K	39	45	HMI He	26.910	ppb	182.72	32088.10	50	
Ca	44	45	HMI He	-11.674	ppb	-35.63	46.67	25	
V	51	72	HMI He	0.601	ppb	11.05	2556.90	1	
Cr	52	72	HMI He	0.004	ppb	444.50	273.34	1	
Mn	55	72	HMI He	0.074	ppb	99.16	100.00	0.5	
Fe	57	72	HMI He	-1.030	ppb	-65.15	63.33	25	
Co	59	72	HMI He	0.003	ppb	153.44	16.67	0.5	
Ni	60	72	HMI He	-1.452	ppb	-0.30	370.01	1	
Cu	63	72	HMI He	-0.609	ppb	-8.44	900.04	1	
Zn	66	72	HMI He	-1.067	ppb	-5.44	176.67	5	
As	75	72	HMI He	-0.012	ppb	-127.39	22.88	1	
Sr	88	45	HMI He	0.017	ppb	272.07	30.00	1	
Zr	90	72	HMI He	-1.836	ppb	-154.13	96.67	1	
Nb	93	72	HMI He	0.272	ppb	13.91	1373.41	2	
Mo	95	115	HMI He	0.056	ppb	30.95	106.67	0.5	
Pd	105	115	HMI He	0.032	ppb	68.26	120.00	1	
Ag	107	115	HMI He	0.003	ppb	138.46	40.00	1	
Cd	111	115	HMI He	-0.015	ppb	-86.42	3.33	0.5	
Sn	120	115	HMI He	-0.392	ppb	-8.59	213.34	1	
Sb	121	115	HMI He	0.651	ppb	15.61	726.69	1	
Ba	137	115	HMI He	-0.012	ppb	-305.19	13.33	0.5	
W	182	165	HMI He	0.021	ppb	87.72	1143.40	1	
Pt	195	165	HMI He	0.004	ppb	94.30	113.33	1	
Tl	205	165	HMI He	0.011	ppb	38.77	200.00	0.1	
Pb	208	165	HMI He	-0.025	ppb	-36.44	1183.37	0.5	
Th	232	165	HMI He	0.025	ppb	30.10	463.35	1	
U	238	165	HMI He	0.006	ppb	13.72	140.00	0.5	
Li	7	45	No Gas	-65.057	ppb	-12.55	6432821.07	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	767522.89	1.85	799595.296666667	95.99	60	125	
Ge Internal Standard	72	HMI H2	15532997.63	1.05	15586986.6866667	99.65	60	125	
Sc (IS)	45	HMI He	914108.27	1.80	907670.65	100.71	60	125	
Ge Internal Standard	72	HMI He	1234148.87	1.70	1221817.51333333	101.01	60	125	
In Internal standard	115	HMI He	3361591.46	1.43	3292036.66666667	102.11	60	125	
Ho-165	165	HMI He	16111323.85	1.04	15862929.38	101.57	60	125	
Sc IS)	45	No Gas	87766627.92	1.10	103504237.933333	84.8	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	165LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:13:15 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.210	ppb	5.37	483.34	1	120.96	70	130	
Se	78	72	HMI H2	4.756	ppb	3.75	1852.11	5	95.13	70	130	
Na	23	45	HMI He	0.203	ppb	2882.71	26918.56	50	0.41	70	130	>+/-30%
Mg	24	45	HMI He	53.857	ppb	7.56	5400.93	50	107.71	70	130	
Al	27	45	HMI He	36.466	ppb	2.67	876.70	30	121.55	70	130	
K	39	45	HMI He	158.105	ppb	3.73	38204.19	100	158.1	70	130	>+/-30%
Ca	44	45	HMI He	68.768	ppb	28.76	276.67	50	137.54	70	130	>+/-30%
V	51	72	HMI He	5.357	ppb	4.99	8432.24	5	107.14	70	130	
Cr	52	72	HMI He	2.096	ppb	2.15	3647.12	2	104.78	70	130	
Mn	55	72	HMI He	1.225	ppb	19.41	746.69	1	122.48	70	130	
Fe	57	72	HMI He	45.317	ppb	6.28	1443.42	50	90.63	70	130	
Co	59	72	HMI He	0.998	ppb	9.80	2977.00	1	99.77	70	130	
Ni	60	72	HMI He	0.557	ppb	22.35	2036.82	2	27.83	70	130	>+/-30%
Cu	63	72	HMI He	1.821	ppb	5.08	6601.40	2	91.04	70	130	
Zn	66	72	HMI He	9.748	ppb	11.34	3523.75	10	97.48	70	130	
As	75	72	HMI He	4.817	ppb	7.35	1132.72	5	96.35	70	130	
Sr	88	45	HMI He	1.147	ppb	7.38	666.69	1	114.69	70	130	
Zr	90	72	HMI He	91.865	ppb	13.09	1160.05	0.5	18372.91	70	130	>+/-30%
Nb	93	72	HMI He	0.348	ppb	9.59	1686.78	2	17.38	70	130	>+/-30%
Mo	95	115	HMI He	2.027	ppb	10.03	2233.51	2	101.33	70	130	
Pd	105	115	HMI He	0.022	ppb	168.34	100.00	1	2.24	70	130	>+/-30%
Ag	107	115	HMI He	4.884	ppb	5.38	18020.45	5	97.69	70	130	
Cd	111	115	HMI He	0.941	ppb	20.10	423.34	1	94.06	70	130	
Sn	120	115	HMI He	10.321	ppb	3.41	11854.63	10	103.21	70	130	
Sb	121	115	HMI He	2.502	ppb	14.31	2590.25	2	125.09	70	130	
Ba	137	115	HMI He	1.141	ppb	12.69	376.68	1	114.1	70	130	
W	182	165	HMI He	5.032	ppb	0.56	22754.23	1	503.25	70	130	>+/-30%
Pt	195	165	HMI He	0.014	ppb	87.74	143.33	1	1.41	70	130	>+/-30%
Tl	205	165	HMI He	1.067	ppb	2.86	8045.64	1	106.72	70	130	
Pb	208	165	HMI He	1.105	ppb	6.34	12018.82	1	110.49	70	130	
Th	232	165	HMI He	2.055	ppb	4.38	22160.53	2	102.73	70	130	
U	238	165	HMI He	1.038	ppb	8.02	11774.96	1	103.85	70	130	
Li	7	45	No Gas	-56.860	ppb	-9.94	6550480.02	50	-113.72	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	777538.26	2.24	799595.296666667	97.24	60	125	
Ge Internal Standard	72	HMI H2	15912671.98	2.12	15586986.6866667	102.09	60	125	
Sc (IS)	45	HMI He	894175.22	1.53	907670.65	98.51	60	125	
Ge Internal Standard	72	HMI He	1218754.15	2.27	1221817.51333333	99.75	60	125	
In Internal standard	115	HMI He	3266398.90	1.20	3292036.66666667	99.22	60	125	
Ho-165	165	HMI He	15425194.19	1.20	15862929.38	97.24	60	125	
Sc IS)	45	No Gas	86829948.81	1.59	103504237.933333	83.89	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	166SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:16:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.054	ppb	0.79	25.00	2000	
B	11	6	HMI H2	-0.300	ppb	-78.40	863.37	100	
Se	78	72	HMI H2	0.069	ppb	73.21	61.33	2000	
Na	23	45	HMI He	-41.022	ppb	-1.79	15053.54	400000	
Mg	24	45	HMI He	-0.353	ppb	-365.33	306.68	400000	
Al	27	45	HMI He	4.307	ppb	37.31	156.67	400000	
K	39	45	HMI He	44.216	ppb	28.60	27402.92	400000	
Ca	44	45	HMI He	-5.735	ppb	-106.39	53.33	400000	
V	51	72	HMI He	4.518	ppb	12.73	6344.63	2000	
Cr	52	72	HMI He	0.198	ppb	21.93	500.01	5000	
Mn	55	72	HMI He	0.621	ppb	11.88	350.01	10000	
Fe	57	72	HMI He	4.425	ppb	5.22	193.33	400000	
Co	59	72	HMI He	0.007	ppb	32.89	23.33	2000	
Ni	60	72	HMI He	-1.480	ppb	-3.91	293.34	5000	
Cu	63	72	HMI He	-0.218	ppb	-36.28	1553.43	5000	
Zn	66	72	HMI He	0.488	ppb	76.81	563.35	5000	
As	75	72	HMI He	0.032	ppb	153.74	28.11	2000	
Sr	88	45	HMI He	0.028	ppb	73.87	30.00	2000	
Zr	90	72	HMI He	6.149	ppb	104.11	160.00	1000	
Nb	93	72	HMI He	0.064	ppb	21.55	370.01	200	
Mo	95	115	HMI He	-0.008	ppb	-154.79	30.00	2000	
Pd	105	115	HMI He	0.157	ppb	15.76	280.01	100	
Ag	107	115	HMI He	0.016	ppb	6.17	73.33	100	
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.324	ppb	60.34	856.70	2000	
Sb	121	115	HMI He	0.586	ppb	8.74	556.69	1000	
Ba	137	115	HMI He	0.007	ppb	777.69	16.67	5000	
W	182	165	HMI He	0.181	ppb	24.29	1656.78	100	
Pt	195	165	HMI He	-0.008	ppb	-105.87	60.00	100	
Tl	205	165	HMI He	0.006	ppb	170.04	140.00	2000	
Pb	208	165	HMI He	0.066	ppb	10.92	1866.74	5000	
Th	232	165	HMI He	0.037	ppb	17.26	533.35	2000	
U	238	165	HMI He	-0.001	ppb	-612.45	56.67	2000	
Li	7	45	No Gas	-46.678	ppb	-12.69	5902072.09	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	738023.81	0.64	799595.296666667	92.3	60	125	
Ge Internal Standard	72	HMI H2	14283186.86	2.14	15586986.6866667	91.64	60	125	
Sc (IS)	45	HMI He	758353.56	0.75	907670.65	83.55	60	125	
Ge Internal Standard	72	HMI He	1046867.74	0.09	1221817.51333333	85.68	60	125	
In Internal standard	115	HMI He	2846202.54	3.68	3292036.66666667	86.46	60	125	
Ho-165	165	HMI He	14340459.05	3.67	15862929.38	90.4	60	125	
Sc IS)	45	No Gas	75573396.89	2.36	103504237.933333	73.01	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	167SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:20:22 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.010	ppb	80.94	8.33	2000	
B	11	6	HMI H2	-0.874	ppb	-11.60	586.68	100	
Se	78	72	HMI H2	0.018	ppb	447.91	48.00	2000	
Na	23	45	HMI He	-57.551	ppb	-1.63	13802.47	400000	
Mg	24	45	HMI He	-1.862	ppb	-31.76	216.67	400000	
Al	27	45	HMI He	-2.048	ppb	-37.20	46.67	400000	
K	39	45	HMI He	34.991	ppb	62.82	31226.24	400000	
Ca	44	45	HMI He	-11.172	ppb	-130.13	46.67	400000	
V	51	72	HMI He	0.814	ppb	14.95	2700.26	2000	
Cr	52	72	HMI He	0.012	ppb	244.21	273.34	5000	
Mn	55	72	HMI He	0.076	ppb	99.98	96.67	10000	
Fe	57	72	HMI He	0.223	ppb	539.94	96.67	400000	
Co	59	72	HMI He	0.001	ppb	500.04	10.00	2000	
Ni	60	72	HMI He	-1.444	ppb	-13.41	360.01	5000	
Cu	63	72	HMI He	-0.365	ppb	-22.39	1416.74	5000	
Zn	66	72	HMI He	-0.586	ppb	-13.72	313.34	5000	
As	75	72	HMI He	-0.028	ppb	-101.25	18.30	2000	
Sr	88	45	HMI He	-0.017	ppb	-109.63	10.00	2000	
Zr	90	72	HMI He	2.175	ppb	127.86	136.67	1000	
Nb	93	72	HMI He	0.024	ppb	58.20	243.34	200	
Mo	95	115	HMI He	0.017	ppb	149.53	60.00	2000	
Pd	105	115	HMI He	0.001	ppb	2252.05	63.33	100	
Ag	107	115	HMI He	-0.001	ppb	-954.13	23.33	100	
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.345	ppb	-10.85	253.34	2000	
Sb	121	115	HMI He	0.018	ppb	251.04	60.00	1000	
Ba	137	115	HMI He	-0.031	ppb	-121.74	6.67	5000	
W	182	165	HMI He	-0.022	ppb	-161.30	926.70	100	
Pt	195	165	HMI He	-0.021	ppb	-23.02	20.00	100	
Tl	205	165	HMI He	0.001	ppb	414.90	120.00	2000	
Pb	208	165	HMI He	0.013	ppb	94.81	1530.06	5000	
Th	232	165	HMI He	0.005	ppb	144.03	233.34	2000	
U	238	165	HMI He	0.000	ppb	-1180.67	70.00	2000	
Li	7	45	No Gas	-64.088	ppb	-9.04	6323456.91	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	743736.36	1.61	799595.296666667	93.01	60	125	
Ge Internal Standard	72	HMI H2	15303881.80	3.31	15586986.6866667	98.18	60	125	
Sc (IS)	45	HMI He	877498.22	2.47	907670.65	96.68	60	125	
Ge Internal Standard	72	HMI He	1180242.76	0.44	1221817.51333333	96.6	60	125	
In Internal standard	115	HMI He	3206845.44	0.79	3292036.66666667	97.41	60	125	
Ho-165	165	HMI He	15778164.18	0.90	15862929.38	99.47	60	125	
Sc IS)	45	No Gas	85929029.68	2.64	103504237.933333	83.02	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	168SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:23:55 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.014	ppb	191.48	10.00	2000	
B	11	6	HMI H2	-0.922	ppb	-22.87	580.02	100	
Se	78	72	HMI H2	-0.001	ppb	-4337.36	41.33	2000	
Na	23	45	HMI He	-62.978	ppb	-1.40	12965.15	400000	
Mg	24	45	HMI He	-1.050	ppb	-135.27	300.01	400000	
Al	27	45	HMI He	-1.026	ppb	-238.07	70.00	400000	
K	39	45	HMI He	70.283	ppb	27.46	33938.20	400000	
Ca	44	45	HMI He	-19.558	ppb	-9.81	23.33	400000	
V	51	72	HMI He	0.459	ppb	22.86	2326.87	2000	
Cr	52	72	HMI He	-0.008	ppb	-183.85	246.67	5000	
Mn	55	72	HMI He	0.024	ppb	317.97	70.00	10000	
Fe	57	72	HMI He	1.394	ppb	93.47	133.33	400000	
Co	59	72	HMI He	0.005	ppb	74.58	20.00	2000	
Ni	60	72	HMI He	-1.383	ppb	-16.94	420.01	5000	
Cu	63	72	HMI He	-0.328	ppb	-26.47	1536.76	5000	
Zn	66	72	HMI He	-0.348	ppb	-63.64	393.35	5000	
As	75	72	HMI He	-0.002	ppb	-2028.81	24.84	2000	
Sr	88	45	HMI He	-0.017	ppb	-174.75	10.00	2000	
Zr	90	72	HMI He	-0.494	ppb	-766.52	110.00	1000	
Nb	93	72	HMI He	0.010	ppb	154.11	190.00	200	
Mo	95	115	HMI He	-0.007	ppb	-511.23	36.67	2000	
Pd	105	115	HMI He	-0.009	ppb	-66.20	50.00	100	
Ag	107	115	HMI He	-0.002	ppb	-399.38	20.00	100	
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.420	ppb	-6.43	180.00	2000	
Sb	121	115	HMI He	0.016	ppb	236.70	60.00	1000	
Ba	137	115	HMI He	-0.001	ppb	-4716.02	16.67	5000	
W	182	165	HMI He	-0.014	ppb	-265.17	963.38	100	
Pt	195	165	HMI He	-0.019	ppb	-16.81	26.67	100	
Tl	205	165	HMI He	-0.007	ppb	-49.17	56.67	2000	
Pb	208	165	HMI He	0.002	ppb	477.12	1423.39	5000	
Th	232	165	HMI He	0.002	ppb	62.33	203.33	2000	
U	238	165	HMI He	-0.002	ppb	-128.17	50.00	2000	
Li	7	45	No Gas	-66.708	ppb	-9.73	6228028.89	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	764479.93	1.29	799595.296666667	95.61	60	125	
Ge Internal Standard	72	HMI H2	15723909.39	1.46	15586986.6866667	100.88	60	125	
Sc (IS)	45	HMI He	901487.82	1.08	907670.65	99.32	60	125	
Ge Internal Standard	72	HMI He	1208199.03	0.92	1221817.51333333	98.89	60	125	
In Internal standard	115	HMI He	3318010.32	1.78	3292036.66666667	100.79	60	125	
Ho-165	165	HMI He	15756605.64	1.31	15862929.38	99.33	60	125	
Sc IS)	45	No Gas	85462241.38	1.89	103504237.933333	82.57	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	169SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:27:26 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	135CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.009	ppb	79.20	8.33	2000	
B	11	6	HMI H2	-1.207	ppb	-14.86	430.01	100	
Se	78	72	HMI H2	-0.028	ppb	-216.98	30.67	2000	
Na	23	45	HMI He	-63.262	ppb	-1.99	12975.13	400000	
Mg	24	45	HMI He	-1.203	ppb	-76.01	286.67	400000	
Al	27	45	HMI He	0.921	ppb	186.59	113.33	400000	
K	39	45	HMI He	46.900	ppb	30.03	32903.08	400000	
Ca	44	45	HMI He	-1.266	ppb	-320.21	76.67	400000	
V	51	72	HMI He	0.377	ppb	23.50	2240.19	2000	
Cr	52	72	HMI He	0.042	ppb	104.73	330.01	5000	
Mn	55	72	HMI He	0.006	ppb	507.83	60.00	10000	
Fe	57	72	HMI He	0.460	ppb	290.12	106.67	400000	
Co	59	72	HMI He	-0.001	ppb	-172.59	3.33	2000	
Ni	60	72	HMI He	-1.357	ppb	-11.07	443.35	5000	
Cu	63	72	HMI He	-0.329	ppb	-18.35	1543.43	5000	
Zn	66	72	HMI He	-0.563	ppb	-42.40	330.01	5000	
As	75	72	HMI He	0.018	ppb	209.00	29.41	2000	
Sr	88	45	HMI He	0.006	ppb	737.76	23.33	2000	
Zr	90	72	HMI He	-1.701	ppb	-421.13	96.67	1000	
Nb	93	72	HMI He	0.002	ppb	585.42	156.67	200	
Mo	95	115	HMI He	-0.031	ppb	-29.23	10.00	2000	
Pd	105	115	HMI He	-0.009	ppb	-131.11	50.00	100	
Ag	107	115	HMI He	0.000	ppb	-2203.88	26.67	100	
Cd	111	115	HMI He	-0.022	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.367	ppb	-14.16	240.01	2000	
Sb	121	115	HMI He	0.003	ppb	194.96	46.67	1000	
Ba	137	115	HMI He	-0.042	ppb	-42.11	3.33	5000	
W	182	165	HMI He	0.001	ppb	2134.89	1026.72	100	
Pt	195	165	HMI He	-0.011	ppb	-79.04	56.67	100	
Tl	205	165	HMI He	-0.006	ppb	-74.09	60.00	2000	
Pb	208	165	HMI He	0.000	ppb	-11693.78	1393.38	5000	
Th	232	165	HMI He	0.001	ppb	169.27	190.00	2000	
U	238	165	HMI He	0.001	ppb	115.00	80.00	2000	
Li	7	45	No Gas	-62.155	ppb	-12.64	6419445.92	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	758212.37	2.54	799595.296666667	94.82	60	125	
Ge Internal Standard	72	HMI H2	15430777.53	0.77	15586986.6866667	99	60	125	
Sc (IS)	45	HMI He	906646.01	0.48	907670.65	99.89	60	125	
Ge Internal Standard	72	HMI He	1215292.15	0.65	1221817.51333333	99.47	60	125	
In Internal standard	115	HMI He	3336752.94	1.59	3292036.66666667	101.36	60	125	
Ho-165	165	HMI He	15691568.98	1.74	15862929.38	98.92	60	125	
Sc IS)	45	No Gas	86647616.31	1.46	103504237.933333	83.71	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	170CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:31:06 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	114764.61	ppb	1.05
Be	9	6	HMI H2	1.67	ppb	173.21
B	11	6	HMI H2	400.01	ppb	12.99
Se	78	72	HMI H2	25.33	ppb	9.12
Na	23	45	HMI He	24060.75	ppb	2.98
Mg	24	45	HMI He	413.34	ppb	26.09
Al	27	45	HMI He	113.33	ppb	48.60
K	39	45	HMI He	33056.33	ppb	1.43
Ca	44	45	HMI He	66.67	ppb	37.75
V	51	72	HMI He	2173.50	ppb	4.70
Cr	52	72	HMI He	326.67	ppb	38.76
Mn	55	72	HMI He	60.00	ppb	57.74
Fe	57	72	HMI He	123.33	ppb	30.70
Co	59	72	HMI He	10.00	ppb	173.21
Ni	60	72	HMI He	1370.08	ppb	7.62
Cu	63	72	HMI He	2253.53	ppb	13.39
Zn	66	72	HMI He	546.68	ppb	11.18
As	75	72	HMI He	22.88	ppb	21.56
Sr	88	45	HMI He	40.00	ppb	25.00
Zr	90	72	HMI He	113.33	ppb	45.28
Nb	93	72	HMI He	123.33	ppb	30.70
Mo	95	115	HMI He	16.67	ppb	69.28
Pd	105	115	HMI He	20.00	ppb	100.00
Ag	107	115	HMI He	36.67	ppb	128.89
Cd	111	115	HMI He	6.67	ppb	173.21
Sn	120	115	HMI He	650.02	ppb	3.08
Sb	121	115	HMI He	70.00	ppb	14.29
Ba	137	115	HMI He	16.67	ppb	69.28
W	182	165	HMI He	1053.39	ppb	12.75
Pt	195	165	HMI He	76.67	ppb	39.85
Tl	205	165	HMI He	106.67	ppb	32.92
Pb	208	165	HMI He	1483.39	ppb	3.83
Th	232	165	HMI He	130.00	ppb	7.69
U	238	165	HMI He	70.00	ppb	79.54
Li	7	45	No Gas	6368490.55	ppb	3.03

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	779965.57	0.12
Ge Internal Standard	72	HMI H2	15555048.04	3.07
Sc (IS)	45	HMI He	895444.86	0.82
Ge Internal Standard	72	HMI He	1218582.29	0.89
In Internal standard	115	HMI He	3287713.79	1.22
Ho-165	165	HMI He	15906832.30	0.65
Sc IS)	45	No Gas	85704574.70	1.84

Calibration Standard Report

Sample Name	IC-4905894
File Name	171CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:34:38 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	420015.02	ppb	1.49
Be	9	6	HMI H2	40245.77	ppb	1.55
B	11	6	HMI H2	53939.23	ppb	0.75
Se	78	72	HMI H2	37405.83	ppb	1.34
Na	23	45	HMI He	2139675.90	ppb	5.05
Mg	24	45	HMI He	894957.87	ppb	1.60
Al	27	45	HMI He	207560.63	ppb	1.74
K	39	45	HMI He	535490.19	ppb	0.82
Ca	44	45	HMI He	28564.95	ppb	2.92
V	51	72	HMI He	120602.19	ppb	1.31
Cr	52	72	HMI He	153587.85	ppb	0.98
Mn	55	72	HMI He	53430.40	ppb	3.56
Fe	57	72	HMI He	280561.13	ppb	1.40
Co	59	72	HMI He	280201.85	ppb	0.32
Ni	60	72	HMI He	79539.47	ppb	1.89
Cu	63	72	HMI He	225317.17	ppb	3.56
Zn	66	72	HMI He	28772.27	ppb	2.69
As	75	72	HMI He	22634.72	ppb	0.77
Sr	88	45	HMI He	55717.11	ppb	1.90
Zr	90	72	HMI He	1153.40	ppb	5.90
Nb	93	72	HMI He	861098.99	ppb	1.80
Mo	95	115	HMI He	103357.16	ppb	2.12
Pd	105	115	HMI He	155863.18	ppb	1.02
Ag	107	115	HMI He	348099.72	ppb	1.37
Cd	111	115	HMI He	40478.96	ppb	2.32
Sn	120	115	HMI He	108511.25	ppb	1.39
Sb	121	115	HMI He	101792.80	ppb	1.62
Ba	137	115	HMI He	31265.29	ppb	2.63
W	182	165	HMI He	418980.93	ppb	2.40
Pt	195	165	HMI He	335837.53	ppb	0.87
Tl	205	165	HMI He	735897.69	ppb	2.39
Pb	208	165	HMI He	977979.99	ppb	0.59
Th	232	165	HMI He	1060168.61	ppb	0.76
U	238	165	HMI He	1112513.12	ppb	1.18
Li	7	45	No Gas	23982331.46	ppb	1.00

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	736374.58	1.10	779965.57	94.41	60	125	
Ge Internal Standard	72	HMI H2	15382147.22	2.12	15555048.0433333	98.89	60	125	
Sc (IS)	45	HMI He	890342.39	1.06	895444.856666667	99.43	60	125	
Ge Internal Standard	72	HMI He	1208663.45	1.17	1218582.29333333	99.19	60	125	
In Internal standard	115	HMI He	3214949.90	1.55	3287713.79333333	97.79	60	125	
Ho-165	165	HMI He	15774666.78	1.60	15906832.2966667	99.17	60	125	
Sc IS)	45	No Gas	85578728.04	1.11	85704574.7	99.85	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	172_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:38:13 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	532.597	ppb	3.86	275564.76	500	106.52	90	110	
Be	9	6	HMI H2	48.514	ppb	6.32	20257.15	50	97.03	90	110	
B	11	6	HMI H2	35.254	ppb	4.90	19965.32	50	70.51	90	110	>+\-10%
Se	78	72	HMI H2	50.380	ppb	6.09	18940.50	50	100.76	90	110	
Na	23	45	HMI He	4711.787	ppb	1.80	1039866.08	5000	94.24	90	110	
Mg	24	45	HMI He	4904.792	ppb	2.96	447425.82	5000	98.1	90	110	
Al	27	45	HMI He	4884.681	ppb	3.61	103357.21	5000	97.69	90	110	
K	39	45	HMI He	4879.002	ppb	1.74	283416.84	5000	97.58	90	110	
Ca	44	45	HMI He	4833.641	ppb	4.47	14102.79	5000	96.67	90	110	
V	51	72	HMI He	49.952	ppb	1.78	62193.78	50	99.9	90	110	
Cr	52	72	HMI He	51.812	ppb	1.93	80847.86	50	103.62	90	110	
Mn	55	72	HMI He	51.439	ppb	1.78	27893.87	50	102.88	90	110	
Fe	57	72	HMI He	4882.840	ppb	2.12	138981.52	5000	97.66	90	110	
Co	59	72	HMI He	50.904	ppb	1.80	144653.80	50	101.81	90	110	
Ni	60	72	HMI He	50.904	ppb	2.60	41733.41	50	101.81	90	110	
Cu	63	72	HMI He	50.203	ppb	1.70	115819.19	50	100.41	90	110	
Zn	66	72	HMI He	51.352	ppb	0.66	15253.97	50	102.7	90	110	
As	75	72	HMI He	50.033	ppb	0.51	11495.59	50	100.07	90	110	
Sr	88	45	HMI He	51.125	ppb	3.90	29050.07	50	102.25	90	110	
Zr	90	72	HMI He	17.261	ppb	26.81	296.68	50	34.52	90	110	>+\-10%
Nb	93	72	HMI He	99.080	ppb	2.48	432528.86	100	99.08	90	110	
Mo	95	115	HMI He	48.630	ppb	1.83	51844.60	50	97.26	90	110	
Pd	105	115	HMI He	52.135	ppb	1.55	83801.58	50	104.27	90	110	
Ag	107	115	HMI He	50.177	ppb	2.08	180084.18	50	100.35	90	110	
Cd	111	115	HMI He	50.771	ppb	1.69	21194.53	50	101.54	90	110	
Sn	120	115	HMI He	48.242	ppb	2.58	54317.74	50	96.48	90	110	
Sb	121	115	HMI He	48.967	ppb	2.19	51421.33	50	97.93	90	110	
Ba	137	115	HMI He	50.229	ppb	3.53	16195.37	50	100.46	90	110	
W	182	165	HMI He	49.889	ppb	4.00	211227.57	50	99.78	90	110	
Pt	195	165	HMI He	51.286	ppb	5.40	173626.61	50	102.57	90	110	
Tl	205	165	HMI He	49.737	ppb	3.36	369229.86	50	99.47	90	110	
Pb	208	165	HMI He	49.504	ppb	4.02	488853.96	50	99.01	90	110	
Th	232	165	HMI He	49.720	ppb	2.67	531688.82	50	99.44	90	110	
U	238	165	HMI He	50.271	ppb	3.95	563927.41	50	100.54	90	110	
Li	7	45	No Gas	513.556	ppb	3.47	15316093.89	500	102.71	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	763858.37	3.21	779965.57	97.93	60	125	
Ge Internal Standard	72	HMI H2	15466033.57	3.50	15555048.0433333	99.43	60	125	
Sc (IS)	45	HMI He	907346.08	1.49	895444.856666667	101.33	60	125	
Ge Internal Standard	72	HMI He	1225653.20	1.45	1218582.29333333	100.58	60	125	
In Internal standard	115	HMI He	3314331.95	0.79	3287713.79333333	100.81	60	125	
Ho-165	165	HMI He	15916083.75	3.78	15906832.2966667	100.06	60	125	
Sc IS)	45	No Gas	85055019.73	1.49	85704574.7	99.24	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	173_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:41:46 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	3.123	ppb	203.18	115932.08	0.1	>RL
Be	9	6	HMI H2	0.087	ppb	41.60	38.33	0.5	
B	11	6	HMI H2	1.499	ppb	31.86	1240.07	0.1	>RL
Se	78	72	HMI H2	0.090	ppb	10.79	60.00	1	
Na	23	45	HMI He	-64.925	ppb	-4.21	10530.10	25	
Mg	24	45	HMI He	-1.495	ppb	-71.36	286.67	25	
Al	27	45	HMI He	-3.548	ppb	-47.90	40.00	15	
K	39	45	HMI He	-23.585	ppb	-161.76	32735.98	50	
Ca	44	45	HMI He	-2.874	ppb	-4.87	60.00	25	
V	51	72	HMI He	0.150	ppb	108.73	2356.87	1	
Cr	52	72	HMI He	-0.056	ppb	-56.24	240.01	1	
Mn	55	72	HMI He	-0.031	ppb	-124.62	43.33	0.5	
Fe	57	72	HMI He	-2.244	ppb	-16.31	60.00	25	
Co	59	72	HMI He	0.008	ppb	130.47	33.33	0.5	
Ni	60	72	HMI He	-1.269	ppb	-7.76	370.01	1	
Cu	63	72	HMI He	-0.538	ppb	-6.11	1046.71	1	
Zn	66	72	HMI He	-1.136	ppb	-11.06	223.34	5	
As	75	72	HMI He	-0.003	ppb	-643.30	22.22	1	
Sr	88	45	HMI He	-0.013	ppb	-377.45	33.33	1	
Zr	90	72	HMI He	-0.701	ppb	-943.42	106.67	1	
Nb	93	72	HMI He	0.401	ppb	8.43	1866.80	2	
Mo	95	115	HMI He	0.098	ppb	17.20	120.00	0.5	
Pd	105	115	HMI He	0.130	ppb	38.66	226.67	1	
Ag	107	115	HMI He	-0.003	ppb	-149.91	26.67	1	
Cd	111	115	HMI He	0.000	ppb	3819.41	6.67	0.5	
Sn	120	115	HMI He	-0.384	ppb	-21.47	223.34	1	
Sb	121	115	HMI He	0.763	ppb	8.73	860.03	1	
Ba	137	115	HMI He	0.000	ppb	-18780.17	16.67	0.5	
W	182	165	HMI He	0.071	ppb	18.75	1340.08	1	
Pt	195	165	HMI He	0.009	ppb	33.51	106.67	1	
Tl	205	165	HMI He	0.015	ppb	26.59	216.67	0.1	
Pb	208	165	HMI He	-0.040	ppb	-24.41	1083.36	0.5	
Th	232	165	HMI He	0.023	ppb	12.62	370.01	1	
U	238	165	HMI He	0.010	ppb	19.01	180.00	0.5	
Li	7	45	No Gas	-8.984	ppb	-89.40	6120002.23	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	773729.76	0.41	779965.57	99.2	60	125	
Ge Internal Standard	72	HMI H2	15673483.14	1.33	15555048.0433333	100.76	60	125	
Sc (IS)	45	HMI He	920235.08	0.68	895444.856666667	102.77	60	125	
Ge Internal Standard	72	HMI He	1220597.78	0.65	1218582.29333333	100.17	60	125	
In Internal standard	115	HMI He	3271670.27	2.44	3287713.79333333	99.51	60	125	
Ho-165	165	HMI He	15779896.89	1.29	15906832.2966667	99.2	60	125	
Sc IS)	45	No Gas	84462681.43	1.13	85704574.7	98.55	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	174LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:45:17 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.056	ppb	4.09	451.68	1	105.61	70	130	
Se	78	72	HMI H2	4.984	ppb	2.85	1945.46	5	99.69	70	130	
Na	23	45	HMI He	2.817	ppb	156.34	25332.64	50	5.63	70	130	>+/-30%
Mg	24	45	HMI He	50.473	ppb	11.50	5080.83	50	100.95	70	130	
Al	27	45	HMI He	30.547	ppb	38.74	766.69	30	101.82	70	130	
K	39	45	HMI He	82.065	ppb	50.72	38200.79	100	82.06	70	130	
Ca	44	45	HMI He	40.334	ppb	26.28	186.67	50	80.67	70	130	
V	51	72	HMI He	5.075	ppb	9.44	8425.60	5	101.51	70	130	
Cr	52	72	HMI He	2.009	ppb	10.47	3507.09	2	100.46	70	130	
Mn	55	72	HMI He	1.096	ppb	21.35	663.36	1	109.6	70	130	
Fe	57	72	HMI He	51.336	ppb	10.07	1610.10	50	102.67	70	130	
Co	59	72	HMI He	1.023	ppb	2.39	2970.31	1	102.31	70	130	
Ni	60	72	HMI He	0.734	ppb	24.69	1993.47	2	36.7	70	130	>+/-30%
Cu	63	72	HMI He	1.738	ppb	13.33	6301.32	2	86.9	70	130	
Zn	66	72	HMI He	10.065	ppb	17.43	3490.42	10	100.65	70	130	
As	75	72	HMI He	4.365	ppb	11.64	1039.91	5	87.29	70	130	
Sr	88	45	HMI He	0.891	ppb	15.31	553.35	1	89.13	70	130	
Zr	90	72	HMI He	82.875	ppb	17.86	1003.39	0.5	16575.01	70	130	>+/-30%
Nb	93	72	HMI He	0.383	ppb	12.24	1823.47	2	19.14	70	130	>+/-30%
Mo	95	115	HMI He	1.990	ppb	21.71	2156.85	2	99.51	70	130	
Pd	105	115	HMI He	0.093	ppb	29.32	173.34	1	9.34	70	130	>+/-30%
Ag	107	115	HMI He	4.941	ppb	8.35	18017.13	5	98.82	70	130	
Cd	111	115	HMI He	1.055	ppb	18.53	453.35	1	105.53	70	130	
Sn	120	115	HMI He	9.614	ppb	7.12	11517.78	10	96.14	70	130	
Sb	121	115	HMI He	2.334	ppb	15.72	2546.91	2	116.71	70	130	
Ba	137	115	HMI He	1.230	ppb	36.87	416.68	1	122.95	70	130	
W	182	165	HMI He	4.899	ppb	9.85	22356.92	1	489.94	70	130	>+/-30%
Pt	195	165	HMI He	0.021	ppb	113.14	150.00	1	2.06	70	130	>+/-30%
Tl	205	165	HMI He	1.048	ppb	7.92	8125.68	1	104.81	70	130	
Pb	208	165	HMI He	1.015	ppb	3.72	11845.40	1	101.49	70	130	
Th	232	165	HMI He	1.895	ppb	9.34	20995.59	2	94.73	70	130	
U	238	165	HMI He	1.014	ppb	11.86	11778.30	1	101.38	70	130	
Li	7	45	No Gas	19.924	ppb	35.12	6668257.67	50	39.85	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	779799.75	1.22	779965.57	99.98	60	125	
Ge Internal Standard	72	HMI H2	15838720.95	1.54	15555048.0433333	101.82	60	125	
Sc (IS)	45	HMI He	920561.53	3.39	895444.856666667	102.8	60	125	
Ge Internal Standard	72	HMI He	1248299.40	3.83	1218582.29333333	102.44	60	125	
In Internal standard	115	HMI He	3372195.10	6.08	3287713.79333333	102.57	60	125	
Ho-165	165	HMI He	16430312.89	4.80	15906832.2966667	103.29	60	125	
Sc IS)	45	No Gas	85044720.56	1.93	85704574.7	99.23	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	175SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:49:26 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	170CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.067	ppb	83.12	30.00	2000	
B	11	6	HMI H2	0.247	ppb	65.90	543.35	100	
Se	78	72	HMI H2	0.017	ppb	232.56	32.00	2000	
Na	23	45	HMI He	-54.996	ppb	-3.65	12157.88	400000	
Mg	24	45	HMI He	-2.440	ppb	-39.77	190.00	400000	
Al	27	45	HMI He	-0.212	ppb	-518.85	106.67	400000	
K	39	45	HMI He	-34.686	ppb	-46.28	30788.92	400000	
Ca	44	45	HMI He	-17.316	ppb	-42.48	16.67	400000	
V	51	72	HMI He	0.176	ppb	103.92	2356.86	2000	
Cr	52	72	HMI He	-0.069	ppb	-21.66	216.67	5000	
Mn	55	72	HMI He	0.001	ppb	2268.49	60.00	10000	
Fe	57	72	HMI He	-1.393	ppb	-101.86	83.33	400000	
Co	59	72	HMI He	0.002	ppb	225.58	16.67	2000	
Ni	60	72	HMI He	-1.361	ppb	-1.19	293.34	5000	
Cu	63	72	HMI He	-0.325	ppb	-13.19	1506.76	5000	
Zn	66	72	HMI He	-0.447	ppb	-118.55	413.35	5000	
As	75	72	HMI He	0.004	ppb	586.06	23.53	2000	
Sr	88	45	HMI He	-0.011	ppb	-273.06	33.33	2000	
Zr	90	72	HMI He	-2.165	ppb	-158.84	90.00	1000	
Nb	93	72	HMI He	0.035	ppb	51.01	273.34	200	
Mo	95	115	HMI He	0.023	ppb	74.82	40.00	2000	
Pd	105	115	HMI He	0.043	ppb	20.98	86.67	100	
Ag	107	115	HMI He	-0.001	ppb	-335.96	33.33	100	
Cd	111	115	HMI He	-0.016	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.371	ppb	-6.24	236.67	2000	
Sb	121	115	HMI He	0.158	ppb	64.67	230.00	1000	
Ba	137	115	HMI He	-0.010	ppb	-486.37	13.33	5000	
W	182	165	HMI He	-0.004	ppb	-347.61	1006.71	100	
Pt	195	165	HMI He	-0.003	ppb	-271.71	66.67	100	
Tl	205	165	HMI He	0.002	ppb	51.58	120.00	2000	
Pb	208	165	HMI He	-0.020	ppb	-52.01	1250.04	5000	
Th	232	165	HMI He	0.012	ppb	91.33	253.34	2000	
U	238	165	HMI He	0.001	ppb	530.07	73.33	2000	
Li	7	45	No Gas	2.938	ppb	111.81	6361155.66	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	782773.20	2.31	779965.57	100.36	60	125	
Ge Internal Standard	72	HMI H2	15772646.78	0.91	15555048.0433333	101.4	60	125	
Sc (IS)	45	HMI He	880711.10	1.81	895444.856666667	98.35	60	125	
Ge Internal Standard	72	HMI He	1204879.78	1.02	1218582.29333333	98.88	60	125	
In Internal standard	115	HMI He	3229169.13	2.76	3287713.79333333	98.22	60	125	
Ho-165	165	HMI He	15473624.71	1.43	15906832.2966667	97.28	60	125	
Sc IS)	45	No Gas	84901693.07	0.22	85704574.7	99.06	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	176CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:53:22 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	113657.67	ppb	0.78
Be	9	6	HMI H2	10.00	ppb	86.60
B	11	6	HMI H2	470.01	ppb	14.89
Se	78	72	HMI H2	61.33	ppb	33.47
Na	23	45	HMI He	9776.28	ppb	4.83
Mg	24	45	HMI He	236.67	ppb	23.27
Al	27	45	HMI He	26.67	ppb	21.65
K	39	45	HMI He	32896.30	ppb	4.97
Ca	44	45	HMI He	36.67	ppb	31.49
V	51	72	HMI He	2210.18	ppb	12.17
Cr	52	72	HMI He	250.00	ppb	21.17
Mn	55	72	HMI He	43.33	ppb	48.04
Fe	57	72	HMI He	60.00	ppb	44.10
Co	59	72	HMI He	3.33	ppb	173.21
Ni	60	72	HMI He	310.01	ppb	14.06
Cu	63	72	HMI He	893.37	ppb	10.16
Zn	66	72	HMI He	246.67	ppb	24.77
As	75	72	HMI He	22.88	ppb	30.09
Sr	88	45	HMI He	6.67	ppb	86.60
Zr	90	72	HMI He	93.33	ppb	40.56
Nb	93	72	HMI He	193.33	ppb	26.03
Mo	95	115	HMI He	10.00	ppb	100.00
Pd	105	115	HMI He	53.33	ppb	10.83
Ag	107	115	HMI He	23.33	ppb	98.97
Cd	111	115	HMI He	3.33	ppb	173.21
Sn	120	115	HMI He	193.34	ppb	16.63
Sb	121	115	HMI He	106.67	ppb	32.92
Ba	137	115	HMI He	6.67	ppb	173.21
W	182	165	HMI He	1210.07	ppb	14.90
Pt	195	165	HMI He	83.33	ppb	34.64
Tl	205	165	HMI He	93.33	ppb	6.19
Pb	208	165	HMI He	816.69	ppb	14.30
Th	232	165	HMI He	193.34	ppb	25.52
U	238	165	HMI He	43.33	ppb	35.25
Li	7	45	No Gas	6232408.27	ppb	3.52

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	761875.41	0.57
Ge Internal Standard	72	HMI H2	15335359.83	0.79
Sc (IS)	45	HMI He	893895.12	1.45
Ge Internal Standard	72	HMI He	1212004.90	0.52
In Internal standard	115	HMI He	3222507.35	1.35
Ho-165	165	HMI He	15514356.48	1.85
Sc IS)	45	No Gas	82462669.87	1.91

Calibration Standard Report

Sample Name	IC-4905894
File Name	177CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 8:56:52 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	407181.18	ppb	3.09
Be	9	6	HMI H2	38296.37	ppb	1.86
B	11	6	HMI H2	34451.83	ppb	0.81
Se	78	72	HMI H2	34313.81	ppb	1.12
Na	23	45	HMI He	2060327.94	ppb	2.26
Mg	24	45	HMI He	858201.88	ppb	1.90
Al	27	45	HMI He	199447.19	ppb	0.21
K	39	45	HMI He	520354.44	ppb	2.08
Ca	44	45	HMI He	25920.48	ppb	3.17
V	51	72	HMI He	114730.65	ppb	1.57
Cr	52	72	HMI He	148536.12	ppb	1.18
Mn	55	72	HMI He	52250.09	ppb	1.18
Fe	57	72	HMI He	270203.50	ppb	1.62
Co	59	72	HMI He	270103.68	ppb	1.72
Ni	60	72	HMI He	77506.65	ppb	0.43
Cu	63	72	HMI He	214511.53	ppb	2.12
Zn	66	72	HMI He	28708.88	ppb	0.47
As	75	72	HMI He	20770.82	ppb	1.83
Sr	88	45	HMI He	53151.72	ppb	0.99
Zr	90	72	HMI He	156.67	ppb	18.43
Nb	93	72	HMI He	799074.21	ppb	0.37
Mo	95	115	HMI He	98037.41	ppb	1.07
Pd	105	115	HMI He	154912.48	ppb	0.73
Ag	107	115	HMI He	329093.06	ppb	0.90
Cd	111	115	HMI He	39195.57	ppb	1.75
Sn	120	115	HMI He	101082.17	ppb	1.02
Sb	121	115	HMI He	94406.92	ppb	1.42
Ba	137	115	HMI He	30259.85	ppb	3.69
W	182	165	HMI He	405019.14	ppb	0.86
Pt	195	165	HMI He	328125.07	ppb	1.90
Tl	205	165	HMI He	709209.16	ppb	1.10
Pb	208	165	HMI He	911371.93	ppb	0.93
Th	232	165	HMI He	1013579.13	ppb	1.08
U	238	165	HMI He	1066734.28	ppb	0.53
Li	7	45	No Gas	23618417.31	ppb	2.94

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	754607.91	4.37	761875.413333333	99.05	60	125	
Ge Internal Standard	72	HMI H2	15092040.67	1.97	15335359.8266667	98.41	60	125	
Sc (IS)	45	HMI He	857183.24	0.21	893895.12	95.89	60	125	
Ge Internal Standard	72	HMI He	1177513.67	1.34	1212004.9	97.15	60	125	
In Internal standard	115	HMI He	3153288.11	2.79	3222507.34666667	97.85	60	125	
Ho-165	165	HMI He	15181948.17	2.25	15514356.4833333	97.86	60	125	
Sc IS)	45	No Gas	83542518.14	0.47	82462669.8666667	101.31	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	178_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:00:23 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	542.462	ppb	2.69	276985.16	500	108.49	90	110	
Be	9	6	HMI H2	51.217	ppb	7.21	20312.20	50	102.43	90	110	
B	11	6	HMI H2	55.154	ppb	4.92	19895.16	50	110.31	90	110	>+\-10%
Se	78	72	HMI H2	52.909	ppb	3.48	18405.22	50	105.82	90	110	
Na	23	45	HMI He	4796.744	ppb	1.68	1018311.34	5000	95.93	90	110	
Mg	24	45	HMI He	4923.027	ppb	1.49	433298.80	5000	98.46	90	110	
Al	27	45	HMI He	4902.577	ppb	1.74	100268.22	5000	98.05	90	110	
K	39	45	HMI He	4889.078	ppb	0.75	277396.53	5000	97.78	90	110	
Ca	44	45	HMI He	4833.607	ppb	1.64	12865.16	5000	96.67	90	110	
V	51	72	HMI He	51.605	ppb	2.25	60895.73	50	103.21	90	110	
Cr	52	72	HMI He	51.307	ppb	2.20	77164.01	50	102.61	90	110	
Mn	55	72	HMI He	52.059	ppb	4.23	27516.65	50	104.12	90	110	
Fe	57	72	HMI He	4929.816	ppb	1.10	134675.88	5000	98.6	90	110	
Co	59	72	HMI He	50.524	ppb	3.56	137958.07	50	101.05	90	110	
Ni	60	72	HMI He	50.015	ppb	3.11	39337.50	50	100.03	90	110	
Cu	63	72	HMI He	51.608	ppb	2.27	112311.23	50	103.22	90	110	
Zn	66	72	HMI He	50.191	ppb	0.99	14686.77	50	100.38	90	110	
As	75	72	HMI He	52.274	ppb	2.84	10986.09	50	104.55	90	110	
Sr	88	45	HMI He	52.085	ppb	2.29	28388.93	50	104.17	90	110	
Zr	90	72	HMI He	246.750	ppb	24.73	256.67	50	493.5	90	110	>+\-10%
Nb	93	72	HMI He	102.466	ppb	1.01	413979.06	100	102.47	90	110	
Mo	95	115	HMI He	50.842	ppb	1.77	50125.69	50	101.68	90	110	
Pd	105	115	HMI He	50.561	ppb	0.33	78782.95	50	101.12	90	110	
Ag	107	115	HMI He	52.800	ppb	1.64	174735.18	50	105.6	90	110	
Cd	111	115	HMI He	51.691	ppb	1.63	20366.82	50	103.38	90	110	
Sn	120	115	HMI He	51.939	ppb	1.83	52886.23	50	103.88	90	110	
Sb	121	115	HMI He	52.988	ppb	1.91	50358.10	50	105.98	90	110	
Ba	137	115	HMI He	50.953	ppb	0.63	15504.59	50	101.91	90	110	
W	182	165	HMI He	50.445	ppb	0.58	206417.28	50	100.89	90	110	
Pt	195	165	HMI He	51.027	ppb	2.74	168687.01	50	102.05	90	110	
Tl	205	165	HMI He	50.899	ppb	4.18	363524.96	50	101.8	90	110	
Pb	208	165	HMI He	51.823	ppb	2.45	476044.82	50	103.65	90	110	
Th	232	165	HMI He	51.126	ppb	1.95	521905.25	50	102.25	90	110	
U	238	165	HMI He	51.488	ppb	3.34	553032.21	50	102.98	90	110	
Li	7	45	No Gas	518.496	ppb	4.31	15513163.15	500	103.7	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	780983.81	2.01	761875.413333333	102.51	60	125	
Ge Internal Standard	72	HMI H2	15280372.96	1.92	15335359.8266667	99.64	60	125	
Sc (IS)	45	HMI He	878917.56	0.46	893895.12	98.32	60	125	
Ge Internal Standard	72	HMI He	1190258.66	0.63	1212004.9	98.21	60	125	
In Internal standard	115	HMI He	3168885.13	0.33	3222507.34666667	98.34	60	125	
Ho-165	165	HMI He	15287847.85	2.06	15514356.4833333	98.54	60	125	
Sc IS)	45	No Gas	84782043.91	2.46	82462669.8666667	102.81	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	179_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:03:53 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	10.333	ppb	139.12	115512.64	0.1	>RL
Be	9	6	HMI H2	0.042	ppb	45.74	26.67	0.5	
B	11	6	HMI H2	1.753	ppb	8.06	1083.39	0.1	>RL
Se	78	72	HMI H2	-0.070	ppb	-37.03	37.33	1	
Na	23	45	HMI He	4.571	ppb	27.76	10566.81	25	
Mg	24	45	HMI He	0.427	ppb	112.41	270.01	25	
Al	27	45	HMI He	2.632	ppb	55.96	80.00	15	
K	39	45	HMI He	-27.063	ppb	-74.89	30989.18	50	
Ca	44	45	HMI He	-6.095	ppb	-104.79	20.00	25	
V	51	72	HMI He	0.361	ppb	94.63	2576.90	1	
Cr	52	72	HMI He	0.033	ppb	120.69	293.34	1	
Mn	55	72	HMI He	-0.023	ppb	-163.33	30.00	0.5	
Fe	57	72	HMI He	0.907	ppb	126.74	83.33	25	
Co	59	72	HMI He	0.008	ppb	129.62	26.67	0.5	
Ni	60	72	HMI He	0.054	ppb	165.30	346.68	1	
Cu	63	72	HMI He	0.025	ppb	235.13	930.04	1	
Zn	66	72	HMI He	0.029	ppb	44.41	250.01	5	
As	75	72	HMI He	0.074	ppb	24.88	37.91	1	
Sr	88	45	HMI He	0.049	ppb	57.48	33.33	1	
Zr	90	72	HMI He	-27.777	ppb	-210.72	73.33	1	
Nb	93	72	HMI He	0.376	ppb	6.15	1703.45	2	
Mo	95	115	HMI He	0.121	ppb	42.02	126.67	0.5	
Pd	105	115	HMI He	0.136	ppb	31.08	260.01	1	
Ag	107	115	HMI He	0.007	ppb	40.29	46.67	1	
Cd	111	115	HMI He	0.053	ppb	159.80	23.33	0.5	
Sn	120	115	HMI He	0.016	ppb	377.75	203.34	1	
Sb	121	115	HMI He	0.843	ppb	12.00	896.70	1	
Ba	137	115	HMI He	0.024	ppb	217.86	13.33	0.5	
W	182	165	HMI He	0.000	ppb	26992.99	1203.40	1	
Pt	195	165	HMI He	0.040	ppb	19.05	216.67	1	
Tl	205	165	HMI He	0.018	ppb	51.09	223.34	0.1	
Pb	208	165	HMI He	0.015	ppb	118.36	946.69	0.5	
Th	232	165	HMI He	0.023	ppb	9.37	426.68	1	
U	238	165	HMI He	0.010	ppb	66.92	150.00	0.5	
Li	7	45	No Gas	-9.149	ppb	-73.10	6065228.44	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	769594.68	2.50	761875.413333333	101.01	60	125	
Ge Internal Standard	72	HMI H2	15399959.72	1.03	15335359.8266667	100.42	60	125	
Sc (IS)	45	HMI He	878175.53	1.30	893895.12	98.24	60	125	
Ge Internal Standard	72	HMI He	1187397.44	1.49	1212004.9	97.97	60	125	
In Internal standard	115	HMI He	3147747.27	3.95	3222507.34666667	97.68	60	125	
Ho-165	165	HMI He	15407558.57	0.41	15514356.4833333	99.31	60	125	
Sc IS)	45	No Gas	82310874.04	2.23	82462669.8666667	99.82	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	180LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:07:23 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.053	ppb	17.53	415.01	1	105.31	70	130	
Se	78	72	HMI H2	5.291	ppb	6.46	1890.79	5	105.83	70	130	
Na	23	45	HMI He	56.034	ppb	6.19	21153.43	50	112.07	70	130	
Mg	24	45	HMI He	52.202	ppb	2.99	4767.41	50	104.4	70	130	
Al	27	45	HMI He	30.420	ppb	21.12	640.02	30	101.4	70	130	
K	39	45	HMI He	113.427	ppb	20.85	37596.10	100	113.43	70	130	
Ca	44	45	HMI He	42.497	ppb	72.99	146.67	50	84.99	70	130	
V	51	72	HMI He	5.365	ppb	6.14	8162.12	5	107.3	70	130	
Cr	52	72	HMI He	2.138	ppb	2.81	3403.73	2	106.92	70	130	
Mn	55	72	HMI He	1.117	ppb	17.78	623.36	1	111.7	70	130	
Fe	57	72	HMI He	53.788	ppb	17.92	1506.76	50	107.58	70	130	
Co	59	72	HMI He	1.015	ppb	8.29	2736.95	1	101.48	70	130	
Ni	60	72	HMI He	2.553	ppb	18.84	2263.52	2	127.64	70	130	
Cu	63	72	HMI He	2.024	ppb	5.73	5177.57	2	101.22	70	130	
Zn	66	72	HMI He	11.027	ppb	5.19	3370.39	10	110.27	70	130	
As	75	72	HMI He	5.326	ppb	5.56	1123.57	5	106.52	70	130	
Sr	88	45	HMI He	0.861	ppb	27.76	470.02	1	86.09	70	130	
Zr	90	72	HMI He	54.287	ppb	195.18	126.67	0.5	10857.45	70	130	>+/-30%
Nb	93	72	HMI He	0.399	ppb	13.44	1776.78	2	19.94	70	130	>+/-30%
Mo	95	115	HMI He	1.890	ppb	10.86	1880.14	2	94.51	70	130	
Pd	105	115	HMI He	0.034	ppb	61.94	106.67	1	3.42	70	130	>+/-30%
Ag	107	115	HMI He	5.312	ppb	6.51	17686.74	5	106.25	70	130	
Cd	111	115	HMI He	0.965	ppb	26.05	383.34	1	96.45	70	130	
Sn	120	115	HMI He	10.558	ppb	8.23	10953.98	10	105.58	70	130	
Sb	121	115	HMI He	2.572	ppb	4.86	2556.91	2	128.58	70	130	
Ba	137	115	HMI He	1.048	ppb	39.28	326.68	1	104.78	70	130	
W	182	165	HMI He	4.933	ppb	1.79	20938.16	1	493.31	70	130	>+/-30%
Pt	195	165	HMI He	0.041	ppb	36.25	213.34	1	4.06	70	130	>+/-30%
Tl	205	165	HMI He	1.088	ppb	2.27	7748.82	1	108.83	70	130	
Pb	208	165	HMI He	1.174	ppb	7.03	11388.60	1	117.38	70	130	
Th	232	165	HMI He	2.066	ppb	1.96	20955.37	2	103.3	70	130	
U	238	165	HMI He	1.057	ppb	2.04	11227.78	1	105.68	70	130	
Li	7	45	No Gas	-1.233	ppb	-529.29	6162964.79	50	-2.47	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	759373.85	3.14	761875.413333333	99.67	60	125	
Ge Internal Standard	72	HMI H2	15239420.25	1.26	15335359.8266667	99.37	60	125	
Sc (IS)	45	HMI He	868622.57	0.82	893895.12	97.17	60	125	
Ge Internal Standard	72	HMI He	1174093.47	0.96	1212004.9	96.87	60	125	
In Internal standard	115	HMI He	3189019.60	3.64	3222507.34666667	98.96	60	125	
Ho-165	165	HMI He	15057187.34	1.76	15514356.4833333	97.05	60	125	
Sc IS)	45	No Gas	81854959.06	1.92	82462669.8666667	99.26	60	120	

Blank Report

Sample Name	mb 280-397837/1-a
File Name	181_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:12:03 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	2.229	ppb	236.95	109403.13	0.1	>DL
Be	9	6	HMI H2	0.027	ppb	49.13	20.00	0.5	
Se	78	72	HMI H2	-0.097	ppb	-19.30	26.67	1	
Na	23	45	HMI He	20.950	ppb	12.76	13749.11	25	
Mg	24	45	HMI He	2.111	ppb	57.96	410.01	25	
Al	27	45	HMI He	14.825	ppb	21.41	323.34	15	
K	39	45	HMI He	-22.050	ppb	-125.93	30648.58	50	
Ca	44	45	HMI He	27.359	ppb	34.33	106.67	25	>DL
V	51	72	HMI He	-0.623	ppb	-14.46	1416.74	1	
Cr	52	72	HMI He	0.153	ppb	37.17	460.02	1	
Mn	55	72	HMI He	0.310	ppb	15.90	200.00	0.5	
Fe	57	72	HMI He	6.655	ppb	22.53	233.34	25	
Co	59	72	HMI He	0.000	ppb	3614.71	3.33	0.5	
Ni	60	72	HMI He	0.368	ppb	37.61	573.35	1	
Cu	63	72	HMI He	0.174	ppb	23.28	1213.39	1	
Zn	66	72	HMI He	2.038	ppb	36.29	803.37	5	
As	75	72	HMI He	0.009	ppb	193.93	23.53	1	
Sr	88	45	HMI He	0.069	ppb	95.41	43.33	1	
Zr	90	72	HMI He	42.973	ppb	228.54	116.67	1	>DL
Nb	93	72	HMI He	0.035	ppb	25.92	320.01	2	
Mo	95	115	HMI He	0.034	ppb	33.76	43.33	0.5	
Pd	105	115	HMI He	0.013	ppb	140.64	73.33	1	
Ag	107	115	HMI He	0.003	ppb	107.56	33.33	1	
Cd	111	115	HMI He	0.000	ppb	4317.88	3.33	0.5	
Sn	120	115	HMI He	0.185	ppb	33.69	376.68	1	
Sb	121	115	HMI He	0.152	ppb	49.65	246.67	1	
Ba	137	115	HMI He	0.121	ppb	12.83	43.33	0.5	
W	182	165	HMI He	0.071	ppb	48.43	1466.76	1	
Pt	195	165	HMI He	0.004	ppb	418.82	93.33	1	
Tl	205	165	HMI He	0.008	ppb	70.29	150.00	0.1	
Pb	208	165	HMI He	0.165	ppb	4.46	2290.10	0.5	
Th	232	165	HMI He	0.020	ppb	22.77	393.34	1	
U	238	165	HMI He	0.005	ppb	104.37	100.00	0.5	
Li	7	45	No Gas	5.020	ppb	28.95	6209648.79	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	741470.53	1.80	761875.413333333	97.32	60	125	
Ge Internal Standard	72	HMI H2	14787146.31	1.32	15335359.8266667	96.43	60	125	
Sc (IS)	45	HMI He	861919.17	0.82	893895.12	96.42	60	125	
Ge Internal Standard	72	HMI He	1153286.42	0.60	1212004.9	95.16	60	125	
In Internal standard	115	HMI He	3155810.99	2.31	3222507.34666667	97.93	60	125	
Ho-165	165	HMI He	15112825.88	2.22	15514356.4833333	97.41	60	125	
Sc IS)	45	No Gas	81059227.44	1.65	82462669.8666667	98.3	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-397837/2-a
File Name	182_LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:15:35 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	45.198	ppb	1.59	17400.61	40	113	80	120	
Se	78	72	HMI H2	44.352	ppb	3.98	15096.44	40	110.88	80	120	
Na	23	45	HMI He	69.101	ppb	0.89	23843.80	40	172.75	80	120	>+/-20%
Mg	24	45	HMI He	9.448	ppb	12.42	1050.05	40	23.62	80	120	>+/-20%
Al	27	45	HMI He	453.046	ppb	5.55	9172.61	40	1132.61	80	120	>+/-20%
K	39	45	HMI He	-15.500	ppb	-178.20	31189.56	40	-38.75	80	120	>+/-20%
Ca	44	45	HMI He	258.634	ppb	12.76	713.36	40	646.58	80	120	>+/-20%
V	51	72	HMI He	45.048	ppb	1.70	52554.07	40	112.62	80	120	
Cr	52	72	HMI He	45.752	ppb	1.77	67689.11	40	114.38	80	120	
Mn	55	72	HMI He	45.518	ppb	3.41	23670.58	40	113.79	80	120	
Fe	57	72	HMI He	466.927	ppb	3.37	12598.30	40	1167.32	80	120	>+/-20%
Co	59	72	HMI He	45.285	ppb	0.42	121622.06	40	113.21	80	120	
Ni	60	72	HMI He	47.316	ppb	4.04	36621.25	40	118.29	80	120	
Cu	63	72	HMI He	46.317	ppb	1.67	99223.70	40	115.79	80	120	
Zn	66	72	HMI He	48.056	ppb	3.50	13839.40	40	120.14	80	120	>+/-20%
As	75	72	HMI He	44.466	ppb	1.42	9193.48	40	111.16	80	120	
Sr	88	45	HMI He	44.209	ppb	1.70	23794.57	40	110.52	80	120	
Nb	93	72	HMI He	0.033	ppb	86.77	316.67	40	0.08	80	120	>+/-20%
Mo	95	115	HMI He	46.427	ppb	5.04	44281.77	40	116.07	80	120	
Pd	105	115	HMI He	0.004	ppb	491.75	56.67	40	0.01	80	120	>+/-20%
Ag	107	115	HMI He	47.455	ppb	1.24	151962.56	40	118.64	80	120	
Cd	111	115	HMI He	48.607	ppb	5.56	18524.50	40	121.52	80	120	>+/-20%
Sn	120	115	HMI He	46.731	ppb	1.22	46064.64	40	116.83	80	120	
Sb	121	115	HMI He	46.055	ppb	2.95	42357.69	40	115.14	80	120	
Ba	137	115	HMI He	46.603	ppb	3.26	13719.52	40	116.51	80	120	
W	182	165	HMI He	44.480	ppb	3.34	175984.02	40	111.2	80	120	
Pt	195	165	HMI He	-0.004	ppb	-172.51	66.67	40	-0.01	80	120	>+/-20%
Tl	205	165	HMI He	45.640	ppb	4.27	314976.78	40	114.1	80	120	
Pb	208	165	HMI He	47.199	ppb	2.98	419069.52	40	118	80	120	
Th	232	165	HMI He	45.029	ppb	3.79	444153.50	40	112.57	80	120	
U	238	165	HMI He	46.074	ppb	2.48	478380.96	40	115.19	80	120	
Li	7	45	No Gas	40.731	ppb	28.54	6864916.94	400	10.18	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	757383.89	0.55	761875.413333333	99.41	60	125	
Ge Internal Standard	72	HMI H2	14940637.56	1.40	15335359.8266667	97.43	60	125	
Sc (IS)	45	HMI He	867837.84	0.42	893895.12	97.08	60	125	
Ge Internal Standard	72	HMI He	1170549.98	0.23	1212004.9	96.58	60	125	
In Internal standard	115	HMI He	3066530.90	1.52	3222507.34666667	95.16	60	125	
Ho-165	165	HMI He	14777753.08	2.79	15514356.4833333	95.25	60	125	
Sc IS)	45	No Gas	81743897.40	1.35	82462669.8666667	99.13	60	120	

Sample Report

Sample Name	280-104320-c-2-b
File Name	183SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:19:09 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.014	ppb	404.24	15.00	2000	
B	11	6	HMI H2	21.186	ppb	6.81	7321.68	100	
Se	78	72	HMI H2	0.228	ppb	21.62	137.33	2000	
Na	23	45	HMI He	3645.407	ppb	0.18	753305.29	400000	
Mg	24	45	HMI He	16015.954	ppb	0.89	1367548.31	400000	
Al	27	45	HMI He	15.013	ppb	4.22	323.34	400000	
K	39	45	HMI He	809.913	ppb	1.77	70800.46	400000	
Ca	44	45	HMI He	67420.701	ppb	1.51	173692.85	400000	
V	51	72	HMI He	-0.522	ppb	-20.99	1523.42	2000	
Cr	52	72	HMI He	0.306	ppb	12.74	680.02	5000	
Mn	55	72	HMI He	1917.358	ppb	1.14	978408.89	10000	
Fe	57	72	HMI He	28.720	ppb	22.04	813.37	400000	
Co	59	72	HMI He	0.063	ppb	18.13	170.00	2000	
Ni	60	72	HMI He	2.721	ppb	3.60	2346.87	5000	
Cu	63	72	HMI He	0.931	ppb	7.63	2790.27	5000	
Zn	66	72	HMI He	3.579	ppb	9.18	1230.06	5000	
As	75	72	HMI He	0.135	ppb	113.79	49.02	2000	
Sr	88	45	HMI He	89.250	ppb	1.04	47206.50	2000	
Zr	90	72	HMI He	553.662	ppb	4.48	446.68	1000	
Nb	93	72	HMI He	0.019	ppb	25.07	256.67	200	
Mo	95	115	HMI He	0.310	ppb	37.08	310.01	2000	
Pd	105	115	HMI He	-0.018	ppb	-55.70	23.33	100	
Ag	107	115	HMI He	0.005	ppb	59.23	40.00	100	
Cd	111	115	HMI He	0.146	ppb	76.01	60.00	2000	
Sn	120	115	HMI He	0.298	ppb	7.81	483.35	2000	
Sb	121	115	HMI He	0.487	ppb	27.27	556.68	1000	
Ba	137	115	HMI He	7.467	ppb	2.12	2236.86	5000	
W	182	165	HMI He	0.418	ppb	13.56	2793.63	100	
Pt	195	165	HMI He	0.005	ppb	442.27	96.67	100	
Tl	205	165	HMI He	0.035	ppb	20.19	333.34	2000	
Pb	208	165	HMI He	0.213	ppb	9.71	2670.14	5000	
Th	232	165	HMI He	0.074	ppb	5.41	920.04	2000	
U	238	165	HMI He	1.661	ppb	4.67	17293.93	2000	
Li	7	45	No Gas	5.332	ppb	95.59	6192056.14	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	720499.75	2.13	761875.413333333	94.57	60	125	
Ge Internal Standard	72	HMI H2	14957052.24	0.14	15335359.8266667	97.53	60	125	
Sc (IS)	45	HMI He	852972.38	0.48	893895.12	95.42	60	125	
Ge Internal Standard	72	HMI He	1150554.18	1.65	1212004.9	94.93	60	125	
In Internal standard	115	HMI He	3112631.06	1.18	3222507.34666667	96.59	60	125	
Ho-165	165	HMI He	14790028.08	3.08	15514356.4833333	95.33	60	125	
Sc IS)	45	No Gas	80783850.79	2.73	82462669.8666667	97.96	60	120	

Sample Report

Sample Name	280-104320-j-3-b
File Name	184SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:22:41 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.016	ppb	2.56	15.00	2000	
B	11	6	HMI H2	167.319	ppb	2.68	53537.99	100	
Se	78	72	HMI H2	-0.027	ppb	-98.13	49.33	2000	
Na	23	45	HMI He	10505.753	ppb	3.78	2135249.89	400000	
Mg	24	45	HMI He	25571.501	ppb	1.76	2165106.03	400000	
Al	27	45	HMI He	15.650	ppb	19.36	333.34	400000	
K	39	45	HMI He	2212.736	ppb	1.16	137873.78	400000	
Ca	44	45	HMI He	91489.387	ppb	0.73	233739.71	400000	
V	51	72	HMI He	-0.651	ppb	-13.93	1356.74	2000	
Cr	52	72	HMI He	0.303	ppb	24.59	663.35	5000	
Mn	55	72	HMI He	382.393	ppb	1.43	191545.05	10000	
Fe	57	72	HMI He	954.075	ppb	3.46	24768.98	400000	
Co	59	72	HMI He	6.963	ppb	4.49	18046.81	2000	
Ni	60	72	HMI He	6.095	ppb	1.93	4800.76	5000	
Cu	63	72	HMI He	0.063	ppb	125.83	963.37	5000	
Zn	66	72	HMI He	1.333	ppb	22.94	593.35	5000	
As	75	72	HMI He	56.368	ppb	1.79	11233.97	2000	
Sr	88	45	HMI He	222.738	ppb	1.37	116814.52	2000	
Zr	90	72	HMI He	224.871	ppb	61.37	230.01	1000	
Nb	93	72	HMI He	0.017	ppb	28.09	246.67	200	
Mo	95	115	HMI He	0.671	ppb	14.75	650.02	2000	
Pd	105	115	HMI He	-0.007	ppb	-326.93	40.00	100	
Ag	107	115	HMI He	0.005	ppb	106.42	36.67	100	
Cd	111	115	HMI He	0.000	ppb	4540.17	3.33	2000	
Sn	120	115	HMI He	0.162	ppb	44.03	343.34	2000	
Sb	121	115	HMI He	0.568	ppb	28.44	623.36	1000	
Ba	137	115	HMI He	84.145	ppb	0.59	24776.84	5000	
W	182	165	HMI He	0.146	ppb	66.80	1703.46	100	
Pt	195	165	HMI He	0.001	ppb	478.18	83.33	100	
Tl	205	165	HMI He	0.017	ppb	44.36	203.34	2000	
Pb	208	165	HMI He	0.144	ppb	31.11	2030.09	5000	
Th	232	165	HMI He	0.033	ppb	14.57	506.68	2000	
U	238	165	HMI He	0.513	ppb	8.13	5314.38	2000	
Li	7	45	No Gas	1.297	ppb	37.72	5687928.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	703881.60	0.98	761875.413333333	92.39	60	125	
Ge Internal Standard	72	HMI H2	14621156.63	1.58	15335359.8266667	95.34	60	125	
Sc (IS)	45	HMI He	845893.06	0.88	893895.12	94.63	60	125	
Ge Internal Standard	72	HMI He	1129118.57	1.61	1212004.9	93.16	60	125	
In Internal standard	115	HMI He	3066697.44	1.92	3222507.34666667	95.16	60	125	
Ho-165	165	HMI He	14647319.86	3.49	15514356.4833333	94.41	60	125	
Sc IS)	45	No Gas	75006099.42	2.61	82462669.8666667	90.96	60	120	

Sample Report

Sample Name	280-104320-a-4-b
File Name	185SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:26:12 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.066	ppb	45.89	33.33	2000	
B	11	6	HMI H2	56.977	ppb	6.57	18627.10	100	
Se	78	72	HMI H2	0.026	ppb	178.77	66.67	2000	
Na	23	45	HMI He	22501.512	ppb	3.49	4483411.38	400000	
Mg	24	45	HMI He	45330.220	ppb	1.74	3771247.43	400000	
Al	27	45	HMI He	688.525	ppb	7.62	13333.78	400000	
K	39	45	HMI He	2455.953	ppb	1.47	147011.62	400000	
Ca	44	45	HMI He	109100.879	ppb	1.79	273873.13	400000	
V	51	72	HMI He	0.362	ppb	45.24	2416.88	2000	
Cr	52	72	HMI He	1.247	ppb	3.08	1976.81	5000	
Mn	55	72	HMI He	254.450	ppb	1.54	125607.31	10000	
Fe	57	72	HMI He	3344.172	ppb	2.66	85425.33	400000	
Co	59	72	HMI He	1.739	ppb	5.75	4444.00	2000	
Ni	60	72	HMI He	2.659	ppb	12.86	2226.85	5000	
Cu	63	72	HMI He	2.091	ppb	7.79	5040.85	5000	
Zn	66	72	HMI He	12.178	ppb	4.18	3503.75	5000	
As	75	72	HMI He	23.687	ppb	3.19	4664.74	2000	
Sr	88	45	HMI He	324.246	ppb	1.47	167098.61	2000	
Zr	90	72	HMI He	952.206	ppb	23.00	680.03	1000	
Nb	93	72	HMI He	0.030	ppb	25.86	290.01	200	
Mo	95	115	HMI He	1.230	ppb	3.12	1163.39	2000	
Pd	105	115	HMI He	-0.003	ppb	-1306.39	46.67	100	
Ag	107	115	HMI He	0.015	ppb	65.10	70.00	100	
Cd	111	115	HMI He	0.054	ppb	26.72	23.33	2000	
Sn	120	115	HMI He	0.157	ppb	33.22	333.34	2000	
Sb	121	115	HMI He	0.059	ppb	55.10	153.33	1000	
Ba	137	115	HMI He	39.462	ppb	2.25	11441.04	5000	
W	182	165	HMI He	0.039	ppb	95.01	1273.40	100	
Pt	195	165	HMI He	-0.005	ppb	-100.93	63.33	100	
Tl	205	165	HMI He	0.180	ppb	9.89	1296.74	2000	
Pb	208	165	HMI He	2.105	ppb	1.70	18900.03	5000	
Th	232	165	HMI He	0.293	ppb	9.62	2983.69	2000	
U	238	165	HMI He	4.129	ppb	4.13	41717.33	2000	
Li	7	45	No Gas	9.627	ppb	29.55	5434316.38	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	708632.76	3.20	761875.413333333	93.01	60	125	
Ge Internal Standard	72	HMI H2	14591873.72	2.42	15335359.8266667	95.15	60	125	
Sc (IS)	45	HMI He	831277.67	1.43	893895.12	92.99	60	125	
Ge Internal Standard	72	HMI He	1112919.41	1.20	1212004.9	91.82	60	125	
In Internal standard	115	HMI He	3017889.49	2.35	3222507.34666667	93.65	60	125	
Ho-165	165	HMI He	14367346.44	1.25	15514356.4833333	92.61	60	125	
Sc IS)	45	No Gas	70070665.51	1.15	82462669.8666667	84.97	60	120	

Sample Report

Sample Name	280-104320-j-6-b
File Name	186SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:29:43 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.031	ppb	92.45	20.00	2000	
B	11	6	HMI H2	49.161	ppb	4.74	15810.96	100	
Se	78	72	HMI H2	-0.072	ppb	-82.40	34.67	2000	
Na	23	45	HMI He	15701.142	ppb	3.00	3148646.17	400000	
Mg	24	45	HMI He	33756.001	ppb	2.19	2824139.85	400000	
Al	27	45	HMI He	12.587	ppb	5.46	270.01	400000	
K	39	45	HMI He	2390.202	ppb	4.19	144671.16	400000	
Ca	44	45	HMI He	106700.398	ppb	0.14	269434.89	400000	
V	51	72	HMI He	-0.797	ppb	-16.43	1213.40	2000	
Cr	52	72	HMI He	0.218	ppb	28.97	550.02	5000	
Mn	55	72	HMI He	101.111	ppb	1.30	51327.04	10000	
Fe	57	72	HMI He	635.167	ppb	2.89	16722.07	400000	
Co	59	72	HMI He	2.285	ppb	4.86	6001.17	2000	
Ni	60	72	HMI He	7.482	ppb	3.07	5904.49	5000	
Cu	63	72	HMI He	0.249	ppb	22.51	1360.07	5000	
Zn	66	72	HMI He	2.879	ppb	20.57	1030.05	5000	
As	75	72	HMI He	15.653	ppb	6.65	3176.14	2000	
Sr	88	45	HMI He	321.123	ppb	1.58	166437.07	2000	
Zr	90	72	HMI He	174.187	ppb	18.46	200.00	1000	
Nb	93	72	HMI He	-0.003	ppb	-463.65	170.00	200	
Mo	95	115	HMI He	0.981	ppb	4.12	930.04	2000	
Pd	105	115	HMI He	0.002	ppb	773.28	53.33	100	
Ag	107	115	HMI He	-0.004	ppb	-87.95	10.00	100	
Cd	111	115	HMI He	0.027	ppb	54.52	13.33	2000	
Sn	120	115	HMI He	0.176	ppb	19.26	350.01	2000	
Sb	121	115	HMI He	0.555	ppb	9.74	600.02	1000	
Ba	137	115	HMI He	44.404	ppb	0.18	12865.47	5000	
W	182	165	HMI He	0.030	ppb	66.46	1230.07	100	
Pt	195	165	HMI He	0.004	ppb	308.52	90.00	100	
Tl	205	165	HMI He	0.050	ppb	9.83	416.68	2000	
Pb	208	165	HMI He	0.182	ppb	1.57	2306.77	5000	
Th	232	165	HMI He	0.019	ppb	20.94	363.34	2000	
U	238	165	HMI He	0.124	ppb	13.77	1286.74	2000	
Li	7	45	No Gas	-25.751	ppb	-11.24	4600833.98	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	693840.11	0.66	761875.413333333	91.07	60	125	
Ge Internal Standard	72	HMI H2	14527703.62	1.39	15335359.8266667	94.73	60	125	
Sc (IS)	45	HMI He	836104.97	2.57	893895.12	93.54	60	125	
Ge Internal Standard	72	HMI He	1143873.61	1.32	1212004.9	94.38	60	125	
In Internal standard	115	HMI He	3017001.39	1.83	3222507.34666667	93.62	60	125	
Ho-165	165	HMI He	14276157.90	1.03	15514356.4833333	92.02	60	125	
Sc IS)	45	No Gas	65509902.83	1.65	82462669.8666667	79.44	60	120	

Sample Report

Sample Name	280-104320-j-7-b
File Name	187SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:33:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.007	ppb	111.51	11.67	2000	
B	11	6	HMI H2	49.868	ppb	4.22	16004.37	100	
Se	78	72	HMI H2	-0.052	ppb	-82.17	40.00	2000	
Na	23	45	HMI He	15971.095	ppb	1.89	3117484.37	400000	
Mg	24	45	HMI He	34620.130	ppb	3.02	2819091.08	400000	
Al	27	45	HMI He	16.155	ppb	2.99	330.01	400000	
K	39	45	HMI He	2471.883	ppb	0.13	144620.96	400000	
Ca	44	45	HMI He	109550.297	ppb	1.12	269123.33	400000	
V	51	72	HMI He	-0.749	ppb	-11.31	1250.06	2000	
Cr	52	72	HMI He	0.231	ppb	41.56	560.02	5000	
Mn	55	72	HMI He	102.987	ppb	1.37	51547.58	10000	
Fe	57	72	HMI He	628.987	ppb	1.04	16331.59	400000	
Co	59	72	HMI He	2.452	ppb	2.15	6347.99	2000	
Ni	60	72	HMI He	7.309	ppb	8.95	5697.78	5000	
Cu	63	72	HMI He	0.191	ppb	42.81	1220.06	5000	
Zn	66	72	HMI He	1.564	ppb	17.12	656.69	5000	
As	75	72	HMI He	15.614	ppb	6.02	3123.18	2000	
Sr	88	45	HMI He	330.668	ppb	3.48	166771.82	2000	
Zr	90	72	HMI He	168.328	ppb	52.43	193.34	1000	
Nb	93	72	HMI He	-0.001	ppb	-2121.92	176.67	200	
Mo	95	115	HMI He	1.097	ppb	12.30	1026.72	2000	
Pd	105	115	HMI He	-0.018	ppb	-83.86	23.33	100	
Ag	107	115	HMI He	-0.003	ppb	-175.67	13.33	100	
Cd	111	115	HMI He	0.010	ppb	317.31	6.67	2000	
Sn	120	115	HMI He	0.214	ppb	2.74	383.34	2000	
Sb	121	115	HMI He	0.684	ppb	20.27	710.03	1000	
Ba	137	115	HMI He	44.118	ppb	1.92	12648.65	5000	
W	182	165	HMI He	0.084	ppb	13.91	1466.76	100	
Pt	195	165	HMI He	0.000	ppb	4851.12	80.00	100	
Tl	205	165	HMI He	0.041	ppb	5.06	370.01	2000	
Pb	208	165	HMI He	0.133	ppb	16.94	1933.42	5000	
Th	232	165	HMI He	0.011	ppb	69.80	290.01	2000	
U	238	165	HMI He	0.138	ppb	8.57	1456.76	2000	
Li	7	45	No Gas	-23.446	ppb	-37.15	4313935.24	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	693190.15	2.84	761875.413333333	90.98	60	125	
Ge Internal Standard	72	HMI H2	14168682.49	1.32	15335359.8266667	92.39	60	125	
Sc (IS)	45	HMI He	813484.33	1.39	893895.12	91	60	125	
Ge Internal Standard	72	HMI He	1127887.90	1.08	1212004.9	93.06	60	125	
In Internal standard	115	HMI He	2985564.50	2.61	3222507.34666667	92.65	60	125	
Ho-165	165	HMI He	14585879.14	0.85	15514356.4833333	94.02	60	125	
Sc IS)	45	No Gas	61040683.48	3.60	82462669.8666667	74.02	60	120	

Sample Report

Sample Name	280-104320-j-8-b
File Name	188SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:36:42 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.007	ppb	-277.80	6.67	2000	
B	11	6	HMI H2	47.013	ppb	2.56	15273.68	100	
Se	78	72	HMI H2	-0.030	ppb	-73.17	46.67	2000	
Na	23	45	HMI He	12489.857	ppb	4.85	2450448.10	400000	
Mg	24	45	HMI He	25637.574	ppb	1.46	2098196.84	400000	
Al	27	45	HMI He	8.369	ppb	26.36	183.33	400000	
K	39	45	HMI He	2140.050	ppb	2.51	129832.84	400000	
Ca	44	45	HMI He	82167.672	ppb	0.89	202891.78	400000	
V	51	72	HMI He	-0.946	ppb	-20.04	1020.05	2000	
Cr	52	72	HMI He	0.338	ppb	12.20	700.02	5000	
Mn	55	72	HMI He	531.386	ppb	1.77	261316.06	10000	
Fe	57	72	HMI He	1511.197	ppb	1.24	38495.42	400000	
Co	59	72	HMI He	0.181	ppb	17.91	463.35	2000	
Ni	60	72	HMI He	0.743	ppb	7.31	823.36	5000	
Cu	63	72	HMI He	0.356	ppb	18.91	1533.43	5000	
Zn	66	72	HMI He	2.080	ppb	2.59	783.36	5000	
As	75	72	HMI He	8.092	ppb	6.03	1601.39	2000	
Sr	88	45	HMI He	222.054	ppb	2.06	112526.81	2000	
Zr	90	72	HMI He	4562.813	ppb	5.74	2926.99	1000	
Nb	93	72	HMI He	-0.008	ppb	-167.72	146.67	200	
Mo	95	115	HMI He	0.897	ppb	14.19	830.03	2000	
Pd	105	115	HMI He	-0.013	ppb	-107.31	30.00	100	
Ag	107	115	HMI He	-0.005	ppb	-39.69	6.67	100	
Cd	111	115	HMI He	0.001	ppb	1891.74	3.33	2000	
Sn	120	115	HMI He	0.142	ppb	53.85	310.01	2000	
Sb	121	115	HMI He	-0.004	ppb	-156.32	93.33	1000	
Ba	137	115	HMI He	102.944	ppb	4.42	29077.63	5000	
W	182	165	HMI He	0.028	ppb	147.57	1190.06	100	
Pt	195	165	HMI He	-0.008	ppb	-165.34	50.00	100	
Tl	205	165	HMI He	0.009	ppb	32.36	143.33	2000	
Pb	208	165	HMI He	0.211	ppb	3.99	2496.79	5000	
Th	232	165	HMI He	0.009	ppb	19.31	256.68	2000	
U	238	165	HMI He	0.416	ppb	2.24	4117.33	2000	
Li	7	45	No Gas	-38.154	ppb	-22.90	4074270.41	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	700674.20	5.53	761875.413333333	91.97	60	125	
Ge Internal Standard	72	HMI H2	14032972.71	1.72	15335359.8266667	91.51	60	125	
Sc (IS)	45	HMI He	817496.00	1.88	893895.12	91.45	60	125	
Ge Internal Standard	72	HMI He	1108741.35	0.88	1212004.9	91.48	60	125	
In Internal standard	115	HMI He	2942225.81	0.39	3222507.34666667	91.3	60	125	
Ho-165	165	HMI He	13958067.81	2.60	15514356.4833333	89.97	60	125	
Sc IS)	45	No Gas	60230296.03	1.23	82462669.8666667	73.04	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	189_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:40:10 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	513.890	ppb	4.42	263881.56	500	102.78	90	110	
Be	9	6	HMI H2	51.689	ppb	0.74	19552.95	50	103.38	90	110	
B	11	6	HMI H2	55.582	ppb	6.75	19097.74	50	111.16	90	110	>+\-10%
Se	78	72	HMI H2	50.784	ppb	3.10	17514.86	50	101.57	90	110	
Na	23	45	HMI He	4811.062	ppb	0.95	1016859.13	5000	96.22	90	110	
Mg	24	45	HMI He	4884.390	ppb	1.64	428020.94	5000	97.69	90	110	
Al	27	45	HMI He	4849.928	ppb	1.15	98762.94	5000	97	90	110	
K	39	45	HMI He	4836.349	ppb	0.38	273558.05	5000	96.73	90	110	
Ca	44	45	HMI He	4914.170	ppb	0.71	13021.97	5000	98.28	90	110	
V	51	72	HMI He	49.264	ppb	1.99	58065.76	50	98.53	90	110	
Cr	52	72	HMI He	49.979	ppb	0.95	74950.47	50	99.96	90	110	
Mn	55	72	HMI He	52.018	ppb	2.11	27423.12	50	104.04	90	110	
Fe	57	72	HMI He	4824.406	ppb	2.22	131416.74	5000	96.49	90	110	
Co	59	72	HMI He	49.921	ppb	3.29	135927.22	50	99.84	90	110	
Ni	60	72	HMI He	49.899	ppb	4.34	39137.15	50	99.8	90	110	
Cu	63	72	HMI He	50.361	ppb	0.83	109321.38	50	100.72	90	110	
Zn	66	72	HMI He	52.021	ppb	5.44	15167.24	50	104.04	90	110	
As	75	72	HMI He	51.824	ppb	1.94	10859.85	50	103.65	90	110	
Sr	88	45	HMI He	49.566	ppb	2.82	26896.25	50	99.13	90	110	
Zr	90	72	HMI He	496.730	ppb	53.13	423.34	50	993.46	90	110	>+\-10%
Nb	93	72	HMI He	100.379	ppb	0.67	404386.56	100	100.38	90	110	
Mo	95	115	HMI He	49.907	ppb	1.13	49242.95	50	99.81	90	110	
Pd	105	115	HMI He	48.957	ppb	2.54	76337.29	50	97.91	90	110	
Ag	107	115	HMI He	50.595	ppb	2.53	167545.72	50	101.19	90	110	
Cd	111	115	HMI He	51.241	ppb	1.21	20206.70	50	102.48	90	110	
Sn	120	115	HMI He	50.155	ppb	1.60	51120.55	50	100.31	90	110	
Sb	121	115	HMI He	50.624	ppb	0.45	48154.35	50	101.25	90	110	
Ba	137	115	HMI He	50.162	ppb	1.84	15277.73	50	100.32	90	110	
W	182	165	HMI He	48.015	ppb	0.81	196243.06	50	96.03	90	110	
Pt	195	165	HMI He	47.906	ppb	2.78	158130.66	50	95.81	90	110	
Tl	205	165	HMI He	48.690	ppb	1.83	347288.79	50	97.38	90	110	
Pb	208	165	HMI He	49.268	ppb	4.16	451764.05	50	98.54	90	110	
Th	232	165	HMI He	47.986	ppb	5.19	488819.37	50	95.97	90	110	
U	238	165	HMI He	49.140	ppb	6.31	526814.37	50	98.28	90	110	
Li	7	45	No Gas	382.031	ppb	2.72	9904601.57	500	76.41	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744296.05	2.57	761875.413333333	97.69	60	125	
Ge Internal Standard	72	HMI H2	15149362.02	2.83	15335359.8266667	98.79	60	125	
Sc (IS)	45	HMI He	875084.83	0.55	893895.12	97.9	60	125	
Ge Internal Standard	72	HMI He	1186874.31	0.61	1212004.9	97.93	60	125	
In Internal standard	115	HMI He	3171437.14	1.03	3222507.34666667	98.42	60	125	
Ho-165	165	HMI He	15267579.93	3.13	15514356.4833333	98.41	60	125	
Sc IS)	45	No Gas	64020915.83	0.36	82462669.8666667	77.64	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	190_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:43:41 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-10.574	ppb	-31.69	107722.65	0.1	
Be	9	6	HMI H2	-0.008	ppb	-181.74	6.67	0.5	
B	11	6	HMI H2	1.957	ppb	13.19	1110.05	0.1	>RL
Se	78	72	HMI H2	0.040	ppb	110.40	73.33	1	
Na	23	45	HMI He	15.031	ppb	26.12	12734.93	25	
Mg	24	45	HMI He	1.692	ppb	73.12	380.01	25	
Al	27	45	HMI He	0.674	ppb	122.70	40.00	15	
K	39	45	HMI He	23.185	ppb	94.24	33417.25	50	
Ca	44	45	HMI He	-7.257	ppb	-108.76	16.67	25	
V	51	72	HMI He	-0.255	ppb	-46.77	1870.13	1	
Cr	52	72	HMI He	0.069	ppb	60.55	346.68	1	
Mn	55	72	HMI He	0.065	ppb	72.76	76.67	0.5	
Fe	57	72	HMI He	3.852	ppb	57.16	163.33	25	
Co	59	72	HMI He	0.005	ppb	85.75	16.67	0.5	
Ni	60	72	HMI He	0.177	ppb	44.71	440.01	1	
Cu	63	72	HMI He	0.013	ppb	343.05	900.04	1	
Zn	66	72	HMI He	0.043	ppb	195.03	253.34	5	
As	75	72	HMI He	0.031	ppb	71.88	28.76	1	
Sr	88	45	HMI He	0.043	ppb	41.55	30.00	1	
Zr	90	72	HMI He	13.228	ppb	192.32	100.00	1	>RL
Nb	93	72	HMI He	0.302	ppb	23.77	1403.41	2	
Mo	95	115	HMI He	0.068	ppb	44.50	76.67	0.5	
Pd	105	115	HMI He	0.046	ppb	67.22	123.33	1	
Ag	107	115	HMI He	0.005	ppb	252.55	40.00	1	
Cd	111	115	HMI He	0.009	ppb	335.81	6.67	0.5	
Sn	120	115	HMI He	-0.003	ppb	-1571.72	186.67	1	
Sb	121	115	HMI He	0.393	ppb	32.97	476.68	1	
Ba	137	115	HMI He	0.044	ppb	195.14	20.00	0.5	
W	182	165	HMI He	-0.024	ppb	-172.87	1076.72	1	
Pt	195	165	HMI He	0.005	ppb	226.02	96.67	1	
Tl	205	165	HMI He	0.010	ppb	61.94	163.33	0.1	
Pb	208	165	HMI He	0.030	ppb	39.66	1060.02	0.5	
Th	232	165	HMI He	0.016	ppb	48.53	350.01	1	
U	238	165	HMI He	0.006	ppb	39.70	110.00	0.5	
Li	7	45	No Gas	-47.811	ppb	-18.33	4105184.32	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	740399.80	2.24	761875.413333333	97.18	60	125	
Ge Internal Standard	72	HMI H2	14960400.05	1.75	15335359.8266667	97.55	60	125	
Sc (IS)	45	HMI He	876263.28	0.92	893895.12	98.03	60	125	
Ge Internal Standard	72	HMI He	1183202.70	0.38	1212004.9	97.62	60	125	
In Internal standard	115	HMI He	3155248.12	1.28	3222507.34666667	97.91	60	125	
Ho-165	165	HMI He	15060243.59	1.04	15514356.4833333	97.07	60	125	
Sc IS)	45	No Gas	62549780.07	2.82	82462669.8666667	75.85	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	191LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:47:10 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.068	ppb	8.71	418.34	1	106.84	70	130	
Se	78	72	HMI H2	4.534	ppb	1.48	1628.09	5	90.69	70	130	
Na	23	45	HMI He	58.525	ppb	7.26	21791.00	50	117.05	70	130	
Mg	24	45	HMI He	49.138	ppb	4.60	4527.33	50	98.28	70	130	
Al	27	45	HMI He	28.959	ppb	33.38	613.35	30	96.53	70	130	
K	39	45	HMI He	123.579	ppb	8.07	38337.91	100	123.58	70	130	
Ca	44	45	HMI He	43.252	ppb	31.25	150.00	50	86.5	70	130	
V	51	72	HMI He	4.320	ppb	11.24	6974.90	5	86.4	70	130	
Cr	52	72	HMI He	1.782	ppb	6.02	2870.30	2	89.1	70	130	
Mn	55	72	HMI He	0.972	ppb	25.69	546.68	1	97.18	70	130	
Fe	57	72	HMI He	56.516	ppb	17.74	1576.76	50	113.03	70	130	
Co	59	72	HMI He	1.001	ppb	12.18	2693.59	1	100.13	70	130	
Ni	60	72	HMI He	2.145	ppb	11.01	1946.81	2	107.25	70	130	
Cu	63	72	HMI He	2.010	ppb	1.93	5134.20	2	100.51	70	130	
Zn	66	72	HMI He	10.530	ppb	3.15	3220.36	10	105.3	70	130	
As	75	72	HMI He	5.002	ppb	5.69	1054.29	5	100.04	70	130	
Sr	88	45	HMI He	0.967	ppb	7.83	530.02	1	96.67	70	130	
Zr	90	72	HMI He	136.465	ppb	40.31	180.00	0.5	27293.06	70	130	>+/-30%
Nb	93	72	HMI He	0.289	ppb	19.40	1336.75	2	14.47	70	130	>+/-30%
Mo	95	115	HMI He	1.801	ppb	8.90	1810.12	2	90.05	70	130	
Pd	105	115	HMI He	0.011	ppb	64.67	70.00	1	1.07	70	130	>+/-30%
Ag	107	115	HMI He	4.732	ppb	3.06	15894.84	5	94.63	70	130	
Cd	111	115	HMI He	0.934	ppb	17.39	376.68	1	93.4	70	130	
Sn	120	115	HMI He	9.360	ppb	6.87	9813.22	10	93.6	70	130	
Sb	121	115	HMI He	2.081	ppb	3.22	2106.84	2	104.05	70	130	
Ba	137	115	HMI He	0.714	ppb	14.46	226.67	1	71.38	70	130	
W	182	165	HMI He	4.526	ppb	5.16	19182.58	1	452.62	70	130	>+/-30%
Pt	195	165	HMI He	0.023	ppb	131.44	153.34	1	2.3	70	130	>+/-30%
Tl	205	165	HMI He	0.996	ppb	12.77	7035.10	1	99.56	70	130	
Pb	208	165	HMI He	1.020	ppb	8.04	9931.42	1	102	70	130	
Th	232	165	HMI He	1.882	ppb	2.33	18975.96	2	94.11	70	130	
U	238	165	HMI He	0.993	ppb	5.05	10470.61	1	99.27	70	130	
Li	7	45	No Gas	-41.391	ppb	-8.28	4293613.68	50	-82.78	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	753063.45	1.24	761875.413333333	98.84	60	125	
Ge Internal Standard	72	HMI H2	15225800.14	0.33	15335359.8266667	99.29	60	125	
Sc (IS)	45	HMI He	873844.81	1.13	893895.12	97.76	60	125	
Ge Internal Standard	72	HMI He	1171195.20	0.31	1212004.9	96.63	60	125	
In Internal standard	115	HMI He	3212306.11	1.37	3222507.34666667	99.68	60	125	
Ho-165	165	HMI He	14957972.76	2.62	15514356.4833333	96.41	60	125	
Sc IS)	45	No Gas	64094859.57	1.33	82462669.8666667	77.73	60	120	

Sample Report

Sample Name	280-104320-v-9-d
File Name	192SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:51:04 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.026	ppb	0.00	0.00	2000	
B	11	6	HMI H2	4.679	ppb	5.61	3257.04	100	
Se	78	72	HMI H2	-0.095	ppb	-47.72	38.67	2000	
Na	23	45	HMI He	1937.234	ppb	6.84	556616.70	400000	
Mg	24	45	HMI He	5158.487	ppb	6.58	606016.68	400000	
Al	27	45	HMI He	8.990	ppb	14.38	280.01	400000	
K	39	45	HMI He	148.072	ppb	14.03	53140.42	400000	
Ca	44	45	HMI He	16106.795	ppb	5.20	57124.24	400000	
V	51	72	HMI He	-1.220	ppb	-6.50	1083.39	2000	
Cr	52	72	HMI He	0.045	ppb	115.26	430.01	5000	
Mn	55	72	HMI He	45.690	ppb	4.85	33340.81	10000	
Fe	57	72	HMI He	111.892	ppb	10.32	4290.67	400000	
Co	59	72	HMI He	0.320	ppb	10.30	1210.07	2000	
Ni	60	72	HMI He	2.233	ppb	5.56	2826.98	5000	
Cu	63	72	HMI He	-0.042	ppb	-84.96	1090.05	5000	
Zn	66	72	HMI He	0.178	ppb	108.82	403.34	5000	
As	75	72	HMI He	8.112	ppb	3.33	2379.28	2000	
Sr	88	45	HMI He	48.781	ppb	3.56	35513.46	2000	
Zr	90	72	HMI He	122.979	ppb	19.53	240.01	1000	
Nb	93	72	HMI He	0.101	ppb	12.24	826.72	200	
Mo	95	115	HMI He	0.589	ppb	17.90	763.36	2000	
Pd	105	115	HMI He	0.119	ppb	25.67	310.01	100	
Ag	107	115	HMI He	0.000	ppb	2498.24	30.00	100	
Cd	111	115	HMI He	0.005	ppb	445.74	6.67	2000	
Sn	120	115	HMI He	0.015	ppb	174.27	266.67	2000	
Sb	121	115	HMI He	0.394	ppb	3.65	620.02	1000	
Ba	137	115	HMI He	10.819	ppb	4.26	4277.37	5000	
W	182	165	HMI He	0.600	ppb	9.47	4881.07	100	
Pt	195	165	HMI He	-0.014	ppb	-51.65	46.67	100	
Tl	205	165	HMI He	-0.001	ppb	-494.28	113.33	2000	
Pb	208	165	HMI He	0.031	ppb	51.09	1456.71	5000	
Th	232	165	HMI He	0.022	ppb	38.72	563.36	2000	
U	238	165	HMI He	0.669	ppb	6.46	9686.96	2000	
Li	7	45	No Gas	-18.357	ppb	-87.61	4113727.39	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1193855.16	3.18	761875.413333333	156.7	60	125	IS Failed
Ge Internal Standard	72	HMI H2	20860197.45	3.34	15335359.8266667	136.03	60	125	IS Failed
Sc (IS)	45	HMI He	1174570.02	2.97	893895.12	131.4	60	125	IS Failed
Ge Internal Standard	72	HMI He	1644421.32	4.29	1212004.9	135.68	60	125	IS Failed
In Internal standard	115	HMI He	4107495.35	2.82	3222507.34666667	127.46	60	125	IS Failed
Ho-165	165	HMI He	20502456.22	2.44	15514356.4833333	132.15	60	125	IS Failed
Sc IS)	45	No Gas	57359531.17	2.35	82462669.8666667	69.56	60	120	

Sample Report

Sample Name	280-104320-v-9-dSD@5
File Name	193SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:54:43 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.011	ppb	197.64	13.33	2000	
B	11	6	HMI H2	17.040	ppb	5.26	5951.12	100	
Se	78	72	HMI H2	-0.067	ppb	-22.45	37.33	2000	
Na	23	45	HMI He	2346.648	ppb	2.56	484474.19	400000	
Mg	24	45	HMI He	6047.751	ppb	2.75	512571.28	400000	
Al	27	45	HMI He	6.170	ppb	40.95	146.67	400000	
K	39	45	HMI He	490.081	ppb	2.55	54827.25	400000	
Ca	44	45	HMI He	19649.443	ppb	1.59	50259.72	400000	
V	51	72	HMI He	-0.460	ppb	-46.74	1576.77	2000	
Cr	52	72	HMI He	0.041	ppb	64.82	293.34	5000	
Mn	55	72	HMI He	59.194	ppb	2.68	29947.50	10000	
Fe	57	72	HMI He	135.964	ppb	2.05	3610.43	400000	
Co	59	72	HMI He	0.454	ppb	13.60	1190.06	2000	
Ni	60	72	HMI He	2.685	ppb	10.54	2296.86	5000	
Cu	63	72	HMI He	1.403	ppb	3.02	3740.47	5000	
Zn	66	72	HMI He	1.251	ppb	26.26	576.69	5000	
As	75	72	HMI He	10.933	ppb	2.51	2216.50	2000	
Sr	88	45	HMI He	58.880	ppb	1.72	30906.74	2000	
Zr	90	72	HMI He	97.066	ppb	41.32	150.00	1000	
Nb	93	72	HMI He	-0.009	ppb	-155.60	146.67	200	
Mo	95	115	HMI He	0.599	ppb	7.45	593.35	2000	
Pd	105	115	HMI He	-0.012	ppb	-81.19	33.33	100	
Ag	107	115	HMI He	-0.002	ppb	-263.84	16.67	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.202	ppb	10.33	390.01	2000	
Sb	121	115	HMI He	0.572	ppb	19.22	640.02	1000	
Ba	137	115	HMI He	11.415	ppb	6.29	3437.11	5000	
W	182	165	HMI He	-0.047	ppb	-49.99	966.71	100	
Pt	195	165	HMI He	-0.008	ppb	-98.50	53.33	100	
Tl	205	165	HMI He	-0.006	ppb	-67.74	50.00	2000	
Pb	208	165	HMI He	0.057	ppb	25.77	1280.04	5000	
Th	232	165	HMI He	0.010	ppb	75.46	280.01	2000	
U	238	165	HMI He	0.744	ppb	3.23	7762.17	2000	
Li	7	45	No Gas	-47.629	ppb	-13.27	3992174.38	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	717409.42	2.37	761875.413333333	94.16	60	125	
Ge Internal Standard	72	HMI H2	14994212.14	2.85	15335359.8266667	97.78	60	125	
Sc (IS)	45	HMI He	846503.63	0.90	893895.12	94.7	60	125	
Ge Internal Standard	72	HMI He	1139369.25	0.49	1212004.9	94.01	60	125	
In Internal standard	115	HMI He	3131858.48	0.67	3222507.34666667	97.19	60	125	
Ho-165	165	HMI He	14758155.69	1.27	15514356.4833333	95.13	60	125	
Sc IS)	45	No Gas	60776197.66	1.13	82462669.8666667	73.7	60	120	

Sample Report

Sample Name	280-104320-v-9-e ms
File Name	194SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 9:58:14 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	4.106	ppb	29.95	2500.22	2000	
B	11	6	HMI H2	9.146	ppb	32.23	5647.78	100	
Se	78	72	HMI H2	4.614	ppb	33.85	2272.19	2000	
Na	23	45	HMI He	1336.732	ppb	19.62	400137.14	400000	
Mg	24	45	HMI He	3523.210	ppb	18.54	427050.31	400000	
Al	27	45	HMI He	60.416	ppb	27.28	1730.13	400000	
K	39	45	HMI He	7.427	ppb	1152.43	45187.39	400000	
Ca	44	45	HMI He	11391.039	ppb	19.45	41649.58	400000	
V	51	72	HMI He	3.730	ppb	17.90	9132.97	2000	
Cr	52	72	HMI He	4.887	ppb	16.27	10774.45	5000	
Mn	55	72	HMI He	38.299	ppb	14.85	28837.48	10000	
Fe	57	72	HMI He	129.309	ppb	11.88	5110.98	400000	
Co	59	72	HMI He	5.084	ppb	14.80	19767.70	2000	
Ni	60	72	HMI He	6.357	ppb	12.40	7498.70	5000	
Cu	63	72	HMI He	4.784	ppb	16.48	15952.63	5000	
Zn	66	72	HMI He	4.804	ppb	30.93	2310.21	5000	
As	75	72	HMI He	9.945	ppb	16.34	3000.34	2000	
Sr	88	45	HMI He	37.336	ppb	22.48	27961.91	2000	
Zr	90	72	HMI He	11250.705	ppb	14.23	10837.81	1000	>LDR
Nb	93	72	HMI He	0.033	ppb	30.79	460.01	200	
Mo	95	115	HMI He	5.800	ppb	17.27	7905.81	2000	
Pd	105	115	HMI He	0.022	ppb	80.21	120.00	100	
Ag	107	115	HMI He	5.035	ppb	10.66	23067.01	100	
Cd	111	115	HMI He	4.886	ppb	15.37	2666.98	2000	
Sn	120	115	HMI He	4.912	ppb	13.94	7148.71	2000	
Sb	121	115	HMI He	4.745	ppb	12.54	6361.61	1000	
Ba	137	115	HMI He	12.195	ppb	11.81	5134.39	5000	
W	182	165	HMI He	5.446	ppb	14.23	32767.27	100	
Pt	195	165	HMI He	-0.020	ppb	-6.87	23.33	100	
Tl	205	165	HMI He	4.994	ppb	14.11	50201.91	2000	
Pb	208	165	HMI He	5.153	ppb	14.77	67457.21	5000	
Th	232	165	HMI He	5.066	ppb	14.97	72836.44	2000	
U	238	165	HMI He	5.552	ppb	15.61	83752.63	2000	
Li	7	45	No Gas	-0.982	ppb	-291.05	6324988.53	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1193913.36	1.25	761875.413333333	156.71	60	125	IS Failed
Ge Internal Standard	72	HMI H2	21097819.53	5.83	15335359.8266667	137.58	60	125	IS Failed
Sc (IS)	45	HMI He	1220919.99	7.35	893895.12	136.58	60	125	IS Failed
Ge Internal Standard	72	HMI He	1696172.22	1.30	1212004.9	139.95	60	125	IS Failed
In Internal standard	115	HMI He	4383156.67	2.36	3222507.34666667	136.02	60	125	IS Failed
Ho-165	165	HMI He	21479723.26	2.17	15514356.4833333	138.45	60	125	IS Failed
Sc IS)	45	No Gas	83927626.45	2.01	82462669.8666667	101.78	60	120	

Sample Report

Sample Name	280-104320-v-9-f msd
File Name	195SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:01:45 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	47.744	ppb	4.15	16584.78	2000	
B	11	6	HMI H2	124.259	ppb	4.75	38711.08	100	
Se	78	72	HMI H2	45.428	ppb	1.21	14015.47	2000	
Na	23	45	HMI He	12537.735	ppb	2.56	2255586.89	400000	
Mg	24	45	HMI He	32454.032	ppb	3.40	2433412.45	400000	
Al	27	45	HMI He	494.061	ppb	10.39	8629.00	400000	
K	39	45	HMI He	2453.191	ppb	4.39	132366.68	400000	
Ca	44	45	HMI He	103261.121	ppb	1.41	233651.01	400000	
V	51	72	HMI He	46.377	ppb	2.14	47759.35	2000	
Cr	52	72	HMI He	46.573	ppb	2.54	60892.56	5000	
Mn	55	72	HMI He	346.214	ppb	1.76	158878.41	10000	
Fe	57	72	HMI He	1176.480	ppb	1.47	27977.48	400000	
Co	59	72	HMI He	48.004	ppb	2.60	113930.43	2000	
Ni	60	72	HMI He	56.891	ppb	4.69	38842.86	5000	
Cu	63	72	HMI He	44.660	ppb	3.45	84565.18	5000	
Zn	66	72	HMI He	46.040	ppb	6.60	11724.34	5000	
As	75	72	HMI He	99.313	ppb	2.04	18124.49	2000	
Sr	88	45	HMI He	351.623	ppb	3.06	163310.84	2000	
Zr	90	72	HMI He	110033.876	ppb	5.07	64008.21	1000	>LDR
Nb	93	72	HMI He	0.012	ppb	131.08	206.67	200	
Mo	95	115	HMI He	51.984	ppb	1.72	43302.55	2000	
Pd	105	115	HMI He	-0.008	ppb	-99.90	33.33	100	
Ag	107	115	HMI He	47.909	ppb	3.19	133928.28	100	
Cd	111	115	HMI He	47.332	ppb	1.87	15754.84	2000	
Sn	120	115	HMI He	47.323	ppb	2.66	40719.81	2000	
Sb	121	115	HMI He	50.060	ppb	1.75	40198.62	1000	
Ba	137	115	HMI He	115.621	ppb	4.11	29718.75	5000	
W	182	165	HMI He	46.010	ppb	0.72	161286.16	100	
Pt	195	165	HMI He	-0.003	ppb	-536.23	63.33	100	
Tl	205	165	HMI He	46.301	ppb	1.05	283224.19	2000	
Pb	208	165	HMI He	47.016	ppb	0.85	369958.57	5000	
Th	232	165	HMI He	46.106	ppb	0.39	403098.34	2000	
U	238	165	HMI He	51.218	ppb	0.21	471232.31	2000	
Li	7	45	No Gas	16.736	ppb	68.45	3935567.01	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	683944.03	3.43	761875.413333333	89.77	60	125	
Ge Internal Standard	72	HMI H2	13538395.65	0.34	15335359.8266667	88.28	60	125	
Sc (IS)	45	HMI He	749261.02	1.21	893895.12	83.82	60	125	
Ge Internal Standard	72	HMI He	1034847.98	2.45	1212004.9	85.38	60	125	
In Internal standard	115	HMI He	2677654.94	1.76	3222507.34666667	83.09	60	125	
Ho-165	165	HMI He	13089250.78	1.02	15514356.4833333	84.37	60	125	
Sc IS)	45	No Gas	49793773.65	0.73	82462669.8666667	60.38	60	120	

Sample Report

Sample Name	280-104320-v-9-d PDS
File Name	196SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:05:17 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	257.033	ppb	3.42	85622.22	2000	
B	11	6	HMI H2	83.035	ppb	6.67	24938.54	100	
Se	78	72	HMI H2	244.890	ppb	1.02	73742.13	2000	
Na	23	45	HMI He	12722.701	ppb	3.94	2340669.43	400000	
Mg	24	45	HMI He	33835.730	ppb	1.37	2595462.23	400000	
Al	27	45	HMI He	2422.179	ppb	2.57	43195.87	400000	
K	39	45	HMI He	2514.368	ppb	2.95	138076.17	400000	
Ca	44	45	HMI He	108393.436	ppb	3.68	250828.17	400000	
V	51	72	HMI He	244.439	ppb	1.92	249140.66	2000	
Cr	52	72	HMI He	243.171	ppb	2.13	324140.58	5000	
Mn	55	72	HMI He	565.556	ppb	2.66	265290.39	10000	
Fe	57	72	HMI He	3113.815	ppb	3.01	75601.17	400000	
Co	59	72	HMI He	239.787	ppb	2.48	581870.54	2000	
Ni	60	72	HMI He	248.120	ppb	4.35	172364.79	5000	
Cu	63	72	HMI He	239.126	ppb	2.41	459711.04	5000	
Zn	66	72	HMI He	250.734	ppb	0.42	64353.80	5000	
As	75	72	HMI He	294.780	ppb	0.96	54968.54	2000	
Sr	88	45	HMI He	564.733	ppb	1.32	268303.51	2000	
Zr	90	72	HMI He	593076.212	ppb	2.79	352428.42	1000	>LDR
Nb	93	72	HMI He	0.462	ppb	7.57	1823.46	200	
Mo	95	115	HMI He	252.421	ppb	0.96	217285.75	2000	
Pd	105	115	HMI He	0.013	ppb	172.83	63.33	100	
Ag	107	115	HMI He	61.823	ppb	2.00	178679.00	100	
Cd	111	115	HMI He	251.997	ppb	1.79	86694.25	2000	
Sn	120	115	HMI He	244.596	ppb	1.11	216888.63	2000	
Sb	121	115	HMI He	254.934	ppb	4.61	211151.91	1000	
Ba	137	115	HMI He	318.513	ppb	2.85	84614.18	5000	
W	182	165	HMI He	241.187	ppb	2.30	856905.44	100	
Pt	195	165	HMI He	0.028	ppb	86.86	153.34	100	
Tl	205	165	HMI He	252.728	ppb	4.15	1574062.52	2000	
Pb	208	165	HMI He	242.044	ppb	3.33	1937005.69	5000	
Th	232	165	HMI He	256.141	ppb	5.46	2278911.08	2000	
U	238	165	HMI He	265.060	ppb	5.13	2482676.43	2000	
Li	7	45	No Gas	182.292	ppb	8.74	5791920.79	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	656216.54	3.86	761875.413333333	86.13	60	125	
Ge Internal Standard	72	HMI H2	13256350.14	0.59	15335359.8266667	86.44	60	125	
Sc (IS)	45	HMI He	766351.63	1.75	893895.12	85.73	60	125	
Ge Internal Standard	72	HMI He	1058014.25	2.43	1212004.9	87.29	60	125	
In Internal standard	115	HMI He	2767063.96	1.13	3222507.34666667	85.87	60	125	
Ho-165	165	HMI He	13341911.18	3.54	15514356.4833333	86	60	125	
Sc IS)	45	No Gas	51129928.58	2.36	82462669.8666667	62	60	120	

Sample Report

Sample Name	280-104320-a-12-b
File Name	197SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:08:49 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.211	ppb	21.56	83.33	2000	
B	11	6	HMI H2	92.812	ppb	3.40	29459.11	100	
Se	78	72	HMI H2	0.763	ppb	17.41	296.00	2000	
Na	23	45	HMI He	10013.825	ppb	2.93	1926481.99	400000	
Mg	24	45	HMI He	38574.974	ppb	2.18	3090839.14	400000	
Al	27	45	HMI He	8.425	ppb	36.60	180.00	400000	
K	39	45	HMI He	1288.880	ppb	4.65	88296.84	400000	
Ca	44	45	HMI He	83411.943	ppb	1.53	201685.05	400000	
V	51	72	HMI He	-0.810	ppb	-4.34	1133.39	2000	
Cr	52	72	HMI He	0.488	ppb	3.01	886.71	5000	
Mn	55	72	HMI He	0.518	ppb	22.10	286.67	10000	
Fe	57	72	HMI He	18.983	ppb	22.17	523.35	400000	
Co	59	72	HMI He	0.073	ppb	20.65	183.33	2000	
Ni	60	72	HMI He	0.372	ppb	24.45	540.02	5000	
Cu	63	72	HMI He	0.632	ppb	9.55	2033.48	5000	
Zn	66	72	HMI He	1.124	ppb	27.03	513.35	5000	
As	75	72	HMI He	0.562	ppb	21.11	127.45	2000	
Sr	88	45	HMI He	235.141	ppb	0.85	116739.80	2000	
Zr	90	72	HMI He	181.499	ppb	4.64	193.33	1000	
Nb	93	72	HMI He	-0.020	ppb	-22.44	100.00	200	
Mo	95	115	HMI He	1.412	ppb	4.90	1260.07	2000	
Pd	105	115	HMI He	-0.012	ppb	-56.66	30.00	100	
Ag	107	115	HMI He	0.013	ppb	87.66	60.00	100	
Cd	111	115	HMI He	0.057	ppb	102.35	23.33	2000	
Sn	120	115	HMI He	0.749	ppb	10.19	853.37	2000	
Sb	121	115	HMI He	3.960	ppb	6.70	3470.45	1000	
Ba	137	115	HMI He	44.367	ppb	0.73	12134.91	5000	
W	182	165	HMI He	0.100	ppb	34.18	1420.08	100	
Pt	195	165	HMI He	0.008	ppb	254.80	96.67	100	
Tl	205	165	HMI He	0.051	ppb	21.06	403.34	2000	
Pb	208	165	HMI He	119.473	ppb	1.91	973457.73	5000	
Th	232	165	HMI He	0.091	ppb	12.81	993.38	2000	
U	238	165	HMI He	2.045	ppb	2.31	19550.18	2000	
Li	7	45	No Gas	-57.079	ppb	-5.84	3374626.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	693812.17	1.51	761875.413333333	91.07	60	125	
Ge Internal Standard	72	HMI H2	13899950.00	0.80	15335359.8266667	90.64	60	125	
Sc (IS)	45	HMI He	800727.37	2.18	893895.12	89.58	60	125	
Ge Internal Standard	72	HMI He	1079996.86	1.22	1212004.9	89.11	60	125	
In Internal standard	115	HMI He	2847943.99	1.49	3222507.34666667	88.38	60	125	
Ho-165	165	HMI He	13571672.31	1.60	15514356.4833333	87.48	60	125	
Sc IS)	45	No Gas	52948631.40	1.34	82462669.8666667	64.21	60	120	

Sample Report

Sample Name	280-104320-a-13-b
File Name	198SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:50:39 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.002	ppb	798.66	10.00	2000	
B	11	6	HMI H2	56.109	ppb	3.60	18423.52	100	
Se	78	72	HMI H2	-0.047	ppb	-121.32	42.67	2000	
Na	23	45	HMI He	9536.282	ppb	0.72	1960042.87	400000	
Mg	24	45	HMI He	16823.568	ppb	1.81	1439679.44	400000	
Al	27	45	HMI He	28.688	ppb	16.88	596.68	400000	
K	39	45	HMI He	1791.161	ppb	2.13	118791.90	400000	
Ca	44	45	HMI He	65299.940	ppb	1.61	168618.52	400000	
V	51	72	HMI He	-0.928	ppb	-4.60	1100.05	2000	
Cr	52	72	HMI He	0.334	ppb	20.55	736.69	5000	
Mn	55	72	HMI He	184.999	ppb	1.02	96395.00	10000	
Fe	57	72	HMI He	805.122	ppb	4.74	21754.63	400000	
Co	59	72	HMI He	0.141	ppb	9.44	383.34	2000	
Ni	60	72	HMI He	0.307	ppb	20.30	536.68	5000	
Cu	63	72	HMI He	0.171	ppb	52.13	1230.06	5000	
Zn	66	72	HMI He	2.174	ppb	10.23	856.70	5000	
As	75	72	HMI He	14.986	ppb	1.70	3123.18	2000	
Sr	88	45	HMI He	245.210	ppb	1.48	129991.40	2000	
Zr	90	72	HMI He	79.792	ppb	120.94	143.33	1000	
Nb	93	72	HMI He	-0.027	ppb	-33.58	80.00	200	
Mo	95	115	HMI He	1.902	ppb	12.03	1910.14	2000	
Pd	105	115	HMI He	-0.025	ppb	-29.48	13.33	100	
Ag	107	115	HMI He	-0.003	ppb	-115.90	13.33	100	
Cd	111	115	HMI He	0.008	ppb	350.82	6.67	2000	
Sn	120	115	HMI He	0.138	ppb	88.10	333.34	2000	
Sb	121	115	HMI He	-0.006	ppb	-133.11	100.00	1000	
Ba	137	115	HMI He	126.422	ppb	4.83	38976.00	5000	
W	182	165	HMI He	0.057	ppb	78.50	1406.75	100	
Pt	195	165	HMI He	-0.005	ppb	-201.52	63.33	100	
Tl	205	165	HMI He	0.005	ppb	143.47	126.67	2000	
Pb	208	165	HMI He	0.221	ppb	10.83	2793.48	5000	
Th	232	165	HMI He	0.033	ppb	6.40	526.69	2000	
U	238	165	HMI He	0.198	ppb	11.95	2150.19	2000	
Li	7	45	No Gas	-48.189	ppb	-11.71	3617117.78	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	711027.73	2.64	761875.413333333	93.33	60	125	
Ge Internal Standard	72	HMI H2	14479872.48	2.14	15335359.8266667	94.42	60	125	
Sc (IS)	45	HMI He	854925.96	0.92	893895.12	95.64	60	125	
Ge Internal Standard	72	HMI He	1174460.55	0.84	1212004.9	96.9	60	125	
In Internal standard	115	HMI He	3213651.52	2.18	3222507.34666667	99.73	60	125	
Ho-165	165	HMI He	15111125.98	2.09	15514356.4833333	97.4	60	125	
Sc IS)	45	No Gas	55159615.87	0.61	82462669.8666667	66.89	60	120	

Sample Report

Sample Name	280-104320-e-14-b
File Name	199SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:54:09 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.045	ppb	63.86	25.00	2000	
B	11	6	HMI H2	9.576	ppb	13.71	3443.76	100	
Se	78	72	HMI H2	-0.079	ppb	-41.18	32.00	2000	
Na	23	45	HMI He	4200.954	ppb	0.62	851061.60	400000	
Mg	24	45	HMI He	11136.635	ppb	1.00	933730.72	400000	
Al	27	45	HMI He	34.181	ppb	20.54	690.03	400000	
K	39	45	HMI He	733.465	ppb	8.55	65857.04	400000	
Ca	44	45	HMI He	33836.375	ppb	1.37	85617.18	400000	
V	51	72	HMI He	-0.845	ppb	-9.02	1163.39	2000	
Cr	52	72	HMI He	0.403	ppb	7.83	816.70	5000	
Mn	55	72	HMI He	308.899	ppb	2.36	156866.59	10000	
Fe	57	72	HMI He	4698.787	ppb	0.59	123472.75	400000	
Co	59	72	HMI He	0.458	ppb	20.65	1206.73	2000	
Ni	60	72	HMI He	2.900	ppb	3.52	2470.21	5000	
Cu	63	72	HMI He	0.650	ppb	15.82	2193.51	5000	
Zn	66	72	HMI He	1.940	ppb	6.29	770.03	5000	
As	75	72	HMI He	2.140	ppb	15.63	453.60	2000	
Sr	88	45	HMI He	46.195	ppb	3.13	23988.16	2000	
Zr	90	72	HMI He	39.103	ppb	226.91	113.33	1000	
Nb	93	72	HMI He	-0.027	ppb	-14.86	76.67	200	
Mo	95	115	HMI He	0.238	ppb	13.65	240.00	2000	
Pd	105	115	HMI He	-0.027	ppb	-23.42	10.00	100	
Ag	107	115	HMI He	0.000	ppb	2052.13	23.33	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.238	ppb	94.44	420.04	2000	
Sb	121	115	HMI He	-0.046	ppb	-61.56	60.00	1000	
Ba	137	115	HMI He	19.931	ppb	9.00	5954.55	5000	
W	182	165	HMI He	0.005	ppb	920.50	1176.73	100	
Pt	195	165	HMI He	-0.007	ppb	-155.79	56.67	100	
Tl	205	165	HMI He	-0.006	ppb	-27.45	50.00	2000	
Pb	208	165	HMI He	0.699	ppb	8.74	6970.74	5000	
Th	232	165	HMI He	0.018	ppb	26.02	363.34	2000	
U	238	165	HMI He	0.006	ppb	53.44	103.33	2000	
Li	7	45	No Gas	-61.652	ppb	-3.66	3415280.97	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	698606.82	3.73	761875.413333333	91.7	60	125	
Ge Internal Standard	72	HMI H2	14521346.95	2.29	15335359.8266667	94.69	60	125	
Sc (IS)	45	HMI He	837551.16	1.39	893895.12	93.7	60	125	
Ge Internal Standard	72	HMI He	1144850.62	0.60	1212004.9	94.46	60	125	
In Internal standard	115	HMI He	3110520.57	2.31	3222507.34666667	96.52	60	125	
Ho-165	165	HMI He	14782983.29	1.47	15514356.4833333	95.29	60	125	
Sc IS)	45	No Gas	54389738.00	1.25	82462669.8666667	65.96	60	120	

Sample Report

Sample Name	280-104320-e-15-b
File Name	200SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 10:57:42 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.032	ppb	135.97	20.00	2000	
B	11	6	HMI H2	46.699	ppb	5.16	14796.58	100	
Se	78	72	HMI H2	-0.106	ppb	-44.15	22.67	2000	
Na	23	45	HMI He	5105.882	ppb	1.84	1007853.42	400000	
Mg	24	45	HMI He	19761.036	ppb	1.06	1617511.57	400000	
Al	27	45	HMI He	17.165	ppb	36.06	350.01	400000	
K	39	45	HMI He	1514.845	ppb	0.32	100747.45	400000	
Ca	44	45	HMI He	75739.698	ppb	1.72	187039.83	400000	
V	51	72	HMI He	-0.981	ppb	-19.57	993.38	2000	
Cr	52	72	HMI He	0.339	ppb	22.47	710.02	5000	
Mn	55	72	HMI He	520.107	ppb	2.08	258574.69	10000	
Fe	57	72	HMI He	2796.056	ppb	1.53	71950.78	400000	
Co	59	72	HMI He	0.411	ppb	13.44	1060.05	2000	
Ni	60	72	HMI He	0.408	ppb	29.58	586.68	5000	
Cu	63	72	HMI He	1.046	ppb	17.23	2953.64	5000	
Zn	66	72	HMI He	2.871	ppb	18.14	1006.71	5000	
As	75	72	HMI He	18.533	ppb	2.71	3680.82	2000	
Sr	88	45	HMI He	159.856	ppb	2.53	81038.04	2000	
Zr	90	72	HMI He	800.239	ppb	10.91	590.02	1000	
Nb	93	72	HMI He	-0.029	ppb	-42.40	70.00	200	
Mo	95	115	HMI He	0.685	ppb	24.70	653.36	2000	
Pd	105	115	HMI He	-0.022	ppb	-65.52	16.67	100	
Ag	107	115	HMI He	-0.002	ppb	-279.62	16.67	100	
Cd	111	115	HMI He	0.000	ppb	3131.34	3.33	2000	
Sn	120	115	HMI He	0.280	ppb	23.90	453.34	2000	
Sb	121	115	HMI He	0.018	ppb	74.29	116.67	1000	
Ba	137	115	HMI He	66.588	ppb	6.76	19305.60	5000	
W	182	165	HMI He	0.033	ppb	160.32	1256.74	100	
Pt	195	165	HMI He	-0.016	ppb	-59.78	26.67	100	
Tl	205	165	HMI He	-0.003	ppb	-77.44	66.67	2000	
Pb	208	165	HMI He	1.095	ppb	2.44	10271.60	5000	
Th	232	165	HMI He	0.018	ppb	28.75	350.01	2000	
U	238	165	HMI He	0.188	ppb	1.65	1950.16	2000	
Li	7	45	No Gas	-50.895	ppb	-8.16	3386707.38	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682579.37	0.09	761875.413333333	89.59	60	125	
Ge Internal Standard	72	HMI H2	14195093.33	0.45	15335359.8266667	92.56	60	125	
Sc (IS)	45	HMI He	817736.85	1.23	893895.12	91.48	60	125	
Ge Internal Standard	72	HMI He	1120806.10	0.56	1212004.9	92.48	60	125	
In Internal standard	115	HMI He	3023308.11	2.81	3222507.34666667	93.82	60	125	
Ho-165	165	HMI He	14472869.45	0.92	15514356.4833333	93.29	60	125	
Sc IS)	45	No Gas	52092900.20	1.60	82462669.8666667	63.17	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	201_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:01:11 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	508.215	ppb	2.37	262278.41	500	101.64	90	110	
Be	9	6	HMI H2	51.016	ppb	2.32	19497.92	50	102.03	90	110	
B	11	6	HMI H2	54.702	ppb	5.10	19014.20	50	109.4	90	110	
Se	78	72	HMI H2	50.996	ppb	1.71	17637.67	50	101.99	90	110	
Na	23	45	HMI He	4799.999	ppb	1.24	973328.02	5000	96	90	110	
Mg	24	45	HMI He	5041.504	ppb	0.34	423865.44	5000	100.83	90	110	
Al	27	45	HMI He	5092.796	ppb	1.45	99490.59	5000	101.86	90	110	
K	39	45	HMI He	5037.401	ppb	1.49	272078.54	5000	100.75	90	110	
Ca	44	45	HMI He	5168.967	ppb	2.26	13138.68	5000	103.38	90	110	
V	51	72	HMI He	51.683	ppb	2.84	59681.33	50	103.37	90	110	
Cr	52	72	HMI He	50.925	ppb	0.49	74943.63	50	101.85	90	110	
Mn	55	72	HMI He	51.582	ppb	1.96	26685.31	50	103.16	90	110	
Fe	57	72	HMI He	5137.035	ppb	2.32	137332.41	5000	102.74	90	110	
Co	59	72	HMI He	51.866	ppb	1.18	138605.77	50	103.73	90	110	
Ni	60	72	HMI He	51.418	ppb	1.97	39571.54	50	102.84	90	110	
Cu	63	72	HMI He	52.093	ppb	2.16	110941.72	50	104.19	90	110	
Zn	66	72	HMI He	51.045	ppb	5.61	14613.46	50	102.09	90	110	
As	75	72	HMI He	51.485	ppb	0.63	10588.44	50	102.97	90	110	
Sr	88	45	HMI He	52.536	ppb	1.87	27350.32	50	105.07	90	110	
Zr	90	72	HMI He	112.506	ppb	47.97	163.33	50	225.01	90	110	>+\-10%
Nb	93	72	HMI He	105.264	ppb	1.28	416162.97	100	105.26	90	110	
Mo	95	115	HMI He	50.089	ppb	4.13	49573.99	50	100.18	90	110	
Pd	105	115	HMI He	51.258	ppb	1.93	80176.59	50	102.52	90	110	
Ag	107	115	HMI He	52.462	ppb	2.36	174276.80	50	104.92	90	110	
Cd	111	115	HMI He	50.469	ppb	2.42	19972.86	50	100.94	90	110	
Sn	120	115	HMI He	51.244	ppb	3.66	52370.78	50	102.49	90	110	
Sb	121	115	HMI He	51.696	ppb	2.96	49314.68	50	103.39	90	110	
Ba	137	115	HMI He	51.899	ppb	5.87	15844.96	50	103.8	90	110	
W	182	165	HMI He	50.728	ppb	2.19	208377.78	50	101.46	90	110	
Pt	195	165	HMI He	49.998	ppb	2.54	165999.59	50	100	90	110	
Tl	205	165	HMI He	49.736	ppb	1.29	356745.05	50	99.47	90	110	
Pb	208	165	HMI He	50.696	ppb	1.14	467685.82	50	101.39	90	110	
Th	232	165	HMI He	50.244	ppb	1.25	515063.52	50	100.49	90	110	
U	238	165	HMI He	50.849	ppb	2.79	548514.74	50	101.7	90	110	
Li	7	45	No Gas	342.168	ppb	2.78	8195634.57	500	68.43	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	752235.01	3.08	761875.413333333	98.73	60	125	
Ge Internal Standard	72	HMI H2	15187289.52	2.18	15335359.8266667	99.03	60	125	
Sc (IS)	45	HMI He	839557.58	0.83	893895.12	93.92	60	125	
Ge Internal Standard	72	HMI He	1164754.57	0.12	1212004.9	96.1	60	125	
In Internal standard	115	HMI He	3181878.12	2.13	3222507.34666667	98.74	60	125	
Ho-165	165	HMI He	15349124.93	0.95	15514356.4833333	98.93	60	125	
Sc IS)	45	No Gas	55971502.08	2.20	82462669.8666667	67.87	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	202_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:05:04 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	3.681	ppb	192.93	109191.69	0.1	>RL
Be	9	6	HMI H2	0.014	ppb	253.81	15.00	0.5	
B	11	6	HMI H2	1.176	ppb	41.50	853.37	0.1	>RL
Se	78	72	HMI H2	-0.036	ppb	-332.39	46.67	1	
Na	23	45	HMI He	2.614	ppb	28.26	9842.98	25	
Mg	24	45	HMI He	0.450	ppb	82.74	263.34	25	
Al	27	45	HMI He	1.407	ppb	176.00	53.33	15	
K	39	45	HMI He	-22.822	ppb	-84.71	30224.48	50	
Ca	44	45	HMI He	-1.924	ppb	-347.47	30.00	25	
V	51	72	HMI He	-0.392	ppb	-30.97	1683.45	1	
Cr	52	72	HMI He	-0.020	ppb	-203.97	210.00	1	
Mn	55	72	HMI He	0.016	ppb	117.95	50.00	0.5	
Fe	57	72	HMI He	1.465	ppb	38.67	96.67	25	
Co	59	72	HMI He	0.006	ppb	59.43	20.00	0.5	
Ni	60	72	HMI He	0.043	ppb	212.88	330.01	1	
Cu	63	72	HMI He	-0.036	ppb	-124.70	780.03	1	
Zn	66	72	HMI He	-0.142	ppb	-64.05	196.67	5	
As	75	72	HMI He	0.021	ppb	141.32	26.14	1	
Sr	88	45	HMI He	0.019	ppb	148.56	16.67	1	
Zr	90	72	HMI He	26.414	ppb	412.66	106.67	1	>RL
Nb	93	72	HMI He	0.263	ppb	14.94	1220.06	2	
Mo	95	115	HMI He	0.072	ppb	74.92	80.00	0.5	
Pd	105	115	HMI He	0.016	ppb	199.82	76.67	1	
Ag	107	115	HMI He	0.003	ppb	214.76	33.33	1	
Cd	111	115	HMI He	0.000	ppb	4840.22	3.33	0.5	
Sn	120	115	HMI He	0.012	ppb	572.30	200.01	1	
Sb	121	115	HMI He	0.326	ppb	47.02	410.01	1	
Ba	137	115	HMI He	0.068	ppb	151.09	26.67	0.5	
W	182	165	HMI He	-0.042	ppb	-31.40	1003.38	1	
Pt	195	165	HMI He	-0.003	ppb	-175.98	70.00	1	
Tl	205	165	HMI He	0.016	ppb	17.39	200.00	0.1	
Pb	208	165	HMI He	0.005	ppb	124.84	833.36	0.5	
Th	232	165	HMI He	0.011	ppb	27.83	296.68	1	
U	238	165	HMI He	0.007	ppb	21.63	120.00	0.5	
Li	7	45	No Gas	-66.495	ppb	-4.83	3443692.50	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	744446.50	0.40	761875.413333333	97.71	60	125	
Ge Internal Standard	72	HMI H2	14738593.30	1.27	15335359.8266667	96.11	60	125	
Sc (IS)	45	HMI He	851070.07	1.25	893895.12	95.21	60	125	
Ge Internal Standard	72	HMI He	1161692.18	0.20	1212004.9	95.85	60	125	
In Internal standard	115	HMI He	3135812.90	1.06	3222507.34666667	97.31	60	125	
Ho-165	165	HMI He	14979188.18	2.35	15514356.4833333	96.55	60	125	
Sc IS)	45	No Gas	55737522.09	0.94	82462669.8666667	67.59	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	203LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:08:35 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.041	ppb	3.03	400.01	1	104.06	70	130	
Se	78	72	HMI H2	5.251	ppb	1.25	1792.11	5	105.02	70	130	
Na	23	45	HMI He	53.526	ppb	0.92	19204.42	50	107.05	70	130	
Mg	24	45	HMI He	52.872	ppb	2.45	4494.00	50	105.74	70	130	
Al	27	45	HMI He	33.600	ppb	11.29	656.69	30	112	70	130	
K	39	45	HMI He	168.710	ppb	20.84	37549.39	100	168.71	70	130	>+/-30%
Ca	44	45	HMI He	60.285	ppb	25.21	180.00	50	120.57	70	130	
V	51	72	HMI He	4.759	ppb	5.17	7088.26	5	95.18	70	130	
Cr	52	72	HMI He	2.164	ppb	13.23	3257.03	2	108.21	70	130	
Mn	55	72	HMI He	1.069	ppb	14.18	566.68	1	106.95	70	130	
Fe	57	72	HMI He	52.972	ppb	7.82	1406.75	50	105.94	70	130	
Co	59	72	HMI He	1.099	ppb	3.93	2806.94	1	109.92	70	130	
Ni	60	72	HMI He	2.398	ppb	5.29	2033.49	2	119.88	70	130	
Cu	63	72	HMI He	2.155	ppb	9.81	5164.24	2	107.75	70	130	
Zn	66	72	HMI He	10.938	ppb	5.41	3167.03	10	109.38	70	130	
As	75	72	HMI He	5.129	ppb	7.43	1025.53	5	102.58	70	130	
Sr	88	45	HMI He	1.151	ppb	8.01	583.35	1	115.14	70	130	
Zr	90	72	HMI He	135.446	ppb	89.73	170.00	0.5	27089.1	70	130	>+/-30%
Nb	93	72	HMI He	0.255	ppb	16.45	1140.06	2	12.77	70	130	>+/-30%
Mo	95	115	HMI He	2.079	ppb	4.07	1960.15	2	103.95	70	130	
Pd	105	115	HMI He	0.006	ppb	252.42	60.00	1	0.64	70	130	>+/-30%
Ag	107	115	HMI He	5.336	ppb	6.91	16812.51	5	106.71	70	130	
Cd	111	115	HMI He	1.243	ppb	8.23	470.01	1	124.32	70	130	
Sn	120	115	HMI He	10.968	ppb	8.81	10757.18	10	109.68	70	130	
Sb	121	115	HMI He	2.205	ppb	8.05	2090.17	2	110.26	70	130	
Ba	137	115	HMI He	0.967	ppb	23.18	286.67	1	96.74	70	130	
W	182	165	HMI He	5.072	ppb	7.38	20774.73	1	507.23	70	130	>+/-30%
Pt	195	165	HMI He	-0.004	ppb	-115.74	66.67	1	-0.37	70	130	>+/-30%
Tl	205	165	HMI He	1.060	ppb	5.98	7301.90	1	106.02	70	130	
Pb	208	165	HMI He	1.128	ppb	3.11	10631.70	1	112.81	70	130	
Th	232	165	HMI He	2.016	ppb	4.98	19770.44	2	100.8	70	130	
U	238	165	HMI He	1.041	ppb	5.21	10690.78	1	104.07	70	130	
Li	7	45	No Gas	-59.105	ppb	-19.81	3427501.98	50	-118.21	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	738236.80	0.70	761875.413333333	96.9	60	125	
Ge Internal Standard	72	HMI H2	14547113.20	1.70	15335359.8266667	94.86	60	125	
Sc (IS)	45	HMI He	808670.93	1.56	893895.12	90.47	60	125	
Ge Internal Standard	72	HMI He	1112173.47	1.37	1212004.9	91.76	60	125	
In Internal standard	115	HMI He	3017668.89	3.31	3222507.34666667	93.64	60	125	
Ho-165	165	HMI He	14567458.51	2.91	15514356.4833333	93.9	60	125	
Sc IS)	45	No Gas	54149128.84	1.89	82462669.8666667	65.67	60	120	

Sample Report

Sample Name	280-104320-e-16-b
File Name	204SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:12:11 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.097	ppb	45.30	41.67	2000	
B	11	6	HMI H2	88.453	ppb	7.52	26844.86	100	
Se	78	72	HMI H2	0.781	ppb	23.25	300.00	2000	
Na	23	45	HMI He	4632.091	ppb	1.34	863776.65	400000	
Mg	24	45	HMI He	42834.876	ppb	0.42	3309070.56	400000	
Al	27	45	HMI He	2668.001	ppb	2.65	47925.26	400000	
K	39	45	HMI He	1934.639	ppb	1.66	113555.38	400000	
Ca	44	45	HMI He	93928.323	ppb	1.20	218932.26	400000	
V	51	72	HMI He	3.573	ppb	7.21	5687.73	2000	
Cr	52	72	HMI He	5.017	ppb	4.48	7081.64	5000	
Mn	55	72	HMI He	136.734	ppb	0.57	65859.00	10000	
Fe	57	72	HMI He	5857.128	ppb	0.17	145917.32	400000	
Co	59	72	HMI He	2.559	ppb	0.97	6374.65	2000	
Ni	60	72	HMI He	5.545	ppb	3.01	4223.93	5000	
Cu	63	72	HMI He	5.045	ppb	5.28	10733.64	5000	
Zn	66	72	HMI He	16.312	ppb	11.08	4500.67	5000	
As	75	72	HMI He	1.978	ppb	11.04	398.70	2000	
Sr	88	45	HMI He	225.590	ppb	0.81	107949.28	2000	
Zr	90	72	HMI He	2284.936	ppb	7.07	1476.76	1000	
Nb	93	72	HMI He	0.049	ppb	14.06	353.34	200	
Mo	95	115	HMI He	0.609	ppb	18.95	550.01	2000	
Pd	105	115	HMI He	-0.012	ppb	-155.55	30.00	100	
Ag	107	115	HMI He	0.010	ppb	102.77	50.00	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.115	ppb	38.19	276.68	2000	
Sb	121	115	HMI He	0.104	ppb	74.91	183.34	1000	
Ba	137	115	HMI He	48.787	ppb	5.75	13379.28	5000	
W	182	165	HMI He	-0.012	ppb	-58.29	1066.72	100	
Pt	195	165	HMI He	0.000	ppb	-15338.27	76.67	100	
Tl	205	165	HMI He	0.039	ppb	21.46	346.68	2000	
Pb	208	165	HMI He	2.854	ppb	2.47	25125.42	5000	
Th	232	165	HMI He	1.017	ppb	3.05	9840.12	2000	
U	238	165	HMI He	1.273	ppb	2.81	12772.46	2000	
Li	7	45	No Gas	-33.647	ppb	-18.58	3392424.33	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	663637.73	2.81	761875.413333333	87.11	60	125	
Ge Internal Standard	72	HMI H2	13802981.68	0.10	15335359.8266667	90.01	60	125	
Sc (IS)	45	HMI He	771785.86	0.79	893895.12	86.34	60	125	
Ge Internal Standard	72	HMI He	1085464.89	0.65	1212004.9	89.56	60	125	
In Internal standard	115	HMI He	2856757.50	0.88	3222507.34666667	88.65	60	125	
Ho-165	165	HMI He	14235949.26	0.29	15514356.4833333	91.76	60	125	
Sc IS)	45	No Gas	49456254.92	0.76	82462669.8666667	59.97	60	120	IS Failed

Sample Report

Sample Name	280-104320-e-17-b
File Name	205SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:15:45 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.021	ppb	-36.50	1.67	2000	
B	11	6	HMI H2	30.945	ppb	14.76	9409.41	100	
Se	78	72	HMI H2	-0.043	ppb	-76.77	40.00	2000	
Na	23	45	HMI He	5186.355	ppb	0.41	1024757.33	400000	
Mg	24	45	HMI He	34426.775	ppb	0.54	2820965.81	400000	
Al	27	45	HMI He	39.851	ppb	4.71	783.36	400000	
K	39	45	HMI He	1452.239	ppb	2.31	97930.76	400000	
Ca	44	45	HMI He	103991.615	ppb	1.73	257107.53	400000	
V	51	72	HMI He	-1.057	ppb	-10.93	920.04	2000	
Cr	52	72	HMI He	0.454	ppb	13.76	880.04	5000	
Mn	55	72	HMI He	221.445	ppb	1.57	111124.16	10000	
Fe	57	72	HMI He	73.229	ppb	7.33	1956.81	400000	
Co	59	72	HMI He	0.180	ppb	20.23	470.01	2000	
Ni	60	72	HMI He	0.599	ppb	3.49	733.36	5000	
Cu	63	72	HMI He	0.738	ppb	16.24	2346.87	5000	
Zn	66	72	HMI He	3.119	ppb	3.95	1083.38	5000	
As	75	72	HMI He	0.211	ppb	30.27	63.40	2000	
Sr	88	45	HMI He	138.964	ppb	0.56	70535.77	2000	
Zr	90	72	HMI He	167.725	ppb	72.82	193.34	1000	
Nb	93	72	HMI He	-0.003	ppb	-85.29	170.00	200	
Mo	95	115	HMI He	0.380	ppb	29.27	366.68	2000	
Pd	105	115	HMI He	-0.025	ppb	-64.32	13.33	100	
Ag	107	115	HMI He	-0.002	ppb	-392.45	16.67	100	
Cd	111	115	HMI He	0.009	ppb	163.11	6.67	2000	
Sn	120	115	HMI He	0.229	ppb	10.48	403.34	2000	
Sb	121	115	HMI He	0.004	ppb	444.07	103.33	1000	
Ba	137	115	HMI He	18.389	ppb	3.82	5347.66	5000	
W	182	165	HMI He	0.031	ppb	81.21	1236.74	100	
Pt	195	165	HMI He	-0.005	ppb	-216.19	63.33	100	
Tl	205	165	HMI He	0.020	ppb	19.13	223.34	2000	
Pb	208	165	HMI He	0.257	ppb	8.42	2970.18	5000	
Th	232	165	HMI He	0.038	ppb	12.35	540.02	2000	
U	238	165	HMI He	2.210	ppb	3.07	22320.82	2000	
Li	7	45	No Gas	-50.137	ppb	-6.00	3289844.83	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	652057.70	10.61	761875.413333333	85.59	60	125	
Ge Internal Standard	72	HMI H2	13329241.28	8.72	15335359.8266667	86.92	60	125	
Sc (IS)	45	HMI He	818601.74	0.18	893895.12	91.58	60	125	
Ge Internal Standard	72	HMI He	1131242.65	0.80	1212004.9	93.34	60	125	
In Internal standard	115	HMI He	3026696.13	1.46	3222507.34666667	93.92	60	125	
Ho-165	165	HMI He	14355790.61	3.39	15514356.4833333	92.53	60	125	
Sc IS)	45	No Gas	50475050.70	0.60	82462669.8666667	61.21	60	120	

Sample Report

Sample Name	280-104320-e-18-b
File Name	206SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:19:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.006	ppb	-355.01	6.67	2000	
B	11	6	HMI H2	127.969	ppb	2.96	39613.05	100	
Se	78	72	HMI H2	0.063	ppb	189.97	80.00	2000	
Na	23	45	HMI He	5604.032	ppb	1.73	1126909.32	400000	
Mg	24	45	HMI He	26197.103	ppb	1.54	2186279.70	400000	
Al	27	45	HMI He	224.102	ppb	4.90	4370.64	400000	
K	39	45	HMI He	1017.061	ppb	0.32	79057.54	400000	
Ca	44	45	HMI He	75097.090	ppb	1.42	189088.37	400000	
V	51	72	HMI He	-0.667	ppb	-0.85	1366.75	2000	
Cr	52	72	HMI He	0.512	ppb	10.75	980.04	5000	
Mn	55	72	HMI He	1000.044	ppb	0.44	511031.72	10000	
Fe	57	72	HMI He	483.880	ppb	4.71	12848.53	400000	
Co	59	72	HMI He	3.437	ppb	1.03	9089.33	2000	
Ni	60	72	HMI He	1.445	ppb	29.42	1386.74	5000	
Cu	63	72	HMI He	1.589	ppb	6.51	4170.59	5000	
Zn	66	72	HMI He	4.375	ppb	2.40	1453.41	5000	
As	75	72	HMI He	0.308	ppb	6.31	84.31	2000	
Sr	88	45	HMI He	117.730	ppb	4.83	60835.54	2000	
Zr	90	72	HMI He	15497.462	ppb	1.49	10120.01	1000	>LDR
Nb	93	72	HMI He	-0.015	ppb	-26.63	126.67	200	
Mo	95	115	HMI He	2.195	ppb	11.32	2160.18	2000	
Pd	105	115	HMI He	-0.025	ppb	-37.92	13.33	100	
Ag	107	115	HMI He	0.000	ppb	2005.84	23.33	100	
Cd	111	115	HMI He	0.102	ppb	15.30	43.33	2000	
Sn	120	115	HMI He	0.121	ppb	157.61	313.34	2000	
Sb	121	115	HMI He	0.067	ppb	54.41	166.67	1000	
Ba	137	115	HMI He	29.466	ppb	9.84	8931.08	5000	
W	182	165	HMI He	0.014	ppb	82.47	1206.73	100	
Pt	195	165	HMI He	0.007	ppb	211.93	103.33	100	
Tl	205	165	HMI He	0.016	ppb	67.00	200.01	2000	
Pb	208	165	HMI He	0.793	ppb	4.05	7804.26	5000	
Th	232	165	HMI He	0.081	ppb	9.56	980.05	2000	
U	238	165	HMI He	0.751	ppb	6.01	7838.88	2000	
Li	7	45	No Gas	-53.676	ppb	-15.46	3213595.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	679407.71	2.43	761875.413333333	89.18	60	125	
Ge Internal Standard	72	HMI H2	14550906.22	3.39	15335359.8266667	94.88	60	125	
Sc (IS)	45	HMI He	833771.68	1.56	893895.12	93.27	60	125	
Ge Internal Standard	72	HMI He	1152207.15	0.10	1212004.9	95.07	60	125	
In Internal standard	115	HMI He	3155118.52	2.45	3222507.34666667	97.91	60	125	
Ho-165	165	HMI He	14767945.79	0.65	15514356.4833333	95.19	60	125	
Sc IS)	45	No Gas	49884059.90	2.35	82462669.8666667	60.49	60	120	

Sample Report

Sample Name	280-104320-e-20-b
File Name	207SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:22:46 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.017	ppb	-46.09	3.33	2000	
B	11	6	HMI H2	101.478	ppb	11.16	32758.56	100	
Se	78	72	HMI H2	-0.059	ppb	-132.06	38.67	2000	
Na	23	45	HMI He	11925.071	ppb	1.87	2369509.33	400000	
Mg	24	45	HMI He	35019.171	ppb	2.01	2899606.91	400000	
Al	27	45	HMI He	15.061	ppb	37.17	313.34	400000	
K	39	45	HMI He	3787.288	ppb	2.24	209110.80	400000	
Ca	44	45	HMI He	121968.118	ppb	2.74	304678.57	400000	
V	51	72	HMI He	-1.139	ppb	-3.38	843.37	2000	
Cr	52	72	HMI He	0.180	ppb	9.31	496.68	5000	
Mn	55	72	HMI He	115.709	ppb	1.71	58928.94	10000	
Fe	57	72	HMI He	1072.277	ppb	1.58	28291.26	400000	
Co	59	72	HMI He	0.046	ppb	18.00	123.33	2000	
Ni	60	72	HMI He	0.034	ppb	482.43	320.01	5000	
Cu	63	72	HMI He	2.615	ppb	6.39	6291.30	5000	
Zn	66	72	HMI He	1.139	ppb	18.51	550.02	5000	
As	75	72	HMI He	1.845	ppb	2.95	394.78	2000	
Sr	88	45	HMI He	406.224	ppb	3.65	208301.42	2000	
Zr	90	72	HMI He	317.745	ppb	16.57	293.34	1000	
Nb	93	72	HMI He	-0.012	ppb	-27.16	136.67	200	
Mo	95	115	HMI He	0.845	ppb	11.02	816.70	2000	
Pd	105	115	HMI He	-0.003	ppb	-978.65	46.67	100	
Ag	107	115	HMI He	-0.004	ppb	-81.80	10.00	100	
Cd	111	115	HMI He	0.001	ppb	2917.95	3.33	2000	
Sn	120	115	HMI He	0.104	ppb	30.65	286.67	2000	
Sb	121	115	HMI He	-0.041	ppb	-55.34	63.33	1000	
Ba	137	115	HMI He	25.215	ppb	2.82	7441.89	5000	
W	182	165	HMI He	-0.002	ppb	-1500.07	1133.39	100	
Pt	195	165	HMI He	-0.003	ppb	-394.48	70.00	100	
Tl	205	165	HMI He	-0.001	ppb	-653.58	83.33	2000	
Pb	208	165	HMI He	0.076	ppb	17.94	1433.39	5000	
Th	232	165	HMI He	0.016	ppb	26.63	333.34	2000	
U	238	165	HMI He	0.096	ppb	1.75	1030.05	2000	
Li	7	45	No Gas	-55.611	ppb	-18.16	2908359.33	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	708895.56	5.25	761875.413333333	93.05	60	125	
Ge Internal Standard	72	HMI H2	14509185.39	1.15	15335359.8266667	94.61	60	125	
Sc (IS)	45	HMI He	827405.22	1.92	893895.12	92.56	60	125	
Ge Internal Standard	72	HMI He	1147599.15	0.76	1212004.9	94.69	60	125	
In Internal standard	115	HMI He	3071938.27	0.51	3222507.34666667	95.33	60	125	
Ho-165	165	HMI He	14590995.18	0.98	15514356.4833333	94.05	60	125	
Sc IS)	45	No Gas	45404609.71	0.90	82462669.8666667	55.06	60	120	IS Failed

Sample Report

Sample Name	280-104320-g-21-b
File Name	208SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:26:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.014	ppb	-82.90	8.33	2000	
B	11	6	HMI H2	2.008	ppb	32.42	2096.84	100	
Se	78	72	HMI H2	-0.107	ppb	-33.50	40.00	2000	
Na	23	45	HMI He	1106.731	ppb	80.72	332407.66	400000	
Mg	24	45	HMI He	3316.512	ppb	79.62	399799.45	400000	
Al	27	45	HMI He	3.545	ppb	59.39	140.00	400000	
K	39	45	HMI He	-102.095	ppb	-186.25	38403.45	400000	
Ca	44	45	HMI He	8784.080	ppb	79.12	32067.08	400000	
V	51	72	HMI He	-1.356	ppb	-3.73	933.37	2000	
Cr	52	72	HMI He	-0.014	ppb	-495.60	323.34	5000	
Mn	55	72	HMI He	25.172	ppb	79.31	18878.24	10000	
Fe	57	72	HMI He	189.788	ppb	77.11	7416.66	400000	
Co	59	72	HMI He	0.026	ppb	83.38	106.67	2000	
Ni	60	72	HMI He	-0.015	ppb	-235.18	440.01	5000	
Cu	63	72	HMI He	-0.013	ppb	-158.93	1270.07	5000	
Zn	66	72	HMI He	0.033	ppb	1153.43	363.35	5000	
As	75	72	HMI He	1.044	ppb	81.50	343.14	2000	
Sr	88	45	HMI He	15.164	ppb	80.91	11324.46	2000	
Zr	90	72	HMI He	161.288	ppb	23.09	296.67	1000	
Nb	93	72	HMI He	0.016	ppb	294.59	376.72	200	
Mo	95	115	HMI He	0.181	ppb	74.42	260.01	2000	
Pd	105	115	HMI He	0.027	ppb	16.61	136.67	100	
Ag	107	115	HMI He	0.001	ppb	512.20	36.67	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.027	ppb	-302.23	240.00	2000	
Sb	121	115	HMI He	-0.054	ppb	-18.97	76.67	1000	
Ba	137	115	HMI He	4.801	ppb	83.84	2003.60	5000	
W	182	165	HMI He	0.398	ppb	75.30	4088.37	100	
Pt	195	165	HMI He	-0.018	ppb	-42.71	36.67	100	
Tl	205	165	HMI He	-0.003	ppb	-49.56	100.00	2000	
Pb	208	165	HMI He	0.023	ppb	155.52	1490.05	5000	
Th	232	165	HMI He	-0.002	ppb	-140.17	250.01	2000	
U	238	165	HMI He	0.104	ppb	84.92	1646.86	2000	
Li	7	45	No Gas	-80.055	ppb	-6.19	5020611.61	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1380347.60	4.58	761875.413333333	181.18	60	125	IS Failed
Ge Internal Standard	72	HMI H2	25258297.64	5.42	15335359.8266667	164.71	60	125	IS Failed
Sc (IS)	45	HMI He	1269196.10	12.38	893895.12	141.98	60	125	IS Failed
Ge Internal Standard	72	HMI He	1776921.33	12.16	1212004.9	146.61	60	125	IS Failed
In Internal standard	115	HMI He	4622119.68	12.78	3222507.34666667	143.43	60	125	IS Failed
Ho-165	165	HMI He	22912606.31	11.12	15514356.4833333	147.69	60	125	IS Failed
Sc IS)	45	No Gas	85154540.56	3.88	82462669.8666667	103.26	60	120	

Sample Report

Sample Name	280-104320-a-22-b
File Name	209SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:29:49 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.007	ppb	-296.57	6.67	2000	
B	11	6	HMI H2	99.887	ppb	3.29	32758.39	100	
Se	78	72	HMI H2	1.098	ppb	4.85	438.68	2000	
Na	23	45	HMI He	4225.214	ppb	1.58	865945.75	400000	
Mg	24	45	HMI He	10091.850	ppb	0.80	856157.32	400000	
Al	27	45	HMI He	15.964	ppb	13.81	340.01	400000	
K	39	45	HMI He	1200.178	ppb	1.69	89198.35	400000	
Ca	44	45	HMI He	67684.180	ppb	1.38	173235.66	400000	
V	51	72	HMI He	-0.137	ppb	-138.05	1986.82	2000	
Cr	52	72	HMI He	0.218	ppb	38.95	563.35	5000	
Mn	55	72	HMI He	10.028	ppb	6.82	5260.91	10000	
Fe	57	72	HMI He	74.496	ppb	8.00	2063.49	400000	
Co	59	72	HMI He	0.197	ppb	13.96	533.35	2000	
Ni	60	72	HMI He	0.602	ppb	20.95	763.36	5000	
Cu	63	72	HMI He	0.854	ppb	9.68	2683.59	5000	
Zn	66	72	HMI He	2.506	ppb	6.62	950.05	5000	
As	75	72	HMI He	0.165	ppb	34.66	56.21	2000	
Sr	88	45	HMI He	189.152	ppb	1.72	99386.73	2000	
Zr	90	72	HMI He	89.860	ppb	136.36	150.00	1000	
Nb	93	72	HMI He	-0.020	ppb	-59.55	106.67	200	
Mo	95	115	HMI He	0.112	ppb	74.31	123.33	2000	
Pd	105	115	HMI He	-0.017	ppb	-43.73	26.67	100	
Ag	107	115	HMI He	-0.005	ppb	-69.46	6.67	100	
Cd	111	115	HMI He	0.017	ppb	149.55	10.00	2000	
Sn	120	115	HMI He	0.427	ppb	25.94	636.69	2000	
Sb	121	115	HMI He	-0.031	ppb	-104.57	76.67	1000	
Ba	137	115	HMI He	19.452	ppb	5.59	6057.95	5000	
W	182	165	HMI He	0.060	ppb	125.92	1470.10	100	
Pt	195	165	HMI He	-0.002	ppb	-464.62	76.67	100	
Tl	205	165	HMI He	0.002	ppb	192.58	110.00	2000	
Pb	208	165	HMI He	0.410	ppb	2.79	4660.35	5000	
Th	232	165	HMI He	0.010	ppb	100.32	293.34	2000	
U	238	165	HMI He	0.724	ppb	2.33	7989.01	2000	
Li	7	45	No Gas	-86.480	ppb	-7.61	2584808.07	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	717735.35	2.28	761875.413333333	94.21	60	125	
Ge Internal Standard	72	HMI H2	15158114.11	1.82	15335359.8266667	98.84	60	125	
Sc (IS)	45	HMI He	847388.17	0.30	893895.12	94.8	60	125	
Ge Internal Standard	72	HMI He	1173650.98	0.60	1212004.9	96.84	60	125	
In Internal standard	115	HMI He	3241294.15	0.90	3222507.34666667	100.58	60	125	
Ho-165	165	HMI He	15614256.79	2.73	15514356.4833333	100.64	60	125	
Sc IS)	45	No Gas	44855780.16	2.44	82462669.8666667	54.4	60	120	IS Failed

Sample Report

Sample Name	280-104320-a-23-b
File Name	210SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:33:24 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.014	ppb	156.93	15.00	2000	
B	11	6	HMI H2	20.214	ppb	4.66	7141.60	100	
Se	78	72	HMI H2	0.827	ppb	9.61	353.34	2000	
Na	23	45	HMI He	51508.950	ppb	1.89	10474666.02	400000	
Mg	24	45	HMI He	22601.956	ppb	2.66	1921000.13	400000	
Al	27	45	HMI He	38.126	ppb	17.39	780.03	400000	
K	39	45	HMI He	1367.743	ppb	2.34	97504.77	400000	
Ca	44	45	HMI He	71567.099	ppb	0.65	183599.50	400000	
V	51	72	HMI He	-1.148	ppb	-10.52	866.70	2000	
Cr	52	72	HMI He	0.383	ppb	35.93	823.37	5000	
Mn	55	72	HMI He	136.535	ppb	1.96	72271.82	10000	
Fe	57	72	HMI He	4444.832	ppb	3.04	121692.42	400000	
Co	59	72	HMI He	0.772	ppb	19.75	2116.84	2000	
Ni	60	72	HMI He	1.098	ppb	27.38	1163.39	5000	
Cu	63	72	HMI He	0.679	ppb	10.67	2350.20	5000	
Zn	66	72	HMI He	2.824	ppb	16.20	1056.71	5000	
As	75	72	HMI He	4.503	ppb	6.96	968.66	2000	
Sr	88	45	HMI He	100.952	ppb	3.56	53141.67	2000	
Zr	90	72	HMI He	205.904	ppb	10.90	230.01	1000	
Nb	93	72	HMI He	-0.025	ppb	-18.08	90.00	200	
Mo	95	115	HMI He	0.027	ppb	93.97	36.67	2000	
Pd	105	115	HMI He	-0.021	ppb	-0.87	20.00	100	
Ag	107	115	HMI He	0.017	ppb	61.89	80.00	100	
Cd	111	115	HMI He	0.000	ppb	4770.72	3.33	2000	
Sn	120	115	HMI He	0.195	ppb	36.62	390.01	2000	
Sb	121	115	HMI He	-0.069	ppb	-45.07	40.00	1000	
Ba	137	115	HMI He	11.533	ppb	5.57	3533.78	5000	
W	182	165	HMI He	0.009	ppb	152.76	1253.40	100	
Pt	195	165	HMI He	0.001	ppb	467.23	86.67	100	
Tl	205	165	HMI He	0.017	ppb	31.36	220.00	2000	
Pb	208	165	HMI He	0.270	ppb	10.42	3340.20	5000	
Th	232	165	HMI He	0.005	ppb	62.23	246.67	2000	
U	238	165	HMI He	0.688	ppb	4.79	7585.42	2000	
Li	7	45	No Gas	-86.754	ppb	-5.52	2463686.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	734275.60	3.01	761875.413333333	96.38	60	125	
Ge Internal Standard	72	HMI H2	15520513.67	1.47	15335359.8266667	101.21	60	125	
Sc (IS)	45	HMI He	849464.04	2.72	893895.12	95.03	60	125	
Ge Internal Standard	72	HMI He	1192979.29	0.98	1212004.9	98.43	60	125	
In Internal standard	115	HMI He	3184713.43	1.42	3222507.34666667	98.83	60	125	
Ho-165	165	HMI He	15591422.94	0.80	15514356.4833333	100.5	60	125	
Sc IS)	45	No Gas	42769660.27	2.31	82462669.8666667	51.87	60	120	IS Failed

Sample Report

Sample Name	280-104320-a-24-b
File Name	211SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:36:55 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.019	ppb	-63.28	5.00	2000	
B	11	6	HMI H2	5.290	ppb	79.54	4257.41	100	
Se	78	72	HMI H2	-0.115	ppb	-20.53	36.00	2000	
Na	23	45	HMI He	11989.717	ppb	1.03	2464034.19	400000	
Mg	24	45	HMI He	14232.857	ppb	3.01	1219041.07	400000	
Al	27	45	HMI He	15.511	ppb	48.08	333.34	400000	
K	39	45	HMI He	5300.558	ppb	1.23	290141.26	400000	
Ca	44	45	HMI He	35853.169	ppb	2.54	92678.68	400000	
V	51	72	HMI He	-0.992	ppb	-10.97	1046.72	2000	
Cr	52	72	HMI He	0.221	ppb	12.53	580.02	5000	
Mn	55	72	HMI He	0.737	ppb	12.04	433.34	10000	
Fe	57	72	HMI He	31.395	ppb	18.73	920.04	400000	
Co	59	72	HMI He	0.017	ppb	98.28	50.00	2000	
Ni	60	72	HMI He	1.166	ppb	9.54	1220.06	5000	
Cu	63	72	HMI He	0.631	ppb	5.85	2250.19	5000	
Zn	66	72	HMI He	7.344	ppb	3.14	2366.87	5000	
As	75	72	HMI He	0.076	ppb	6.23	38.57	2000	
Sr	88	45	HMI He	621.762	ppb	2.02	329877.96	2000	
Zr	90	72	HMI He	96.133	ppb	125.34	156.67	1000	
Nb	93	72	HMI He	-0.018	ppb	-40.52	116.67	200	
Mo	95	115	HMI He	0.053	ppb	38.73	63.33	2000	
Pd	105	115	HMI He	0.004	ppb	169.13	60.00	100	
Ag	107	115	HMI He	-0.003	ppb	-156.65	13.33	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.346	ppb	8.54	553.35	2000	
Sb	121	115	HMI He	-0.014	ppb	-243.54	93.33	1000	
Ba	137	115	HMI He	282.087	ppb	2.90	87728.67	5000	
W	182	165	HMI He	0.021	ppb	354.30	1323.41	100	
Pt	195	165	HMI He	-0.016	ppb	-37.10	30.00	100	
Tl	205	165	HMI He	0.003	ppb	213.62	116.67	2000	
Pb	208	165	HMI He	0.173	ppb	9.69	2483.45	5000	
Th	232	165	HMI He	0.007	ppb	63.37	276.67	2000	
U	238	165	HMI He	0.070	ppb	4.47	826.70	2000	
Li	7	45	No Gas	-71.456	ppb	-6.59	2618300.10	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1424862.88	1.35	761875.413333333	187.02	60	125	IS Failed
Ge Internal Standard	72	HMI H2	26000879.06	1.20	15335359.8266667	169.55	60	125	IS Failed
Sc (IS)	45	HMI He	855733.93	1.01	893895.12	95.73	60	125	
Ge Internal Standard	72	HMI He	1195676.51	0.46	1212004.9	98.65	60	125	
In Internal standard	115	HMI He	3240973.23	2.25	3222507.34666667	100.57	60	125	
Ho-165	165	HMI He	15846600.95	2.39	15514356.4833333	102.14	60	125	
Sc IS)	45	No Gas	43079953.59	2.86	82462669.8666667	52.24	60	120	IS Failed

Sample Report

Sample Name	280-104320-c-25-b
File Name	212SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:40:28 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.021	ppb	-36.01	1.67	2000	
B	11	6	HMI H2	46.512	ppb	7.03	16231.28	100	
Se	78	72	HMI H2	0.300	ppb	27.36	173.33	2000	
Na	23	45	HMI He	8980.868	ppb	2.13	1861258.74	400000	
Mg	24	45	HMI He	19195.547	ppb	2.58	1656000.23	400000	
Al	27	45	HMI He	29.307	ppb	8.48	613.35	400000	
K	39	45	HMI He	698.511	ppb	0.92	66061.15	400000	
Ca	44	45	HMI He	68317.475	ppb	0.95	177833.04	400000	
V	51	72	HMI He	-1.073	ppb	-14.55	950.04	2000	
Cr	52	72	HMI He	0.183	ppb	28.35	520.02	5000	
Mn	55	72	HMI He	0.917	ppb	17.65	526.68	10000	
Fe	57	72	HMI He	44.704	ppb	13.99	1280.07	400000	
Co	59	72	HMI He	0.017	ppb	77.68	50.00	2000	
Ni	60	72	HMI He	0.195	ppb	11.28	456.68	5000	
Cu	63	72	HMI He	0.273	ppb	27.46	1466.75	5000	
Zn	66	72	HMI He	1.092	ppb	28.79	556.68	5000	
As	75	72	HMI He	0.092	ppb	12.34	41.83	2000	
Sr	88	45	HMI He	106.392	ppb	1.55	56854.00	2000	
Zr	90	72	HMI He	42.049	ppb	186.59	120.00	1000	
Nb	93	72	HMI He	-0.023	ppb	-76.25	96.67	200	
Mo	95	115	HMI He	0.038	ppb	66.08	50.00	2000	
Pd	105	115	HMI He	0.001	ppb	1851.66	56.67	100	
Ag	107	115	HMI He	-0.006	ppb	-28.64	3.33	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.135	ppb	52.20	340.01	2000	
Sb	121	115	HMI He	-0.080	ppb	-45.26	30.00	1000	
Ba	137	115	HMI He	2.939	ppb	17.52	936.71	5000	
W	182	165	HMI He	0.008	ppb	514.46	1306.74	100	
Pt	195	165	HMI He	-0.007	ppb	-51.50	63.33	100	
Tl	205	165	HMI He	-0.002	ppb	-159.23	83.33	2000	
Pb	208	165	HMI He	0.080	ppb	20.46	1643.39	5000	
Th	232	165	HMI He	0.005	ppb	50.59	260.01	2000	
U	238	165	HMI He	0.566	ppb	3.20	6528.26	2000	
Li	7	45	No Gas	-81.295	ppb	-6.37	2362099.54	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	752915.51	3.88	761875.413333333	98.82	60	125	
Ge Internal Standard	72	HMI H2	16037157.08	1.09	15335359.8266667	104.58	60	125	
Sc (IS)	45	HMI He	861812.59	0.14	893895.12	96.41	60	125	
Ge Internal Standard	72	HMI He	1190324.03	0.48	1212004.9	98.21	60	125	
In Internal standard	115	HMI He	3299428.12	0.98	3222507.34666667	102.39	60	125	
Ho-165	165	HMI He	16288945.19	1.87	15514356.4833333	104.99	60	125	
Sc IS)	45	No Gas	40231118.32	1.50	82462669.8666667	48.79	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	213_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:44:03 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	438.380	ppb	4.36	273935.90	500	87.68	90	110	>+\-10%
Be	9	6	HMI H2	47.952	ppb	0.42	19466.19	50	95.9	90	110	
B	11	6	HMI H2	51.955	ppb	4.60	19197.72	50	103.91	90	110	
Se	78	72	HMI H2	52.725	ppb	3.27	20531.74	50	105.45	90	110	
Na	23	45	HMI He	4603.356	ppb	1.16	1022410.76	5000	92.07	90	110	
Mg	24	45	HMI He	4737.878	ppb	0.71	436113.74	5000	94.76	90	110	
Al	27	45	HMI He	4838.998	ppb	2.02	103500.94	5000	96.78	90	110	
K	39	45	HMI He	4553.536	ppb	1.53	272505.24	5000	91.07	90	110	
Ca	44	45	HMI He	4868.066	ppb	4.72	13549.10	5000	97.36	90	110	
V	51	72	HMI He	48.444	ppb	0.71	61344.33	50	96.89	90	110	
Cr	52	72	HMI He	49.240	ppb	1.70	79276.81	50	98.48	90	110	
Mn	55	72	HMI He	50.897	ppb	3.97	28805.46	50	101.79	90	110	
Fe	57	72	HMI He	4832.967	ppb	1.13	141341.26	5000	96.66	90	110	
Co	59	72	HMI He	50.596	ppb	2.57	147893.88	50	101.19	90	110	
Ni	60	72	HMI He	50.505	ppb	2.52	42525.59	50	101.01	90	110	
Cu	63	72	HMI He	51.080	ppb	2.74	119001.62	50	102.16	90	110	
Zn	66	72	HMI He	50.797	ppb	2.14	15907.93	50	101.59	90	110	
As	75	72	HMI He	49.006	ppb	2.30	11025.33	50	98.01	90	110	
Sr	88	45	HMI He	51.619	ppb	2.23	29423.99	50	103.24	90	110	
Zr	90	72	HMI He	231.900	ppb	71.39	263.34	50	463.8	90	110	>+\-10%
Nb	93	72	HMI He	103.520	ppb	1.93	447677.88	100	103.52	90	110	
Mo	95	115	HMI He	50.078	ppb	0.69	55225.88	50	100.16	90	110	
Pd	105	115	HMI He	50.785	ppb	2.72	88483.66	50	101.57	90	110	
Ag	107	115	HMI He	51.444	ppb	3.65	190350.43	50	102.89	90	110	
Cd	111	115	HMI He	51.358	ppb	3.64	22623.15	50	102.72	90	110	
Sn	120	115	HMI He	51.458	ppb	2.47	58603.18	50	102.92	90	110	
Sb	121	115	HMI He	49.723	ppb	1.12	52859.25	50	99.45	90	110	
Ba	137	115	HMI He	51.062	ppb	0.89	17379.92	50	102.12	90	110	
W	182	165	HMI He	49.435	ppb	3.07	234316.97	50	98.87	90	110	
Pt	195	165	HMI He	49.208	ppb	1.77	188509.12	50	98.42	90	110	
Tl	205	165	HMI He	50.007	ppb	2.64	413840.26	50	100.01	90	110	
Pb	208	165	HMI He	50.033	ppb	1.33	532621.33	50	100.07	90	110	
Th	232	165	HMI He	49.588	ppb	2.18	586511.85	50	99.18	90	110	
U	238	165	HMI He	50.093	ppb	2.49	623492.37	50	100.19	90	110	
Li	7	45	No Gas	264.628	ppb	2.15	5699868.71	500	52.93	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	798664.70	1.47	761875.413333333	104.83	60	125	
Ge Internal Standard	72	HMI H2	17098788.48	0.54	15335359.8266667	111.5	60	125	
Sc (IS)	45	HMI He	919139.20	0.14	893895.12	102.82	60	125	
Ge Internal Standard	72	HMI He	1274210.39	1.06	1212004.9	105.13	60	125	
In Internal standard	115	HMI He	3544676.21	2.35	3222507.34666667	110	60	125	
Ho-165	165	HMI He	17712969.91	1.88	15514356.4833333	114.17	60	125	
Sc IS)	45	No Gas	43712159.39	1.20	82462669.8666667	53.01	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	214_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:47:36 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-29.007	ppb	-37.67	114713.70	0.1	
Be	9	6	HMI H2	0.015	ppb	119.48	16.67	0.5	
B	11	6	HMI H2	2.631	ppb	20.19	1436.75	0.1	>RL
Se	78	72	HMI H2	-0.065	ppb	-63.37	42.67	1	
Na	23	45	HMI He	4.100	ppb	85.85	10733.57	25	
Mg	24	45	HMI He	-0.456	ppb	-238.05	196.67	25	
Al	27	45	HMI He	2.056	ppb	79.85	70.00	15	
K	39	45	HMI He	-155.642	ppb	-13.52	25162.49	50	
Ca	44	45	HMI He	-1.339	ppb	-313.44	33.33	25	
V	51	72	HMI He	-0.858	ppb	-10.62	1236.73	1	
Cr	52	72	HMI He	0.014	ppb	333.21	276.67	1	
Mn	55	72	HMI He	0.011	ppb	512.92	50.00	0.5	
Fe	57	72	HMI He	1.258	ppb	41.40	96.67	25	
Co	59	72	HMI He	0.012	ppb	63.14	36.67	0.5	
Ni	60	72	HMI He	-0.060	ppb	-93.77	266.67	1	
Cu	63	72	HMI He	0.035	ppb	103.81	986.72	1	
Zn	66	72	HMI He	-0.024	ppb	-814.99	243.34	5	
As	75	72	HMI He	0.034	ppb	204.47	30.72	1	
Sr	88	45	HMI He	0.042	ppb	75.10	30.00	1	
Zr	90	72	HMI He	26.588	ppb	279.05	113.33	1	>RL
Nb	93	72	HMI He	0.306	ppb	7.93	1473.43	2	
Mo	95	115	HMI He	0.054	ppb	35.23	70.00	0.5	
Pd	105	115	HMI He	0.044	ppb	65.77	133.33	1	
Ag	107	115	HMI He	0.003	ppb	252.99	36.67	1	
Cd	111	115	HMI He	0.038	ppb	121.33	20.00	0.5	
Sn	120	115	HMI He	0.045	ppb	156.71	260.01	1	
Sb	121	115	HMI He	0.231	ppb	43.79	356.67	1	
Ba	137	115	HMI He	0.008	ppb	360.68	10.00	0.5	
W	182	165	HMI He	-0.030	ppb	-138.55	1216.74	1	
Pt	195	165	HMI He	0.002	ppb	33.13	100.00	1	
Tl	205	165	HMI He	0.015	ppb	39.77	226.67	0.1	
Pb	208	165	HMI He	0.005	ppb	40.06	963.36	0.5	
Th	232	165	HMI He	0.021	ppb	16.36	463.34	1	
U	238	165	HMI He	0.009	ppb	29.01	163.33	0.5	
Li	7	45	No Gas	-86.390	ppb	-8.20	2483771.02	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	797910.49	1.94	761875.413333333	104.73	60	125	
Ge Internal Standard	72	HMI H2	16889450.16	1.19	15335359.8266667	110.13	60	125	
Sc (IS)	45	HMI He	900496.77	0.52	893895.12	100.74	60	125	
Ge Internal Standard	72	HMI He	1231751.40	0.64	1212004.9	101.63	60	125	
In Internal standard	115	HMI He	3504659.64	1.25	3222507.34666667	108.76	60	125	
Ho-165	165	HMI He	17359444.51	2.10	15514356.4833333	111.89	60	125	
Sc IS)	45	No Gas	43084383.59	1.94	82462669.8666667	52.25	60	120	IS Failed

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	215LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:51:08 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.019	ppb	16.65	416.68	1	101.94	70	130	
Se	78	72	HMI H2	4.588	ppb	10.47	1818.78	5	91.76	70	130	
Na	23	45	HMI He	50.587	ppb	2.48	20372.50	50	101.17	70	130	
Mg	24	45	HMI He	48.054	ppb	6.54	4484.00	50	96.11	70	130	
Al	27	45	HMI He	30.983	ppb	12.07	663.36	30	103.28	70	130	
K	39	45	HMI He	-78.099	ppb	-22.68	28608.31	100	-78.1	70	130	>+/-30%
Ca	44	45	HMI He	67.392	ppb	53.55	216.67	50	134.78	70	130	>+/-30%
V	51	72	HMI He	3.443	ppb	8.55	6287.98	5	68.86	70	130	>+/-30%
Cr	52	72	HMI He	1.798	ppb	3.81	3036.98	2	89.88	70	130	
Mn	55	72	HMI He	0.947	ppb	5.80	560.02	1	94.68	70	130	
Fe	57	72	HMI He	52.664	ppb	5.85	1546.77	50	105.33	70	130	
Co	59	72	HMI He	0.963	ppb	3.46	2720.26	1	96.31	70	130	
Ni	60	72	HMI He	2.268	ppb	4.91	2143.51	2	113.42	70	130	
Cu	63	72	HMI He	2.109	ppb	6.69	5607.72	2	105.45	70	130	
Zn	66	72	HMI He	9.867	ppb	6.02	3183.69	10	98.67	70	130	
As	75	72	HMI He	4.346	ppb	4.05	964.74	5	86.92	70	130	
Sr	88	45	HMI He	0.973	ppb	8.45	540.02	1	97.31	70	130	
Zr	90	72	HMI He	85.162	ppb	81.50	153.33	0.5	17032.39	70	130	>+/-30%
Nb	93	72	HMI He	0.259	ppb	14.36	1276.73	2	12.96	70	130	>+/-30%
Mo	95	115	HMI He	1.971	ppb	10.57	2123.51	2	98.57	70	130	
Pd	105	115	HMI He	0.021	ppb	66.60	93.33	1	2.13	70	130	>+/-30%
Ag	107	115	HMI He	4.818	ppb	2.59	17363.09	5	96.35	70	130	
Cd	111	115	HMI He	0.917	ppb	14.93	396.68	1	91.68	70	130	
Sn	120	115	HMI He	10.064	ppb	0.73	11310.87	10	100.64	70	130	
Sb	121	115	HMI He	1.957	ppb	6.09	2130.18	2	97.83	70	130	
Ba	137	115	HMI He	0.846	ppb	7.11	286.68	1	84.61	70	130	
W	182	165	HMI He	4.835	ppb	4.24	22620.66	1	483.51	70	130	>+/-30%
Pt	195	165	HMI He	0.026	ppb	27.24	183.34	1	2.62	70	130	>+/-30%
Tl	205	165	HMI He	1.000	ppb	2.93	7845.55	1	99.97	70	130	
Pb	208	165	HMI He	1.088	ppb	0.66	11705.35	1	108.85	70	130	
Th	232	165	HMI He	2.024	ppb	1.15	22614.72	2	101.19	70	130	
U	238	165	HMI He	1.062	ppb	4.39	12412.18	1	106.16	70	130	
Li	7	45	No Gas	-85.242	ppb	-4.56	2561725.00	50	-170.48	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	784607.84	0.60	761875.413333333	102.98	60	125	
Ge Internal Standard	72	HMI H2	16846901.00	3.24	15335359.8266667	109.86	60	125	
Sc (IS)	45	HMI He	884152.41	1.68	893895.12	98.91	60	125	
Ge Internal Standard	72	HMI He	1229277.46	0.90	1212004.9	101.43	60	125	
In Internal standard	115	HMI He	3445843.17	2.28	3222507.34666667	106.93	60	125	
Ho-165	165	HMI He	16585688.51	2.49	15514356.4833333	106.91	60	125	
Sc IS)	45	No Gas	44249514.36	2.17	82462669.8666667	53.66	60	120	IS Failed

Sample Report

Sample Name	RINSE-4884883
File Name	216SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:54:42 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.011	ppb	72.37	13.33	2000	
B	11	6	HMI H2	1.325	ppb	32.65	873.37	100	
Se	78	72	HMI H2	-0.026	ppb	-260.73	49.33	2000	
Na	23	45	HMI He	24.710	ppb	9.80	12071.11	400000	
Mg	24	45	HMI He	0.236	ppb	480.80	206.67	400000	
Al	27	45	HMI He	8.319	ppb	19.18	160.00	400000	
K	39	45	HMI He	-134.762	ppb	-14.16	20873.31	400000	
Ca	44	45	HMI He	3.290	ppb	562.11	36.67	400000	
V	51	72	HMI He	-0.071	ppb	-163.75	1773.45	2000	
Cr	52	72	HMI He	0.135	ppb	13.86	380.01	5000	
Mn	55	72	HMI He	0.582	ppb	8.96	296.68	10000	
Fe	57	72	HMI He	7.181	ppb	24.20	216.67	400000	
Co	59	72	HMI He	0.003	ppb	139.19	10.00	2000	
Ni	60	72	HMI He	0.174	ppb	103.50	373.34	5000	
Cu	63	72	HMI He	0.352	ppb	18.35	1390.08	5000	
Zn	66	72	HMI He	1.970	ppb	4.39	686.69	5000	
As	75	72	HMI He	0.120	ppb	63.43	40.52	2000	
Sr	88	45	HMI He	0.033	ppb	118.93	20.00	2000	
Zr	90	72	HMI He	33.400	ppb	290.62	96.67	1000	
Nb	93	72	HMI He	0.037	ppb	58.97	286.67	200	
Mo	95	115	HMI He	0.042	ppb	86.53	46.67	2000	
Pd	105	115	HMI He	0.071	ppb	64.35	150.00	100	
Ag	107	115	HMI He	0.018	ppb	56.42	76.67	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.728	ppb	5.51	856.70	2000	
Sb	121	115	HMI He	0.198	ppb	30.69	270.01	1000	
Ba	137	115	HMI He	0.050	ppb	3.08	20.00	5000	
W	182	165	HMI He	0.025	ppb	59.34	1283.41	100	
Pt	195	165	HMI He	-0.018	ppb	-19.65	23.33	100	
Tl	205	165	HMI He	0.004	ppb	256.34	116.67	2000	
Pb	208	165	HMI He	0.082	ppb	9.87	1540.06	5000	
Th	232	165	HMI He	0.018	ppb	26.34	376.68	2000	
U	238	165	HMI He	0.001	ppb	129.34	50.00	2000	
Li	7	45	No Gas	-60.144	ppb	-16.14	2478367.01	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	718713.27	0.69	761875.413333333	94.33	60	125	
Ge Internal Standard	72	HMI H2	14528011.22	1.03	15335359.8266667	94.74	60	125	
Sc (IS)	45	HMI He	716334.78	0.86	893895.12	80.14	60	125	
Ge Internal Standard	72	HMI He	1009950.27	0.83	1212004.9	83.33	60	125	
In Internal standard	115	HMI He	2925510.37	2.15	3222507.34666667	90.78	60	125	
Ho-165	165	HMI He	15165831.61	0.38	15514356.4833333	97.75	60	125	
Sc IS)	45	No Gas	39278727.53	1.97	82462669.8666667	47.63	60	120	IS Failed

Sample Report

Sample Name	RINSE-4875024
File Name	217SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/27/2017 11:58:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.009	ppb	440.54	13.33	2000	
B	11	6	HMI H2	0.319	ppb	102.50	570.02	100	
Se	78	72	HMI H2	-0.133	ppb	-32.22	16.00	2000	
Na	23	45	HMI He	7.271	ppb	11.01	10943.67	400000	
Mg	24	45	HMI He	-0.253	ppb	-195.11	206.67	400000	
Al	27	45	HMI He	3.209	ppb	55.02	90.00	400000	
K	39	45	HMI He	-162.786	ppb	-16.34	23750.57	400000	
Ca	44	45	HMI He	6.766	ppb	176.32	53.33	400000	
V	51	72	HMI He	-0.960	ppb	-9.79	1093.38	2000	
Cr	52	72	HMI He	0.020	ppb	192.83	280.01	5000	
Mn	55	72	HMI He	0.038	ppb	31.20	63.33	10000	
Fe	57	72	HMI He	2.894	ppb	24.99	140.00	400000	
Co	59	72	HMI He	0.005	ppb	216.90	16.67	2000	
Ni	60	72	HMI He	0.095	ppb	105.23	383.34	5000	
Cu	63	72	HMI He	0.193	ppb	2.59	1313.40	5000	
Zn	66	72	HMI He	0.643	ppb	11.63	433.34	5000	
As	75	72	HMI He	-0.024	ppb	-140.37	17.65	2000	
Sr	88	45	HMI He	0.019	ppb	149.00	16.67	2000	
Zr	90	72	HMI He	10.694	ppb	730.32	100.00	1000	
Nb	93	72	HMI He	-0.022	ppb	-64.22	103.33	200	
Mo	95	115	HMI He	0.040	ppb	81.62	53.33	2000	
Pd	105	115	HMI He	-0.022	ppb	-55.78	20.00	100	
Ag	107	115	HMI He	-0.002	ppb	-138.55	16.67	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.027	ppb	205.72	236.67	2000	
Sb	121	115	HMI He	-0.055	ppb	-11.09	56.67	1000	
Ba	137	115	HMI He	0.029	ppb	218.03	16.67	5000	
W	182	165	HMI He	-0.026	ppb	-144.86	1213.40	100	
Pt	195	165	HMI He	-0.003	ppb	-351.03	80.00	100	
Tl	205	165	HMI He	-0.007	ppb	-34.81	43.33	2000	
Pb	208	165	HMI He	0.058	ppb	23.47	1490.05	5000	
Th	232	165	HMI He	0.001	ppb	731.53	230.00	2000	
U	238	165	HMI He	0.001	ppb	356.57	60.00	2000	
Li	7	45	No Gas	-96.956	ppb	-4.88	2526108.02	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	749160.38	0.48	761875.413333333	98.33	60	125	
Ge Internal Standard	72	HMI H2	16558943.51	0.88	15335359.8266667	107.98	60	125	
Sc (IS)	45	HMI He	862890.43	1.53	893895.12	96.53	60	125	
Ge Internal Standard	72	HMI He	1207254.92	0.77	1212004.9	99.61	60	125	
In Internal standard	115	HMI He	3437028.43	1.85	3222507.34666667	106.66	60	125	
Ho-165	165	HMI He	17083623.07	0.43	15514356.4833333	110.11	60	125	
Sc IS)	45	No Gas	45521951.79	3.08	82462669.8666667	55.2	60	120	IS Failed

Sample Report

Sample Name	RINSE-4896488
File Name	218SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:01:46 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.017	ppb	-84.19	3.33	2000	
B	11	6	HMI H2	-0.034	ppb	-481.02	463.34	100	
Se	78	72	HMI H2	-0.115	ppb	-5.10	22.67	2000	
Na	23	45	HMI He	7.540	ppb	18.60	11117.16	400000	
Mg	24	45	HMI He	-0.197	ppb	-217.88	213.33	400000	
Al	27	45	HMI He	3.935	ppb	78.75	106.67	400000	
K	39	45	HMI He	-155.911	ppb	-21.85	24338.09	400000	
Ca	44	45	HMI He	1.532	ppb	476.91	40.00	400000	
V	51	72	HMI He	-0.906	ppb	-21.23	1166.72	2000	
Cr	52	72	HMI He	-0.009	ppb	-653.94	236.67	5000	
Mn	55	72	HMI He	0.012	ppb	158.86	50.00	10000	
Fe	57	72	HMI He	1.420	ppb	116.37	100.00	400000	
Co	59	72	HMI He	0.007	ppb	126.05	23.33	2000	
Ni	60	72	HMI He	0.106	ppb	57.25	396.68	5000	
Cu	63	72	HMI He	0.236	ppb	50.06	1420.08	5000	
Zn	66	72	HMI He	0.561	ppb	56.80	413.34	5000	
As	75	72	HMI He	0.015	ppb	294.28	26.14	2000	
Sr	88	45	HMI He	0.050	ppb	132.54	33.33	2000	
Zr	90	72	HMI He	-5.692	ppb	-513.78	90.00	1000	
Nb	93	72	HMI He	-0.013	ppb	-35.72	140.00	200	
Mo	95	115	HMI He	0.029	ppb	33.18	40.00	2000	
Pd	105	115	HMI He	-0.015	ppb	-104.58	30.00	100	
Ag	107	115	HMI He	-0.004	ppb	-71.14	10.00	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.029	ppb	225.12	230.01	2000	
Sb	121	115	HMI He	-0.074	ppb	-34.33	36.67	1000	
Ba	137	115	HMI He	0.010	ppb	312.44	10.00	5000	
W	182	165	HMI He	-0.076	ppb	-20.49	980.05	100	
Pt	195	165	HMI He	-0.009	ppb	-119.09	56.67	100	
Tl	205	165	HMI He	-0.002	ppb	-148.66	86.67	2000	
Pb	208	165	HMI He	0.043	ppb	28.38	1326.71	5000	
Th	232	165	HMI He	0.001	ppb	303.41	223.34	2000	
U	238	165	HMI He	0.001	ppb	209.75	60.00	2000	
Li	7	45	No Gas	-100.241	ppb	-4.72	2437982.53	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	770917.62	0.56	761875.413333333	101.19	60	125	
Ge Internal Standard	72	HMI H2	16393844.36	2.81	15335359.8266667	106.9	60	125	
Sc (IS)	45	HMI He	872105.92	2.08	893895.12	97.56	60	125	
Ge Internal Standard	72	HMI He	1218603.20	0.47	1212004.9	100.54	60	125	
In Internal standard	115	HMI He	3326542.93	0.48	3222507.34666667	103.23	60	125	
Ho-165	165	HMI He	16901523.08	1.74	15514356.4833333	108.94	60	125	
Sc IS)	45	No Gas	44487530.18	0.93	82462669.8666667	53.95	60	120	IS Failed

Sample Report

Sample Name	RINSE-4896488
File Name	219SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:05:19 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	176CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.003	ppb	580.56	11.67	2000	
B	11	6	HMI H2	-0.242	ppb	-96.86	400.01	100	
Se	78	72	HMI H2	-0.109	ppb	-59.23	25.33	2000	
Na	23	45	HMI He	4.683	ppb	24.19	10680.18	400000	
Mg	24	45	HMI He	-0.800	ppb	-33.45	163.33	400000	
Al	27	45	HMI He	4.217	ppb	23.69	113.33	400000	
K	39	45	HMI He	-164.964	ppb	-18.52	24267.92	400000	
Ca	44	45	HMI He	2.623	ppb	82.31	43.33	400000	
V	51	72	HMI He	-1.042	ppb	-17.40	1010.05	2000	
Cr	52	72	HMI He	-0.053	ppb	-79.90	170.00	5000	
Mn	55	72	HMI He	0.043	ppb	66.77	66.67	10000	
Fe	57	72	HMI He	3.434	ppb	60.83	156.67	400000	
Co	59	72	HMI He	0.014	ppb	14.24	43.33	2000	
Ni	60	72	HMI He	0.147	ppb	41.71	430.01	5000	
Cu	63	72	HMI He	0.168	ppb	48.95	1270.07	5000	
Zn	66	72	HMI He	0.514	ppb	24.26	400.01	5000	
As	75	72	HMI He	0.036	ppb	28.71	30.72	2000	
Sr	88	45	HMI He	0.036	ppb	103.00	26.67	2000	
Zr	90	72	HMI He	-20.504	ppb	-245.18	80.00	1000	
Nb	93	72	HMI He	-0.031	ppb	-23.95	66.67	200	
Mo	95	115	HMI He	0.028	ppb	57.93	40.00	2000	
Pd	105	115	HMI He	-0.006	ppb	-319.16	46.67	100	
Ag	107	115	HMI He	0.005	ppb	132.82	43.33	100	
Cd	111	115	HMI He	-0.008	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.025	ppb	191.01	230.00	2000	
Sb	121	115	HMI He	-0.071	ppb	-13.65	40.00	1000	
Ba	137	115	HMI He	-0.001	ppb	-1962.76	6.67	5000	
W	182	165	HMI He	-0.050	ppb	-49.48	1100.06	100	
Pt	195	165	HMI He	-0.011	ppb	-42.98	50.00	100	
Tl	205	165	HMI He	-0.004	ppb	-78.87	70.00	2000	
Pb	208	165	HMI He	0.034	ppb	65.48	1240.04	5000	
Th	232	165	HMI He	-0.004	ppb	-138.31	170.00	2000	
U	238	165	HMI He	0.002	ppb	84.44	70.00	2000	
Li	7	45	No Gas	-95.571	ppb	-10.93	2482519.87	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	787508.39	0.61	761875.413333333	103.36	60	125	
Ge Internal Standard	72	HMI H2	16434074.56	1.30	15335359.8266667	107.16	60	125	
Sc (IS)	45	HMI He	885550.21	0.88	893895.12	99.07	60	125	
Ge Internal Standard	72	HMI He	1220162.24	0.19	1212004.9	100.67	60	125	
In Internal standard	115	HMI He	3385559.26	0.73	3222507.34666667	105.06	60	125	
Ho-165	165	HMI He	16970744.53	2.46	15514356.4833333	109.39	60	125	
Sc IS)	45	No Gas	44525895.18	0.92	82462669.8666667	54	60	120	IS Failed

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	220CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:08:49 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	114523.26	ppb	0.89
Be	9	6	HMI H2	5.00	ppb	100.00
B	11	6	HMI H2	440.01	ppb	20.20
Se	78	72	HMI H2	34.67	ppb	17.63
Na	23	45	HMI He	8005.36	ppb	0.80
Mg	24	45	HMI He	196.67	ppb	14.68
Al	27	45	HMI He	33.33	ppb	75.50
K	39	45	HMI He	24985.75	ppb	2.44
Ca	44	45	HMI He	30.00	ppb	173.21
V	51	72	HMI He	1156.73	ppb	17.98
Cr	52	72	HMI He	240.01	ppb	16.67
Mn	55	72	HMI He	76.67	ppb	41.93
Fe	57	72	HMI He	46.67	ppb	61.86
Co	59	72	HMI He	3.33	ppb	173.21
Ni	60	72	HMI He	326.67	ppb	24.55
Cu	63	72	HMI He	840.03	ppb	9.75
Zn	66	72	HMI He	313.34	ppb	26.58
As	75	72	HMI He	20.91	ppb	42.29
Sr	88	45	HMI He	10.00	ppb	100.00
Zr	90	72	HMI He	66.67	ppb	22.91
Nb	93	72	HMI He	96.67	ppb	41.81
Mo	95	115	HMI He	20.00	ppb	86.60
Pd	105	115	HMI He	63.33	ppb	65.74
Ag	107	115	HMI He	13.33	ppb	86.60
Cd	111	115	HMI He	3.33	ppb	173.21
Sn	120	115	HMI He	230.00	ppb	28.51
Sb	121	115	HMI He	26.67	ppb	114.56
Ba	137	115	HMI He	13.33	ppb	43.30
W	182	165	HMI He	1106.73	ppb	6.90
Pt	195	165	HMI He	43.33	ppb	26.65
Tl	205	165	HMI He	96.67	ppb	11.95
Pb	208	165	HMI He	773.35	ppb	7.12
Th	232	165	HMI He	160.00	ppb	18.75
U	238	165	HMI He	40.00	ppb	43.30
Li	7	45	No Gas	2517263.04	ppb	1.02

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	778537.77	0.93
Ge Internal Standard	72	HMI H2	16469376.85	1.85
Sc (IS)	45	HMI He	886708.46	1.66
Ge Internal Standard	72	HMI He	1231349.44	1.02
In Internal standard	115	HMI He	3417335.03	1.23
Ho-165	165	HMI He	17125073.69	2.40
Sc IS)	45	No Gas	44731908.92	0.57

Calibration Standard Report

Sample Name	IC-4905894
File Name	221CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:12:19 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	432736.64	ppb	2.46
Be	9	6	HMI H2	39961.69	ppb	0.41
B	11	6	HMI H2	36883.53	ppb	2.50
Se	78	72	HMI H2	39297.10	ppb	1.60
Na	23	45	HMI He	2069462.29	ppb	2.20
Mg	24	45	HMI He	864596.56	ppb	1.41
Al	27	45	HMI He	202485.40	ppb	1.15
K	39	45	HMI He	509363.60	ppb	1.13
Ca	44	45	HMI He	27770.21	ppb	3.67
V	51	72	HMI He	118668.12	ppb	1.94
Cr	52	72	HMI He	155199.25	ppb	0.82
Mn	55	72	HMI He	55654.43	ppb	1.02
Fe	57	72	HMI He	284280.67	ppb	0.66
Co	59	72	HMI He	285497.15	ppb	1.06
Ni	60	72	HMI He	82765.45	ppb	2.16
Cu	63	72	HMI He	234273.39	ppb	0.87
Zn	66	72	HMI He	31590.84	ppb	0.95
As	75	72	HMI He	21183.09	ppb	0.82
Sr	88	45	HMI He	57891.56	ppb	3.90
Zr	90	72	HMI He	260.01	ppb	3.84
Nb	93	72	HMI He	892131.33	ppb	2.21
Mo	95	115	HMI He	109984.80	ppb	0.22
Pd	105	115	HMI He	171889.56	ppb	0.87
Ag	107	115	HMI He	373212.44	ppb	0.84
Cd	111	115	HMI He	45201.86	ppb	2.72
Sn	120	115	HMI He	115209.33	ppb	1.37
Sb	121	115	HMI He	106037.87	ppb	1.99
Ba	137	115	HMI He	34455.42	ppb	3.01
W	182	165	HMI He	468691.34	ppb	2.03
Pt	195	165	HMI He	373789.10	ppb	0.47
Tl	205	165	HMI He	801553.65	ppb	1.38
Pb	208	165	HMI He	1054430.20	ppb	1.35
Th	232	165	HMI He	1175280.76	ppb	1.30
U	238	165	HMI He	1269207.38	ppb	1.15
Li	7	45	No Gas	9315400.76	ppb	3.65

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	774178.45	2.86	778537.766666667	99.44	60	125	
Ge Internal Standard	72	HMI H2	16552340.80	2.20	16469376.85	100.5	60	125	
Sc (IS)	45	HMI He	875379.75	0.37	886708.46	98.72	60	125	
Ge Internal Standard	72	HMI He	1219838.66	0.52	1231349.44333333	99.07	60	125	
In Internal standard	115	HMI He	3383640.61	0.23	3417335.03333333	99.01	60	125	
Ho-165	165	HMI He	16959662.66	2.81	17125073.6866667	99.03	60	125	
Sc IS)	45	No Gas	45318894.30	1.38	44731908.9166667	101.31	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	222_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:15:51 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	490.204	ppb	3.75	271329.96	500	98.04	90	110	
Be	9	6	HMI H2	48.821	ppb	5.44	19714.78	50	97.64	90	110	
B	11	6	HMI H2	49.175	ppb	1.81	18563.71	50	98.35	90	110	
Se	78	72	HMI H2	51.260	ppb	1.69	19947.06	50	102.52	90	110	
Na	23	45	HMI He	4780.294	ppb	0.88	997342.46	5000	95.61	90	110	
Mg	24	45	HMI He	4966.093	ppb	0.47	431152.03	5000	99.32	90	110	
Al	27	45	HMI He	5060.609	ppb	1.88	102880.72	5000	101.21	90	110	
K	39	45	HMI He	4982.071	ppb	2.18	267176.22	5000	99.64	90	110	
Ca	44	45	HMI He	4871.838	ppb	4.04	13595.79	5000	97.44	90	110	
V	51	72	HMI He	50.312	ppb	2.27	60782.15	50	100.62	90	110	
Cr	52	72	HMI He	50.646	ppb	1.51	79414.76	50	101.29	90	110	
Mn	55	72	HMI He	49.149	ppb	1.78	27626.66	50	98.3	90	110	
Fe	57	72	HMI He	4957.264	ppb	2.14	142149.41	5000	99.15	90	110	
Co	59	72	HMI He	50.486	ppb	2.95	145350.29	50	100.97	90	110	
Ni	60	72	HMI He	48.998	ppb	3.64	41058.41	50	98	90	110	
Cu	63	72	HMI He	49.269	ppb	1.37	116835.96	50	98.54	90	110	
Zn	66	72	HMI He	48.609	ppb	1.40	15647.70	50	97.22	90	110	
As	75	72	HMI He	49.773	ppb	2.99	10642.72	50	99.55	90	110	
Sr	88	45	HMI He	50.283	ppb	4.42	29240.29	50	100.57	90	110	
Zr	90	72	HMI He	85.293	ppb	15.41	233.34	50	170.59	90	110	>+\-10%
Nb	93	72	HMI He	100.199	ppb	2.71	450746.20	100	100.2	90	110	
Mo	95	115	HMI He	49.791	ppb	2.92	55329.46	50	99.58	90	110	
Pd	105	115	HMI He	51.021	ppb	0.88	88624.40	50	102.04	90	110	
Ag	107	115	HMI He	49.543	ppb	1.13	186802.38	50	99.09	90	110	
Cd	111	115	HMI He	48.100	ppb	0.65	21965.61	50	96.2	90	110	
Sn	120	115	HMI He	48.785	ppb	3.31	56893.36	50	97.57	90	110	
Sb	121	115	HMI He	49.637	ppb	2.49	53187.33	50	99.27	90	110	
Ba	137	115	HMI He	48.744	ppb	1.37	16972.77	50	97.49	90	110	
W	182	165	HMI He	50.155	ppb	1.92	235719.46	50	100.31	90	110	
Pt	195	165	HMI He	49.630	ppb	2.63	185529.33	50	99.26	90	110	
Tl	205	165	HMI He	51.050	ppb	1.06	409398.55	50	102.1	90	110	
Pb	208	165	HMI He	50.107	ppb	2.18	528749.69	50	100.21	90	110	
Th	232	165	HMI He	49.312	ppb	2.08	579586.14	50	98.62	90	110	
U	238	165	HMI He	48.583	ppb	2.21	616848.05	50	97.17	90	110	
Li	7	45	No Gas	541.453	ppb	2.31	6104566.92	500	108.29	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	783051.89	4.61	778537.766666667	100.58	60	125	
Ge Internal Standard	72	HMI H2	16372223.73	1.12	16469376.85	99.41	60	125	
Sc (IS)	45	HMI He	878867.19	1.13	886708.46	99.12	60	125	
Ge Internal Standard	72	HMI He	1230418.44	1.62	1231349.44333333	99.92	60	125	
In Internal standard	115	HMI He	3418207.28	0.54	3417335.03333333	100.03	60	125	
Ho-165	165	HMI He	16955951.41	1.90	17125073.6866667	99.01	60	125	
Sc IS)	45	No Gas	44542865.17	2.33	44731908.9166667	99.58	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	223_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:19:24 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-5.388	ppb	-80.35	112314.93	0.1	
Be	9	6	HMI H2	0.013	ppb	97.88	10.00	0.5	
B	11	6	HMI H2	1.550	ppb	11.10	996.71	0.1	>RL
Se	78	72	HMI H2	0.001	ppb	4807.03	34.67	1	
Na	23	45	HMI He	4.759	ppb	33.49	8869.13	25	
Mg	24	45	HMI He	-0.052	ppb	-1280.57	190.00	25	
Al	27	45	HMI He	1.823	ppb	71.73	70.00	15	
K	39	45	HMI He	20.552	ppb	69.88	25623.38	50	
Ca	44	45	HMI He	1.263	ppb	927.36	33.33	25	
V	51	72	HMI He	0.148	ppb	95.09	1306.74	1	
Cr	52	72	HMI He	0.025	ppb	263.40	273.34	1	
Mn	55	72	HMI He	-0.064	ppb	-76.04	40.00	0.5	
Fe	57	72	HMI He	3.362	ppb	66.93	140.00	25	
Co	59	72	HMI He	0.016	ppb	76.73	50.00	0.5	
Ni	60	72	HMI He	0.065	ppb	71.59	373.34	1	
Cu	63	72	HMI He	0.119	ppb	40.91	1100.05	1	
Zn	66	72	HMI He	-0.151	ppb	-173.83	260.01	5	
As	75	72	HMI He	0.033	ppb	59.79	27.45	1	
Sr	88	45	HMI He	0.030	ppb	272.10	26.67	1	
Zr	90	72	HMI He	11.145	ppb	191.02	86.67	1	>RL
Nb	93	72	HMI He	0.338	ppb	13.15	1586.76	2	
Mo	95	115	HMI He	0.088	ppb	31.88	116.67	0.5	
Pd	105	115	HMI He	0.051	ppb	121.90	150.00	1	
Ag	107	115	HMI He	0.014	ppb	21.53	66.67	1	
Cd	111	115	HMI He	0.015	ppb	258.32	10.00	0.5	
Sn	120	115	HMI He	-0.027	ppb	-110.87	196.67	1	
Sb	121	115	HMI He	0.597	ppb	8.66	660.02	1	
Ba	137	115	HMI He	-0.019	ppb	-89.84	6.67	0.5	
W	182	165	HMI He	0.016	ppb	304.70	1160.06	1	
Pt	195	165	HMI He	0.012	ppb	66.24	86.67	1	
Tl	205	165	HMI He	0.020	ppb	48.67	253.34	0.1	
Pb	208	165	HMI He	0.015	ppb	53.24	913.36	0.5	
Th	232	165	HMI He	0.024	ppb	38.21	440.01	1	
U	238	165	HMI He	0.012	ppb	31.28	193.33	0.5	
Li	7	45	No Gas	4.484	ppb	295.26	2507533.75	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	769698.78	1.10	778537.766666667	98.86	60	125	
Ge Internal Standard	72	HMI H2	16348530.40	0.99	16469376.85	99.27	60	125	
Sc (IS)	45	HMI He	874070.57	1.56	886708.46	98.57	60	125	
Ge Internal Standard	72	HMI He	1206894.87	0.89	1231349.44333333	98.01	60	125	
In Internal standard	115	HMI He	3390253.39	1.71	3417335.03333333	99.21	60	125	
Ho-165	165	HMI He	16813652.46	0.52	17125073.6866667	98.18	60	125	
Sc IS)	45	No Gas	44040865.62	0.47	44731908.9166667	98.46	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	224LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:22:53 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.998	ppb	7.60	400.01	1	99.8	70	130	
Se	78	72	HMI H2	4.777	ppb	5.02	1870.79	5	95.54	70	130	
Na	23	45	HMI He	52.021	ppb	3.73	18216.69	50	104.04	70	130	
Mg	24	45	HMI He	51.400	ppb	3.26	4537.35	50	102.8	70	130	
Al	27	45	HMI He	34.211	ppb	4.87	710.03	30	114.04	70	130	
K	39	45	HMI He	109.780	ppb	3.88	29329.48	100	109.78	70	130	
Ca	44	45	HMI He	53.367	ppb	48.47	173.34	50	106.73	70	130	
V	51	72	HMI He	4.705	ppb	3.87	6478.01	5	94.11	70	130	
Cr	52	72	HMI He	2.049	ppb	8.05	3310.38	2	102.44	70	130	
Mn	55	72	HMI He	1.075	ppb	13.14	653.36	1	107.5	70	130	
Fe	57	72	HMI He	53.361	ppb	10.48	1516.76	50	106.72	70	130	
Co	59	72	HMI He	1.106	ppb	5.55	3067.00	1	110.6	70	130	
Ni	60	72	HMI He	1.933	ppb	8.10	1860.13	2	96.66	70	130	
Cu	63	72	HMI He	2.186	ppb	5.43	5757.76	2	109.28	70	130	
Zn	66	72	HMI He	8.919	ppb	6.72	3006.97	10	89.19	70	130	
As	75	72	HMI He	5.142	ppb	2.27	1075.85	5	102.84	70	130	
Sr	88	45	HMI He	1.108	ppb	11.14	636.69	1	110.75	70	130	
Zr	90	72	HMI He	22.592	ppb	59.45	106.67	0.5	4518.45	70	130	>+/-30%
Nb	93	72	HMI He	0.331	ppb	4.62	1526.77	2	16.57	70	130	>+/-30%
Mo	95	115	HMI He	1.795	ppb	10.07	2006.82	2	89.74	70	130	
Pd	105	115	HMI He	0.016	ppb	262.45	90.00	1	1.58	70	130	>+/-30%
Ag	107	115	HMI He	4.837	ppb	1.76	18214.04	5	96.73	70	130	
Cd	111	115	HMI He	0.983	ppb	23.00	450.02	1	98.31	70	130	
Sn	120	115	HMI He	9.265	ppb	4.21	10963.95	10	92.65	70	130	
Sb	121	115	HMI He	2.052	ppb	8.68	2216.85	2	102.59	70	130	
Ba	137	115	HMI He	1.222	ppb	15.51	436.68	1	122.17	70	130	
W	182	165	HMI He	4.711	ppb	2.97	21932.99	1	471.07	70	130	>+/-30%
Pt	195	165	HMI He	0.018	ppb	51.90	103.33	1	1.77	70	130	>+/-30%
Tl	205	165	HMI He	1.096	ppb	5.29	8419.16	1	109.6	70	130	
Pb	208	165	HMI He	1.132	ppb	2.23	12035.46	1	113.21	70	130	
Th	232	165	HMI He	2.006	ppb	4.31	22497.77	2	100.3	70	130	
U	238	165	HMI He	1.018	ppb	3.92	12288.76	1	101.79	70	130	
Li	7	45	No Gas	25.867	ppb	24.44	2695261.53	50	51.73	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	766588.35	0.71	778537.766666667	98.47	60	125	
Ge Internal Standard	72	HMI H2	16204283.22	3.73	16469376.85	98.39	60	125	
Sc (IS)	45	HMI He	856197.99	1.79	886708.46	96.56	60	125	
Ge Internal Standard	72	HMI He	1183438.53	0.40	1231349.44333333	96.11	60	125	
In Internal standard	115	HMI He	3411442.09	2.26	3417335.03333333	99.83	60	125	
Ho-165	165	HMI He	16071884.16	0.33	17125073.6866667	93.85	60	125	
Sc IS)	45	No Gas	44821688.08	0.87	44731908.9166667	100.2	60	120	

Interference Check Solution A (ICS-A) Report

Sample Name	ICSA-4905066
File Name	225ICSA.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:26:26 AM
Sample Type	ICSA
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	-13.185	ppb	-65.71	98674.42			100	
Be	9	6	HMI H2	0.035	ppb	47.29	16.67			100	
B	11	6	HMI H2	0.551	ppb	43.19	563.35			100	
Se	78	72	HMI H2	0.277	ppb	16.54	126.67			100	
V	51	72	HMI He	-0.210	ppb	-60.11	793.36			100	
Cr	52	72	HMI He	1.321	ppb	8.23	2013.48			100	>RL or LOD
Mn	55	72	HMI He	0.176	ppb	70.90	153.34			100	
Co	59	72	HMI He	0.013	ppb	16.27	36.67			100	
Ni	60	72	HMI He	0.200	ppb	37.52	430.01			100	
Cu	63	72	HMI He	0.807	ppb	14.29	2396.87			100	
Zn	66	72	HMI He	0.289	ppb	56.88	353.34			100	
As	75	72	HMI He	0.133	ppb	16.92	43.14			100	
Sr	88	45	HMI He	0.885	ppb	24.38	460.01			100	
Nb	93	72	HMI He	0.059	ppb	10.99	316.68			100	
Mo	95	115	HMI He	2104.823	ppb	2.35	2016733.27			100	>RL or LOD
Pd	105	115	HMI He	0.017	ppb	84.40	80.00			100	
Ag	107	115	HMI He	0.034	ppb	73.92	123.33			100	
Cd	111	115	HMI He	0.400	ppb	31.01	160.00			100	
Sn	120	115	HMI He	0.069	ppb	42.52	266.68			100	
Sb	121	115	HMI He	0.231	ppb	25.76	236.67			100	
Ba	137	115	HMI He	0.128	ppb	43.36	50.00			100	
W	182	165	HMI He	0.158	ppb	17.73	1636.79			100	
Pt	195	165	HMI He	0.003	ppb	146.55	46.67			100	
Tl	205	165	HMI He	0.013	ppb	57.91	176.67			100	
Pb	208	165	HMI He	0.129	ppb	1.41	1893.41			100	
Th	232	165	HMI He	0.011	ppb	45.71	256.68			100	
U	238	165	HMI He	0.011	ppb	20.47	160.00			100	
Li	7	45	No Gas	11.711	ppb	42.97	2496380.55			100	>RL or LOD

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682995.93	0.49	778537.766666667	87.73	60	125	
Ge Internal Standard	72	HMI H2	14610544.97	1.47	16469376.85	88.71	60	125	

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc (IS)	45	HMI He	769749.69	1.15	886708.46	86.81	60	125	
Ge Internal Standard	72	HMI He	1075661.80	1.11	1231349.44333333	87.36	60	125	
In Internal standard	115	HMI He	2948806.56	1.76	3417335.03333333	86.29	60	125	
Ho-165	165	HMI He	15083665.88	2.91	17125073.6866667	88.08	60	125	
Sc IS)	45	No Gas	43018623.59	1.86	44731908.9166667	96.17	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Name	ICSAB-4905067
File Name	226ICSB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:29:58 AM
Sample Type	ICSB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	1011.498	ppb	5.94	375592.29	100	80	120	
Be	9	6	HMI H2	97.131	ppb	8.34	34154.26	100	80	120	
B	11	6	HMI H2	92.637	ppb	7.60	30080.25	100	80	120	
Se	78	72	HMI H2	101.478	ppb	2.84	33769.94	100	80	120	
V	51	72	HMI He	101.539	ppb	2.38	104171.45	100	80	120	
Cr	52	72	HMI He	102.446	ppb	0.47	137456.85	100	80	120	
Mn	55	72	HMI He	101.568	ppb	4.26	48862.80	100	80	120	
Co	59	72	HMI He	100.779	ppb	1.61	248743.24	100	80	120	
Ni	60	72	HMI He	98.146	ppb	0.89	70237.21	100	80	120	
Cu	63	72	HMI He	96.411	ppb	1.56	195294.01	100	80	120	
Zn	66	72	HMI He	96.232	ppb	1.36	26294.97	100	80	120	
As	75	72	HMI He	105.040	ppb	1.67	19235.59	100	80	120	
Sr	88	45	HMI He	100.831	ppb	2.03	50332.43	100	80	120	
Zr	90	72	HMI He	87.315	ppb	56.02	203.34	100	80	120	>+\-20%
Nb	93	72	HMI He	166.126	ppb	0.27	640674.15	100	80	120	
Mo	95	115	HMI He	2169.274	ppb	2.13	2053926.56	100	80	120	>+\-20%
Pd	105	115	HMI He	94.402	ppb	4.70	139659.26	100	80	120	
Ag	107	115	HMI He	93.831	ppb	3.86	301432.55	100	80	120	
Cd	111	115	HMI He	95.066	ppb	3.97	36987.11	100	80	120	
Sn	120	115	HMI He	96.777	ppb	2.83	95993.71	100	80	120	
Sb	121	115	HMI He	105.185	ppb	3.48	96007.18	100	80	120	
Ba	137	115	HMI He	100.242	ppb	3.11	29735.46	100	80	120	
W	182	165	HMI He	97.207	ppb	2.15	391476.17	100	80	120	
Pt	195	165	HMI He	96.618	ppb	2.86	310148.64	100	80	120	
Tl	205	165	HMI He	96.803	ppb	1.74	666553.40	100	80	120	
Pb	208	165	HMI He	95.964	ppb	1.53	869151.45	100	80	120	
Th	232	165	HMI He	98.321	ppb	0.98	992501.53	100	80	120	
U	238	165	HMI He	97.408	ppb	2.30	1061965.48	100	80	120	
Li	7	45	No Gas	1059.330	ppb	1.60	8974137.86	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682369.07	4.53	778537.766666667	87.65	60	125	
Ge Internal Standard	72	HMI H2	14015775.00	1.37	16469376.85	85.1	60	125	
Sc (IS)	45	HMI He	754852.50	1.55	886708.46	85.13	60	125	
Ge Internal Standard	72	HMI He	1054628.16	0.72	1231349.44333333	85.65	60	125	
In Internal standard	115	HMI He	2914365.10	2.53	3417335.03333333	85.28	60	125	
Ho-165	165	HMI He	14562473.20	1.77	17125073.6866667	85.04	60	125	
Sc IS)	45	No Gas	41865570.32	0.53	44731908.9166667	93.59	60	120	

Sample Report

Sample Name	RINSE
File Name	227SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:33:30 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.108	ppb	60.88	43.33	2000	
B	11	6	HMI H2	1.215	ppb	4.85	793.36	100	
Se	78	72	HMI H2	0.081	ppb	10.33	58.67	2000	
Na	23	45	HMI He	79.321	ppb	9.20	22058.10	400000	
Mg	24	45	HMI He	26.769	ppb	11.46	2280.19	400000	
Al	27	45	HMI He	25.345	ppb	8.40	496.68	400000	
K	39	45	HMI He	132.776	ppb	20.28	28284.45	400000	
Ca	44	45	HMI He	46.017	ppb	10.55	143.33	400000	
V	51	72	HMI He	0.167	ppb	57.08	1233.40	2000	
Cr	52	72	HMI He	0.010	ppb	791.03	233.34	5000	
Mn	55	72	HMI He	-0.020	ppb	-355.92	60.00	10000	
Fe	57	72	HMI He	29.694	ppb	25.23	816.70	400000	
Co	59	72	HMI He	0.029	ppb	91.41	80.00	2000	
Ni	60	72	HMI He	0.087	ppb	74.55	363.34	5000	
Cu	63	72	HMI He	2.528	ppb	4.83	6187.93	5000	
Zn	66	72	HMI He	0.624	ppb	66.69	463.35	5000	
As	75	72	HMI He	0.013	ppb	164.80	21.57	2000	
Sr	88	45	HMI He	0.040	ppb	125.02	30.00	2000	
Zr	90	72	HMI He	14.571	ppb	82.02	86.67	1000	
Nb	93	72	HMI He	0.449	ppb	15.98	1926.81	200	
Mo	95	115	HMI He	1.843	ppb	19.18	1893.48	2000	
Pd	105	115	HMI He	0.020	ppb	111.23	90.00	100	
Ag	107	115	HMI He	0.022	ppb	43.16	90.00	100	
Cd	111	115	HMI He	0.009	ppb	160.92	6.67	2000	
Sn	120	115	HMI He	0.060	ppb	104.79	273.34	2000	
Sb	121	115	HMI He	0.166	ppb	31.39	186.67	1000	
Ba	137	115	HMI He	0.046	ppb	107.25	26.67	5000	
W	182	165	HMI He	0.059	ppb	22.71	1196.74	100	
Pt	195	165	HMI He	0.032	ppb	51.10	140.00	100	
Tl	205	165	HMI He	0.044	ppb	28.16	390.01	2000	
Pb	208	165	HMI He	0.148	ppb	5.23	2023.42	5000	
Th	232	165	HMI He	0.046	ppb	26.35	606.69	2000	
U	238	165	HMI He	0.024	ppb	27.91	293.34	2000	
Li	7	45	No Gas	26.365	ppb	60.37	2721559.05	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	697437.47	0.23	778537.766666667	89.58	60	125	
Ge Internal Standard	72	HMI H2	14603558.93	1.39	16469376.85	88.67	60	125	
Sc (IS)	45	HMI He	796262.69	0.97	886708.46	89.8	60	125	
Ge Internal Standard	72	HMI He	1121001.48	1.15	1231349.44333333	91.04	60	125	
In Internal standard	115	HMI He	3132812.20	1.83	3417335.03333333	91.67	60	125	
Ho-165	165	HMI He	14766605.58	2.30	17125073.6866667	86.23	60	125	
Sc IS)	45	No Gas	45228904.31	2.41	44731908.9166667	101.11	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	228_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:37:04 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	495.411	ppb	7.31	244857.89	500	99.08	90	110	
Be	9	6	HMI H2	51.337	ppb	1.50	18294.88	50	102.67	90	110	
B	11	6	HMI H2	50.937	ppb	2.74	16935.30	50	101.87	90	110	
Se	78	72	HMI H2	48.883	ppb	2.47	17081.10	50	97.77	90	110	
Na	23	45	HMI He	4722.061	ppb	0.76	904065.14	5000	94.44	90	110	
Mg	24	45	HMI He	4857.106	ppb	0.59	386920.65	5000	97.14	90	110	
Al	27	45	HMI He	4963.354	ppb	1.26	92594.07	5000	99.27	90	110	
K	39	45	HMI He	5136.261	ppb	0.31	252055.75	5000	102.73	90	110	
Ca	44	45	HMI He	5019.497	ppb	2.50	12855.14	5000	100.39	90	110	
V	51	72	HMI He	50.147	ppb	1.77	54791.25	50	100.29	90	110	
Cr	52	72	HMI He	49.860	ppb	0.88	70688.27	50	99.72	90	110	
Mn	55	72	HMI He	49.453	ppb	1.66	25136.09	50	98.91	90	110	
Fe	57	72	HMI He	4810.571	ppb	1.21	124752.20	5000	96.21	90	110	
Co	59	72	HMI He	50.191	ppb	1.72	130688.49	50	100.38	90	110	
Ni	60	72	HMI He	49.204	ppb	1.55	37289.48	50	98.41	90	110	
Cu	63	72	HMI He	49.436	ppb	2.88	105999.03	50	98.87	90	110	
Zn	66	72	HMI He	48.875	ppb	1.39	14226.38	50	97.75	90	110	
As	75	72	HMI He	52.208	ppb	2.15	10095.32	50	104.42	90	110	
Sr	88	45	HMI He	48.949	ppb	2.36	26108.17	50	97.9	90	110	
Zr	90	72	HMI He	88.388	ppb	36.36	216.67	50	176.78	90	110	>+\-10%
Nb	93	72	HMI He	98.079	ppb	1.24	399032.29	100	98.08	90	110	
Mo	95	115	HMI He	49.350	ppb	0.76	49296.63	50	98.7	90	110	
Pd	105	115	HMI He	50.498	ppb	0.88	78852.86	50	101	90	110	
Ag	107	115	HMI He	48.365	ppb	2.90	163874.70	50	96.73	90	110	
Cd	111	115	HMI He	47.107	ppb	2.33	19338.74	50	94.21	90	110	
Sn	120	115	HMI He	48.335	ppb	2.94	50665.60	50	96.67	90	110	
Sb	121	115	HMI He	48.448	ppb	1.52	46663.08	50	96.9	90	110	
Ba	137	115	HMI He	47.119	ppb	3.54	14743.88	50	94.24	90	110	
W	182	165	HMI He	47.862	ppb	2.86	198260.04	50	95.72	90	110	
Pt	195	165	HMI He	49.152	ppb	1.15	161889.83	50	98.3	90	110	
Tl	205	165	HMI He	48.907	ppb	1.56	345445.46	50	97.81	90	110	
Pb	208	165	HMI He	49.151	ppb	0.93	456955.99	50	98.3	90	110	
Th	232	165	HMI He	48.052	ppb	1.61	497560.22	50	96.1	90	110	
U	238	165	HMI He	47.030	ppb	2.65	525882.88	50	94.06	90	110	
Li	7	45	No Gas	553.545	ppb	2.74	6168476.76	500	110.71	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	689980.71	1.21	778537.766666667	88.63	60	125	
Ge Internal Standard	72	HMI H2	14700312.36	0.37	16469376.85	89.26	60	125	
Sc (IS)	45	HMI He	806364.33	0.13	886708.46	90.94	60	125	
Ge Internal Standard	72	HMI He	1112556.53	0.86	1231349.44333333	90.35	60	125	
In Internal standard	115	HMI He	3072835.79	1.71	3417335.03333333	89.92	60	125	
Ho-165	165	HMI He	14935040.99	1.28	17125073.6866667	87.21	60	125	
Sc IS)	45	No Gas	44415953.10	0.47	44731908.9166667	99.29	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	229_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:40:38 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	10.871	ppb	53.77	105541.88	0.1	>RL
Be	9	6	HMI H2	0.083	ppb	26.48	35.00	0.5	
B	11	6	HMI H2	1.166	ppb	11.67	790.03	0.1	>RL
Se	78	72	HMI H2	0.015	ppb	195.10	36.00	1	
Na	23	45	HMI He	22.834	ppb	13.20	11664.17	25	
Mg	24	45	HMI He	2.299	ppb	26.27	363.34	25	
Al	27	45	HMI He	1.571	ppb	118.18	60.00	15	
K	39	45	HMI He	145.482	ppb	12.87	29336.13	50	>RL
Ca	44	45	HMI He	2.140	ppb	523.68	33.33	25	
V	51	72	HMI He	0.205	ppb	33.72	1290.07	1	
Cr	52	72	HMI He	-0.017	ppb	-244.90	196.67	1	
Mn	55	72	HMI He	-0.053	ppb	-42.78	43.33	0.5	
Fe	57	72	HMI He	3.418	ppb	22.84	133.33	25	
Co	59	72	HMI He	0.009	ppb	106.89	26.67	0.5	
Ni	60	72	HMI He	0.039	ppb	223.85	330.01	1	
Cu	63	72	HMI He	0.179	ppb	15.85	1163.39	1	
Zn	66	72	HMI He	0.006	ppb	981.80	290.01	5	
As	75	72	HMI He	0.025	ppb	335.90	24.19	1	
Sr	88	45	HMI He	0.027	ppb	41.64	23.33	1	
Zr	90	72	HMI He	23.144	ppb	95.62	103.33	1	>RL
Nb	93	72	HMI He	0.329	ppb	6.96	1453.43	2	
Mo	95	115	HMI He	0.291	ppb	35.38	310.01	0.5	
Pd	105	115	HMI He	0.043	ppb	137.21	126.67	1	
Ag	107	115	HMI He	0.014	ppb	18.69	60.00	1	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	-0.014	ppb	-724.46	193.34	1	
Sb	121	115	HMI He	0.461	ppb	7.46	470.01	1	
Ba	137	115	HMI He	-0.006	ppb	-516.16	10.00	0.5	
W	182	165	HMI He	0.035	ppb	21.44	1096.72	1	
Pt	195	165	HMI He	0.011	ppb	18.57	73.33	1	
Tl	205	165	HMI He	0.018	ppb	65.66	206.67	0.1	
Pb	208	165	HMI He	0.039	ppb	32.64	1026.70	0.5	
Th	232	165	HMI He	0.020	ppb	17.15	340.01	1	
U	238	165	HMI He	0.011	ppb	23.08	156.67	0.5	
Li	7	45	No Gas	22.566	ppb	13.06	2733143.74	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	708573.28	2.31	778537.766666667	91.01	60	125	
Ge Internal Standard	72	HMI H2	14536502.47	0.54	16469376.85	88.26	60	125	
Sc (IS)	45	HMI He	809532.88	0.72	886708.46	91.3	60	125	
Ge Internal Standard	72	HMI He	1133713.95	0.56	1231349.44333333	92.07	60	125	
In Internal standard	115	HMI He	3084649.55	1.78	3417335.03333333	90.26	60	125	
Ho-165	165	HMI He	14746027.46	2.60	17125073.6866667	86.11	60	125	
Sc IS)	45	No Gas	45831500.11	2.25	44731908.9166667	102.46	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	230LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:44:11 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.995	ppb	6.92	368.34	1	99.5	70	130	
Se	78	72	HMI H2	4.928	ppb	11.13	1702.76	5	98.56	70	130	
Na	23	45	HMI He	64.689	ppb	1.10	19761.77	50	129.38	70	130	
Mg	24	45	HMI He	50.646	ppb	1.56	4253.94	50	101.29	70	130	
Al	27	45	HMI He	27.901	ppb	22.23	556.68	30	93	70	130	
K	39	45	HMI He	243.587	ppb	4.20	33934.91	100	243.59	70	130	>+/-30%
Ca	44	45	HMI He	73.118	ppb	15.74	216.67	50	146.24	70	130	>+/-30%
V	51	72	HMI He	4.942	ppb	6.10	6354.65	5	98.83	70	130	
Cr	52	72	HMI He	1.899	ppb	1.77	2906.96	2	94.97	70	130	
Mn	55	72	HMI He	0.829	ppb	9.57	490.01	1	82.85	70	130	
Fe	57	72	HMI He	48.815	ppb	3.42	1310.07	50	97.63	70	130	
Co	59	72	HMI He	0.986	ppb	3.15	2576.91	1	98.64	70	130	
Ni	60	72	HMI He	2.115	ppb	17.12	1890.15	2	105.74	70	130	
Cu	63	72	HMI He	2.133	ppb	6.00	5310.94	2	106.65	70	130	
Zn	66	72	HMI He	8.709	ppb	7.67	2773.61	10	87.09	70	130	
As	75	72	HMI He	4.839	ppb	3.95	954.93	5	96.78	70	130	
Sr	88	45	HMI He	0.906	ppb	32.97	496.68	1	90.64	70	130	
Zr	90	72	HMI He	24.112	ppb	181.70	103.33	0.5	4822.32	70	130	>+/-30%
Nb	93	72	HMI He	0.380	ppb	14.75	1633.44	2	18.99	70	130	>+/-30%
Mo	95	115	HMI He	1.949	ppb	5.18	1983.48	2	97.47	70	130	
Pd	105	115	HMI He	0.021	ppb	232.65	90.00	1	2.14	70	130	>+/-30%
Ag	107	115	HMI He	4.748	ppb	1.72	16261.84	5	94.95	70	130	
Cd	111	115	HMI He	0.783	ppb	12.85	326.68	1	78.25	70	130	
Sn	120	115	HMI He	9.288	ppb	3.61	10010.00	10	92.88	70	130	
Sb	121	115	HMI He	2.245	ppb	5.85	2206.85	2	112.23	70	130	
Ba	137	115	HMI He	0.882	ppb	36.09	290.01	1	88.21	70	130	
W	182	165	HMI He	4.338	ppb	0.64	19079.01	1	433.77	70	130	>+/-30%
Pt	195	165	HMI He	0.031	ppb	44.80	140.00	1	3.07	70	130	>+/-30%
Tl	205	165	HMI He	0.974	ppb	4.52	7045.10	1	97.36	70	130	
Pb	208	165	HMI He	1.003	ppb	7.43	10098.16	1	100.26	70	130	
Th	232	165	HMI He	1.784	ppb	7.16	18822.54	2	89.19	70	130	
U	238	165	HMI He	0.937	ppb	1.89	10644.03	1	93.7	70	130	
Li	7	45	No Gas	34.057	ppb	16.11	2794152.15	50	68.11	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	707768.56	0.88	778537.766666667	90.91	60	125	
Ge Internal Standard	72	HMI H2	14320100.61	1.98	16469376.85	86.95	60	125	
Sc (IS)	45	HMI He	814440.64	0.52	886708.46	91.85	60	125	
Ge Internal Standard	72	HMI He	1114586.92	1.35	1231349.44333333	90.52	60	125	
In Internal standard	115	HMI He	3104111.19	3.17	3417335.03333333	90.83	60	125	
Ho-165	165	HMI He	15121684.84	1.92	17125073.6866667	88.3	60	125	
Sc IS)	45	No Gas	45537168.46	0.72	44731908.9166667	101.8	60	120	

Blank Report

Sample Name	GRIND BLANK
File Name	231_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:47:47 AM
Sample Type	Blank
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	11.546	ppb	74.18	102986.51	0.1	>DL
Be	9	6	HMI H2	-0.003	ppb	-488.54	3.33	0.5	
Se	78	72	HMI H2	-0.010	ppb	-450.03	26.67	1	
Na	23	45	HMI He	65.020	ppb	4.24	19347.98	25	>DL
Mg	24	45	HMI He	2.468	ppb	6.37	370.01	25	
Al	27	45	HMI He	5.799	ppb	46.26	136.67	15	
K	39	45	HMI He	159.540	ppb	17.30	29419.76	50	>DL
Ca	44	45	HMI He	28.865	ppb	72.50	100.00	25	>DL
V	51	72	HMI He	0.098	ppb	137.64	1136.73	1	
Cr	52	72	HMI He	0.026	ppb	125.31	250.01	1	
Mn	55	72	HMI He	1.294	ppb	28.87	716.69	0.5	>DL
Fe	57	72	HMI He	3.840	ppb	26.54	140.00	25	
Co	59	72	HMI He	0.011	ppb	37.32	30.00	0.5	
Ni	60	72	HMI He	1.094	ppb	1.74	1103.39	1	>DL
Cu	63	72	HMI He	0.517	ppb	14.68	1836.80	1	
Zn	66	72	HMI He	10.691	ppb	4.22	3290.39	5	>DL
As	75	72	HMI He	0.097	ppb	106.89	37.26	1	
Sr	88	45	HMI He	0.091	ppb	51.86	56.67	1	
Zr	90	72	HMI He	135.959	ppb	51.18	296.67	1	>DL
Nb	93	72	HMI He	0.028	ppb	13.35	196.67	2	
Mo	95	115	HMI He	0.134	ppb	18.74	150.00	0.5	
Pd	105	115	HMI He	0.004	ppb	453.74	63.33	1	
Ag	107	115	HMI He	0.001	ppb	320.55	16.67	1	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	0.304	ppb	33.13	516.68	1	
Sb	121	115	HMI He	0.080	ppb	59.87	100.00	1	
Ba	137	115	HMI He	1.280	ppb	10.30	406.68	0.5	>DL
W	182	165	HMI He	-0.017	ppb	-163.43	873.37	1	
Pt	195	165	HMI He	0.007	ppb	119.35	60.00	1	
Tl	205	165	HMI He	0.002	ppb	196.33	93.33	0.1	
Pb	208	165	HMI He	0.154	ppb	7.00	2053.42	0.5	
Th	232	165	HMI He	0.005	ppb	48.64	190.00	1	
U	238	165	HMI He	0.005	ppb	107.29	86.67	0.5	
Li	7	45	No Gas	25.846	ppb	15.49	2702887.70	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	705398.45	0.54	778537.766666667	90.61	60	125	
Ge Internal Standard	72	HMI H2	14199561.76	2.29	16469376.85	86.22	60	125	
Sc (IS)	45	HMI He	794761.71	0.89	886708.46	89.63	60	125	
Ge Internal Standard	72	HMI He	1098316.26	0.33	1231349.44333333	89.2	60	125	
In Internal standard	115	HMI He	3033000.13	1.53	3417335.03333333	88.75	60	125	
Ho-165	165	HMI He	14608467.88	2.27	17125073.6866667	85.3	60	125	
Sc IS)	45	No Gas	44952549.74	1.16	44731908.9166667	100.49	60	120	

Blank Report

Sample Name	mb 280-399901/1-a
File Name	232_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:51:17 AM
Sample Type	Blank
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	9.011	ppb	88.24	91749.69	0.1	>DL
Be	9	6	HMI H2	0.018	ppb	2.03	10.00	0.5	
Se	78	72	HMI H2	0.021	ppb	99.97	33.33	1	
Na	23	45	HMI He	146.208	ppb	1.64	31172.35	25	>DL
Mg	24	45	HMI He	21.158	ppb	16.18	1656.77	25	
Al	27	45	HMI He	19.330	ppb	51.14	346.68	15	>DL
K	39	45	HMI He	236.373	ppb	9.95	29603.37	50	>DL
Ca	44	45	HMI He	109.581	ppb	43.32	273.34	25	>DL
V	51	72	HMI He	-0.125	ppb	-142.63	816.70	1	
Cr	52	72	HMI He	0.674	ppb	6.87	1046.71	1	
Mn	55	72	HMI He	0.363	ppb	22.00	226.67	0.5	
Fe	57	72	HMI He	28.104	ppb	15.02	690.02	25	>DL
Co	59	72	HMI He	0.019	ppb	66.38	46.67	0.5	
Ni	60	72	HMI He	0.529	ppb	5.90	620.02	1	
Cu	63	72	HMI He	0.385	ppb	16.39	1413.41	1	
Zn	66	72	HMI He	1.764	ppb	19.71	703.36	5	
As	75	72	HMI He	0.012	ppb	297.91	18.96	1	
Sr	88	45	HMI He	0.299	ppb	34.84	150.00	1	
Zr	90	72	HMI He	176.672	ppb	32.97	333.34	1	>DL
Nb	93	72	HMI He	0.104	ppb	10.76	456.68	2	
Mo	95	115	HMI He	0.178	ppb	14.95	173.33	0.5	
Pd	105	115	HMI He	0.002	ppb	791.07	53.33	1	
Ag	107	115	HMI He	0.001	ppb	211.00	13.33	1	
Cd	111	115	HMI He	0.011	ppb	289.62	6.67	0.5	
Sn	120	115	HMI He	6.700	ppb	4.17	6371.40	1	>DL
Sb	121	115	HMI He	0.085	ppb	53.41	93.33	1	
Ba	137	115	HMI He	0.539	ppb	43.10	160.00	0.5	>DL
W	182	165	HMI He	0.038	ppb	15.59	983.38	1	
Pt	195	165	HMI He	0.097	ppb	6.68	313.34	1	
Tl	205	165	HMI He	0.005	ppb	61.58	106.67	0.1	
Pb	208	165	HMI He	1.361	ppb	3.04	11675.37	0.5	>DL
Th	232	165	HMI He	0.027	ppb	13.14	363.34	1	
U	238	165	HMI He	0.011	ppb	16.02	140.00	0.5	
Li	7	45	No Gas	32.669	ppb	8.65	2485809.71	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	638190.58	1.20	778537.766666667	81.97	60	125	
Ge Internal Standard	72	HMI H2	12841175.06	1.07	16469376.85	77.97	60	125	
Sc (IS)	45	HMI He	717252.36	1.04	886708.46	80.89	60	125	
Ge Internal Standard	72	HMI He	995958.59	0.63	1231349.44333333	80.88	60	125	
In Internal standard	115	HMI He	2718651.03	1.12	3417335.03333333	79.55	60	125	
Ho-165	165	HMI He	13102996.50	0.69	17125073.6866667	76.51	60	125	
Sc IS)	45	No Gas	40648707.46	2.00	44731908.9166667	90.87	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399901/2-a
File Name	233LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:54:50 AM
Sample Type	LCS-s
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	218.675	ppb	2.62	72476.90	200	109.34	80	120	
Mg	24	45	HMI H2	27.082	ppb	1.71	76379.78	200	13.54	80	120	NewName Main CR1 Failed
Se	78	72	HMI H2	205.641	ppb	1.78	64394.44	200	102.82	80	120	
(Se)	82	72	HMI H2	206.485	ppb	1.48	26595.65	200	103.24	80	120	
Na	23	45	HMI He	144.536	ppb	3.07	30611.45	200	72.27	80	120	NewName Main CR1 Failed
Mg	24	45	HMI He	26.242	ppb	7.67	2000.14	200000	0.01	80	120	NewName Main CR1 Failed
Al	27	45	HMI He	2344.408	ppb	1.39	38557.75	200000	1.17	80	120	NewName Main CR1 Failed
K	39	45	HMI He	210.056	ppb	16.24	28287.74	200000	0.11	80	120	NewName Main CR1 Failed
Ca	44	45	HMI He	1385.622	ppb	8.59	3143.68	200000	0.69	80	120	NewName Main CR1 Failed
V	51	72	HMI He	225.107	ppb	0.95	217070.30	200	112.55	80	120	
Cr	52	72	HMI He	226.414	ppb	1.07	286849.25	200	113.21	80	120	
(Cr)	53	72	HMI He	221.813	ppb	1.07	35829.24	200	110.91	80	120	
Mn	55	72	HMI He	222.518	ppb	2.23	101106.31	200	111.26	80	120	
Fe	57	72	HMI He	2316.885	ppb	1.49	53841.76	200000	1.16	80	120	NewName Main CR1 Failed
Co	59	72	HMI He	225.896	ppb	0.94	526945.55	200	112.95	80	120	
Ni	60	72	HMI He	222.586	ppb	2.59	150211.45	200	111.29	80	120	
Cu	63	72	HMI He	218.881	ppb	1.00	418180.66	200	109.44	80	120	
Zn	66	72	HMI He	215.706	ppb	2.62	55374.06	200	107.85	80	120	
As	75	72	HMI He	220.938	ppb	1.67	38215.44	200	110.47	80	120	
Sr	88	45	HMI He	223.782	ppb	1.91	105157.51	200	111.89	80	120	
Nb	93	72	HMI He	0.095	ppb	30.67	423.35	400	0.02	80	120	NewName Main CR1 Failed
Mo	95	115	HMI He	223.897	ppb	1.84	197084.24	200	111.95	80	120	
Pd	105	115	HMI He	0.009	ppb	175.12	63.33	200	0	80	120	NewName Main CR1 Failed
Ag	107	115	HMI He	204.106	ppb	1.72	609892.36	200	102.05	80	120	
Cd	111	115	HMI He	213.993	ppb	0.73	77423.08	200	107	80	120	
(Cd)	114	115	HMI He	217.339	ppb	1.41	199715.26	200	108.67	80	120	
Sn	120	115	HMI He	229.271	ppb	1.21	211184.71	200	114.64	80	120	
Sb	121	115	HMI He	227.232	ppb	2.67	192800.43	200	113.62	80	110	NewName Main CR1 Failed
Ba	137	115	HMI He	222.305	ppb	1.78	61298.05	200	111.15	80	120	
W	182	165	HMI He	228.693	ppb	2.13	841711.38	200	114.35	80	120	
Pt	195	165	HMI He	0.070	ppb	24.35	240.00	200	0.04	80	120	NewName Main CR1 Failed
Tl	205	165	HMI He	214.957	ppb	2.01	1354419.10	200	107.48	80	120	
(Pb)	206	165	HMI He	228.643	ppb	0.75	447810.47	200	114.32	80	120	
(Pb)	207	165	HMI He	219.631	ppb	0.27	407716.24	200	109.82	80	120	
Pb	208	165	HMI He	226.249	ppb	1.03	1874456.03	200	113.12	80	120	

Laboratory Control Sample (LCS) Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	236.318	ppb	1.65	2182904.52	200	118.16	80	120	
U	238	165	HMI He	233.756	ppb	2.06	2332449.67	200	116.88	80	120	
Li	7	45	No Gas	281.783	ppb	3.16	4053959.37	2000	14.09	80	120	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	641687.17	1.16	778537.766666667	82.42	60	125	
Ge Internal Standard	72	HMI H2	13191627.33	0.26	16469376.85	80.1	60	125	
Sc (IS)	45	HMI He	710684.39	0.87	886708.46	80.15	60	125	
Ge Internal Standard	72	HMI He	996650.88	1.06	1231349.44333333	80.94	60	125	
In Internal standard	115	HMI He	2708664.23	1.69	3417335.03333333	79.26	60	125	
Ho-165	165	HMI He	13324601.91	0.45	17125073.6866667	77.81	60	125	
Sc IS)	45	No Gas	41233156.18	1.12	44731908.9166667	92.18	60	120	

Sample Report

Sample Name	280-104412-a-7-c@50
File Name	234SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 12:58:25 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.330	ppb	29.43	126.67	2000	
B	11	6	HMI H2	6.875	ppb	8.77	2720.26	100	
Se	78	72	HMI H2	0.227	ppb	30.33	106.67	2000	
Na	23	45	HMI He	108.565	ppb	5.07	27135.55	400000	
Mg	24	45	HMI He	6600.583	ppb	1.05	511465.30	400000	
Al	27	45	HMI He	3540.742	ppb	2.19	64262.81	400000	
K	39	45	HMI He	1010.622	ppb	1.66	66004.21	400000	
Ca	44	45	HMI He	36478.949	ppb	1.90	90717.86	400000	
V	51	72	HMI He	6.157	ppb	3.77	7458.47	2000	
Cr	52	72	HMI He	8.015	ppb	6.25	11264.02	5000	
Mn	55	72	HMI He	92.928	ppb	1.11	46034.87	10000	
Fe	57	72	HMI He	3485.747	ppb	1.48	88203.63	400000	
Co	59	72	HMI He	1.495	ppb	6.61	3803.82	2000	
Ni	60	72	HMI He	5.211	ppb	1.29	4110.57	5000	
Cu	63	72	HMI He	11.136	ppb	2.40	23871.00	5000	
Zn	66	72	HMI He	17.908	ppb	8.52	5260.91	5000	
As	75	72	HMI He	1.531	ppb	9.81	306.54	2000	
Sr	88	45	HMI He	81.115	ppb	1.15	42089.01	2000	
Zr	90	72	HMI He	2666.873	ppb	3.13	4660.73	1000	
Nb	93	72	HMI He	0.095	ppb	24.30	463.35	200	
Mo	95	115	HMI He	0.544	ppb	13.41	550.02	2000	
Pd	105	115	HMI He	0.005	ppb	153.19	63.33	100	
Ag	107	115	HMI He	0.083	ppb	27.97	286.68	100	
Cd	111	115	HMI He	0.234	ppb	31.78	96.67	2000	
Sn	120	115	HMI He	0.141	ppb	63.12	346.67	2000	
Sb	121	115	HMI He	0.109	ppb	27.48	126.67	1000	
Ba	137	115	HMI He	36.497	ppb	3.02	11184.13	5000	
W	182	165	HMI He	0.094	ppb	13.60	1316.75	100	
Pt	195	165	HMI He	0.010	ppb	110.64	70.00	100	
Tl	205	165	HMI He	0.145	ppb	24.84	1076.72	2000	
Pb	208	165	HMI He	86.968	ppb	2.53	785483.78	5000	
Th	232	165	HMI He	1.716	ppb	5.53	17403.91	2000	
U	238	165	HMI He	0.336	ppb	5.07	3690.52	2000	
Li	7	45	No Gas	43.857	ppb	9.32	2803601.13	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	714957.38	1.42	778537.766666667	91.83	60	125	
Ge Internal Standard	72	HMI H2	14257297.69	1.60	16469376.85	86.57	60	125	
Sc (IS)	45	HMI He	784526.75	1.19	886708.46	88.48	60	125	
Ge Internal Standard	72	HMI He	1085545.83	0.99	1231349.44333333	88.16	60	125	
In Internal standard	115	HMI He	3007952.88	1.75	3417335.03333333	88.02	60	125	
Ho-165	165	HMI He	14522117.37	1.57	17125073.6866667	84.8	60	125	
Sc IS)	45	No Gas	44632321.01	0.83	44731908.9166667	99.78	60	120	

Sample Report

Sample Name	280-104412-a-8-c@50
File Name	235SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:01:58 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.191	ppb	26.15	71.67	2000	
B	11	6	HMI H2	4.124	ppb	10.19	1713.44	100	
Se	78	72	HMI H2	0.106	ppb	44.40	65.33	2000	
Na	23	45	HMI He	107.401	ppb	3.45	26624.72	400000	
Mg	24	45	HMI He	6536.015	ppb	1.04	500826.10	400000	
Al	27	45	HMI He	3475.394	ppb	3.55	62372.70	400000	
K	39	45	HMI He	944.693	ppb	2.89	62433.65	400000	
Ca	44	45	HMI He	34130.509	ppb	2.52	83932.31	400000	
V	51	72	HMI He	5.645	ppb	12.64	6898.21	2000	
Cr	52	72	HMI He	6.252	ppb	0.85	8802.48	5000	
Mn	55	72	HMI He	95.090	ppb	3.04	46937.41	10000	
Fe	57	72	HMI He	3373.848	ppb	1.88	85086.59	400000	
Co	59	72	HMI He	1.347	ppb	6.15	3413.74	2000	
Ni	60	72	HMI He	5.002	ppb	1.91	3943.87	5000	
Cu	63	72	HMI He	12.985	ppb	4.08	27616.92	5000	
Zn	66	72	HMI He	16.713	ppb	1.89	4910.79	5000	
As	75	72	HMI He	1.434	ppb	12.83	287.58	2000	
Sr	88	45	HMI He	80.615	ppb	2.29	41356.84	2000	
Zr	90	72	HMI He	2478.962	ppb	5.75	4320.64	1000	
Nb	93	72	HMI He	0.107	ppb	14.80	506.68	200	
Mo	95	115	HMI He	0.436	ppb	34.00	433.35	2000	
Pd	105	115	HMI He	-0.017	ppb	-108.06	30.00	100	
Ag	107	115	HMI He	0.025	ppb	62.11	93.33	100	
Cd	111	115	HMI He	0.093	ppb	121.96	40.00	2000	
Sn	120	115	HMI He	0.202	ppb	31.13	400.01	2000	
Sb	121	115	HMI He	0.054	ppb	60.19	73.33	1000	
Ba	137	115	HMI He	39.138	ppb	5.25	11754.63	5000	
W	182	165	HMI He	0.018	ppb	430.34	990.05	100	
Pt	195	165	HMI He	0.009	ppb	76.36	63.33	100	
Tl	205	165	HMI He	0.075	ppb	23.10	586.69	2000	
Pb	208	165	HMI He	84.423	ppb	1.42	746744.94	5000	
Th	232	165	HMI He	1.661	ppb	2.82	16506.30	2000	
U	238	165	HMI He	0.288	ppb	3.68	3100.38	2000	
Li	7	45	No Gas	35.909	ppb	14.80	2744760.77	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682951.09	2.13	778537.766666667	87.72	60	125	
Ge Internal Standard	72	HMI H2	14216652.38	3.18	16469376.85	86.32	60	125	
Sc (IS)	45	HMI He	775752.20	0.65	886708.46	87.49	60	125	
Ge Internal Standard	72	HMI He	1081727.25	0.49	1231349.44333333	87.85	60	125	
In Internal standard	115	HMI He	2949060.62	2.41	3417335.03333333	86.3	60	125	
Ho-165	165	HMI He	14217855.30	0.16	17125073.6866667	83.02	60	125	
Sc IS)	45	No Gas	44529736.01	1.30	44731908.9166667	99.55	60	120	

Sample Report

Sample Name	280-104412-a-9-c@50
File Name	236SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:05:37 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.199	ppb	31.27	76.67	2000	
B	11	6	HMI H2	3.447	ppb	17.81	1520.08	100	
Se	78	72	HMI H2	0.111	ppb	14.47	66.67	2000	
Na	23	45	HMI He	101.685	ppb	5.60	25526.24	400000	
Mg	24	45	HMI He	6548.243	ppb	2.52	500759.71	400000	
Al	27	45	HMI He	3428.109	ppb	0.93	61415.52	400000	
K	39	45	HMI He	996.458	ppb	1.64	64538.54	400000	
Ca	44	45	HMI He	36153.468	ppb	2.25	88730.32	400000	
V	51	72	HMI He	5.965	ppb	2.38	7134.96	2000	
Cr	52	72	HMI He	6.118	ppb	6.40	8498.99	5000	
Mn	55	72	HMI He	94.348	ppb	0.50	45941.08	10000	
Fe	57	72	HMI He	3445.982	ppb	0.96	85730.23	400000	
Co	59	72	HMI He	1.327	ppb	4.60	3317.06	2000	
Ni	60	72	HMI He	4.908	ppb	16.88	3820.49	5000	
Cu	63	72	HMI He	8.831	ppb	1.71	18764.27	5000	
Zn	66	72	HMI He	17.351	ppb	6.80	5017.51	5000	
As	75	72	HMI He	1.631	ppb	8.20	320.26	2000	
Sr	88	45	HMI He	85.448	ppb	1.26	43753.34	2000	
Zr	90	72	HMI He	2772.947	ppb	4.06	4760.78	1000	
Nb	93	72	HMI He	0.087	ppb	25.71	423.34	200	
Mo	95	115	HMI He	0.505	ppb	2.64	500.02	2000	
Pd	105	115	HMI He	-0.021	ppb	-71.00	23.33	100	
Ag	107	115	HMI He	0.025	ppb	49.66	93.33	100	
Cd	111	115	HMI He	0.220	ppb	38.30	90.00	2000	
Sn	120	115	HMI He	0.172	ppb	18.20	370.01	2000	
Sb	121	115	HMI He	0.098	ppb	26.45	113.33	1000	
Ba	137	115	HMI He	37.689	ppb	0.81	11304.30	5000	
W	182	165	HMI He	-0.016	ppb	-152.18	886.70	100	
Pt	195	165	HMI He	0.008	ppb	144.84	63.33	100	
Tl	205	165	HMI He	0.049	ppb	6.32	426.68	2000	
Pb	208	165	HMI He	133.402	ppb	1.67	1219455.46	5000	
Th	232	165	HMI He	1.564	ppb	3.43	16070.74	2000	
U	238	165	HMI He	0.295	ppb	4.47	3277.09	2000	
Li	7	45	No Gas	29.314	ppb	25.07	2724870.51	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	695793.81	4.05	778537.766666667	89.37	60	125	
Ge Internal Standard	72	HMI H2	14078746.77	1.66	16469376.85	85.48	60	125	
Sc (IS)	45	HMI He	774336.67	1.61	886708.46	87.33	60	125	
Ge Internal Standard	72	HMI He	1067116.70	0.86	1231349.44333333	86.66	60	125	
In Internal standard	115	HMI He	2944032.48	2.16	3417335.03333333	86.15	60	125	
Ho-165	165	HMI He	14699706.11	1.62	17125073.6866667	85.84	60	125	
Sc IS)	45	No Gas	44929456.41	0.09	44731908.9166667	100.44	60	120	

Sample Report

Sample Name	280-104412-a-10-c@50
File Name	237SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:09:10 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.197	ppb	32.55	75.00	2000	
B	11	6	HMI H2	1.961	ppb	42.83	1026.71	100	
Se	78	72	HMI H2	0.051	ppb	147.13	46.67	2000	
Na	23	45	HMI He	100.599	ppb	3.09	25356.05	400000	
Mg	24	45	HMI He	4461.779	ppb	1.35	341499.11	400000	
Al	27	45	HMI He	2099.326	ppb	3.03	37635.96	400000	
K	39	45	HMI He	703.786	ppb	1.72	52021.66	400000	
Ca	44	45	HMI He	61456.711	ppb	0.98	150919.11	400000	
V	51	72	HMI He	4.405	ppb	2.42	5474.30	2000	
Cr	52	72	HMI He	5.802	ppb	6.23	7985.36	5000	
Mn	55	72	HMI He	60.548	ppb	5.07	29186.27	10000	
Fe	57	72	HMI He	2155.115	ppb	3.94	53052.89	400000	
Co	59	72	HMI He	0.952	ppb	4.85	2356.87	2000	
Ni	60	72	HMI He	4.764	ppb	10.68	3677.14	5000	
Cu	63	72	HMI He	140.192	ppb	2.73	283989.22	5000	
Zn	66	72	HMI He	27.349	ppb	4.89	7675.24	5000	
As	75	72	HMI He	1.539	ppb	6.02	300.00	2000	
Sr	88	45	HMI He	155.970	ppb	1.43	79915.88	2000	
Zr	90	72	HMI He	1781.311	ppb	2.44	3047.00	1000	
Nb	93	72	HMI He	0.089	ppb	34.98	426.68	200	
Mo	95	115	HMI He	0.456	ppb	5.91	460.01	2000	
Pd	105	115	HMI He	0.007	ppb	293.76	66.67	100	
Ag	107	115	HMI He	0.146	ppb	13.61	493.35	100	
Cd	111	115	HMI He	0.210	ppb	19.13	86.67	2000	
Sn	120	115	HMI He	0.219	ppb	14.29	423.34	2000	
Sb	121	115	HMI He	5.890	ppb	3.73	5534.39	1000	
Ba	137	115	HMI He	29.367	ppb	5.38	8946.02	5000	
W	182	165	HMI He	0.016	ppb	338.68	1000.05	100	
Pt	195	165	HMI He	0.009	ppb	68.28	66.67	100	
Tl	205	165	HMI He	0.035	ppb	8.37	320.01	2000	
Pb	208	165	HMI He	4344.466	ppb	2.55	39068948.07	5000	
Th	232	165	HMI He	0.945	ppb	1.05	9613.30	2000	
U	238	165	HMI He	0.390	ppb	5.70	4260.68	2000	
Li	7	45	No Gas	32.034	ppb	29.18	2749603.89	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	693224.27	3.14	778537.766666667	89.04	60	125	
Ge Internal Standard	72	HMI H2	13909317.19	2.45	16469376.85	84.46	60	125	
Sc (IS)	45	HMI He	774754.42	1.39	886708.46	87.37	60	125	
Ge Internal Standard	72	HMI He	1056090.88	1.58	1231349.44333333	85.77	60	125	
In Internal standard	115	HMI He	2987564.13	1.35	3417335.03333333	87.42	60	125	
Ho-165	165	HMI He	14471823.51	1.92	17125073.6866667	84.51	60	125	
Sc IS)	45	No Gas	45039343.07	0.57	44731908.9166667	100.69	60	120	

Sample Report

Sample Name	280-104412-a-11-c@50
File Name	238SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:12:40 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.120	ppb	22.90	46.67	2000	
B	11	6	HMI H2	2.146	ppb	16.31	1076.71	100	
Se	78	72	HMI H2	0.083	ppb	84.93	57.33	2000	
Na	23	45	HMI He	85.862	ppb	8.26	23119.40	400000	
Mg	24	45	HMI He	3935.738	ppb	3.11	307455.19	400000	
Al	27	45	HMI He	1862.885	ppb	2.11	34094.97	400000	
K	39	45	HMI He	630.456	ppb	1.92	49891.76	400000	
Ca	44	45	HMI He	55131.810	ppb	1.55	138189.30	400000	
V	51	72	HMI He	3.847	ppb	4.67	4990.84	2000	
Cr	52	72	HMI He	5.390	ppb	7.26	7558.51	5000	
Mn	55	72	HMI He	53.126	ppb	2.15	26064.31	10000	
Fe	57	72	HMI He	1939.003	ppb	5.32	48558.82	400000	
Co	59	72	HMI He	0.898	ppb	9.63	2260.18	2000	
Ni	60	72	HMI He	3.841	ppb	1.52	3073.66	5000	
Cu	63	72	HMI He	325.719	ppb	2.86	670080.46	5000	
Zn	66	72	HMI He	50.834	ppb	1.46	14273.10	5000	
As	75	72	HMI He	1.501	ppb	21.75	298.04	2000	
Sr	88	45	HMI He	145.437	ppb	1.07	76050.27	2000	
Zr	90	72	HMI He	1598.196	ppb	0.56	2786.95	1000	
Nb	93	72	HMI He	0.083	ppb	20.16	410.01	200	
Mo	95	115	HMI He	0.460	ppb	7.21	463.34	2000	
Pd	105	115	HMI He	-0.017	ppb	-77.87	30.00	100	
Ag	107	115	HMI He	0.098	ppb	4.69	333.34	100	
Cd	111	115	HMI He	0.202	ppb	35.89	83.33	2000	
Sn	120	115	HMI He	0.497	ppb	22.09	703.36	2000	
Sb	121	115	HMI He	5.032	ppb	6.23	4720.77	1000	
Ba	137	115	HMI He	27.176	ppb	1.80	8255.68	5000	
W	182	165	HMI He	0.004	ppb	321.46	976.72	100	
Pt	195	165	HMI He	0.003	ppb	317.27	46.67	100	
Tl	205	165	HMI He	0.034	ppb	22.75	323.34	2000	
Pb	208	165	HMI He	3211.170	ppb	3.10	29612926.53	5000	
Th	232	165	HMI He	0.881	ppb	0.99	9196.38	2000	
U	238	165	HMI He	0.386	ppb	6.41	4324.05	2000	
Li	7	45	No Gas	23.352	ppb	33.37	2671067.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682765.53	1.89	778537.766666667	87.7	60	125	
Ge Internal Standard	72	HMI H2	14108858.43	0.32	16469376.85	85.67	60	125	
Sc (IS)	45	HMI He	790792.61	1.47	886708.46	89.18	60	125	
Ge Internal Standard	72	HMI He	1074168.76	1.75	1231349.44333333	87.24	60	125	
In Internal standard	115	HMI He	2980271.15	0.30	3417335.03333333	87.21	60	125	
Ho-165	165	HMI He	14839438.81	1.47	17125073.6866667	86.65	60	125	
Sc IS)	45	No Gas	44701122.67	2.95	44731908.9166667	99.93	60	120	

Sample Report

Sample Name	280-104412-a-12-c@50
File Name	239SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:16:12 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.169	ppb	51.87	65.00	2000	
B	11	6	HMI H2	1.786	ppb	12.40	973.37	100	
Se	78	72	HMI H2	0.105	ppb	44.87	65.33	2000	
Na	23	45	HMI He	91.955	ppb	6.03	24084.11	400000	
Mg	24	45	HMI He	4194.948	ppb	2.13	325317.94	400000	
Al	27	45	HMI He	1971.525	ppb	3.19	35818.41	400000	
K	39	45	HMI He	623.988	ppb	4.15	49236.40	400000	
Ca	44	45	HMI He	57691.654	ppb	2.15	143541.04	400000	
V	51	72	HMI He	3.856	ppb	6.40	5030.85	2000	
Cr	52	72	HMI He	6.653	ppb	1.87	9336.10	5000	
Mn	55	72	HMI He	58.854	ppb	4.12	29019.15	10000	
Fe	57	72	HMI He	2100.719	ppb	3.53	52898.92	400000	
Co	59	72	HMI He	0.951	ppb	12.26	2406.89	2000	
Ni	60	72	HMI He	4.122	ppb	8.99	3297.05	5000	
Cu	63	72	HMI He	349.359	ppb	2.87	722562.57	5000	
Zn	66	72	HMI He	53.956	ppb	4.10	15210.61	5000	
As	75	72	HMI He	1.525	ppb	9.30	303.92	2000	
Sr	88	45	HMI He	150.663	ppb	1.54	78220.70	2000	
Zr	90	72	HMI He	1622.248	ppb	13.53	2846.97	1000	
Nb	93	72	HMI He	0.108	ppb	10.98	510.01	200	
Mo	95	115	HMI He	0.436	ppb	34.09	446.68	2000	
Pd	105	115	HMI He	-0.019	ppb	-19.09	26.67	100	
Ag	107	115	HMI He	0.155	ppb	5.51	530.02	100	
Cd	111	115	HMI He	0.347	ppb	14.47	143.33	2000	
Sn	120	115	HMI He	0.262	ppb	43.36	473.35	2000	
Sb	121	115	HMI He	6.328	ppb	3.58	6031.25	1000	
Ba	137	115	HMI He	28.514	ppb	4.40	8805.95	5000	
W	182	165	HMI He	0.000	ppb	-30696.95	976.71	100	
Pt	195	165	HMI He	0.021	ppb	58.61	110.00	100	
Tl	205	165	HMI He	0.034	ppb	25.66	330.01	2000	
Pb	208	165	HMI He	4127.100	ppb	2.21	38845770.79	5000	
Th	232	165	HMI He	0.861	ppb	3.63	9183.05	2000	
U	238	165	HMI He	0.363	ppb	9.27	4144.01	2000	
Li	7	45	No Gas	23.661	ppb	86.27	2681713.87	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	692609.49	2.26	778537.766666667	88.96	60	125	
Ge Internal Standard	72	HMI H2	14183730.93	0.70	16469376.85	86.12	60	125	
Sc (IS)	45	HMI He	785137.41	1.98	886708.46	88.55	60	125	
Ge Internal Standard	72	HMI He	1079996.94	1.78	1231349.44333333	87.71	60	125	
In Internal standard	115	HMI He	3030193.67	0.39	3417335.03333333	88.67	60	125	
Ho-165	165	HMI He	15146283.58	2.16	17125073.6866667	88.45	60	125	
Sc IS)	45	No Gas	44850034.74	0.73	44731908.9166667	100.26	60	120	

Sample Report

Sample Name	280-104412-a-13-c@50
File Name	240SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:19:44 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.144	ppb	15.81	55.00	2000	
B	11	6	HMI H2	1.750	ppb	39.10	946.71	100	
Se	78	72	HMI H2	0.037	ppb	227.70	42.67	2000	
Na	23	45	HMI He	84.283	ppb	6.05	22778.99	400000	
Mg	24	45	HMI He	3907.613	ppb	1.31	304477.75	400000	
Al	27	45	HMI He	1813.363	ppb	1.37	33109.52	400000	
K	39	45	HMI He	631.811	ppb	3.86	49811.50	400000	
Ca	44	45	HMI He	45363.969	ppb	2.54	113395.84	400000	
V	51	72	HMI He	3.716	ppb	10.63	4850.81	2000	
Cr	52	72	HMI He	5.517	ppb	3.46	7728.60	5000	
Mn	55	72	HMI He	52.626	ppb	1.08	25793.79	10000	
Fe	57	72	HMI He	2000.643	ppb	2.49	50059.93	400000	
Co	59	72	HMI He	0.945	ppb	6.27	2376.88	2000	
Ni	60	72	HMI He	3.791	ppb	4.43	3033.66	5000	
Cu	63	72	HMI He	58.804	ppb	0.79	121476.47	5000	
Zn	66	72	HMI He	18.628	ppb	5.21	5397.62	5000	
As	75	72	HMI He	1.226	ppb	7.72	246.41	2000	
Sr	88	45	HMI He	108.120	ppb	1.32	56399.47	2000	
Zr	90	72	HMI He	1650.854	ppb	4.13	2873.63	1000	
Nb	93	72	HMI He	0.097	ppb	47.97	466.68	200	
Mo	95	115	HMI He	0.295	ppb	19.61	300.01	2000	
Pd	105	115	HMI He	-0.010	ppb	-240.61	40.00	100	
Ag	107	115	HMI He	0.062	ppb	16.07	213.34	100	
Cd	111	115	HMI He	0.162	ppb	63.38	66.67	2000	
Sn	120	115	HMI He	0.703	ppb	24.35	903.38	2000	
Sb	121	115	HMI He	2.355	ppb	3.07	2200.18	1000	
Ba	137	115	HMI He	24.319	ppb	5.67	7315.18	5000	
W	182	165	HMI He	0.014	ppb	297.77	990.05	100	
Pt	195	165	HMI He	0.027	ppb	20.69	123.33	100	
Tl	205	165	HMI He	0.036	ppb	34.84	326.67	2000	
Pb	208	165	HMI He	1208.044	ppb	4.14	10854433.73	5000	
Th	232	165	HMI He	0.932	ppb	5.30	9466.54	2000	
U	238	165	HMI He	0.302	ppb	6.63	3303.76	2000	
Li	7	45	No Gas	19.116	ppb	51.27	2615905.46	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682133.19	1.32	778537.766666667	87.62	60	125	
Ge Internal Standard	72	HMI H2	14329129.98	1.25	16469376.85	87	60	125	
Sc (IS)	45	HMI He	788686.51	1.10	886708.46	88.95	60	125	
Ge Internal Standard	72	HMI He	1072940.91	0.23	1231349.44333333	87.14	60	125	
In Internal standard	115	HMI He	2950525.53	0.14	3417335.03333333	86.34	60	125	
Ho-165	165	HMI He	14464615.18	2.72	17125073.6866667	84.46	60	125	
Sc IS)	45	No Gas	44251910.19	1.38	44731908.9166667	98.93	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	241_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:23:15 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	532.329	ppb	4.85	247971.19	500	106.47	90	110	
Be	9	6	HMI H2	50.070	ppb	3.57	18226.47	50	100.14	90	110	
B	11	6	HMI H2	46.641	ppb	1.33	15884.31	50	93.28	90	110	
Se	78	72	HMI H2	49.138	ppb	2.44	16703.37	50	98.28	90	110	
Na	23	45	HMI He	4657.022	ppb	1.10	882968.56	5000	93.14	90	110	
Mg	24	45	HMI He	4795.170	ppb	0.77	378245.41	5000	95.9	90	110	
Al	27	45	HMI He	4810.456	ppb	0.11	88867.84	5000	96.21	90	110	
K	39	45	HMI He	5089.166	ppb	1.15	247499.67	5000	101.78	90	110	
Ca	44	45	HMI He	4749.526	ppb	2.74	12047.89	5000	94.99	90	110	
V	51	72	HMI He	50.271	ppb	2.60	53761.10	50	100.54	90	110	
Cr	52	72	HMI He	50.353	ppb	0.59	69868.29	50	100.71	90	110	
Mn	55	72	HMI He	50.041	ppb	4.14	24895.86	50	100.08	90	110	
Fe	57	72	HMI He	4839.035	ppb	0.31	122824.36	5000	96.78	90	110	
Co	59	72	HMI He	49.799	ppb	1.90	126916.40	50	99.6	90	110	
Ni	60	72	HMI He	49.319	ppb	2.90	36581.14	50	98.64	90	110	
Cu	63	72	HMI He	48.643	ppb	2.60	102105.21	50	97.29	90	110	
Zn	66	72	HMI He	49.368	ppb	4.20	14059.54	50	98.74	90	110	
As	75	72	HMI He	51.984	ppb	1.55	9840.26	50	103.97	90	110	
Sr	88	45	HMI He	48.294	ppb	2.04	25507.21	50	96.59	90	110	
Zr	90	72	HMI He	192.996	ppb	20.53	393.34	50	385.99	90	110	>+\-10%
Nb	93	72	HMI He	98.651	ppb	1.15	392854.35	100	98.65	90	110	
Mo	95	115	HMI He	48.231	ppb	4.07	47450.77	50	96.46	90	110	
Pd	105	115	HMI He	48.633	ppb	4.02	74779.94	50	97.27	90	110	
Ag	107	115	HMI He	48.783	ppb	2.96	162847.04	50	97.57	90	110	
Cd	111	115	HMI He	46.584	ppb	2.43	18844.83	50	93.17	90	110	
Sn	120	115	HMI He	48.247	ppb	4.26	49806.21	50	96.49	90	110	
Sb	121	115	HMI He	48.879	ppb	3.09	46369.16	50	97.76	90	110	
Ba	137	115	HMI He	46.838	ppb	2.47	14443.55	50	93.68	90	110	
W	182	165	HMI He	47.713	ppb	1.61	195101.46	50	95.43	90	110	
Pt	195	165	HMI He	48.763	ppb	2.80	158551.12	50	97.53	90	110	
Tl	205	165	HMI He	49.892	ppb	1.89	348003.05	50	99.78	90	110	
Pb	208	165	HMI He	49.208	ppb	1.69	451671.80	50	98.42	90	110	
Th	232	165	HMI He	47.450	ppb	1.42	485143.20	50	94.9	90	110	
U	238	165	HMI He	46.933	ppb	1.90	518219.50	50	93.87	90	110	
Li	7	45	No Gas	569.343	ppb	1.05	6378359.93	500	113.87	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	705164.16	2.96	778537.766666667	90.58	60	125	
Ge Internal Standard	72	HMI H2	14303425.40	1.76	16469376.85	86.85	60	125	
Sc (IS)	45	HMI He	798506.64	1.05	886708.46	90.05	60	125	
Ge Internal Standard	72	HMI He	1088939.62	0.75	1231349.44333333	88.43	60	125	
In Internal standard	115	HMI He	3027830.03	2.79	3417335.03333333	88.6	60	125	
Ho-165	165	HMI He	14746746.31	1.06	17125073.6866667	86.11	60	125	
Sc IS)	45	No Gas	45161170.14	2.66	44731908.9166667	100.96	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	242_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:26:47 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	9.542	ppb	92.05	101611.68	0.1	>RL
Be	9	6	HMI H2	0.006	ppb	516.61	6.67	0.5	
B	11	6	HMI H2	0.898	ppb	51.22	690.02	0.1	>RL
Se	78	72	HMI H2	0.002	ppb	2192.30	30.67	1	
Na	23	45	HMI He	5.692	ppb	20.31	8108.72	25	
Mg	24	45	HMI He	2.376	ppb	71.35	356.68	25	
Al	27	45	HMI He	1.504	ppb	78.91	56.67	15	
K	39	45	HMI He	125.275	ppb	11.47	27459.80	50	>RL
Ca	44	45	HMI He	4.026	ppb	119.78	36.67	25	
V	51	72	HMI He	-0.001	ppb	-14941.63	1016.72	1	
Cr	52	72	HMI He	0.033	ppb	214.02	256.67	1	
Mn	55	72	HMI He	-0.083	ppb	-37.20	26.67	0.5	
Fe	57	72	HMI He	1.942	ppb	1.13	90.00	25	
Co	59	72	HMI He	0.012	ppb	18.89	33.33	0.5	
Ni	60	72	HMI He	0.082	ppb	60.59	346.68	1	
Cu	63	72	HMI He	0.170	ppb	57.29	1090.05	1	
Zn	66	72	HMI He	-0.088	ppb	-373.61	250.01	5	
As	75	72	HMI He	0.010	ppb	343.58	20.26	1	
Sr	88	45	HMI He	0.060	ppb	84.32	40.00	1	
Zr	90	72	HMI He	24.009	ppb	47.66	100.00	1	>RL
Nb	93	72	HMI He	0.323	ppb	15.81	1363.41	2	
Mo	95	115	HMI He	0.096	ppb	20.89	110.00	0.5	
Pd	105	115	HMI He	0.010	ppb	79.46	70.00	1	
Ag	107	115	HMI He	0.014	ppb	25.57	56.67	1	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	0.062	ppb	28.43	263.34	1	
Sb	121	115	HMI He	0.304	ppb	14.40	306.67	1	
Ba	137	115	HMI He	-0.038	ppb	0.00	0.00	0.5	
W	182	165	HMI He	0.015	ppb	88.81	1003.38	1	
Pt	195	165	HMI He	0.018	ppb	25.98	93.33	1	
Tl	205	165	HMI He	0.017	ppb	53.16	196.67	0.1	
Pb	208	165	HMI He	0.195	ppb	1.59	2426.77	0.5	
Th	232	165	HMI He	0.027	ppb	4.01	413.34	1	
U	238	165	HMI He	0.009	ppb	52.23	136.67	0.5	
Li	7	45	No Gas	36.482	ppb	31.07	2668219.94	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	699060.28	2.05	778537.766666667	89.79	60	125	
Ge Internal Standard	72	HMI H2	14271086.44	0.62	16469376.85	86.65	60	125	
Sc (IS)	45	HMI He	781947.80	1.02	886708.46	88.19	60	125	
Ge Internal Standard	72	HMI He	1081828.90	0.61	1231349.44333333	87.86	60	125	
In Internal standard	115	HMI He	2977985.00	2.38	3417335.03333333	87.14	60	125	
Ho-165	165	HMI He	14588935.59	2.15	17125073.6866667	85.19	60	125	
Sc IS)	45	No Gas	43247236.49	2.94	44731908.9166667	96.68	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	243LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:30:21 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.887	ppb	13.18	330.01	1	88.72	70	130	
Se	78	72	HMI H2	4.795	ppb	6.66	1646.76	5	95.9	70	130	
Na	23	45	HMI He	57.548	ppb	9.86	17756.20	50	115.1	70	130	
Mg	24	45	HMI He	53.300	ppb	3.79	4313.94	50	106.6	70	130	
Al	27	45	HMI He	28.425	ppb	7.09	546.68	30	94.75	70	130	
K	39	45	HMI He	197.818	ppb	10.64	30775.34	100	197.82	70	130	>+/-30%
Ca	44	45	HMI He	74.801	ppb	24.79	213.34	50	149.6	70	130	>+/-30%
V	51	72	HMI He	4.730	ppb	5.60	6011.17	5	94.61	70	130	
Cr	52	72	HMI He	1.910	ppb	7.94	2866.95	2	95.51	70	130	
Mn	55	72	HMI He	0.913	ppb	9.56	523.35	1	91.26	70	130	
Fe	57	72	HMI He	47.161	ppb	14.90	1243.41	50	94.32	70	130	
Co	59	72	HMI He	0.961	ppb	6.15	2463.55	1	96.1	70	130	
Ni	60	72	HMI He	1.894	ppb	6.21	1690.11	2	94.69	70	130	
Cu	63	72	HMI He	2.103	ppb	5.30	5147.55	2	105.17	70	130	
Zn	66	72	HMI He	9.853	ppb	4.67	3040.33	10	98.53	70	130	
As	75	72	HMI He	4.588	ppb	5.98	888.91	5	91.77	70	130	
Sr	88	45	HMI He	0.912	ppb	26.56	483.35	1	91.24	70	130	
Zr	90	72	HMI He	117.122	ppb	40.59	263.34	0.5	23424.47	70	130	>+/-30%
Nb	93	72	HMI He	0.300	ppb	19.11	1283.40	2	14.99	70	130	>+/-30%
Mo	95	115	HMI He	1.841	ppb	16.54	1823.46	2	92.04	70	130	
Pd	105	115	HMI He	0.000	ppb	4857.02	56.67	1	0.04	70	130	>+/-30%
Ag	107	115	HMI He	4.795	ppb	3.07	16001.61	5	95.91	70	130	
Cd	111	115	HMI He	0.994	ppb	27.86	403.34	1	99.44	70	130	
Sn	120	115	HMI He	9.818	ppb	6.83	10296.87	10	98.18	70	130	
Sb	121	115	HMI He	1.979	ppb	8.13	1896.81	2	98.95	70	130	
Ba	137	115	HMI He	1.011	ppb	14.07	323.34	1	101.08	70	130	
W	182	165	HMI He	4.527	ppb	2.91	19733.26	1	452.7	70	130	>+/-30%
Pt	195	165	HMI He	0.021	ppb	45.00	106.67	1	2.07	70	130	>+/-30%
Tl	205	165	HMI He	0.995	ppb	7.77	7151.86	1	99.48	70	130	
Pb	208	165	HMI He	1.146	ppb	2.36	11375.21	1	114.59	70	130	
Th	232	165	HMI He	1.848	ppb	2.00	19376.50	2	92.41	70	130	
U	238	165	HMI He	0.929	ppb	4.70	10483.98	1	92.95	70	130	
Li	7	45	No Gas	32.538	ppb	28.00	2715281.32	50	65.08	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	710033.80	0.48	778537.766666667	91.2	60	125	
Ge Internal Standard	72	HMI H2	14213166.86	1.15	16469376.85	86.3	60	125	
Sc (IS)	45	HMI He	786392.53	0.50	886708.46	88.69	60	125	
Ge Internal Standard	72	HMI He	1093711.12	1.10	1231349.44333333	88.82	60	125	
In Internal standard	115	HMI He	3023641.80	1.71	3417335.03333333	88.48	60	125	
Ho-165	165	HMI He	15016455.16	0.90	17125073.6866667	87.69	60	125	
Sc IS)	45	No Gas	44415226.85	1.91	44731908.9166667	99.29	60	120	

Sample Report

Sample Name	280-104412-a-14-c@50
File Name	244SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:33:57 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.127	ppb	71.84	50.00	2000	
B	11	6	HMI H2	1.257	ppb	14.44	800.03	100	
Se	78	72	HMI H2	0.156	ppb	44.63	85.33	2000	
Na	23	45	HMI He	83.070	ppb	6.17	22842.37	400000	
Mg	24	45	HMI He	3912.435	ppb	1.02	308829.14	400000	
Al	27	45	HMI He	1890.445	ppb	1.92	34959.81	400000	
K	39	45	HMI He	652.428	ppb	4.65	51376.38	400000	
Ca	44	45	HMI He	46037.220	ppb	1.05	116591.51	400000	
V	51	72	HMI He	4.076	ppb	7.33	5250.91	2000	
Cr	52	72	HMI He	5.449	ppb	4.45	7678.53	5000	
Mn	55	72	HMI He	55.529	ppb	4.27	27363.07	10000	
Fe	57	72	HMI He	2118.143	ppb	2.43	53293.50	400000	
Co	59	72	HMI He	0.857	ppb	8.21	2166.84	2000	
Ni	60	72	HMI He	4.243	ppb	14.16	3380.42	5000	
Cu	63	72	HMI He	47.109	ppb	1.55	98006.38	5000	
Zn	66	72	HMI He	19.145	ppb	1.84	5571.04	5000	
As	75	72	HMI He	1.369	ppb	20.77	274.51	2000	
Sr	88	45	HMI He	114.399	ppb	3.90	60437.38	2000	
Zr	90	72	HMI He	1553.721	ppb	4.61	2723.61	1000	
Nb	93	72	HMI He	0.090	ppb	27.80	440.01	200	
Mo	95	115	HMI He	0.445	ppb	7.28	460.01	2000	
Pd	105	115	HMI He	0.002	ppb	992.48	60.00	100	
Ag	107	115	HMI He	0.061	ppb	37.31	216.67	100	
Cd	111	115	HMI He	0.255	ppb	29.17	106.67	2000	
Sn	120	115	HMI He	0.847	ppb	10.03	1083.39	2000	
Sb	121	115	HMI He	1.516	ppb	4.12	1473.42	1000	
Ba	137	115	HMI He	24.147	ppb	3.65	7511.97	5000	
W	182	165	HMI He	-0.006	ppb	-239.51	903.38	100	
Pt	195	165	HMI He	0.005	ppb	220.82	53.33	100	
Tl	205	165	HMI He	0.037	ppb	12.18	333.34	2000	
Pb	208	165	HMI He	1391.671	ppb	1.59	12405471.56	5000	
Th	232	165	HMI He	0.954	ppb	2.24	9620.02	2000	
U	238	165	HMI He	0.309	ppb	0.65	3350.45	2000	
Li	7	45	No Gas	24.441	ppb	39.93	2686006.76	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	691980.15	1.71	778537.766666667	88.88	60	125	
Ge Internal Standard	72	HMI H2	14711459.96	1.29	16469376.85	89.33	60	125	
Sc (IS)	45	HMI He	798943.77	0.56	886708.46	90.1	60	125	
Ge Internal Standard	72	HMI He	1078975.59	0.48	1231349.44333333	87.63	60	125	
In Internal standard	115	HMI He	3052576.82	1.86	3417335.03333333	89.33	60	125	
Ho-165	165	HMI He	14339707.48	1.53	17125073.6866667	83.74	60	125	
Sc IS)	45	No Gas	44837283.08	2.02	44731908.9166667	100.24	60	120	

Sample Report

Sample Name	280-104412-a-15-c@50
File Name	245SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:37:31 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.203	ppb	47.63	76.67	2000	
B	11	6	HMI H2	1.834	ppb	18.38	986.70	100	
Se	78	72	HMI H2	0.036	ppb	218.38	42.67	2000	
Na	23	45	HMI He	104.522	ppb	1.83	26788.16	400000	
Mg	24	45	HMI He	4549.312	ppb	2.10	357819.42	400000	
Al	27	45	HMI He	2213.369	ppb	5.38	40779.73	400000	
K	39	45	HMI He	688.158	ppb	1.44	52777.17	400000	
Ca	44	45	HMI He	53494.030	ppb	2.20	135023.96	400000	
V	51	72	HMI He	4.185	ppb	7.40	5380.96	2000	
Cr	52	72	HMI He	7.132	ppb	6.39	10016.52	5000	
Mn	55	72	HMI He	64.340	ppb	2.83	31787.75	10000	
Fe	57	72	HMI He	2309.641	ppb	1.66	58270.39	400000	
Co	59	72	HMI He	1.001	ppb	6.09	2536.90	2000	
Ni	60	72	HMI He	4.650	ppb	4.25	3687.13	5000	
Cu	63	72	HMI He	93.526	ppb	0.46	194407.09	5000	
Zn	66	72	HMI He	24.667	ppb	7.00	7118.31	5000	
As	75	72	HMI He	1.463	ppb	7.95	292.81	2000	
Sr	88	45	HMI He	132.172	ppb	0.76	69594.57	2000	
Zr	90	72	HMI He	1750.327	ppb	6.61	3067.00	1000	
Nb	93	72	HMI He	0.117	ppb	13.10	546.68	200	
Mo	95	115	HMI He	0.497	ppb	6.96	506.68	2000	
Pd	105	115	HMI He	-0.015	ppb	-52.87	33.33	100	
Ag	107	115	HMI He	0.074	ppb	13.38	260.01	100	
Cd	111	115	HMI He	0.176	ppb	66.47	73.33	2000	
Sn	120	115	HMI He	0.570	ppb	15.07	790.03	2000	
Sb	121	115	HMI He	1.247	ppb	9.98	1203.40	1000	
Ba	137	115	HMI He	27.938	ppb	5.24	8602.51	5000	
W	182	165	HMI He	0.043	ppb	18.18	1110.06	100	
Pt	195	165	HMI He	0.019	ppb	45.42	96.67	100	
Tl	205	165	HMI He	0.034	ppb	11.86	316.68	2000	
Pb	208	165	HMI He	1290.708	ppb	1.03	11653418.89	5000	
Th	232	165	HMI He	1.080	ppb	3.40	11011.00	2000	
U	238	165	HMI He	0.365	ppb	2.58	4007.27	2000	
Li	7	45	No Gas	10.047	ppb	62.16	2599758.09	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	692006.45	2.95	778537.766666667	88.89	60	125	
Ge Internal Standard	72	HMI H2	14503765.50	2.22	16469376.85	88.07	60	125	
Sc (IS)	45	HMI He	796216.74	0.64	886708.46	89.79	60	125	
Ge Internal Standard	72	HMI He	1081999.30	1.52	1231349.44333333	87.87	60	125	
In Internal standard	115	HMI He	3023640.70	2.65	3417335.03333333	88.48	60	125	
Ho-165	165	HMI He	14526743.10	2.37	17125073.6866667	84.83	60	125	
Sc IS)	45	No Gas	45008698.49	2.49	44731908.9166667	100.62	60	120	

Sample Report

Sample Name	280-104412-a-16-c@50
File Name	246SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:41:06 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.221	ppb	6.64	85.00	2000	
B	11	6	HMI H2	3.914	ppb	10.27	1700.12	100	
Se	78	72	HMI H2	0.099	ppb	111.93	64.00	2000	
Na	23	45	HMI He	745.210	ppb	2.00	143861.01	400000	
Mg	24	45	HMI He	6267.129	ppb	1.83	482621.10	400000	
Al	27	45	HMI He	3288.828	ppb	1.53	59335.12	400000	
K	39	45	HMI He	1006.695	ppb	4.22	65425.03	400000	
Ca	44	45	HMI He	35339.276	ppb	1.60	87359.81	400000	
V	51	72	HMI He	5.456	ppb	7.86	6738.13	2000	
Cr	52	72	HMI He	8.799	ppb	3.95	12374.78	5000	
Mn	55	72	HMI He	87.787	ppb	4.73	43568.10	10000	
Fe	57	72	HMI He	3325.235	ppb	0.90	84340.06	400000	
Co	59	72	HMI He	1.515	ppb	1.63	3860.52	2000	
Ni	60	72	HMI He	5.392	ppb	3.25	4253.95	5000	
Cu	63	72	HMI He	34.599	ppb	1.07	72775.14	5000	
Zn	66	72	HMI He	29.975	ppb	4.99	8635.74	5000	
As	75	72	HMI He	1.648	ppb	16.29	330.07	2000	
Sr	88	45	HMI He	81.795	ppb	4.56	42162.50	2000	
Zr	90	72	HMI He	2768.260	ppb	9.47	4844.14	1000	
Nb	93	72	HMI He	0.101	ppb	6.59	486.68	200	
Mo	95	115	HMI He	0.757	ppb	8.68	753.36	2000	
Pd	105	115	HMI He	-0.015	ppb	-142.25	33.33	100	
Ag	107	115	HMI He	0.023	ppb	66.81	86.67	100	
Cd	111	115	HMI He	0.210	ppb	18.44	86.67	2000	
Sn	120	115	HMI He	0.940	ppb	5.04	1156.72	2000	
Sb	121	115	HMI He	0.171	ppb	15.26	183.33	1000	
Ba	137	115	HMI He	34.044	ppb	4.74	10376.95	5000	
W	182	165	HMI He	0.207	ppb	9.82	1780.13	100	
Pt	195	165	HMI He	0.044	ppb	41.15	180.00	100	
Tl	205	165	HMI He	0.071	ppb	20.73	576.69	2000	
Pb	208	165	HMI He	193.158	ppb	0.97	1757630.63	5000	
Th	232	165	HMI He	1.595	ppb	1.26	16319.38	2000	
U	238	165	HMI He	0.328	ppb	3.78	3633.84	2000	
Li	7	45	No Gas	23.770	ppb	45.19	2675231.14	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	706790.86	2.78	778537.766666667	90.78	60	125	
Ge Internal Standard	72	HMI H2	14378758.21	1.44	16469376.85	87.31	60	125	
Sc (IS)	45	HMI He	779740.60	1.84	886708.46	87.94	60	125	
Ge Internal Standard	72	HMI He	1087979.49	1.41	1231349.44333333	88.36	60	125	
In Internal standard	115	HMI He	2991572.40	0.43	3417335.03333333	87.54	60	125	
Ho-165	165	HMI He	14633965.90	0.73	17125073.6866667	85.45	60	125	
Sc IS)	45	No Gas	44719033.50	1.16	44731908.9166667	99.97	60	120	

Sample Report

Sample Name	280-104412-a-17-c@50
File Name	247SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:44:41 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.363	ppb	5.36	128.33	2000	
B	11	6	HMI H2	70.031	ppb	1.18	22191.33	100	
Se	78	72	HMI H2	0.221	ppb	36.19	104.00	2000	
Na	23	45	HMI He	20056.923	ppb	0.42	3672227.44	400000	
Mg	24	45	HMI He	7357.050	ppb	1.04	563831.53	400000	
Al	27	45	HMI He	3316.689	ppb	1.43	59545.51	400000	
K	39	45	HMI He	1367.768	ppb	2.33	80628.23	400000	
Ca	44	45	HMI He	36442.774	ppb	1.41	89638.28	400000	
V	51	72	HMI He	5.705	ppb	4.70	6998.24	2000	
Cr	52	72	HMI He	7.353	ppb	3.39	10365.05	5000	
Mn	55	72	HMI He	119.971	ppb	1.25	59497.73	10000	
Fe	57	72	HMI He	3367.668	ppb	1.57	85384.97	400000	
Co	59	72	HMI He	1.608	ppb	3.65	4093.91	2000	
Ni	60	72	HMI He	6.289	ppb	3.65	4910.82	5000	
Cu	63	72	HMI He	34.896	ppb	2.74	73331.20	5000	
Zn	66	72	HMI He	208.599	ppb	1.85	58428.32	5000	
As	75	72	HMI He	1.584	ppb	7.51	317.65	2000	
Sr	88	45	HMI He	99.193	ppb	1.43	50901.07	2000	
Zr	90	72	HMI He	2877.804	ppb	5.59	5034.22	1000	
Nb	93	72	HMI He	0.120	ppb	17.63	563.35	200	
Mo	95	115	HMI He	3.545	ppb	8.45	3440.43	2000	
Pd	105	115	HMI He	0.007	ppb	418.30	66.67	100	
Ag	107	115	HMI He	0.145	ppb	11.58	486.68	100	
Cd	111	115	HMI He	0.438	ppb	31.58	176.67	2000	
Sn	120	115	HMI He	2.262	ppb	8.95	2483.56	2000	
Sb	121	115	HMI He	0.272	ppb	26.90	276.68	1000	
Ba	137	115	HMI He	35.962	ppb	7.08	10887.30	5000	
W	182	165	HMI He	0.216	ppb	17.50	1790.12	100	
Pt	195	165	HMI He	0.038	ppb	34.01	156.67	100	
Tl	205	165	HMI He	0.121	ppb	7.89	903.37	2000	
Pb	208	165	HMI He	265.598	ppb	1.45	2379638.11	5000	
Th	232	165	HMI He	1.631	ppb	1.34	16422.81	2000	
U	238	165	HMI He	0.731	ppb	5.23	7922.30	2000	
Li	7	45	No Gas	25.958	ppb	31.96	2643162.88	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	661703.98	0.93	778537.766666667	84.99	60	125	
Ge Internal Standard	72	HMI H2	14200299.16	2.56	16469376.85	86.22	60	125	
Sc (IS)	45	HMI He	775906.26	0.33	886708.46	87.5	60	125	
Ge Internal Standard	72	HMI He	1087372.81	2.01	1231349.44333333	88.31	60	125	
In Internal standard	115	HMI He	2971039.66	0.18	3417335.03333333	86.94	60	125	
Ho-165	165	HMI He	14412164.56	1.51	17125073.6866667	84.16	60	125	
Sc IS)	45	No Gas	43953287.71	1.42	44731908.9166667	98.26	60	120	

Sample Report

Sample Name	280-104412-a-18-c@50
File Name	248SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:48:14 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.192	ppb	37.86	75.00	2000	
B	11	6	HMI H2	4.156	ppb	10.60	1796.78	100	
Se	78	72	HMI H2	0.078	ppb	78.49	56.00	2000	
Na	23	45	HMI He	304.335	ppb	0.88	64496.59	400000	
Mg	24	45	HMI He	5673.677	ppb	1.40	447844.49	400000	
Al	27	45	HMI He	3130.087	ppb	1.94	57873.06	400000	
K	39	45	HMI He	917.382	ppb	3.10	63119.80	400000	
Ca	44	45	HMI He	33127.201	ppb	2.80	83922.22	400000	
V	51	72	HMI He	4.960	ppb	3.80	6281.28	2000	
Cr	52	72	HMI He	7.283	ppb	3.58	10373.36	5000	
Mn	55	72	HMI He	84.147	ppb	2.31	42184.48	10000	
Fe	57	72	HMI He	3114.717	ppb	1.77	79763.84	400000	
Co	59	72	HMI He	1.406	ppb	5.11	3617.12	2000	
Ni	60	72	HMI He	4.749	ppb	7.25	3817.16	5000	
Cu	63	72	HMI He	24.333	ppb	3.84	51895.97	5000	
Zn	66	72	HMI He	18.879	ppb	4.69	5597.67	5000	
As	75	72	HMI He	1.465	ppb	11.32	298.04	2000	
Sr	88	45	HMI He	78.960	ppb	3.61	41731.30	2000	
Zr	90	72	HMI He	2422.269	ppb	8.61	4290.64	1000	
Nb	93	72	HMI He	0.054	ppb	37.88	303.34	200	
Mo	95	115	HMI He	0.436	ppb	17.86	436.68	2000	
Pd	105	115	HMI He	-0.006	ppb	-270.66	46.67	100	
Ag	107	115	HMI He	0.029	ppb	25.60	106.67	100	
Cd	111	115	HMI He	0.186	ppb	60.08	76.67	2000	
Sn	120	115	HMI He	0.163	ppb	16.34	363.34	2000	
Sb	121	115	HMI He	0.256	ppb	24.23	260.01	1000	
Ba	137	115	HMI He	33.331	ppb	3.88	10063.39	5000	
W	182	165	HMI He	-0.004	ppb	-1580.63	930.04	100	
Pt	195	165	HMI He	0.018	ppb	66.57	96.67	100	
Tl	205	165	HMI He	0.048	ppb	14.10	420.01	2000	
Pb	208	165	HMI He	364.947	ppb	3.47	3335185.21	5000	
Th	232	165	HMI He	1.448	ppb	4.08	14894.57	2000	
U	238	165	HMI He	0.291	ppb	3.51	3237.08	2000	
Li	7	45	No Gas	26.625	ppb	40.82	2723468.24	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	712083.89	1.49	778537.766666667	91.46	60	125	
Ge Internal Standard	72	HMI H2	14131507.59	3.25	16469376.85	85.8	60	125	
Sc (IS)	45	HMI He	799145.19	1.14	886708.46	90.12	60	125	
Ge Internal Standard	72	HMI He	1098337.17	0.94	1231349.44333333	89.2	60	125	
In Internal standard	115	HMI He	2963871.32	1.75	3417335.03333333	86.73	60	125	
Ho-165	165	HMI He	14705606.00	2.07	17125073.6866667	85.87	60	125	
Sc IS)	45	No Gas	45231510.97	3.38	44731908.9166667	101.12	60	120	

Sample Report

Sample Name	280-104412-a-19-c@50
File Name	249SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:51:50 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.174	ppb	32.99	63.33	2000	
B	11	6	HMI H2	16.401	ppb	28.05	5304.24	100	
Se	78	72	HMI H2	0.079	ppb	37.01	52.00	2000	
Na	23	45	HMI He	4210.569	ppb	2.13	789092.97	400000	
Mg	24	45	HMI He	5171.168	ppb	2.09	402775.89	400000	
Al	27	45	HMI He	2328.938	ppb	2.04	42510.79	400000	
K	39	45	HMI He	836.222	ppb	4.81	58733.76	400000	
Ca	44	45	HMI He	55602.395	ppb	1.76	138975.71	400000	
V	51	72	HMI He	4.333	ppb	9.41	5551.01	2000	
Cr	52	72	HMI He	6.042	ppb	1.96	8542.33	5000	
Mn	55	72	HMI He	67.742	ppb	2.39	33571.29	10000	
Fe	57	72	HMI He	2389.914	ppb	2.27	60475.00	400000	
Co	59	72	HMI He	1.106	ppb	10.03	2810.28	2000	
Ni	60	72	HMI He	4.860	ppb	10.71	3853.83	5000	
Cu	63	72	HMI He	140.894	ppb	2.12	293336.93	5000	
Zn	66	72	HMI He	72.750	ppb	1.02	20523.10	5000	
As	75	72	HMI He	1.291	ppb	10.58	261.44	2000	
Sr	88	45	HMI He	143.555	ppb	3.13	74841.14	2000	
Zr	90	72	HMI He	1861.599	ppb	5.93	3270.38	1000	
Nb	93	72	HMI He	0.081	ppb	23.32	406.68	200	
Mo	95	115	HMI He	1.260	ppb	11.37	1226.73	2000	
Pd	105	115	HMI He	-0.025	ppb	-40.21	16.67	100	
Ag	107	115	HMI He	0.101	ppb	11.42	340.01	100	
Cd	111	115	HMI He	0.305	ppb	10.73	123.33	2000	
Sn	120	115	HMI He	0.699	ppb	6.70	900.04	2000	
Sb	121	115	HMI He	1.209	ppb	21.12	1140.06	1000	
Ba	137	115	HMI He	29.760	ppb	4.27	8959.37	5000	
W	182	165	HMI He	0.052	ppb	120.72	1143.39	100	
Pt	195	165	HMI He	0.035	ppb	39.16	150.00	100	
Tl	205	165	HMI He	0.053	ppb	8.41	443.34	2000	
Pb	208	165	HMI He	1724.716	ppb	1.14	15522095.38	5000	
Th	232	165	HMI He	1.044	ppb	0.55	10610.71	2000	
U	238	165	HMI He	0.440	ppb	4.14	4810.87	2000	
Li	7	45	No Gas	22.999	ppb	62.39	2624523.85	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	653062.62	11.46	778537.766666667	83.88	60	125	
Ge Internal Standard	72	HMI H2	13240702.54	9.61	16469376.85	80.4	60	125	
Sc (IS)	45	HMI He	788633.66	1.75	886708.46	88.94	60	125	
Ge Internal Standard	72	HMI He	1085325.27	1.07	1231349.44333333	88.14	60	125	
In Internal standard	115	HMI He	2953397.54	1.19	3417335.03333333	86.42	60	125	
Ho-165	165	HMI He	14480077.79	1.75	17125073.6866667	84.55	60	125	
Sc IS)	45	No Gas	43980276.87	2.22	44731908.9166667	98.32	60	120	

Sample Report

Sample Name	280-104412-a-56-c@50
File Name	250SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:55:27 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.168	ppb	59.59	63.33	2000	
B	11	6	HMI H2	1.892	ppb	36.60	986.71	100	
Se	78	72	HMI H2	0.107	ppb	71.32	65.33	2000	
Na	23	45	HMI He	95.775	ppb	3.04	24738.40	400000	
Mg	24	45	HMI He	4393.779	ppb	1.42	339986.08	400000	
Al	27	45	HMI He	2485.756	ppb	2.63	45054.13	400000	
K	39	45	HMI He	829.825	ppb	2.11	58061.25	400000	
Ca	44	45	HMI He	47724.365	ppb	1.55	118505.51	400000	
V	51	72	HMI He	4.074	ppb	11.33	5220.88	2000	
Cr	52	72	HMI He	5.383	ppb	6.36	7541.83	5000	
Mn	55	72	HMI He	66.427	ppb	4.39	32525.77	10000	
Fe	57	72	HMI He	2565.413	ppb	1.81	64158.81	400000	
Co	59	72	HMI He	1.109	ppb	3.17	2786.94	2000	
Ni	60	72	HMI He	4.196	ppb	4.66	3327.06	5000	
Cu	63	72	HMI He	186.473	ppb	2.59	383523.94	5000	
Zn	66	72	HMI He	30.500	ppb	0.89	8662.40	5000	
As	75	72	HMI He	1.595	ppb	8.82	315.04	2000	
Sr	88	45	HMI He	124.931	ppb	3.19	64703.89	2000	
Zr	90	72	HMI He	2073.111	ppb	6.15	3593.78	1000	
Nb	93	72	HMI He	0.063	ppb	19.19	330.01	200	
Mo	95	115	HMI He	0.556	ppb	11.25	563.35	2000	
Pd	105	115	HMI He	-0.006	ppb	-334.98	46.67	100	
Ag	107	115	HMI He	0.078	ppb	18.07	273.34	100	
Cd	111	115	HMI He	0.216	ppb	50.01	90.00	2000	
Sn	120	115	HMI He	0.306	ppb	16.32	516.68	2000	
Sb	121	115	HMI He	2.127	ppb	6.90	2036.83	1000	
Ba	137	115	HMI He	30.538	ppb	2.60	9402.96	5000	
W	182	165	HMI He	-0.015	ppb	-182.42	860.04	100	
Pt	195	165	HMI He	0.023	ppb	40.36	106.67	100	
Tl	205	165	HMI He	0.037	ppb	30.71	330.01	2000	
Pb	208	165	HMI He	2587.617	ppb	2.39	22787596.94	5000	
Th	232	165	HMI He	1.181	ppb	2.75	11738.20	2000	
U	238	165	HMI He	0.344	ppb	6.73	3683.85	2000	
Li	7	45	No Gas	15.478	ppb	79.63	2606618.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	678677.26	1.15	778537.766666667	87.17	60	125	
Ge Internal Standard	72	HMI H2	14164060.62	2.69	16469376.85	86	60	125	
Sc (IS)	45	HMI He	783290.95	0.82	886708.46	88.34	60	125	
Ge Internal Standard	72	HMI He	1072727.28	0.96	1231349.44333333	87.12	60	125	
In Internal standard	115	HMI He	3021194.82	0.08	3417335.03333333	88.41	60	125	
Ho-165	165	HMI He	14170994.58	2.00	17125073.6866667	82.75	60	125	
Sc IS)	45	No Gas	44531192.68	4.20	44731908.9166667	99.55	60	120	

Sample Report

Sample Name	280-104412-a-57-c@50
File Name	251SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 1:59:03 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.157	ppb	61.46	58.33	2000	
B	11	6	HMI H2	1.983	ppb	15.64	1003.38	100	
Se	78	72	HMI H2	0.066	ppb	41.31	53.33	2000	
Na	23	45	HMI He	91.554	ppb	3.14	24391.15	400000	
Mg	24	45	HMI He	4832.320	ppb	1.69	380623.75	400000	
Al	27	45	HMI He	2518.473	ppb	4.39	46461.15	400000	
K	39	45	HMI He	840.494	ppb	4.21	59573.22	400000	
Ca	44	45	HMI He	57177.751	ppb	1.29	144513.21	400000	
V	51	72	HMI He	4.329	ppb	4.41	5591.03	2000	
Cr	52	72	HMI He	6.120	ppb	2.58	8719.10	5000	
Mn	55	72	HMI He	74.571	ppb	3.96	37239.13	10000	
Fe	57	72	HMI He	2650.710	ppb	0.35	67622.67	400000	
Co	59	72	HMI He	1.108	ppb	4.99	2840.28	2000	
Ni	60	72	HMI He	5.001	ppb	3.40	3987.21	5000	
Cu	63	72	HMI He	150.481	ppb	1.56	315846.16	5000	
Zn	66	72	HMI He	31.384	ppb	1.60	9082.65	5000	
As	75	72	HMI He	1.382	ppb	2.15	281.05	2000	
Sr	88	45	HMI He	142.763	ppb	1.13	75276.65	2000	
Zr	90	72	HMI He	2072.797	ppb	6.36	3663.80	1000	
Nb	93	72	HMI He	0.103	ppb	29.20	496.68	200	
Mo	95	115	HMI He	0.588	ppb	10.39	596.69	2000	
Pd	105	115	HMI He	-0.037	ppb	0.00	0.00	100	
Ag	107	115	HMI He	0.104	ppb	28.35	360.01	100	
Cd	111	115	HMI He	0.166	ppb	15.42	70.00	2000	
Sn	120	115	HMI He	0.181	ppb	36.77	390.01	2000	
Sb	121	115	HMI He	4.753	ppb	10.50	4534.05	1000	
Ba	137	115	HMI He	33.977	ppb	3.26	10488.70	5000	
W	182	165	HMI He	-0.012	ppb	-433.96	896.70	100	
Pt	195	165	HMI He	0.016	ppb	50.71	90.00	100	
Tl	205	165	HMI He	0.032	ppb	17.25	303.34	2000	
Pb	208	165	HMI He	3314.980	ppb	1.06	30172871.44	5000	
Th	232	165	HMI He	1.149	ppb	2.13	11798.28	2000	
U	238	165	HMI He	0.380	ppb	6.55	4204.00	2000	
Li	7	45	No Gas	13.845	ppb	90.04	2583880.46	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	669732.02	1.49	778537.766666667	86.02	60	125	
Ge Internal Standard	72	HMI H2	14544502.47	0.66	16469376.85	88.31	60	125	
Sc (IS)	45	HMI He	797395.99	1.06	886708.46	89.93	60	125	
Ge Internal Standard	72	HMI He	1094192.43	1.39	1231349.44333333	88.86	60	125	
In Internal standard	115	HMI He	3029372.16	1.09	3417335.03333333	88.65	60	125	
Ho-165	165	HMI He	14642629.13	0.88	17125073.6866667	85.5	60	125	
Sc IS)	45	No Gas	44304036.02	1.46	44731908.9166667	99.04	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	252_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:02:37 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	500.311	ppb	7.93	243009.39	500	100.06	90	110	
Be	9	6	HMI H2	51.600	ppb	3.59	18396.66	50	103.2	90	110	
B	11	6	HMI H2	47.263	ppb	0.95	15764.19	50	94.53	90	110	
Se	78	72	HMI H2	49.908	ppb	2.59	17155.81	50	99.82	90	110	
Na	23	45	HMI He	4786.007	ppb	1.48	894053.35	5000	95.72	90	110	
Mg	24	45	HMI He	5008.343	ppb	1.80	389305.77	5000	100.17	90	110	
Al	27	45	HMI He	5083.451	ppb	1.79	92540.94	5000	101.67	90	110	
K	39	45	HMI He	5303.641	ppb	2.33	253237.07	5000	106.07	90	110	
Ca	44	45	HMI He	5048.897	ppb	4.81	12614.95	5000	100.98	90	110	
V	51	72	HMI He	50.872	ppb	1.50	55038.67	50	101.74	90	110	
Cr	52	72	HMI He	51.003	ppb	2.83	71609.07	50	102.01	90	110	
Mn	55	72	HMI He	49.279	ppb	1.45	24809.06	50	98.56	90	110	
Fe	57	72	HMI He	4900.137	ppb	1.88	125850.05	5000	98	90	110	
Co	59	72	HMI He	50.456	ppb	0.41	130124.87	50	100.91	90	110	
Ni	60	72	HMI He	49.957	ppb	3.69	37493.17	50	99.91	90	110	
Cu	63	72	HMI He	48.474	ppb	2.69	102963.94	50	96.95	90	110	
Zn	66	72	HMI He	48.555	ppb	2.01	13999.50	50	97.11	90	110	
As	75	72	HMI He	53.170	ppb	0.96	10182.95	50	106.34	90	110	
Sr	88	45	HMI He	50.457	ppb	3.99	26254.95	50	100.91	90	110	
Zr	90	72	HMI He	121.958	ppb	5.56	273.34	50	243.92	90	110	>+\-10%
Nb	93	72	HMI He	99.134	ppb	0.86	399467.33	100	99.13	90	110	
Mo	95	115	HMI He	48.369	ppb	2.36	48453.92	50	96.74	90	110	
Pd	105	115	HMI He	50.238	ppb	1.80	78665.08	50	100.48	90	110	
Ag	107	115	HMI He	48.622	ppb	2.84	165244.60	50	97.24	90	110	
Cd	111	115	HMI He	47.688	ppb	3.36	19635.82	50	95.38	90	110	
Sn	120	115	HMI He	49.019	ppb	2.23	51531.47	50	98.04	90	110	
Sb	121	115	HMI He	49.497	ppb	1.74	47806.75	50	98.99	90	110	
Ba	137	115	HMI He	48.422	ppb	4.78	15197.65	50	96.84	90	110	
W	182	165	HMI He	50.701	ppb	3.23	201621.75	50	101.4	90	110	
Pt	195	165	HMI He	50.776	ppb	1.45	160636.09	50	101.55	90	110	
Tl	205	165	HMI He	51.966	ppb	1.83	352601.06	50	103.93	90	110	
Pb	208	165	HMI He	53.103	ppb	2.10	474157.61	50	106.21	90	110	
Th	232	165	HMI He	50.890	ppb	1.39	506208.98	50	101.78	90	110	
U	238	165	HMI He	49.296	ppb	2.62	529535.75	50	98.59	90	110	
Li	7	45	No Gas	528.507	ppb	6.77	6012439.53	500	105.7	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	690693.64	3.59	778537.766666667	88.72	60	125	
Ge Internal Standard	72	HMI H2	14461676.33	0.30	16469376.85	87.81	60	125	
Sc (IS)	45	HMI He	786977.95	1.49	886708.46	88.75	60	125	
Ge Internal Standard	72	HMI He	1101859.12	0.14	1231349.44333333	89.48	60	125	
In Internal standard	115	HMI He	3081555.87	0.84	3417335.03333333	90.17	60	125	
Ho-165	165	HMI He	14347471.44	1.11	17125073.6866667	83.78	60	125	
Sc IS)	45	No Gas	44499371.01	0.96	44731908.9166667	99.48	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	253_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:06:14 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	7.307	ppb	167.95	102493.44	0.1	>RL
Be	9	6	HMI H2	0.038	ppb	76.61	18.33	0.5	
B	11	6	HMI H2	0.597	ppb	44.81	596.69	0.1	>RL
Se	78	72	HMI H2	0.023	ppb	69.76	38.67	1	
Na	23	45	HMI He	4.737	ppb	68.19	8275.49	25	
Mg	24	45	HMI He	1.115	ppb	101.91	270.00	25	
Al	27	45	HMI He	1.198	ppb	205.03	53.33	15	
K	39	45	HMI He	95.578	ppb	26.28	27289.36	50	>RL
Ca	44	45	HMI He	3.434	ppb	176.97	36.67	25	
V	51	72	HMI He	-0.139	ppb	-77.53	910.04	1	
Cr	52	72	HMI He	0.012	ppb	267.44	236.67	1	
Mn	55	72	HMI He	-0.007	ppb	-148.94	66.67	0.5	
Fe	57	72	HMI He	1.287	ppb	16.62	76.67	25	
Co	59	72	HMI He	0.009	ppb	88.21	26.67	0.5	
Ni	60	72	HMI He	0.036	ppb	220.03	326.68	1	
Cu	63	72	HMI He	0.231	ppb	12.29	1270.06	1	
Zn	66	72	HMI He	-0.162	ppb	-182.04	240.00	5	
As	75	72	HMI He	0.025	ppb	163.31	24.18	1	
Sr	88	45	HMI He	0.008	ppb	135.35	13.33	1	
Zr	90	72	HMI He	16.059	ppb	60.15	90.00	1	>RL
Nb	93	72	HMI He	0.288	ppb	6.40	1276.73	2	
Mo	95	115	HMI He	0.048	ppb	151.03	70.00	0.5	
Pd	105	115	HMI He	0.009	ppb	428.73	73.33	1	
Ag	107	115	HMI He	0.018	ppb	21.32	76.67	1	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	-0.019	ppb	-279.48	193.34	1	
Sb	121	115	HMI He	0.295	ppb	13.74	320.01	1	
Ba	137	115	HMI He	-0.007	ppb	-808.38	10.00	0.5	
W	182	165	HMI He	-0.006	ppb	-1261.21	956.72	1	
Pt	195	165	HMI He	0.010	ppb	107.92	73.33	1	
Tl	205	165	HMI He	0.013	ppb	31.88	180.00	0.1	
Pb	208	165	HMI He	0.233	ppb	8.10	2880.15	0.5	
Th	232	165	HMI He	0.023	ppb	30.46	380.01	1	
U	238	165	HMI He	0.012	ppb	8.13	166.67	0.5	
Li	7	45	No Gas	0.101	ppb	6729.73	2599790.51	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	704305.08	1.02	778537.766666667	90.47	60	125	
Ge Internal Standard	72	HMI H2	14585377.99	2.26	16469376.85	88.56	60	125	
Sc (IS)	45	HMI He	815601.24	1.35	886708.46	91.98	60	125	
Ge Internal Standard	72	HMI He	1128475.37	0.23	1231349.44333333	91.65	60	125	
In Internal standard	115	HMI He	3189104.19	2.32	3417335.03333333	93.32	60	125	
Ho-165	165	HMI He	15174250.04	0.85	17125073.6866667	88.61	60	125	
Sc IS)	45	No Gas	46187546.34	0.43	44731908.9166667	103.25	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	254LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:09:51 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.946	ppb	12.72	355.01	1	94.65	70	130	
Se	78	72	HMI H2	4.369	ppb	2.74	1594.75	5	87.39	70	130	
Na	23	45	HMI He	54.179	ppb	2.15	17679.49	50	108.36	70	130	
Mg	24	45	HMI He	52.963	ppb	6.55	4420.64	50	105.93	70	130	
Al	27	45	HMI He	30.968	ppb	20.25	613.35	30	103.23	70	130	
K	39	45	HMI He	216.142	ppb	18.31	32538.69	100	216.14	70	130	>+/-30%
Ca	44	45	HMI He	46.236	ppb	28.87	146.67	50	92.47	70	130	
V	51	72	HMI He	4.736	ppb	3.70	6271.25	5	94.72	70	130	
Cr	52	72	HMI He	1.893	ppb	9.41	2963.64	2	94.65	70	130	
Mn	55	72	HMI He	1.163	ppb	49.86	676.74	1	116.3	70	130	
Fe	57	72	HMI He	50.635	ppb	12.64	1386.74	50	101.27	70	130	
Co	59	72	HMI He	0.938	ppb	0.92	2503.56	1	93.75	70	130	
Ni	60	72	HMI He	2.124	ppb	9.43	1936.81	2	106.21	70	130	
Cu	63	72	HMI He	2.007	ppb	7.99	5157.54	2	100.37	70	130	
Zn	66	72	HMI He	9.566	ppb	6.67	3083.67	10	95.66	70	130	
As	75	72	HMI He	4.739	ppb	2.88	956.24	5	94.77	70	130	
Sr	88	45	HMI He	0.936	ppb	14.05	510.02	1	93.57	70	130	
Zr	90	72	HMI He	55.991	ppb	27.47	163.33	0.5	11198.3	70	130	>+/-30%
Nb	93	72	HMI He	0.306	ppb	3.21	1363.41	2	15.29	70	130	>+/-30%
Mo	95	115	HMI He	1.688	ppb	5.18	1770.12	2	84.42	70	130	
Pd	105	115	HMI He	-0.018	ppb	-33.85	30.00	1	-1.82	70	130	>+/-30%
Ag	107	115	HMI He	4.680	ppb	4.35	16488.76	5	93.6	70	130	
Cd	111	115	HMI He	0.884	ppb	34.38	380.01	1	88.37	70	130	
Sn	120	115	HMI He	9.179	ppb	5.41	10170.10	10	91.79	70	130	
Sb	121	115	HMI He	2.139	ppb	12.48	2163.51	2	106.93	70	130	
Ba	137	115	HMI He	0.998	ppb	15.50	336.68	1	99.8	70	130	
W	182	165	HMI He	4.413	ppb	2.39	20020.36	1	441.31	70	130	>+/-30%
Pt	195	165	HMI He	0.041	ppb	46.65	180.00	1	4.09	70	130	>+/-30%
Tl	205	165	HMI He	0.985	ppb	7.64	7345.25	1	98.5	70	130	
Pb	208	165	HMI He	1.144	ppb	3.98	11791.98	1	114.4	70	130	
Th	232	165	HMI He	1.848	ppb	3.92	20114.22	2	92.38	70	130	
U	238	165	HMI He	0.945	ppb	7.36	11064.38	1	94.51	70	130	
Li	7	45	No Gas	23.057	ppb	29.80	2754652.05	50	46.11	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	717772.33	1.75	778537.766666667	92.19	60	125	
Ge Internal Standard	72	HMI H2	15073782.76	0.94	16469376.85	91.53	60	125	
Sc (IS)	45	HMI He	811224.04	2.47	886708.46	91.49	60	125	
Ge Internal Standard	72	HMI He	1139492.86	0.97	1231349.44333333	92.54	60	125	
In Internal standard	115	HMI He	3191805.24	0.11	3417335.03333333	93.4	60	125	
Ho-165	165	HMI He	15603632.83	3.17	17125073.6866667	91.12	60	125	
Sc IS)	45	No Gas	46124924.68	1.28	44731908.9166667	103.11	60	120	

Sample Report

Sample Name	280-104412-a-20-g@50
File Name	255SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:13:30 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.277	ppb	37.46	101.67	2000	
B	11	6	HMI H2	47.262	ppb	4.75	15490.59	100	
Se	78	72	HMI H2	0.155	ppb	21.06	88.00	2000	
Na	23	45	HMI He	13660.280	ppb	1.11	2649966.27	400000	
Mg	24	45	HMI He	4877.081	ppb	1.47	395650.49	400000	
Al	27	45	HMI He	1953.874	ppb	2.43	37137.94	400000	
K	39	45	HMI He	866.459	ppb	4.31	62530.78	400000	
Ca	44	45	HMI He	46384.724	ppb	1.93	120740.78	400000	
V	51	72	HMI He	3.720	ppb	8.00	5130.89	2000	
Cr	52	72	HMI He	5.450	ppb	5.09	8072.09	5000	
Mn	55	72	HMI He	76.602	ppb	0.68	39641.41	10000	
Fe	57	72	HMI He	2113.039	ppb	1.26	55868.72	400000	
Co	59	72	HMI He	1.091	ppb	5.25	2896.96	2000	
Ni	60	72	HMI He	5.122	ppb	7.13	4223.94	5000	
Cu	63	72	HMI He	136.759	ppb	2.04	297478.72	5000	
Zn	66	72	HMI He	133.884	ppb	0.86	39214.15	5000	
As	75	72	HMI He	1.527	ppb	15.05	319.61	2000	
Sr	88	45	HMI He	141.606	ppb	3.13	76890.72	2000	
Zr	90	72	HMI He	1774.547	ppb	5.68	3260.39	1000	
Nb	93	72	HMI He	0.133	ppb	11.67	640.02	200	
Mo	95	115	HMI He	2.113	ppb	2.41	2166.84	2000	
Pd	105	115	HMI He	0.024	ppb	89.62	96.67	100	
Ag	107	115	HMI He	0.122	ppb	12.86	433.35	100	
Cd	111	115	HMI He	0.376	ppb	23.23	160.00	2000	
Sn	120	115	HMI He	1.816	ppb	5.58	2140.17	2000	
Sb	121	115	HMI He	2.299	ppb	13.45	2276.87	1000	
Ba	137	115	HMI He	62.612	ppb	5.97	19943.09	5000	
W	182	165	HMI He	0.191	ppb	9.80	1786.80	100	
Pt	195	165	HMI He	0.031	ppb	18.76	143.33	100	
Tl	205	165	HMI He	0.065	ppb	22.77	553.35	2000	
Pb	208	165	HMI He	1726.023	ppb	2.95	16339916.18	5000	
Th	232	165	HMI He	0.934	ppb	6.62	10006.95	2000	
U	238	165	HMI He	0.595	ppb	4.27	6821.69	2000	
Li	7	45	No Gas	10.047	ppb	80.74	2726154.15	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	679010.47	0.90	778537.766666667	87.22	60	125	
Ge Internal Standard	72	HMI H2	15206314.41	1.10	16469376.85	92.33	60	125	
Sc (IS)	45	HMI He	821289.53	1.67	886708.46	92.62	60	125	
Ge Internal Standard	72	HMI He	1133754.76	0.86	1231349.44333333	92.07	60	125	
In Internal standard	115	HMI He	3128661.28	1.49	3417335.03333333	91.55	60	125	
Ho-165	165	HMI He	15232257.75	1.20	17125073.6866667	88.95	60	125	
Sc IS)	45	No Gas	47199209.20	1.82	44731908.9166667	105.52	60	120	

Sample Report

Sample Name	280-104412-a-20-gSD@250
File Name	256SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:17:07 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.028	ppb	5.86	15.00	2000	
B	11	6	HMI H2	9.557	ppb	12.70	3617.10	100	
Se	78	72	HMI H2	0.016	ppb	162.01	37.33	2000	
Na	23	45	HMI He	2739.070	ppb	2.07	539814.05	400000	
Mg	24	45	HMI He	1008.541	ppb	3.49	82367.93	400000	
Al	27	45	HMI He	395.627	ppb	4.33	7585.16	400000	
K	39	45	HMI He	291.751	ppb	7.57	36600.56	400000	
Ca	44	45	HMI He	9508.073	ppb	2.04	24895.53	400000	
V	51	72	HMI He	0.560	ppb	26.06	1703.45	2000	
Cr	52	72	HMI He	1.177	ppb	16.60	1943.48	5000	
Mn	55	72	HMI He	15.892	ppb	3.30	8405.59	10000	
Fe	57	72	HMI He	423.117	ppb	4.51	11390.74	400000	
Co	59	72	HMI He	0.176	ppb	12.61	476.68	2000	
Ni	60	72	HMI He	1.789	ppb	4.81	1696.78	5000	
Cu	63	72	HMI He	28.042	ppb	1.29	62566.85	5000	
Zn	66	72	HMI He	29.198	ppb	1.92	8912.56	5000	
As	75	72	HMI He	0.334	ppb	32.73	86.28	2000	
Sr	88	45	HMI He	28.537	ppb	5.10	15577.80	2000	
Zr	90	72	HMI He	426.494	ppb	11.73	843.37	1000	
Nb	93	72	HMI He	0.030	ppb	43.68	216.67	200	
Mo	95	115	HMI He	0.935	ppb	5.42	990.04	2000	
Pd	105	115	HMI He	-0.008	ppb	-85.56	46.67	100	
Ag	107	115	HMI He	0.032	ppb	32.19	126.67	100	
Cd	111	115	HMI He	0.086	ppb	0.96	40.00	2000	
Sn	120	115	HMI He	0.391	ppb	13.47	640.02	2000	
Sb	121	115	HMI He	0.527	ppb	19.71	553.35	1000	
Ba	137	115	HMI He	12.169	ppb	3.59	3973.88	5000	
W	182	165	HMI He	0.009	ppb	350.68	1033.38	100	
Pt	195	165	HMI He	0.007	ppb	142.97	63.33	100	
Tl	205	165	HMI He	0.014	ppb	91.75	190.00	2000	
Pb	208	165	HMI He	336.277	ppb	1.32	3224004.61	5000	
Th	232	165	HMI He	0.189	ppb	8.48	2163.53	2000	
U	238	165	HMI He	0.122	ppb	14.44	1446.77	2000	
Li	7	45	No Gas	10.850	ppb	94.88	2772697.77	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	714160.28	4.05	778537.766666667	91.73	60	125	
Ge Internal Standard	72	HMI H2	15049721.40	0.50	16469376.85	91.38	60	125	
Sc (IS)	45	HMI He	825387.23	1.34	886708.46	93.08	60	125	
Ge Internal Standard	72	HMI He	1151155.62	0.94	1231349.44333333	93.49	60	125	
In Internal standard	115	HMI He	3198196.37	0.89	3417335.03333333	93.59	60	125	
Ho-165	165	HMI He	15422056.28	1.70	17125073.6866667	90.06	60	125	
Sc IS)	45	No Gas	47916458.34	2.75	44731908.9166667	107.12	60	120	

Sample Report

Sample Name	280-104412-a-20-h ms@50
File Name	257SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:20:45 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	3.935	ppb	6.60	1458.41	2000	
B	11	6	HMI H2	8.967	ppb	6.18	3417.06	100	
Se	78	72	HMI H2	3.125	ppb	7.51	1142.71	2000	
Na	23	45	HMI He	1329.513	ppb	1.82	265572.68	400000	
Mg	24	45	HMI He	4457.493	ppb	0.77	363043.12	400000	
Al	27	45	HMI He	2011.668	ppb	2.07	38384.16	400000	
K	39	45	HMI He	663.947	ppb	1.82	53539.46	400000	
Ca	44	45	HMI He	50778.943	ppb	1.58	132705.29	400000	
V	51	72	HMI He	7.565	ppb	9.79	9326.10	2000	
Cr	52	72	HMI He	8.844	ppb	4.94	12958.61	5000	
Mn	55	72	HMI He	64.913	ppb	3.69	33601.41	10000	
Fe	57	72	HMI He	2101.078	ppb	3.38	55537.57	400000	
Co	59	72	HMI He	4.587	ppb	5.96	12171.36	2000	
Ni	60	72	HMI He	7.490	ppb	4.54	6037.88	5000	
Cu	63	72	HMI He	135.223	ppb	0.32	294128.18	5000	
Zn	66	72	HMI He	44.569	ppb	5.11	13245.55	5000	
As	75	72	HMI He	4.698	ppb	4.77	943.17	2000	
Sr	88	45	HMI He	149.684	ppb	2.84	81597.65	2000	
Zr	90	72	HMI He	4591.949	ppb	1.33	8335.66	1000	
Nb	93	72	HMI He	0.097	ppb	16.33	490.01	200	
Mo	95	115	HMI He	3.658	ppb	4.82	3760.50	2000	
Pd	105	115	HMI He	-0.001	ppb	-790.84	56.67	100	
Ag	107	115	HMI He	3.202	ppb	6.51	11127.39	100	
Cd	111	115	HMI He	3.655	ppb	3.79	1540.09	2000	
Sn	120	115	HMI He	1.780	ppb	4.53	2116.85	2000	
Sb	121	115	HMI He	2.594	ppb	12.69	2583.59	1000	
Ba	137	115	HMI He	69.196	ppb	4.18	22186.11	5000	
W	182	165	HMI He	1.146	ppb	5.28	5824.56	100	
Pt	195	165	HMI He	0.030	ppb	28.43	140.00	100	
Tl	205	165	HMI He	3.636	ppb	1.50	26357.15	2000	
Pb	208	165	HMI He	2070.810	ppb	4.15	19655588.92	5000	
Th	232	165	HMI He	4.398	ppb	4.16	46695.66	2000	
U	238	165	HMI He	3.835	ppb	1.73	43923.90	2000	
Li	7	45	No Gas	10.804	ppb	72.67	2764575.51	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	714566.81	3.83	778537.766666667	91.78	60	125	
Ge Internal Standard	72	HMI H2	14984722.66	1.13	16469376.85	90.99	60	125	
Sc (IS)	45	HMI He	824399.76	0.45	886708.46	92.97	60	125	
Ge Internal Standard	72	HMI He	1133590.56	0.59	1231349.44333333	92.06	60	125	
In Internal standard	115	HMI He	3148450.01	0.85	3417335.03333333	92.13	60	125	
Ho-165	165	HMI He	15286196.91	3.95	17125073.6866667	89.26	60	125	
Sc IS)	45	No Gas	47785230.01	4.20	44731908.9166667	106.83	60	120	

Sample Report

Sample Name	280-104412-a-20-i msd@50
File Name	258SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:24:20 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	3.444	ppb	5.47	1255.06	2000	
B	11	6	HMI H2	6.094	ppb	16.21	2420.21	100	
Se	78	72	HMI H2	3.514	ppb	5.43	1273.39	2000	
Na	23	45	HMI He	177.117	ppb	1.63	41381.16	400000	
Mg	24	45	HMI He	4388.242	ppb	0.93	353555.56	400000	
Al	27	45	HMI He	2142.870	ppb	1.28	40449.00	400000	
K	39	45	HMI He	639.713	ppb	4.59	51860.87	400000	
Ca	44	45	HMI He	48814.506	ppb	1.37	126187.76	400000	
V	51	72	HMI He	7.816	ppb	6.06	9636.29	2000	
Cr	52	72	HMI He	8.995	ppb	3.21	13222.17	5000	
Mn	55	72	HMI He	61.667	ppb	2.76	32038.14	10000	
Fe	57	72	HMI He	2099.130	ppb	1.83	55688.32	400000	
Co	59	72	HMI He	4.493	ppb	4.08	11967.80	2000	
Ni	60	72	HMI He	7.873	ppb	1.88	6354.68	5000	
Cu	63	72	HMI He	184.821	ppb	0.19	403172.50	5000	
Zn	66	72	HMI He	38.065	ppb	1.49	11394.12	5000	
As	75	72	HMI He	4.826	ppb	3.87	971.93	2000	
Sr	88	45	HMI He	145.146	ppb	1.69	78281.12	2000	
Zr	90	72	HMI He	4676.846	ppb	2.97	8519.04	1000	
Nb	93	72	HMI He	0.077	ppb	30.88	410.01	200	
Mo	95	115	HMI He	3.779	ppb	8.36	3827.18	2000	
Pd	105	115	HMI He	-0.001	ppb	-4469.24	56.67	100	
Ag	107	115	HMI He	3.069	ppb	4.62	10506.97	100	
Cd	111	115	HMI He	3.790	ppb	3.76	1573.44	2000	
Sn	120	115	HMI He	1.754	ppb	5.80	2056.83	2000	
Sb	121	115	HMI He	1.913	ppb	5.36	1883.47	1000	
Ba	137	115	HMI He	69.717	ppb	2.51	22019.21	5000	
W	182	165	HMI He	1.264	ppb	8.49	6394.79	100	
Pt	195	165	HMI He	0.004	ppb	149.67	53.33	100	
Tl	205	165	HMI He	3.728	ppb	4.88	27372.33	2000	
Pb	208	165	HMI He	1794.419	ppb	2.54	17269418.55	5000	
Th	232	165	HMI He	4.469	ppb	4.08	48086.92	2000	
U	238	165	HMI He	3.844	ppb	4.46	44589.33	2000	
Li	7	45	No Gas	8.691	ppb	73.98	2683730.87	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	703313.86	2.11	778537.766666667	90.34	60	125	
Ge Internal Standard	72	HMI H2	14899131.83	2.40	16469376.85	90.47	60	125	
Sc (IS)	45	HMI He	815517.32	0.69	886708.46	91.97	60	125	
Ge Internal Standard	72	HMI He	1137689.90	0.34	1231349.44333333	92.39	60	125	
In Internal standard	115	HMI He	3101631.38	0.93	3417335.03333333	90.76	60	125	
Ho-165	165	HMI He	15490524.82	3.21	17125073.6866667	90.46	60	125	
Sc IS)	45	No Gas	46620438.40	0.77	44731908.9166667	104.22	60	120	

Sample Report

Sample Name	280-104412-a-20-g PDS@50
File Name	259SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:27:55 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	211.333	ppb	3.34	77810.13	2000	
B	11	6	HMI H2	43.458	ppb	3.26	14993.45	100	
Se	78	72	HMI H2	206.425	ppb	1.61	73339.07	2000	
Na	23	45	HMI He	13203.871	ppb	3.80	2489474.17	400000	
Mg	24	45	HMI He	4852.559	ppb	5.14	382583.77	400000	
Al	27	45	HMI He	4003.326	ppb	5.98	73914.24	400000	
K	39	45	HMI He	887.060	ppb	8.64	61677.89	400000	
Ca	44	45	HMI He	47961.885	ppb	6.47	121296.27	400000	
V	51	72	HMI He	213.361	ppb	4.49	228791.54	2000	
Cr	52	72	HMI He	214.472	ppb	5.69	302055.03	5000	
Mn	55	72	HMI He	285.937	ppb	4.63	144417.12	10000	
Fe	57	72	HMI He	4162.126	ppb	4.81	107491.59	400000	
Co	59	72	HMI He	208.048	ppb	2.26	539700.68	2000	
Ni	60	72	HMI He	212.120	ppb	5.21	159116.32	5000	
Cu	63	72	HMI He	333.351	ppb	4.40	707615.66	5000	
Zn	66	72	HMI He	342.227	ppb	5.86	97499.70	5000	
As	75	72	HMI He	215.680	ppb	3.10	41486.63	2000	
Sr	88	45	HMI He	347.928	ppb	5.88	183579.63	2000	
Zr	90	72	HMI He	192041.846	ppb	4.03	338326.45	1000	>LDR
Nb	93	72	HMI He	0.473	ppb	10.93	2000.16	200	
Mo	95	115	HMI He	209.939	ppb	4.52	207068.76	2000	
Pd	105	115	HMI He	0.041	ppb	72.69	120.00	100	
Ag	107	115	HMI He	51.432	ppb	6.43	172102.13	100	
Cd	111	115	HMI He	206.842	ppb	3.99	83857.71	2000	
Sn	120	115	HMI He	205.929	ppb	5.61	212524.16	2000	
Sb	121	115	HMI He	213.129	ppb	4.06	202678.17	1000	
Ba	137	115	HMI He	265.418	ppb	3.02	82021.08	5000	
W	182	165	HMI He	206.785	ppb	4.81	852619.46	100	
Pt	195	165	HMI He	0.084	ppb	31.61	313.34	100	
Tl	205	165	HMI He	214.635	ppb	5.24	1514684.62	2000	
Pb	208	165	HMI He	1908.291	ppb	7.68	17693675.91	5000	
Th	232	165	HMI He	223.040	ppb	11.35	2303690.04	2000	
U	238	165	HMI He	213.469	ppb	6.99	2384427.58	2000	
Li	7	45	No Gas	243.251	ppb	9.17	4482225.96	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	712991.84	0.54	778537.766666667	91.58	60	125	
Ge Internal Standard	72	HMI H2	14968875.99	1.65	16469376.85	90.89	60	125	
Sc (IS)	45	HMI He	798837.34	3.07	886708.46	90.09	60	125	
Ge Internal Standard	72	HMI He	1108739.60	2.32	1231349.44333333	90.04	60	125	
In Internal standard	115	HMI He	3037172.77	2.73	3417335.03333333	88.88	60	125	
Ho-165	165	HMI He	14943834.74	4.05	17125073.6866667	87.26	60	125	
Sc IS)	45	No Gas	48428547.48	1.26	44731908.9166667	108.26	60	120	

Sample Report

Sample Name	280-104412-a-52-c@50
File Name	260SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:31:32 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.456	ppb	18.60	168.33	2000	
B	11	6	HMI H2	3.471	ppb	13.19	1530.09	100	
Se	78	72	HMI H2	0.205	ppb	38.03	101.33	2000	
Na	23	45	HMI He	108.917	ppb	5.46	28193.83	400000	
Mg	24	45	HMI He	7586.119	ppb	0.49	609247.96	400000	
Al	27	45	HMI He	4590.881	ppb	1.05	86354.92	400000	
K	39	45	HMI He	1236.551	ppb	1.27	78578.15	400000	
Ca	44	45	HMI He	34380.860	ppb	2.66	88616.23	400000	
V	51	72	HMI He	6.662	ppb	4.27	8352.22	2000	
Cr	52	72	HMI He	6.198	ppb	5.81	9155.97	5000	
Mn	55	72	HMI He	111.074	ppb	0.88	57527.38	10000	
Fe	57	72	HMI He	4200.708	ppb	1.37	111178.85	400000	
Co	59	72	HMI He	1.774	ppb	4.83	4714.07	2000	
Ni	60	72	HMI He	5.970	ppb	6.50	4884.12	5000	
Cu	63	72	HMI He	6.260	ppb	2.60	14373.13	5000	
Zn	66	72	HMI He	17.768	ppb	8.70	5461.00	5000	
As	75	72	HMI He	1.796	ppb	12.38	373.21	2000	
Sr	88	45	HMI He	75.006	ppb	1.29	40334.31	2000	
Zr	90	72	HMI He	3187.463	ppb	1.70	5814.47	1000	
Nb	93	72	HMI He	0.040	ppb	47.62	253.34	200	
Mo	95	115	HMI He	0.537	ppb	17.75	546.69	2000	
Pd	105	115	HMI He	-0.004	ppb	-837.28	50.00	100	
Ag	107	115	HMI He	0.032	ppb	32.05	120.00	100	
Cd	111	115	HMI He	0.172	ppb	82.00	73.33	2000	
Sn	120	115	HMI He	0.245	ppb	35.88	456.68	2000	
Sb	121	115	HMI He	0.196	ppb	11.66	210.00	1000	
Ba	137	115	HMI He	43.873	ppb	3.53	13562.77	5000	
W	182	165	HMI He	0.114	ppb	63.98	1436.76	100	
Pt	195	165	HMI He	0.019	ppb	49.11	100.00	100	
Tl	205	165	HMI He	0.142	ppb	15.57	1090.06	2000	
Pb	208	165	HMI He	18.187	ppb	1.36	169374.76	5000	
Th	232	165	HMI He	2.128	ppb	2.86	22153.87	2000	
U	238	165	HMI He	0.358	ppb	6.74	4037.29	2000	
Li	7	45	No Gas	25.195	ppb	47.07	2981470.13	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	696510.86	2.56	778537.766666667	89.46	60	125	
Ge Internal Standard	72	HMI H2	14522359.55	1.61	16469376.85	88.18	60	125	
Sc (IS)	45	HMI He	813066.06	0.71	886708.46	91.69	60	125	
Ge Internal Standard	72	HMI He	1135326.97	1.20	1231349.44333333	92.2	60	125	
In Internal standard	115	HMI He	3034259.53	1.44	3417335.03333333	88.79	60	125	
Ho-165	165	HMI He	14924368.18	1.15	17125073.6866667	87.15	60	125	
Sc IS)	45	No Gas	49687546.99	2.48	44731908.9166667	111.08	60	120	

Sample Report

Sample Name	280-104412-a-53-c@50
File Name	261SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:35:05 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.216	ppb	36.48	81.67	2000	
B	11	6	HMI H2	2.959	ppb	22.16	1356.74	100	
Se	78	72	HMI H2	0.061	ppb	65.98	52.00	2000	
Na	23	45	HMI He	99.014	ppb	0.95	26257.46	400000	
Mg	24	45	HMI He	6572.267	ppb	2.16	526841.26	400000	
Al	27	45	HMI He	3884.005	ppb	1.70	72931.58	400000	
K	39	45	HMI He	1035.854	ppb	3.28	69414.69	400000	
Ca	44	45	HMI He	30842.680	ppb	1.58	79383.34	400000	
V	51	72	HMI He	5.730	ppb	2.58	7218.34	2000	
Cr	52	72	HMI He	6.658	ppb	6.78	9662.94	5000	
Mn	55	72	HMI He	98.326	ppb	1.55	50120.19	10000	
Fe	57	72	HMI He	3652.723	ppb	0.99	95138.17	400000	
Co	59	72	HMI He	1.688	ppb	1.88	4417.32	2000	
Ni	60	72	HMI He	5.499	ppb	4.04	4447.33	5000	
Cu	63	72	HMI He	5.336	ppb	0.47	12171.33	5000	
Zn	66	72	HMI He	15.252	ppb	5.28	4654.05	5000	
As	75	72	HMI He	1.429	ppb	2.87	296.08	2000	
Sr	88	45	HMI He	65.428	ppb	1.02	35122.11	2000	
Zr	90	72	HMI He	3047.041	ppb	1.92	5471.04	1000	
Nb	93	72	HMI He	0.043	ppb	46.82	263.34	200	
Mo	95	115	HMI He	0.404	ppb	20.55	420.01	2000	
Pd	105	115	HMI He	-0.013	ppb	-109.54	36.67	100	
Ag	107	115	HMI He	0.024	ppb	30.05	93.33	100	
Cd	111	115	HMI He	0.179	ppb	42.33	76.67	2000	
Sn	120	115	HMI He	0.177	ppb	14.87	390.01	2000	
Sb	121	115	HMI He	0.093	ppb	24.42	113.33	1000	
Ba	137	115	HMI He	36.963	ppb	0.56	11544.48	5000	
W	182	165	HMI He	0.031	ppb	42.25	1076.72	100	
Pt	195	165	HMI He	0.008	ppb	124.19	63.33	100	
Tl	205	165	HMI He	0.076	ppb	24.44	613.35	2000	
Pb	208	165	HMI He	23.426	ppb	2.13	214859.61	5000	
Th	232	165	HMI He	1.835	ppb	1.96	18852.46	2000	
U	238	165	HMI He	0.274	ppb	3.78	3050.37	2000	
Li	7	45	No Gas	16.961	ppb	13.60	2900366.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	692699.41	1.53	778537.766666667	88.97	60	125	
Ge Internal Standard	72	HMI H2	14626499.76	1.09	16469376.85	88.81	60	125	
Sc (IS)	45	HMI He	811708.21	1.55	886708.46	91.54	60	125	
Ge Internal Standard	72	HMI He	1117233.12	0.96	1231349.44333333	90.73	60	125	
In Internal standard	115	HMI He	3065325.25	1.89	3417335.03333333	89.7	60	125	
Ho-165	165	HMI He	14710804.02	0.44	17125073.6866667	85.9	60	125	
Sc IS)	45	No Gas	49324117.43	1.08	44731908.9166667	110.27	60	120	

Sample Report

Sample Name	280-104412-a-54-c@50
File Name	262SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:38:42 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.281	ppb	18.00	103.33	2000	
B	11	6	HMI H2	2.800	ppb	19.30	1286.74	100	
Se	78	72	HMI H2	0.099	ppb	93.93	64.00	2000	
Na	23	45	HMI He	99.365	ppb	3.06	26013.67	400000	
Mg	24	45	HMI He	7305.423	ppb	1.63	578760.39	400000	
Al	27	45	HMI He	4346.949	ppb	2.27	80659.84	400000	
K	39	45	HMI He	1166.261	ppb	1.86	74399.51	400000	
Ca	44	45	HMI He	32980.852	ppb	2.29	83875.24	400000	
V	51	72	HMI He	6.464	ppb	2.70	8035.38	2000	
Cr	52	72	HMI He	6.638	ppb	3.54	9672.96	5000	
Mn	55	72	HMI He	107.990	ppb	1.92	55236.20	10000	
Fe	57	72	HMI He	4004.296	ppb	0.91	104651.97	400000	
Co	59	72	HMI He	1.742	ppb	6.30	4574.02	2000	
Ni	60	72	HMI He	5.870	ppb	7.97	4744.08	5000	
Cu	63	72	HMI He	6.371	ppb	3.36	14434.87	5000	
Zn	66	72	HMI He	17.066	ppb	2.06	5190.89	5000	
As	75	72	HMI He	1.669	ppb	2.65	343.79	2000	
Sr	88	45	HMI He	70.371	ppb	1.84	37337.07	2000	
Zr	90	72	HMI He	3286.379	ppb	3.80	5917.84	1000	
Nb	93	72	HMI He	0.051	ppb	7.33	296.68	200	
Mo	95	115	HMI He	0.456	ppb	26.16	476.68	2000	
Pd	105	115	HMI He	-0.018	ppb	-89.02	30.00	100	
Ag	107	115	HMI He	0.019	ppb	61.21	76.67	100	
Cd	111	115	HMI He	0.161	ppb	47.31	70.00	2000	
Sn	120	115	HMI He	0.146	ppb	19.19	360.01	2000	
Sb	121	115	HMI He	0.076	ppb	51.52	96.67	1000	
Ba	137	115	HMI He	42.226	ppb	4.36	13215.81	5000	
W	182	165	HMI He	0.009	ppb	307.76	990.05	100	
Pt	195	165	HMI He	0.018	ppb	66.71	96.67	100	
Tl	205	165	HMI He	0.059	ppb	10.64	493.34	2000	
Pb	208	165	HMI He	24.369	ppb	2.63	223075.71	5000	
Th	232	165	HMI He	1.951	ppb	5.07	19984.07	2000	
U	238	165	HMI He	0.278	ppb	1.38	3093.71	2000	
Li	7	45	No Gas	14.186	ppb	78.35	2921087.53	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	684967.53	3.24	778537.766666667	87.98	60	125	
Ge Internal Standard	72	HMI H2	14341583.00	1.03	16469376.85	87.08	60	125	
Sc (IS)	45	HMI He	802129.06	1.10	886708.46	90.46	60	125	
Ge Internal Standard	72	HMI He	1121124.93	0.45	1231349.44333333	91.05	60	125	
In Internal standard	115	HMI He	3075373.49	3.83	3417335.03333333	89.99	60	125	
Ho-165	165	HMI He	14691533.19	3.30	17125073.6866667	85.79	60	125	
Sc IS)	45	No Gas	50048116.97	2.27	44731908.9166667	111.88	60	120	

Sample Report

Sample Name	280-104412-a-55-c@50
File Name	263SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:42:18 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.088	ppb	73.18	35.00	2000	
B	11	6	HMI H2	1.494	ppb	13.22	863.37	100	
Se	78	72	HMI H2	0.025	ppb	163.53	38.67	2000	
Na	23	45	HMI He	92.121	ppb	2.87	24427.92	400000	
Mg	24	45	HMI He	4572.877	ppb	0.99	359183.52	400000	
Al	27	45	HMI He	2482.942	ppb	0.99	45685.83	400000	
K	39	45	HMI He	808.280	ppb	5.29	57987.74	400000	
Ca	44	45	HMI He	50706.516	ppb	1.62	127791.04	400000	
V	51	72	HMI He	4.038	ppb	10.40	5304.26	2000	
Cr	52	72	HMI He	5.656	ppb	1.99	8098.78	5000	
Mn	55	72	HMI He	70.674	ppb	2.80	35408.39	10000	
Fe	57	72	HMI He	2812.918	ppb	0.84	71984.55	400000	
Co	59	72	HMI He	1.202	ppb	3.71	3090.33	2000	
Ni	60	72	HMI He	4.727	ppb	8.68	3797.16	5000	
Cu	63	72	HMI He	205.734	ppb	1.19	432860.81	5000	
Zn	66	72	HMI He	36.893	ppb	7.92	10660.28	5000	
As	75	72	HMI He	1.525	ppb	8.04	309.15	2000	
Sr	88	45	HMI He	134.207	ppb	2.42	70562.11	2000	
Zr	90	72	HMI He	2032.057	ppb	4.47	3603.80	1000	
Nb	93	72	HMI He	0.031	ppb	28.87	210.00	200	
Mo	95	115	HMI He	0.451	ppb	22.07	463.35	2000	
Pd	105	115	HMI He	-0.022	ppb	-60.97	23.33	100	
Ag	107	115	HMI He	0.074	ppb	36.41	263.34	100	
Cd	111	115	HMI He	0.148	ppb	83.98	63.33	2000	
Sn	120	115	HMI He	0.217	ppb	21.94	430.01	2000	
Sb	121	115	HMI He	1.967	ppb	13.69	1900.14	1000	
Ba	137	115	HMI He	31.153	ppb	7.71	9673.14	5000	
W	182	165	HMI He	0.041	ppb	64.99	1116.72	100	
Pt	195	165	HMI He	0.014	ppb	53.77	83.33	100	
Tl	205	165	HMI He	0.054	ppb	25.84	456.68	2000	
Pb	208	165	HMI He	3269.003	ppb	2.46	29910964.54	5000	
Th	232	165	HMI He	1.103	ppb	2.48	11391.31	2000	
U	238	165	HMI He	0.353	ppb	2.95	3920.59	2000	
Li	7	45	No Gas	24.536	ppb	42.32	2957481.12	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	679402.89	3.58	778537.766666667	87.27	60	125	
Ge Internal Standard	72	HMI H2	14480916.33	3.21	16469376.85	87.93	60	125	
Sc (IS)	45	HMI He	795052.75	0.24	886708.46	89.66	60	125	
Ge Internal Standard	72	HMI He	1097570.59	0.85	1231349.44333333	89.14	60	125	
In Internal standard	115	HMI He	3049855.65	1.97	3417335.03333333	89.25	60	125	
Ho-165	165	HMI He	14725317.98	2.32	17125073.6866667	85.99	60	125	
Sc IS)	45	No Gas	49354174.51	1.15	44731908.9166667	110.33	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	264_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:45:51 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	495.906	ppb	9.73	241114.90	500	99.18	90	110	
Be	9	6	HMI H2	53.270	ppb	4.69	18450.07	50	106.54	90	110	
B	11	6	HMI H2	47.630	ppb	6.17	15403.79	50	95.26	90	110	
Se	78	72	HMI H2	49.636	ppb	2.08	16940.96	50	99.27	90	110	
Na	23	45	HMI He	4623.582	ppb	1.16	901055.66	5000	92.47	90	110	
Mg	24	45	HMI He	4869.544	ppb	1.61	394772.14	5000	97.39	90	110	
Al	27	45	HMI He	4910.159	ppb	1.81	93221.35	5000	98.2	90	110	
K	39	45	HMI He	5128.400	ppb	1.08	256181.63	5000	102.57	90	110	
Ca	44	45	HMI He	4837.758	ppb	5.45	12606.64	5000	96.76	90	110	
V	51	72	HMI He	49.591	ppb	2.20	54516.96	50	99.18	90	110	
Cr	52	72	HMI He	49.369	ppb	2.27	70407.14	50	98.74	90	110	
Mn	55	72	HMI He	49.275	ppb	3.69	25192.81	50	98.55	90	110	
Fe	57	72	HMI He	4888.037	ppb	2.74	127496.30	5000	97.76	90	110	
Co	59	72	HMI He	50.004	ppb	0.52	130990.82	50	100.01	90	110	
Ni	60	72	HMI He	49.394	ppb	2.74	37653.48	50	98.79	90	110	
Cu	63	72	HMI He	48.653	ppb	1.56	104973.36	50	97.31	90	110	
Zn	66	72	HMI He	48.539	ppb	4.90	14219.71	50	97.08	90	110	
As	75	72	HMI He	51.724	ppb	1.15	10062.61	50	103.45	90	110	
Sr	88	45	HMI He	49.815	ppb	1.67	27046.42	50	99.63	90	110	
Zr	90	72	HMI He	134.343	ppb	29.12	300.01	50	268.69	90	110	>+\-10%
Nb	93	72	HMI He	97.971	ppb	1.54	400957.87	100	97.97	90	110	
Mo	95	115	HMI He	48.575	ppb	3.38	49142.59	50	97.15	90	110	
Pd	105	115	HMI He	49.666	ppb	6.01	78481.77	50	99.33	90	110	
Ag	107	115	HMI He	48.319	ppb	5.31	165782.77	50	96.64	90	110	
Cd	111	115	HMI He	46.980	ppb	4.72	19525.72	50	93.96	90	110	
Sn	120	115	HMI He	47.813	ppb	4.89	50755.93	50	95.63	90	110	
Sb	121	115	HMI He	49.085	ppb	6.31	47839.87	50	98.17	90	110	
Ba	137	115	HMI He	48.279	ppb	3.25	15311.09	50	96.56	90	110	
W	182	165	HMI He	47.940	ppb	2.37	197431.76	50	95.88	90	110	
Pt	195	165	HMI He	49.832	ppb	0.95	163262.72	50	99.66	90	110	
Tl	205	165	HMI He	51.406	ppb	1.99	361152.61	50	102.81	90	110	
Pb	208	165	HMI He	50.146	ppb	1.64	463625.73	50	100.29	90	110	
Th	232	165	HMI He	49.272	ppb	2.60	507440.71	50	98.54	90	110	
U	238	165	HMI He	47.810	ppb	0.71	531828.33	50	95.62	90	110	
Li	7	45	No Gas	558.884	ppb	1.64	6949310.36	500	111.78	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	671042.93	4.01	778537.766666667	86.19	60	125	
Ge Internal Standard	72	HMI H2	14358581.54	0.28	16469376.85	87.18	60	125	
Sc (IS)	45	HMI He	820731.19	1.21	886708.46	92.56	60	125	
Ge Internal Standard	72	HMI He	1119196.90	0.98	1231349.44333333	90.89	60	125	
In Internal standard	115	HMI He	3114386.92	3.97	3417335.03333333	91.13	60	125	
Ho-165	165	HMI He	14855195.79	1.65	17125073.6866667	86.75	60	125	
Sc IS)	45	No Gas	49752731.57	0.36	44731908.9166667	111.22	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	265_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:49:27 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	9.445	ppb	42.68	102738.08	0.1	>RL
Be	9	6	HMI H2	0.072	ppb	17.73	30.00	0.5	
B	11	6	HMI H2	0.958	ppb	12.64	700.02	0.1	>RL
Se	78	72	HMI H2	0.005	ppb	829.02	32.00	1	
Na	23	45	HMI He	4.631	ppb	37.64	8062.05	25	
Mg	24	45	HMI He	0.807	ppb	142.46	240.00	25	
Al	27	45	HMI He	0.172	ppb	364.74	33.33	15	
K	39	45	HMI He	162.278	ppb	18.06	29599.99	50	>RL
Ca	44	45	HMI He	71.580	ppb	166.92	206.74	25	>RL
V	51	72	HMI He	-0.225	ppb	-16.44	816.70	1	
Cr	52	72	HMI He	0.004	ppb	1080.51	226.67	1	
Mn	55	72	HMI He	-0.059	ppb	-142.97	40.00	0.5	
Fe	57	72	HMI He	2.421	ppb	54.09	106.67	25	
Co	59	72	HMI He	0.005	ppb	113.06	16.67	0.5	
Ni	60	72	HMI He	0.076	ppb	63.36	356.68	1	
Cu	63	72	HMI He	0.161	ppb	67.01	1116.72	1	
Zn	66	72	HMI He	0.025	ppb	781.32	293.34	5	
As	75	72	HMI He	0.022	ppb	85.72	23.53	1	
Sr	88	45	HMI He	0.040	ppb	47.13	30.00	1	
Zr	90	72	HMI He	-0.854	ppb	-2307.63	60.00	1	
Nb	93	72	HMI He	0.279	ppb	17.27	1236.73	2	
Mo	95	115	HMI He	0.067	ppb	87.78	86.67	0.5	
Pd	105	115	HMI He	0.026	ppb	75.56	100.00	1	
Ag	107	115	HMI He	0.013	ppb	70.03	56.67	1	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	0.5	
Sn	120	115	HMI He	-0.011	ppb	-467.57	200.00	1	
Sb	121	115	HMI He	0.303	ppb	26.71	326.67	1	
Ba	137	115	HMI He	0.002	ppb	2386.88	13.33	0.5	
W	182	165	HMI He	0.038	ppb	177.68	1120.06	1	
Pt	195	165	HMI He	0.018	ppb	124.78	100.00	1	
Tl	205	165	HMI He	0.012	ppb	59.59	170.00	0.1	
Pb	208	165	HMI He	0.211	ppb	21.05	2626.81	0.5	
Th	232	165	HMI He	0.025	ppb	46.44	396.68	1	
U	238	165	HMI He	0.011	ppb	43.75	156.67	0.5	
Li	7	45	No Gas	17.717	ppb	32.42	2901919.85	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	689080.40	1.78	778537.766666667	88.51	60	125	
Ge Internal Standard	72	HMI H2	14348784.56	0.62	16469376.85	87.12	60	125	
Sc (IS)	45	HMI He	796618.77	0.68	886708.46	89.84	60	125	
Ge Internal Standard	72	HMI He	1128480.55	1.45	1231349.44333333	91.65	60	125	
In Internal standard	115	HMI He	3170328.62	3.91	3417335.03333333	92.77	60	125	
Ho-165	165	HMI He	14977260.26	3.71	17125073.6866667	87.46	60	125	
Sc IS)	45	No Gas	49259784.51	1.45	44731908.9166667	110.12	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	266LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:53:20 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.078	ppb	1.08	395.01	1	107.77	70	130	
Se	78	72	HMI H2	4.337	ppb	10.99	1553.42	5	86.74	70	130	
Na	23	45	HMI He	50.114	ppb	7.39	17058.87	50	100.23	70	130	
Mg	24	45	HMI He	51.404	ppb	7.14	4333.96	50	102.81	70	130	
Al	27	45	HMI He	31.746	ppb	12.16	633.36	30	105.82	70	130	
K	39	45	HMI He	229.725	ppb	18.77	33464.06	100	229.72	70	130	>+/-30%
Ca	44	45	HMI He	57.164	ppb	38.57	176.67	50	114.33	70	130	
V	51	72	HMI He	4.623	ppb	6.04	6137.90	5	92.47	70	130	
Cr	52	72	HMI He	1.853	ppb	6.50	2900.29	2	92.67	70	130	
Mn	55	72	HMI He	1.014	ppb	18.09	596.68	1	101.41	70	130	
Fe	57	72	HMI He	51.429	ppb	6.86	1406.74	50	102.86	70	130	
Co	59	72	HMI He	0.971	ppb	9.92	2590.25	1	97.15	70	130	
Ni	60	72	HMI He	2.178	ppb	8.90	1976.81	2	108.92	70	130	
Cu	63	72	HMI He	2.117	ppb	5.39	5387.62	2	105.87	70	130	
Zn	66	72	HMI He	8.892	ppb	15.89	2883.64	10	88.92	70	130	
As	75	72	HMI He	4.922	ppb	3.68	990.88	5	98.44	70	130	
Sr	88	45	HMI He	0.724	ppb	37.85	403.35	1	72.39	70	130	
Zr	90	72	HMI He	94.908	ppb	46.78	233.34	0.5	18981.64	70	130	>+/-30%
Nb	93	72	HMI He	0.221	ppb	15.17	1010.04	2	11.07	70	130	>+/-30%
Mo	95	115	HMI He	1.780	ppb	2.34	1850.13	2	89.01	70	130	
Pd	105	115	HMI He	-0.001	ppb	-488.94	56.67	1	-0.14	70	130	>+/-30%
Ag	107	115	HMI He	4.620	ppb	6.50	16141.79	5	92.4	70	130	
Cd	111	115	HMI He	1.064	ppb	16.57	453.35	1	106.39	70	130	
Sn	120	115	HMI He	9.143	ppb	4.23	10049.98	10	91.43	70	130	
Sb	121	115	HMI He	1.893	ppb	11.18	1903.48	2	94.66	70	130	
Ba	137	115	HMI He	0.923	ppb	13.88	310.01	1	92.31	70	130	
W	182	165	HMI He	4.534	ppb	1.96	19840.03	1	453.39	70	130	>+/-30%
Pt	195	165	HMI He	0.025	ppb	56.00	120.00	1	2.46	70	130	>+/-30%
Tl	205	165	HMI He	0.997	ppb	6.14	7195.18	1	99.67	70	130	
Pb	208	165	HMI He	1.183	ppb	2.71	11765.35	1	118.26	70	130	
Th	232	165	HMI He	1.837	ppb	6.10	19346.55	2	91.87	70	130	
U	238	165	HMI He	0.965	ppb	1.01	10937.61	1	96.55	70	130	
Li	7	45	No Gas	35.935	ppb	12.68	3091546.27	50	71.87	70	130	

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	701683.32	1.74	778537.766666667	90.13	60	125	
Ge Internal Standard	72	HMI H2	14800597.25	1.36	16469376.85	89.87	60	125	
Sc (IS)	45	HMI He	819128.82	2.83	886708.46	92.38	60	125	
Ge Internal Standard	72	HMI He	1137796.97	0.12	1231349.44333333	92.4	60	125	
In Internal standard	115	HMI He	3165735.84	0.81	3417335.03333333	92.64	60	125	
Ho-165	165	HMI He	15080134.84	1.11	17125073.6866667	88.06	60	125	
Sc IS)	45	No Gas	50160274.05	0.67	44731908.9166667	112.14	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	267SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 2:56:53 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.008	ppb	449.53	6.67	2000	
B	11	6	HMI H2	0.330	ppb	80.57	460.01	100	
Se	78	72	HMI H2	0.059	ppb	109.55	45.33	2000	
Na	23	45	HMI He	17.845	ppb	10.51	8842.42	400000	
Mg	24	45	HMI He	1.935	ppb	76.97	276.67	400000	
Al	27	45	HMI He	9.580	ppb	54.43	173.34	400000	
K	39	45	HMI He	180.861	ppb	16.15	25519.88	400000	
Ca	44	45	HMI He	31.693	ppb	1.32	90.00	400000	
V	51	72	HMI He	0.864	ppb	11.84	1673.44	2000	
Cr	52	72	HMI He	0.116	ppb	21.57	323.34	5000	
Mn	55	72	HMI He	0.328	ppb	51.53	200.00	10000	
Fe	57	72	HMI He	9.428	ppb	15.22	243.34	400000	
Co	59	72	HMI He	0.003	ppb	133.79	10.00	2000	
Ni	60	72	HMI He	-0.001	ppb	-8058.83	250.01	5000	
Cu	63	72	HMI He	0.460	ppb	2.21	1476.75	5000	
Zn	66	72	HMI He	1.170	ppb	17.50	523.35	5000	
As	75	72	HMI He	0.094	ppb	40.25	31.37	2000	
Sr	88	45	HMI He	0.028	ppb	79.23	20.00	2000	
Zr	90	72	HMI He	34.600	ppb	76.08	103.33	1000	
Nb	93	72	HMI He	0.042	ppb	35.81	220.00	200	
Mo	95	115	HMI He	0.067	ppb	70.99	73.33	2000	
Pd	105	115	HMI He	0.064	ppb	65.95	136.67	100	
Ag	107	115	HMI He	0.017	ppb	36.41	60.00	100	
Cd	111	115	HMI He	0.002	ppb	898.20	3.33	2000	
Sn	120	115	HMI He	0.687	ppb	8.51	803.36	2000	
Sb	121	115	HMI He	0.258	ppb	30.84	236.67	1000	
Ba	137	115	HMI He	0.121	ppb	62.82	43.33	5000	
W	182	165	HMI He	0.072	ppb	54.50	1103.39	100	
Pt	195	165	HMI He	-0.001	ppb	-15.45	30.00	100	
Tl	205	165	HMI He	0.012	ppb	32.83	150.00	2000	
Pb	208	165	HMI He	0.483	ppb	14.90	4513.68	5000	
Th	232	165	HMI He	0.027	ppb	10.88	366.68	2000	
U	238	165	HMI He	0.003	ppb	192.33	56.67	2000	
Li	7	45	No Gas	47.535	ppb	9.49	2898964.35	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	637683.50	0.39	778537.766666667	81.91	60	125	
Ge Internal Standard	72	HMI H2	12904192.24	1.55	16469376.85	78.35	60	125	
Sc (IS)	45	HMI He	668355.63	0.98	886708.46	75.37	60	125	
Ge Internal Standard	72	HMI He	944335.41	0.91	1231349.44333333	76.69	60	125	
In Internal standard	115	HMI He	2670859.53	1.66	3417335.03333333	78.16	60	125	
Ho-165	165	HMI He	13076582.65	1.59	17125073.6866667	76.36	60	125	
Sc IS)	45	No Gas	45744695.53	1.51	44731908.9166667	102.26	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	268SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:00:28 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.003	ppb	582.36	5.00	2000	
B	11	6	HMI H2	-0.270	ppb	-66.94	286.67	100	
Se	78	72	HMI H2	-0.057	ppb	-44.44	10.67	2000	
Na	23	45	HMI He	7.464	ppb	12.19	8548.95	400000	
Mg	24	45	HMI He	1.323	ppb	116.69	280.00	400000	
Al	27	45	HMI He	0.541	ppb	263.89	40.00	400000	
K	39	45	HMI He	145.638	ppb	9.09	28725.17	400000	
Ca	44	45	HMI He	-5.494	ppb	-110.09	13.33	400000	
V	51	72	HMI He	-0.175	ppb	-26.99	853.37	2000	
Cr	52	72	HMI He	-0.025	ppb	-27.79	180.00	5000	
Mn	55	72	HMI He	-0.025	ppb	-118.86	56.67	10000	
Fe	57	72	HMI He	2.903	ppb	40.66	116.67	400000	
Co	59	72	HMI He	0.001	ppb	157.21	6.67	2000	
Ni	60	72	HMI He	-0.004	ppb	-689.14	290.01	5000	
Cu	63	72	HMI He	0.141	ppb	49.04	1053.38	5000	
Zn	66	72	HMI He	0.161	ppb	83.09	326.68	5000	
As	75	72	HMI He	0.066	ppb	68.44	31.37	2000	
Sr	88	45	HMI He	0.034	ppb	64.19	26.67	2000	
Zr	90	72	HMI He	28.355	ppb	67.36	110.00	1000	
Nb	93	72	HMI He	0.001	ppb	797.84	90.00	200	
Mo	95	115	HMI He	0.012	ppb	220.45	30.00	2000	
Pd	105	115	HMI He	-0.024	ppb	-54.44	20.00	100	
Ag	107	115	HMI He	0.003	ppb	200.12	23.33	100	
Cd	111	115	HMI He	0.010	ppb	307.50	6.67	2000	
Sn	120	115	HMI He	-0.012	ppb	-172.47	190.00	2000	
Sb	121	115	HMI He	-0.011	ppb	-60.82	13.33	1000	
Ba	137	115	HMI He	0.061	ppb	165.28	30.00	5000	
W	182	165	HMI He	-0.010	ppb	-471.54	916.71	100	
Pt	195	165	HMI He	0.007	ppb	220.55	60.00	100	
Tl	205	165	HMI He	0.001	ppb	325.30	93.33	2000	
Pb	208	165	HMI He	0.095	ppb	7.77	1540.05	5000	
Th	232	165	HMI He	0.003	ppb	50.05	173.34	2000	
U	238	165	HMI He	0.000	ppb	-478.38	33.33	2000	
Li	7	45	No Gas	18.139	ppb	47.15	2958505.65	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	653440.57	1.61	778537.766666667	83.93	60	125	
Ge Internal Standard	72	HMI H2	14225021.34	2.56	16469376.85	86.37	60	125	
Sc (IS)	45	HMI He	792505.40	0.94	886708.46	89.38	60	125	
Ge Internal Standard	72	HMI He	1105044.41	1.23	1231349.44333333	89.74	60	125	
In Internal standard	115	HMI He	3023068.37	2.31	3417335.03333333	88.46	60	125	
Ho-165	165	HMI He	14793869.33	1.57	17125073.6866667	86.39	60	125	
Sc IS)	45	No Gas	50172520.30	1.65	44731908.9166667	112.16	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	269SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:04:01 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.009	ppb	423.04	6.67	2000	
B	11	6	HMI H2	0.217	ppb	82.88	416.68	100	
Se	78	72	HMI H2	0.055	ppb	46.83	44.00	2000	
Na	23	45	HMI He	13.665	ppb	6.45	8108.73	400000	
Mg	24	45	HMI He	3.057	ppb	42.37	346.67	400000	
Al	27	45	HMI He	5.548	ppb	12.28	110.00	400000	
K	39	45	HMI He	191.380	ppb	6.86	25673.50	400000	
Ca	44	45	HMI He	-2.834	ppb	-351.79	16.67	400000	
V	51	72	HMI He	0.767	ppb	15.26	1580.10	2000	
Cr	52	72	HMI He	0.143	ppb	48.02	353.34	5000	
Mn	55	72	HMI He	0.376	ppb	17.95	220.01	10000	
Fe	57	72	HMI He	8.264	ppb	26.04	216.67	400000	
Co	59	72	HMI He	0.017	ppb	92.49	40.00	2000	
Ni	60	72	HMI He	0.248	ppb	35.97	406.68	5000	
Cu	63	72	HMI He	0.242	ppb	62.25	1076.72	5000	
Zn	66	72	HMI He	0.889	ppb	15.78	453.34	5000	
As	75	72	HMI He	0.146	ppb	69.62	39.87	2000	
Sr	88	45	HMI He	0.036	ppb	144.61	23.33	2000	
Zr	90	72	HMI He	66.219	ppb	44.05	150.00	1000	
Nb	93	72	HMI He	0.025	ppb	46.89	160.00	200	
Mo	95	115	HMI He	0.047	ppb	33.30	56.67	2000	
Pd	105	115	HMI He	0.040	ppb	21.41	103.33	100	
Ag	107	115	HMI He	0.014	ppb	43.45	50.00	100	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.645	ppb	23.26	756.70	2000	
Sb	121	115	HMI He	0.128	ppb	49.00	126.67	1000	
Ba	137	115	HMI He	-0.002	ppb	-2019.40	10.00	5000	
W	182	165	HMI He	0.025	ppb	143.92	953.38	100	
Pt	195	165	HMI He	-0.007	ppb	-73.24	13.33	100	
Tl	205	165	HMI He	-0.001	ppb	-722.90	70.00	2000	
Pb	208	165	HMI He	0.259	ppb	14.82	2746.81	5000	
Th	232	165	HMI He	0.024	ppb	0.99	346.68	2000	
U	238	165	HMI He	0.004	ppb	90.15	73.33	2000	
Li	7	45	No Gas	43.136	ppb	20.19	2818712.90	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	623703.77	1.17	778537.766666667	80.11	60	125	
Ge Internal Standard	72	HMI H2	12881251.31	0.95	16469376.85	78.21	60	125	
Sc (IS)	45	HMI He	662082.69	0.40	886708.46	74.67	60	125	
Ge Internal Standard	72	HMI He	940520.60	0.48	1231349.44333333	76.38	60	125	
In Internal standard	115	HMI He	2654200.56	3.45	3417335.03333333	77.67	60	125	
Ho-165	165	HMI He	13305903.27	1.91	17125073.6866667	77.7	60	125	
Sc IS)	45	No Gas	44952397.24	2.42	44731908.9166667	100.49	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	270SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:07:36 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.017	ppb	173.83	10.00	2000	
B	11	6	HMI H2	-0.599	ppb	-37.82	186.67	100	
Se	78	72	HMI H2	0.006	ppb	919.74	32.00	2000	
Na	23	45	HMI He	7.470	ppb	29.39	8545.59	400000	
Mg	24	45	HMI He	1.811	ppb	89.40	316.67	400000	
Al	27	45	HMI He	2.553	ppb	50.43	76.67	400000	
K	39	45	HMI He	164.306	ppb	12.35	29529.88	400000	
Ca	44	45	HMI He	12.946	ppb	139.43	60.00	400000	
V	51	72	HMI He	-0.147	ppb	-83.89	883.37	2000	
Cr	52	72	HMI He	-0.018	ppb	-167.29	190.00	5000	
Mn	55	72	HMI He	-0.038	ppb	-89.58	50.00	10000	
Fe	57	72	HMI He	2.761	ppb	39.49	113.33	400000	
Co	59	72	HMI He	0.005	ppb	211.48	16.67	2000	
Ni	60	72	HMI He	0.116	ppb	77.91	380.01	5000	
Cu	63	72	HMI He	0.184	ppb	54.84	1146.72	5000	
Zn	66	72	HMI He	0.219	ppb	96.89	343.34	5000	
As	75	72	HMI He	-0.003	ppb	-1577.71	18.30	2000	
Sr	88	45	HMI He	0.021	ppb	2.29	20.00	2000	
Zr	90	72	HMI He	26.562	ppb	26.59	106.67	1000	
Nb	93	72	HMI He	-0.002	ppb	-389.44	80.00	200	
Mo	95	115	HMI He	0.029	ppb	81.06	46.67	2000	
Pd	105	115	HMI He	-0.009	ppb	-178.69	43.33	100	
Ag	107	115	HMI He	0.000	ppb	886.54	13.33	100	
Cd	111	115	HMI He	0.009	ppb	159.10	6.67	2000	
Sn	120	115	HMI He	-0.013	ppb	-185.01	193.34	2000	
Sb	121	115	HMI He	0.020	ppb	157.41	43.33	1000	
Ba	137	115	HMI He	0.015	ppb	626.53	16.67	5000	
W	182	165	HMI He	-0.024	ppb	-45.75	840.03	100	
Pt	195	165	HMI He	-0.001	ppb	-922.17	33.33	100	
Tl	205	165	HMI He	0.003	ppb	96.27	103.33	2000	
Pb	208	165	HMI He	0.082	ppb	22.33	1390.04	5000	
Th	232	165	HMI He	0.007	ppb	143.74	203.34	2000	
U	238	165	HMI He	0.001	ppb	388.10	43.33	2000	
Li	7	45	No Gas	29.600	ppb	16.97	3083898.54	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	656007.60	1.72	778537.766666667	84.26	60	125	
Ge Internal Standard	72	HMI H2	14313636.55	1.81	16469376.85	86.91	60	125	
Sc (IS)	45	HMI He	792322.59	1.27	886708.46	89.36	60	125	
Ge Internal Standard	72	HMI He	1106586.75	0.77	1231349.44333333	89.87	60	125	
In Internal standard	115	HMI He	3079053.42	0.81	3417335.03333333	90.1	60	125	
Ho-165	165	HMI He	14448024.87	0.43	17125073.6866667	84.37	60	125	
Sc IS)	45	No Gas	50814028.60	1.01	44731908.9166667	113.6	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	271SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:11:11 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.016	ppb	152.89	10.00	2000	
B	11	6	HMI H2	-0.624	ppb	-47.87	183.34	100	
Se	78	72	HMI H2	-0.038	ppb	-47.92	17.33	2000	
Na	23	45	HMI He	7.601	ppb	38.73	8645.68	400000	
Mg	24	45	HMI He	1.849	ppb	52.52	323.34	400000	
Al	27	45	HMI He	3.419	ppb	25.48	93.33	400000	
K	39	45	HMI He	165.567	ppb	16.10	29823.68	400000	
Ca	44	45	HMI He	4.932	ppb	209.61	40.00	400000	
V	51	72	HMI He	-0.117	ppb	-11.27	920.04	2000	
Cr	52	72	HMI He	-0.014	ppb	-434.04	196.67	5000	
Mn	55	72	HMI He	0.002	ppb	4970.22	70.00	10000	
Fe	57	72	HMI He	1.199	ppb	34.55	73.33	400000	
Co	59	72	HMI He	0.001	ppb	159.21	6.67	2000	
Ni	60	72	HMI He	0.043	ppb	184.60	326.68	5000	
Cu	63	72	HMI He	0.115	ppb	11.88	1003.38	5000	
Zn	66	72	HMI He	0.042	ppb	1307.87	293.34	5000	
As	75	72	HMI He	-0.037	ppb	-50.04	11.76	2000	
Sr	88	45	HMI He	0.015	ppb	373.32	16.67	2000	
Zr	90	72	HMI He	7.344	ppb	244.66	73.33	1000	
Nb	93	72	HMI He	-0.003	ppb	-104.86	73.33	200	
Mo	95	115	HMI He	0.019	ppb	155.78	36.67	2000	
Pd	105	115	HMI He	-0.022	ppb	-61.34	23.33	100	
Ag	107	115	HMI He	0.005	ppb	54.32	30.00	100	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	-0.035	ppb	-74.70	170.00	2000	
Sb	121	115	HMI He	-0.001	ppb	-2757.29	23.33	1000	
Ba	137	115	HMI He	-0.017	ppb	-107.93	6.67	5000	
W	182	165	HMI He	-0.037	ppb	-40.91	783.37	100	
Pt	195	165	HMI He	0.004	ppb	289.53	50.00	100	
Tl	205	165	HMI He	-0.005	ppb	-34.35	50.00	2000	
Pb	208	165	HMI He	0.081	ppb	23.33	1376.71	5000	
Th	232	165	HMI He	0.005	ppb	37.91	183.33	2000	
U	238	165	HMI He	-0.001	ppb	-302.97	23.33	2000	
Li	7	45	No Gas	27.359	ppb	40.27	3050514.53	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	674508.01	0.58	778537.766666667	86.64	60	125	
Ge Internal Standard	72	HMI H2	14262764.15	0.31	16469376.85	86.6	60	125	
Sc (IS)	45	HMI He	798798.32	1.01	886708.46	90.09	60	125	
Ge Internal Standard	72	HMI He	1111773.21	1.22	1231349.44333333	90.29	60	125	
In Internal standard	115	HMI He	3084262.68	0.98	3417335.03333333	90.25	60	125	
Ho-165	165	HMI He	14369111.86	1.65	17125073.6866667	83.91	60	125	
Sc IS)	45	No Gas	50541805.28	0.90	44731908.9166667	112.99	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	272SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:14:47 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.012	ppb	0.00	0.00	2000	
B	11	6	HMI H2	-0.498	ppb	-55.27	220.00	100	
Se	78	72	HMI H2	-0.003	ppb	-543.19	29.33	2000	
Na	23	45	HMI He	2.802	ppb	30.69	7761.87	400000	
Mg	24	45	HMI He	2.391	ppb	67.22	366.68	400000	
Al	27	45	HMI He	5.916	ppb	17.73	140.00	400000	
K	39	45	HMI He	165.295	ppb	15.50	29903.95	400000	
Ca	44	45	HMI He	10.188	ppb	79.81	53.33	400000	
V	51	72	HMI He	-0.193	ppb	-50.38	836.70	2000	
Cr	52	72	HMI He	0.034	ppb	211.95	263.34	5000	
Mn	55	72	HMI He	0.035	ppb	145.28	86.67	10000	
Fe	57	72	HMI He	1.472	ppb	95.84	80.00	400000	
Co	59	72	HMI He	0.001	ppb	157.90	6.67	2000	
Ni	60	72	HMI He	0.000	ppb	-10544.99	293.34	5000	
Cu	63	72	HMI He	0.133	ppb	10.46	1040.05	5000	
Zn	66	72	HMI He	0.111	ppb	92.77	313.34	5000	
As	75	72	HMI He	-0.003	ppb	-1458.62	18.30	2000	
Sr	88	45	HMI He	0.046	ppb	94.97	33.33	2000	
Zr	90	72	HMI He	18.781	ppb	113.43	93.33	1000	
Nb	93	72	HMI He	0.001	ppb	579.94	90.00	200	
Mo	95	115	HMI He	0.026	ppb	19.77	43.33	2000	
Pd	105	115	HMI He	-0.015	ppb	-25.05	33.33	100	
Ag	107	115	HMI He	-0.002	ppb	-233.20	6.67	100	
Cd	111	115	HMI He	0.017	ppb	141.30	10.00	2000	
Sn	120	115	HMI He	-0.014	ppb	-682.59	190.00	2000	
Sb	121	115	HMI He	0.017	ppb	180.85	40.00	1000	
Ba	137	115	HMI He	-0.006	ppb	-863.20	10.00	5000	
W	182	165	HMI He	-0.012	ppb	-434.50	893.37	100	
Pt	195	165	HMI He	-0.002	ppb	-150.01	30.00	100	
Tl	205	165	HMI He	-0.002	ppb	-369.57	66.67	2000	
Pb	208	165	HMI He	0.069	ppb	24.03	1286.71	5000	
Th	232	165	HMI He	0.000	ppb	4470.63	136.67	2000	
U	238	165	HMI He	-0.001	ppb	-286.45	26.67	2000	
Li	7	45	No Gas	18.657	ppb	35.95	3041561.56	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	669595.05	2.56	778537.766666667	86.01	60	125	
Ge Internal Standard	72	HMI H2	14443987.27	0.49	16469376.85	87.7	60	125	
Sc (IS)	45	HMI He	801133.70	0.46	886708.46	90.35	60	125	
Ge Internal Standard	72	HMI He	1108802.90	0.43	1231349.44333333	90.05	60	125	
In Internal standard	115	HMI He	3026584.09	1.90	3417335.03333333	88.57	60	125	
Ho-165	165	HMI He	14568455.28	0.90	17125073.6866667	85.07	60	125	
Sc IS)	45	No Gas	51508671.48	2.85	44731908.9166667	115.15	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	273SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:18:26 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	220CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.008	ppb	-108.83	1.67	2000	
B	11	6	HMI H2	-0.672	ppb	-47.95	170.00	100	
Se	78	72	HMI H2	-0.006	ppb	-454.47	28.00	2000	
Na	23	45	HMI He	5.351	ppb	26.99	8252.13	400000	
Mg	24	45	HMI He	1.160	ppb	103.41	270.01	400000	
Al	27	45	HMI He	0.518	ppb	208.38	40.00	400000	
K	39	45	HMI He	186.801	ppb	15.25	30892.36	400000	
Ca	44	45	HMI He	-1.655	ppb	-491.54	23.33	400000	
V	51	72	HMI He	-0.052	ppb	-202.86	980.04	2000	
Cr	52	72	HMI He	-0.022	ppb	-177.86	183.33	5000	
Mn	55	72	HMI He	-0.038	ppb	-138.89	50.00	10000	
Fe	57	72	HMI He	1.232	ppb	132.40	73.33	400000	
Co	59	72	HMI He	0.001	ppb	316.51	6.67	2000	
Ni	60	72	HMI He	-0.002	ppb	-1602.54	290.01	5000	
Cu	63	72	HMI He	0.166	ppb	42.45	1100.05	5000	
Zn	66	72	HMI He	-0.035	ppb	-282.49	270.01	5000	
As	75	72	HMI He	0.042	ppb	109.62	26.80	2000	
Sr	88	45	HMI He	0.046	ppb	124.94	33.33	2000	
Zr	90	72	HMI He	9.590	ppb	220.79	76.67	1000	
Nb	93	72	HMI He	-0.007	ppb	-133.82	60.00	200	
Mo	95	115	HMI He	0.002	ppb	5.72	20.00	2000	
Pd	105	115	HMI He	-0.017	ppb	-76.54	30.00	100	
Ag	107	115	HMI He	-0.002	ppb	-220.70	6.67	100	
Cd	111	115	HMI He	-0.007	ppb	0.00	0.00	2000	
Sn	120	115	HMI He	0.016	ppb	475.75	220.01	2000	
Sb	121	115	HMI He	0.014	ppb	88.10	36.67	1000	
Ba	137	115	HMI He	0.027	ppb	210.50	20.00	5000	
W	182	165	HMI He	0.008	ppb	126.76	983.38	100	
Pt	195	165	HMI He	0.002	ppb	255.00	43.33	100	
Tl	205	165	HMI He	0.000	ppb	-353.66	80.00	2000	
Pb	208	165	HMI He	0.056	ppb	13.74	1176.71	5000	
Th	232	165	HMI He	-0.001	ppb	-372.86	130.00	2000	
U	238	165	HMI He	0.001	ppb	289.55	50.00	2000	
Li	7	45	No Gas	25.125	ppb	17.98	3027247.99	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	680456.85	1.15	778537.766666667	87.4	60	125	
Ge Internal Standard	72	HMI H2	14218403.11	2.81	16469376.85	86.33	60	125	
Sc (IS)	45	HMI He	801855.04	0.86	886708.46	90.43	60	125	
Ge Internal Standard	72	HMI He	1100642.58	0.88	1231349.44333333	89.39	60	125	
In Internal standard	115	HMI He	3019148.81	0.65	3417335.03333333	88.35	60	125	
Ho-165	165	HMI He	14720872.35	0.66	17125073.6866667	85.96	60	125	
Sc IS)	45	No Gas	50433630.29	0.31	44731908.9166667	112.75	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	274CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:22:04 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	96934.40	ppb	0.90
Be	9	6	HMI H2	3.33	ppb	173.21
B	11	6	HMI H2	136.67	ppb	18.41
Se	78	72	HMI H2	25.33	ppb	39.74
Na	23	45	HMI He	8058.68	ppb	4.34
Mg	24	45	HMI He	330.01	ppb	19.87
Al	27	45	HMI He	76.67	ppb	45.81
K	39	45	HMI He	30631.89	ppb	3.95
Ca	44	45	HMI He	53.33	ppb	28.64
V	51	72	HMI He	1003.37	ppb	31.93
Cr	52	72	HMI He	210.01	ppb	34.34
Mn	55	72	HMI He	50.00	ppb	52.92
Fe	57	72	HMI He	66.67	ppb	31.22
Co	59	72	HMI He	13.33	ppb	114.56
Ni	60	72	HMI He	376.68	ppb	25.09
Cu	63	72	HMI He	1190.06	ppb	5.88
Zn	66	72	HMI He	263.34	ppb	28.76
As	75	72	HMI He	24.18	ppb	28.46
Zr	90	72	HMI He	123.33	ppb	44.66
Nb	93	72	HMI He	70.00	ppb	62.27
Mo	95	115	HMI He	23.33	ppb	65.47
Pd	105	115	HMI He	26.67	ppb	78.06
Ag	107	115	HMI He	13.33	ppb	86.60
Sn	120	115	HMI He	206.67	ppb	31.48
Sb	121	115	HMI He	26.67	ppb	21.65
Ba	137	115	HMI He	6.67	ppb	173.21
W	182	165	HMI He	840.04	ppb	10.91
Pt	195	165	HMI He	46.67	ppb	12.37
Tl	205	165	HMI He	103.33	ppb	24.35
Pb	208	165	HMI He	1373.38	ppb	4.68
Th	232	165	HMI He	156.67	ppb	14.74
U	238	165	HMI He	53.33	ppb	39.03
Li	7	45	No Gas	3021283.07	ppb	2.27

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	677045.62	1.55
Ge Internal Standard	72	HMI H2	14473454.25	0.58
Sc (IS)	45	HMI He	796963.27	0.40
Ge Internal Standard	72	HMI He	1098224.49	0.62
In Internal standard	115	HMI He	3046117.20	1.86
Ho-165	165	HMI He	14305382.69	0.54
Sc IS)	45	No Gas	50351432.79	3.04

Calibration Standard Report

Sample Name	IC-4905894
File Name	275CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:25:38 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	378044.86	ppb	3.14
Be	9	6	HMI H2	36156.60	ppb	2.30
B	11	6	HMI H2	31472.91	ppb	3.21
Se	78	72	HMI H2	33258.21	ppb	2.61
Na	23	45	HMI He	1859154.74	ppb	1.48
Mg	24	45	HMI He	783255.66	ppb	1.39
Al	27	45	HMI He	183547.60	ppb	1.09
K	39	45	HMI He	476071.60	ppb	0.24
Ca	44	45	HMI He	24505.15	ppb	2.99
V	51	72	HMI He	108531.88	ppb	1.15
Cr	52	72	HMI He	143017.33	ppb	2.68
Mn	55	72	HMI He	50601.38	ppb	0.63
Fe	57	72	HMI He	257751.34	ppb	0.62
Co	59	72	HMI He	258608.62	ppb	0.12
Ni	60	72	HMI He	74345.60	ppb	2.33
Cu	63	72	HMI He	205308.04	ppb	0.73
Zn	66	72	HMI He	26718.78	ppb	0.49
As	75	72	HMI He	19802.95	ppb	1.72
Sr	88	45	HMI He	52740.28	ppb	1.78
Zr	90	72	HMI He	226.67	ppb	38.55
Nb	93	72	HMI He	782924.54	ppb	1.06
Mo	95	115	HMI He	95029.08	ppb	0.95
Pd	105	115	HMI He	146754.35	ppb	1.42
Ag	107	115	HMI He	320529.38	ppb	1.52
Cd	111	115	HMI He	38647.53	ppb	1.20
Sn	120	115	HMI He	99669.87	ppb	1.72
Sb	121	115	HMI He	94048.88	ppb	0.68
Ba	137	115	HMI He	29919.22	ppb	2.89
W	182	165	HMI He	389584.03	ppb	0.80
Pt	195	165	HMI He	313218.73	ppb	1.72
Tl	205	165	HMI He	679547.24	ppb	0.93
Pb	208	165	HMI He	888777.11	ppb	0.75
Th	232	165	HMI He	980189.88	ppb	0.39
U	238	165	HMI He	1058358.20	ppb	0.69
Li	7	45	No Gas	11150721.19	ppb	1.84

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	669225.60	4.18	677045.616666667	98.84	60	125	
Ge Internal Standard	72	HMI H2	14179676.97	0.96	14473454.2466667	97.97	60	125	
Sc (IS)	45	HMI He	789964.21	1.88	796963.27	99.12	60	125	
Ge Internal Standard	72	HMI He	1090664.88	0.87	1098224.49	99.31	60	125	
In Internal standard	115	HMI He	2966592.32	2.27	3046117.2	97.39	60	125	
Ho-165	165	HMI He	14627198.82	0.81	14305382.6933333	102.25	60	125	
Sc IS)	45	No Gas	50102721.97	2.54	50351432.79	99.51	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	276_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:29:32 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	552.922	ppb	7.38	247346.35	500	110.58	90	110	>+\-10%
Be	9	6	HMI H2	48.495	ppb	5.23	17901.12	50	96.99	90	110	
B	11	6	HMI H2	50.630	ppb	4.95	16378.11	50	101.26	90	110	
Se	78	72	HMI H2	52.043	ppb	2.80	17271.93	50	104.09	90	110	
Na	23	45	HMI He	4864.383	ppb	0.49	912092.05	5000	97.29	90	110	
Mg	24	45	HMI He	5060.164	ppb	1.11	398086.08	5000	101.2	90	110	
Al	27	45	HMI He	5188.503	ppb	1.30	95651.24	5000	103.77	90	110	
K	39	45	HMI He	5082.265	ppb	1.16	257952.61	5000	101.65	90	110	
Ca	44	45	HMI He	5235.394	ppb	5.19	12905.17	5000	104.71	90	110	
V	51	72	HMI He	51.813	ppb	2.84	56610.78	50	103.63	90	110	
Cr	52	72	HMI He	50.033	ppb	1.50	71528.40	50	100.07	90	110	
Mn	55	72	HMI He	50.364	ppb	1.27	25463.44	50	100.73	90	110	
Fe	57	72	HMI He	5011.947	ppb	0.89	128987.39	5000	100.24	90	110	
Co	59	72	HMI He	50.725	ppb	1.06	130959.91	50	101.45	90	110	
Ni	60	72	HMI He	50.591	ppb	0.70	37727.02	50	101.18	90	110	
Cu	63	72	HMI He	51.388	ppb	0.77	105888.51	50	102.78	90	110	
Zn	66	72	HMI He	54.757	ppb	3.00	14723.53	50	109.51	90	110	
As	75	72	HMI He	52.145	ppb	2.56	10320.29	50	104.29	90	110	
Sr	88	45	HMI He	51.314	ppb	3.45	27183.50	50	102.63	90	110	
Zr	90	72	HMI He	131.948	ppb	77.22	260.00	50	263.9	90	110	>+\-10%
Nb	93	72	HMI He	103.129	ppb	0.88	403044.75	100	103.13	90	110	
Mo	95	115	HMI He	51.977	ppb	1.02	49507.36	50	103.95	90	110	
Pd	105	115	HMI He	51.757	ppb	3.58	76105.97	50	103.51	90	110	
Ag	107	115	HMI He	51.445	ppb	1.96	165280.75	50	102.89	90	110	
Cd	111	115	HMI He	51.916	ppb	4.45	20099.74	50	103.83	90	110	
Sn	120	115	HMI He	51.622	ppb	2.12	51642.02	50	103.24	90	110	
Sb	121	115	HMI He	53.022	ppb	3.40	49970.21	50	106.04	90	110	
Ba	137	115	HMI He	50.982	ppb	4.42	15281.08	50	101.96	90	110	
W	182	165	HMI He	51.790	ppb	2.48	197630.63	50	103.58	90	110	
Pt	195	165	HMI He	52.390	ppb	1.48	160407.75	50	104.78	90	110	
Tl	205	165	HMI He	52.362	ppb	3.14	347763.89	50	104.72	90	110	
Pb	208	165	HMI He	52.113	ppb	2.62	453285.52	50	104.23	90	110	
Th	232	165	HMI He	51.553	ppb	4.43	493761.90	50	103.11	90	110	
U	238	165	HMI He	51.095	ppb	4.36	528332.56	50	102.19	90	110	
Li	7	45	No Gas	528.375	ppb	4.31	7289634.72	500	105.68	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	683149.99	3.28	677045.616666667	100.9	60	125	
Ge Internal Standard	72	HMI H2	14147369.57	2.34	14473454.2466667	97.75	60	125	
Sc (IS)	45	HMI He	793065.52	0.38	796963.27	99.51	60	125	
Ge Internal Standard	72	HMI He	1088710.80	0.33	1098224.49	99.13	60	125	
In Internal standard	115	HMI He	2971773.79	1.15	3046117.2	97.56	60	125	
Ho-165	165	HMI He	14300512.17	2.63	14305382.6933333	99.97	60	125	
Sc IS)	45	No Gas	49967055.31	1.28	50351432.79	99.24	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	277_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:33:07 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	25.188	ppb	24.02	100230.09	0.1	>RL
Be	9	6	HMI H2	0.096	ppb	64.80	38.33	0.5	
B	11	6	HMI H2	2.235	ppb	21.44	843.36	0.1	>RL
Se	78	72	HMI H2	0.029	ppb	196.62	34.67	1	
Na	23	45	HMI He	3.843	ppb	55.00	8598.95	25	
Mg	24	45	HMI He	-0.651	ppb	-215.51	273.34	25	
Al	27	45	HMI He	-0.455	ppb	-432.71	66.67	15	
K	39	45	HMI He	21.549	ppb	134.86	30959.12	50	
Ca	44	45	HMI He	-6.553	ppb	-236.26	36.67	25	
V	51	72	HMI He	0.106	ppb	9.80	1106.72	1	
Cr	52	72	HMI He	0.021	ppb	223.86	236.67	1	
Mn	55	72	HMI He	-0.012	ppb	-665.45	43.33	0.5	
Fe	57	72	HMI He	2.362	ppb	67.78	126.67	25	
Co	59	72	HMI He	0.010	ppb	65.13	40.00	0.5	
Ni	60	72	HMI He	-0.048	ppb	-228.40	336.68	1	
Cu	63	72	HMI He	-0.064	ppb	-119.37	1046.72	1	
Zn	66	72	HMI He	0.152	ppb	177.58	300.01	5	
As	75	72	HMI He	0.035	ppb	20.03	30.72	1	
Sr	88	45	HMI He	0.013	ppb	86.61	6.67	1	
Zr	90	72	HMI He	-27.421	ppb	-166.38	93.33	1	
Nb	93	72	HMI He	0.343	ppb	19.46	1406.75	2	
Mo	95	115	HMI He	0.064	ppb	11.23	83.33	0.5	
Pd	105	115	HMI He	0.050	ppb	22.35	100.00	1	
Ag	107	115	HMI He	0.013	ppb	30.74	53.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.013	ppb	314.78	216.67	1	
Sb	121	115	HMI He	0.545	ppb	10.75	540.02	1	
Ba	137	115	HMI He	0.023	ppb	168.49	13.33	0.5	
W	182	165	HMI He	0.087	ppb	71.26	1153.40	1	
Pt	195	165	HMI He	0.003	ppb	557.95	53.33	1	
Tl	205	165	HMI He	0.020	ppb	52.26	233.34	0.1	
Pb	208	165	HMI He	-0.028	ppb	-70.85	1110.03	0.5	
Th	232	165	HMI He	0.018	ppb	26.86	326.68	1	
U	238	165	HMI He	0.013	ppb	22.04	186.67	0.5	
Li	7	45	No Gas	0.071	ppb	4858.63	2970823.93	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	673190.48	2.60	677045.616666667	99.43	60	125	
Ge Internal Standard	72	HMI H2	14105511.24	2.82	14473454.2466667	97.46	60	125	
Sc (IS)	45	HMI He	780918.05	0.90	796963.27	97.99	60	125	
Ge Internal Standard	72	HMI He	1085766.52	0.87	1098224.49	98.87	60	125	
In Internal standard	115	HMI He	2979405.58	1.88	3046117.2	97.81	60	125	
Ho-165	165	HMI He	14083058.64	0.73	14305382.6933333	98.45	60	125	
Sc IS)	45	No Gas	49491398.67	1.15	50351432.79	98.29	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	278LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:36:40 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.906	ppb	4.97	340.00	1	90.61	70	130	
Se	78	72	HMI H2	4.980	ppb	6.49	1681.43	5	99.6	70	130	
Na	23	45	HMI He	57.488	ppb	3.75	18553.78	50	114.98	70	130	
Mg	24	45	HMI He	47.449	ppb	9.45	4023.87	50	94.9	70	130	
Al	27	45	HMI He	34.890	ppb	20.17	713.36	30	116.3	70	130	
K	39	45	HMI He	111.764	ppb	18.03	35194.38	100	111.76	70	130	
Ca	44	45	HMI He	41.202	ppb	71.32	153.34	50	82.4	70	130	
V	51	72	HMI He	4.782	ppb	4.86	6107.87	5	95.64	70	130	
Cr	52	72	HMI He	1.925	ppb	8.58	2940.30	2	96.23	70	130	
Mn	55	72	HMI He	1.101	ppb	21.12	603.35	1	110.07	70	130	
Fe	57	72	HMI He	55.309	ppb	5.02	1483.42	50	110.62	70	130	
Co	59	72	HMI He	1.001	ppb	4.94	2586.90	1	100.06	70	130	
Ni	60	72	HMI He	1.914	ppb	3.44	1780.13	2	95.72	70	130	
Cu	63	72	HMI He	1.915	ppb	4.51	5064.18	2	95.76	70	130	
Zn	66	72	HMI He	10.067	ppb	10.24	2910.30	10	100.67	70	130	
As	75	72	HMI He	5.059	ppb	4.31	1018.99	5	101.18	70	130	
Sr	88	45	HMI He	0.876	ppb	29.26	460.01	1	87.65	70	130	
Zr	90	72	HMI He	27.036	ppb	92.92	150.00	0.5	5407.27	70	130	>+/-30%
Nb	93	72	HMI He	0.376	ppb	12.82	1533.43	2	18.81	70	130	>+/-30%
Mo	95	115	HMI He	1.942	ppb	9.31	1910.15	2	97.12	70	130	
Pd	105	115	HMI He	0.035	ppb	48.93	80.00	1	3.54	70	130	>+/-30%
Ag	107	115	HMI He	4.887	ppb	4.61	16028.34	5	97.73	70	130	
Cd	111	115	HMI He	0.852	ppb	6.38	336.68	1	85.24	70	130	
Sn	120	115	HMI He	9.471	ppb	6.15	9833.17	10	94.71	70	130	
Sb	121	115	HMI He	2.261	ppb	2.63	2200.19	2	113.07	70	130	
Ba	137	115	HMI He	1.026	ppb	39.29	320.01	1	102.57	70	130	
W	182	165	HMI He	5.010	ppb	4.73	19633.12	1	501.01	70	130	>+/-30%
Pt	195	165	HMI He	0.023	ppb	65.50	116.67	1	2.35	70	130	>+/-30%
Tl	205	165	HMI He	1.036	ppb	2.22	6898.37	1	103.59	70	130	
Pb	208	165	HMI He	1.116	ppb	5.31	10918.46	1	111.62	70	130	
Th	232	165	HMI He	2.026	ppb	3.39	19323.11	2	101.28	70	130	
U	238	165	HMI He	1.027	ppb	5.38	10540.68	1	102.65	70	130	
Li	7	45	No Gas	23.396	ppb	18.12	3112299.45	50	46.79	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	686985.85	0.88	677045.616666667	101.47	60	125	
Ge Internal Standard	72	HMI H2	14192990.09	2.73	14473454.2466667	98.06	60	125	
Sc (IS)	45	HMI He	786664.92	0.70	796963.27	98.71	60	125	
Ge Internal Standard	72	HMI He	1084707.63	0.73	1098224.49	98.77	60	125	
In Internal standard	115	HMI He	3031785.19	0.60	3046117.2	99.53	60	125	
Ho-165	165	HMI He	14126633.85	1.20	14305382.6933333	98.75	60	125	
Sc IS)	45	No Gas	48772429.54	1.72	50351432.79	96.86	60	120	

Blank Report

Sample Name	mb 280-399895/1-a
File Name	279_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:40:14 AM
Sample Type	Blank
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	12.368	ppb	73.36	93907.73	0.1	>DL
Be	9	6	HMI H2	0.010	ppb	83.43	6.67	0.5	
Se	78	72	HMI H2	0.022	ppb	268.65	30.67	1	
Na	23	45	HMI He	79.846	ppb	1.08	22158.10	25	>DL
Mg	24	45	HMI He	14.809	ppb	1.75	1446.75	25	
Al	27	45	HMI He	5.003	ppb	90.86	163.34	15	
K	39	45	HMI He	14.269	ppb	227.14	30161.02	50	
Ca	44	45	HMI He	58.360	ppb	39.67	190.00	25	>DL
V	51	72	HMI He	-0.247	ppb	-5.01	706.69	1	
Cr	52	72	HMI He	0.488	ppb	6.99	873.37	1	
Mn	55	72	HMI He	0.099	ppb	101.76	96.67	0.5	
Fe	57	72	HMI He	8.153	ppb	39.58	266.67	25	
Co	59	72	HMI He	0.019	ppb	113.53	60.00	0.5	
Ni	60	72	HMI He	0.385	ppb	69.08	636.69	1	
Cu	63	72	HMI He	-0.034	ppb	-169.40	1073.38	1	
Zn	66	72	HMI He	0.445	ppb	99.02	366.68	5	
As	75	72	HMI He	-0.001	ppb	-5176.75	22.87	1	
Sr	88	45	HMI He	0.273	ppb	6.62	140.00	1	
Zr	90	72	HMI He	58.040	ppb	41.15	176.67	1	>DL
Nb	93	72	HMI He	0.083	ppb	24.37	380.01	2	
Mo	95	115	HMI He	0.174	ppb	41.25	183.34	0.5	
Pd	105	115	HMI He	0.022	ppb	103.31	56.67	1	
Ag	107	115	HMI He	0.007	ppb	139.54	33.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	8.267	ppb	6.10	8212.25	1	>DL
Sb	121	115	HMI He	0.132	ppb	8.30	146.67	1	
Ba	137	115	HMI He	0.412	ppb	10.69	126.67	0.5	
W	182	165	HMI He	0.174	ppb	11.01	1470.10	1	
Pt	195	165	HMI He	0.107	ppb	11.93	366.68	1	
Tl	205	165	HMI He	-0.001	ppb	-367.14	93.33	0.1	
Pb	208	165	HMI He	0.105	ppb	21.69	2236.77	0.5	
Th	232	165	HMI He	0.022	ppb	29.22	360.01	1	
U	238	165	HMI He	0.007	ppb	69.85	123.33	0.5	
Li	7	45	No Gas	9.493	ppb	59.51	2905263.52	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	639607.21	2.38	677045.616666667	94.47	60	125	
Ge Internal Standard	72	HMI H2	13587823.77	1.47	14473454.2466667	93.88	60	125	
Sc (IS)	45	HMI He	768778.45	1.20	796963.27	96.46	60	125	
Ge Internal Standard	72	HMI He	1052165.31	1.53	1098224.49	95.81	60	125	
In Internal standard	115	HMI He	2893559.65	2.09	3046117.2	94.99	60	125	
Ho-165	165	HMI He	14011352.60	2.24	14305382.6933333	97.94	60	125	
Sc IS)	45	No Gas	47193507.96	0.13	50351432.79	93.73	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399895/2-a
File Name	280LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:43:49 AM
Sample Type	LCS-s
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	200.942	ppb	0.36	69584.83	200	100.47	80	120	
Mg	24	45	HMI H2	23.804	ppb	2.75	74468.04	200	11.9	80	120	NewName Main CR1 Failed
Se	78	72	HMI H2	198.543	ppb	0.79	63549.89	200	99.27	80	120	
(Se)	82	72	HMI H2	206.538	ppb	3.34	26538.81	200	103.27	80	120	
Na	23	45	HMI He	98.020	ppb	2.65	25199.11	200	49.01	80	120	NewName Main CR1 Failed
Mg	24	45	HMI He	25.703	ppb	6.47	2256.85	200000	0.01	80	120	NewName Main CR1 Failed
Al	27	45	HMI He	2131.535	ppb	0.74	37789.48	200000	1.07	80	120	NewName Main CR1 Failed
K	39	45	HMI He	19.847	ppb	105.35	30127.60	200000	0.01	80	120	NewName Main CR1 Failed
Ca	44	45	HMI He	1395.761	ppb	6.48	3343.73	200000	0.7	80	120	NewName Main CR1 Failed
V	51	72	HMI He	205.609	ppb	0.94	213744.06	200	102.8	80	120	
Cr	52	72	HMI He	207.876	ppb	1.97	285861.28	200	103.94	80	120	
(Cr)	53	72	HMI He	210.869	ppb	1.73	35288.12	200	105.43	80	120	
Mn	55	72	HMI He	208.078	ppb	0.68	101280.69	200	104.04	80	120	
Fe	57	72	HMI He	2109.971	ppb	0.34	52390.70	200000	1.05	80	120	NewName Main CR1 Failed
Co	59	72	HMI He	209.913	ppb	1.85	522430.91	200	104.96	80	120	
Ni	60	72	HMI He	209.259	ppb	1.54	149310.41	200	104.63	80	120	
Cu	63	72	HMI He	205.521	ppb	1.18	404897.45	200	102.76	80	120	
Zn	66	72	HMI He	211.411	ppb	2.15	54089.98	200	105.71	80	120	
As	75	72	HMI He	200.540	ppb	2.30	38204.99	200	100.27	80	120	
Sr	88	45	HMI He	201.372	ppb	2.06	102452.90	200	100.69	80	120	
Nb	93	72	HMI He	0.103	ppb	27.80	453.35	400	0.03	80	120	NewName Main CR1 Failed
Mo	95	115	HMI He	207.494	ppb	3.27	195794.00	200	103.75	80	120	
Pd	105	115	HMI He	0.012	ppb	217.11	43.33	200	0.01	80	120	NewName Main CR1 Failed
Ag	107	115	HMI He	200.451	ppb	3.14	638241.94	200	100.23	80	120	
Cd	111	115	HMI He	196.632	ppb	1.09	75477.15	200	98.32	80	120	
(Cd)	114	115	HMI He	200.557	ppb	2.54	195723.86	200	100.28	80	120	
Sn	120	115	HMI He	214.110	ppb	1.64	211738.99	200	107.06	80	120	
Sb	121	115	HMI He	207.636	ppb	4.03	193896.33	200	103.82	80	110	
Ba	137	115	HMI He	202.730	ppb	2.30	60220.52	200	101.37	80	120	
W	182	165	HMI He	219.300	ppb	1.39	820580.41	200	109.65	80	120	
Pt	195	165	HMI He	0.100	ppb	24.53	346.68	200	0.05	80	120	NewName Main CR1 Failed
Tl	205	165	HMI He	207.586	ppb	3.64	1356021.40	200	103.79	80	120	
(Pb)	206	165	HMI He	211.034	ppb	2.28	430052.18	200	105.52	80	120	
(Pb)	207	165	HMI He	209.708	ppb	0.71	395737.20	200	104.85	80	120	
Pb	208	165	HMI He	206.580	ppb	2.06	1763928.29	200	103.29	80	120	

Laboratory Control Sample (LCS) Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	219.591	ppb	2.49	2069371.25	200	109.8	80	120	
U	238	165	HMI He	217.877	ppb	2.78	2216982.33	200	108.94	80	120	
Li	7	45	No Gas	215.305	ppb	4.47	4570804.76	2000	10.77	80	120	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	640244.15	1.43	677045.616666667	94.56	60	125	
Ge Internal Standard	72	HMI H2	13654219.70	1.95	14473454.2466667	94.34	60	125	
Sc (IS)	45	HMI He	761824.26	1.18	796963.27	95.59	60	125	
Ge Internal Standard	72	HMI He	1049647.06	0.64	1098224.49	95.58	60	125	
In Internal standard	115	HMI He	2946213.01	1.59	3046117.2	96.72	60	125	
Ho-165	165	HMI He	14066484.16	1.33	14305382.6933333	98.33	60	125	
Sc IS)	45	No Gas	48107378.32	1.29	50351432.79	95.54	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcsd 280-399895/3-a
File Name	281LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:47:23 AM
Sample Type	LCS-s
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	209.478	ppb	2.95	73271.72	200	104.74	80	120	
Mg	24	45	HMI H2	20.187	ppb	3.80	63590.23	200	10.09	80	120	NewName Main CR1 Failed
Se	78	72	HMI H2	208.413	ppb	4.01	65852.37	200	104.21	80	120	
(Se)	82	72	HMI H2	220.311	ppb	6.53	27917.84	200	110.16	80	120	
Na	23	45	HMI He	104.535	ppb	3.85	26561.17	200	52.27	80	120	NewName Main CR1 Failed
Mg	24	45	HMI He	19.974	ppb	17.18	1836.80	200000	0.01	80	120	NewName Main CR1 Failed
Al	27	45	HMI He	2203.957	ppb	2.79	39363.02	200000	1.1	80	120	NewName Main CR1 Failed
K	39	45	HMI He	-9.721	ppb	-425.45	29089.24	200000	0	80	120	NewName Main CR1 Failed
Ca	44	45	HMI He	1328.138	ppb	3.60	3207.03	200000	0.66	80	120	NewName Main CR1 Failed
V	51	72	HMI He	212.470	ppb	1.63	221703.89	200	106.24	80	120	
Cr	52	72	HMI He	214.099	ppb	2.44	295588.65	200	107.05	80	120	
(Cr)	53	72	HMI He	221.359	ppb	1.77	37168.86	200	110.68	80	120	
Mn	55	72	HMI He	216.030	ppb	2.04	105554.30	200	108.02	80	120	
Fe	57	72	HMI He	2231.169	ppb	0.76	55611.00	200000	1.12	80	120	NewName Main CR1 Failed
Co	59	72	HMI He	216.874	ppb	1.19	541841.90	200	108.44	80	120	
Ni	60	72	HMI He	215.316	ppb	1.73	154217.79	200	107.66	80	120	
Cu	63	72	HMI He	226.181	ppb	1.06	447201.67	200	113.09	80	120	
Zn	66	72	HMI He	224.385	ppb	0.26	57611.90	200	112.19	80	120	
As	75	72	HMI He	212.722	ppb	1.23	40676.32	200	106.36	80	120	
Sr	88	45	HMI He	216.457	ppb	1.15	110969.05	200	108.23	80	120	
Nb	93	72	HMI He	0.053	ppb	9.86	266.68	400	0.01	80	120	NewName Main CR1 Failed
Mo	95	115	HMI He	218.067	ppb	3.40	203516.10	200	109.03	80	120	
Pd	105	115	HMI He	0.012	ppb	173.33	43.33	200	0.01	80	120	NewName Main CR1 Failed
Ag	107	115	HMI He	212.681	ppb	1.82	669791.91	200	106.34	80	120	
Cd	111	115	HMI He	212.042	ppb	0.75	80492.17	200	106.02	80	120	
(Cd)	114	115	HMI He	212.541	ppb	2.00	205114.84	200	106.27	80	120	
Sn	120	115	HMI He	228.157	ppb	2.50	223055.22	200	114.08	80	120	
Sb	121	115	HMI He	217.586	ppb	2.52	200978.96	200	108.79	80	110	
Ba	137	115	HMI He	218.170	ppb	3.18	64093.02	200	109.08	80	120	
W	182	165	HMI He	230.045	ppb	2.20	872081.25	200	115.02	80	120	
Pt	195	165	HMI He	0.108	ppb	27.47	376.68	200	0.05	80	120	NewName Main CR1 Failed
Tl	205	165	HMI He	221.979	ppb	3.92	1469429.18	200	110.99	80	120	
(Pb)	206	165	HMI He	221.547	ppb	1.42	457416.95	200	110.77	80	120	
(Pb)	207	165	HMI He	222.536	ppb	3.86	425382.96	200	111.27	80	120	
Pb	208	165	HMI He	219.428	ppb	1.33	1898205.07	200	109.71	80	120	

Laboratory Control Sample (LCS) Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	227.037	ppb	2.27	2167704.13	200	113.52	80	120	
U	238	165	HMI He	223.427	ppb	2.93	2303449.54	200	111.71	80	120	
Li	7	45	No Gas	232.976	ppb	7.48	4754002.41	2000	11.65	80	120	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	646975.67	2.58	677045.616666667	95.56	60	125	
Ge Internal Standard	72	HMI H2	13487431.07	2.68	14473454.2466667	93.19	60	125	
Sc (IS)	45	HMI He	767568.52	0.74	796963.27	96.31	60	125	
Ge Internal Standard	72	HMI He	1053713.43	0.44	1098224.49	95.95	60	125	
In Internal standard	115	HMI He	2913495.58	1.26	3046117.2	95.65	60	125	
Ho-165	165	HMI He	14249319.36	0.34	14305382.6933333	99.61	60	125	
Sc IS)	45	No Gas	48573884.97	1.06	50351432.79	96.47	60	120	

Sample Report

Sample Name	280-104412-a-1-k@50
File Name	282SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:50:59 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.398	ppb	8.56	150.00	2000	
B	11	6	HMI H2	9.036	ppb	6.74	3026.97	100	
Se	78	72	HMI H2	0.209	ppb	28.02	93.33	2000	
Na	23	45	HMI He	37.163	ppb	13.50	14913.44	400000	
Mg	24	45	HMI He	5977.121	ppb	0.79	469894.88	400000	
Al	27	45	HMI He	3481.538	ppb	2.69	64165.95	400000	
K	39	45	HMI He	770.994	ppb	6.20	64943.11	400000	
Ca	44	45	HMI He	35593.509	ppb	2.40	87369.66	400000	
V	51	72	HMI He	5.469	ppb	7.49	6771.47	2000	
Cr	52	72	HMI He	6.514	ppb	4.00	9359.50	5000	
Mn	55	72	HMI He	88.361	ppb	0.35	44005.83	10000	
Fe	57	72	HMI He	3351.974	ppb	0.74	85070.56	400000	
Co	59	72	HMI He	1.382	ppb	2.47	3530.43	2000	
Ni	60	72	HMI He	3.624	ppb	15.58	3003.67	5000	
Cu	63	72	HMI He	8.849	ppb	2.24	18937.87	5000	
Zn	66	72	HMI He	14.848	ppb	3.87	4123.91	5000	
As	75	72	HMI He	1.433	ppb	7.06	302.62	2000	
Sr	88	45	HMI He	74.167	ppb	1.53	39265.08	2000	
Zr	90	72	HMI He	4354.869	ppb	4.89	4604.07	1000	
Nb	93	72	HMI He	0.098	ppb	37.23	446.68	200	
Mo	95	115	HMI He	0.312	ppb	6.56	326.68	2000	
Pd	105	115	HMI He	0.025	ppb	115.11	63.33	100	
Ag	107	115	HMI He	0.051	ppb	35.29	180.00	100	
Cd	111	115	HMI He	0.261	ppb	2.91	103.33	2000	
Sn	120	115	HMI He	0.134	ppb	84.39	343.34	2000	
Sb	121	115	HMI He	0.166	ppb	31.53	186.67	1000	
Ba	137	115	HMI He	33.938	ppb	5.91	10390.30	5000	
W	182	165	HMI He	0.190	ppb	15.15	1560.09	100	
Pt	195	165	HMI He	0.003	ppb	315.34	56.67	100	
Tl	205	165	HMI He	0.139	ppb	21.88	1030.05	2000	
Pb	208	165	HMI He	177.700	ppb	2.83	1541572.75	5000	
Th	232	165	HMI He	1.739	ppb	6.03	16810.01	2000	
U	238	165	HMI He	0.335	ppb	4.54	3517.14	2000	
Li	7	45	No Gas	9.929	ppb	84.17	3078947.63	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	681653.58	0.54	677045.616666667	100.68	60	125	
Ge Internal Standard	72	HMI H2	14057740.83	0.89	14473454.2466667	97.13	60	125	
Sc (IS)	45	HMI He	792659.84	1.03	796963.27	99.46	60	125	
Ge Internal Standard	72	HMI He	1073307.77	0.85	1098224.49	97.73	60	125	
In Internal standard	115	HMI He	3036018.89	2.71	3046117.2	99.67	60	125	
Ho-165	165	HMI He	14292192.59	1.98	14305382.6933333	99.91	60	125	
Sc IS)	45	No Gas	49957454.89	0.65	50351432.79	99.22	60	120	

Sample Report

Sample Name	280-104412-a-1-kSD@250
File Name	283SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:54:34 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.092	ppb	50.48	36.67	2000	
B	11	6	HMI H2	3.286	ppb	9.55	1166.72	100	
Se	78	72	HMI H2	0.008	ppb	703.04	26.67	2000	
Na	23	45	HMI He	2.648	ppb	101.42	8362.20	400000	
Mg	24	45	HMI He	1180.402	ppb	0.79	91477.91	400000	
Al	27	45	HMI He	683.875	ppb	2.80	12451.42	400000	
K	39	45	HMI He	154.284	ppb	19.46	36727.48	400000	
Ca	44	45	HMI He	6840.692	ppb	1.34	16548.47	400000	
V	51	72	HMI He	1.089	ppb	8.74	2140.17	2000	
Cr	52	72	HMI He	1.456	ppb	13.57	2256.85	5000	
Mn	55	72	HMI He	17.701	ppb	5.04	8875.81	10000	
Fe	57	72	HMI He	630.879	ppb	3.12	16104.69	400000	
Co	59	72	HMI He	0.265	ppb	11.45	690.03	2000	
Ni	60	72	HMI He	0.664	ppb	22.00	853.37	5000	
Cu	63	72	HMI He	1.687	ppb	14.70	4560.70	5000	
Zn	66	72	HMI He	2.805	ppb	9.64	990.04	5000	
As	75	72	HMI He	0.233	ppb	43.54	69.28	2000	
Sr	88	45	HMI He	14.916	ppb	6.25	7761.98	2000	
Zr	90	72	HMI He	856.393	ppb	33.21	1006.71	1000	
Nb	93	72	HMI He	0.027	ppb	95.59	173.34	200	
Mo	95	115	HMI He	0.157	ppb	10.88	170.00	2000	
Pd	105	115	HMI He	-0.011	ppb	-61.83	10.00	100	
Ag	107	115	HMI He	0.014	ppb	14.50	56.67	100	
Cd	111	115	HMI He	0.017	ppb	173.21	6.67	2000	
Sn	120	115	HMI He	0.017	ppb	128.90	216.67	2000	
Sb	121	115	HMI He	0.048	ppb	62.60	70.00	1000	
Ba	137	115	HMI He	7.315	ppb	2.37	2166.86	5000	
W	182	165	HMI He	0.049	ppb	99.77	1013.38	100	
Pt	195	165	HMI He	0.000	ppb	5025.78	46.67	100	
Tl	205	165	HMI He	0.016	ppb	39.77	210.00	2000	
Pb	208	165	HMI He	35.452	ppb	0.95	305215.32	5000	
Th	232	165	HMI He	0.330	ppb	7.42	3277.10	2000	
U	238	165	HMI He	0.059	ppb	9.56	660.03	2000	
Li	7	45	No Gas	10.987	ppb	110.60	3119860.72	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	669746.31	3.05	677045.616666667	98.92	60	125	
Ge Internal Standard	72	HMI H2	13707886.78	0.20	14473454.2466667	94.71	60	125	
Sc (IS)	45	HMI He	779150.73	0.59	796963.27	97.76	60	125	
Ge Internal Standard	72	HMI He	1076134.56	0.83	1098224.49	97.99	60	125	
In Internal standard	115	HMI He	2928356.24	1.77	3046117.2	96.13	60	125	
Ho-165	165	HMI He	14128709.89	1.10	14305382.6933333	98.76	60	125	
Sc IS)	45	No Gas	50485727.37	1.29	50351432.79	100.27	60	120	

Sample Report

Sample Name	280-104412-a-1-I ms@50
File Name	284SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 3:58:08 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	3.075	ppb	9.93	1106.71	2000	
B	11	6	HMI H2	6.907	ppb	7.42	2283.52	100	
Se	78	72	HMI H2	2.878	ppb	3.85	969.37	2000	
Na	23	45	HMI He	40.890	ppb	16.16	15280.50	400000	
Mg	24	45	HMI He	5921.869	ppb	2.85	456070.95	400000	
Al	27	45	HMI He	3671.180	ppb	0.92	66320.59	400000	
K	39	45	HMI He	825.579	ppb	8.22	66014.23	400000	
Ca	44	45	HMI He	34143.173	ppb	2.09	82126.19	400000	
V	51	72	HMI He	8.576	ppb	6.01	10036.48	2000	
Cr	52	72	HMI He	9.835	ppb	3.66	13999.46	5000	
Mn	55	72	HMI He	88.456	ppb	1.66	43965.53	10000	
Fe	57	72	HMI He	3379.101	ppb	1.08	85586.21	400000	
Co	59	72	HMI He	4.591	ppb	1.85	11674.27	2000	
Ni	60	72	HMI He	6.414	ppb	6.41	5027.54	5000	
Cu	63	72	HMI He	11.170	ppb	4.17	23557.14	5000	
Zn	66	72	HMI He	18.424	ppb	7.02	5044.18	5000	
As	75	72	HMI He	4.355	ppb	9.64	869.96	2000	
Sr	88	45	HMI He	73.780	ppb	2.99	38276.00	2000	
Zr	90	72	HMI He	8691.529	ppb	5.63	9052.70	1000	>LDR
Nb	93	72	HMI He	0.077	ppb	14.68	363.34	200	
Mo	95	115	HMI He	3.160	ppb	3.68	3050.35	2000	
Pd	105	115	HMI He	-0.002	ppb	-686.63	23.33	100	
Ag	107	115	HMI He	2.921	ppb	5.43	9449.61	100	
Cd	111	115	HMI He	3.017	ppb	13.66	1173.40	2000	
Sn	120	115	HMI He	1.350	ppb	12.14	1556.77	2000	
Sb	121	115	HMI He	0.298	ppb	34.04	310.01	1000	
Ba	137	115	HMI He	37.530	ppb	3.08	11319.28	5000	
W	182	165	HMI He	1.186	ppb	7.80	5217.65	100	
Pt	195	165	HMI He	-0.009	ppb	-37.86	20.00	100	
Tl	205	165	HMI He	3.126	ppb	2.58	20364.32	2000	
Pb	208	165	HMI He	54.962	ppb	1.80	466674.52	5000	
Th	232	165	HMI He	4.814	ppb	3.08	45167.24	2000	
U	238	165	HMI He	3.346	ppb	0.88	33843.18	2000	
Li	7	45	No Gas	6.520	ppb	94.02	3016429.06	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	662854.08	2.35	677045.616666667	97.9	60	125	
Ge Internal Standard	72	HMI H2	14000634.37	2.87	14473454.2466667	96.73	60	125	
Sc (IS)	45	HMI He	776781.97	2.17	796963.27	97.47	60	125	
Ge Internal Standard	72	HMI He	1071217.89	0.51	1098224.49	97.54	60	125	
In Internal standard	115	HMI He	2990038.70	1.91	3046117.2	98.16	60	125	
Ho-165	165	HMI He	13957905.00	1.48	14305382.6933333	97.57	60	125	
Sc IS)	45	No Gas	49390983.68	0.87	50351432.79	98.09	60	120	

Sample Report

Sample Name	280-104412-a-1-m msd@50
File Name	285SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:01:41 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	3.639	ppb	6.85	1290.06	2000	
B	11	6	HMI H2	7.277	ppb	10.99	2363.54	100	
Se	78	72	HMI H2	3.233	ppb	5.63	1092.04	2000	
Na	23	45	HMI He	43.026	ppb	7.08	15790.88	400000	
Mg	24	45	HMI He	6074.274	ppb	1.98	471186.28	400000	
Al	27	45	HMI He	3865.903	ppb	5.28	70280.29	400000	
K	39	45	HMI He	885.153	ppb	8.23	69106.46	400000	
Ca	44	45	HMI He	35599.673	ppb	4.33	86203.98	400000	
V	51	72	HMI He	9.398	ppb	5.84	10897.09	2000	
Cr	52	72	HMI He	10.087	ppb	5.41	14336.42	5000	
Mn	55	72	HMI He	93.559	ppb	2.85	46465.86	10000	
Fe	57	72	HMI He	3477.860	ppb	3.67	88012.32	400000	
Co	59	72	HMI He	4.716	ppb	4.20	11981.18	2000	
Ni	60	72	HMI He	6.838	ppb	5.61	5334.28	5000	
Cu	63	72	HMI He	13.368	ppb	4.47	27940.91	5000	
Zn	66	72	HMI He	18.273	ppb	1.77	5004.16	5000	
As	75	72	HMI He	4.527	ppb	2.13	902.64	2000	
Sr	88	45	HMI He	79.169	ppb	1.87	41360.30	2000	
Zr	90	72	HMI He	9233.209	ppb	5.43	9609.67	1000	>LDR
Nb	93	72	HMI He	0.101	ppb	16.57	456.68	200	
Mo	95	115	HMI He	3.299	ppb	12.98	3167.03	2000	
Pd	105	115	HMI He	0.018	ppb	167.61	53.33	100	
Ag	107	115	HMI He	3.069	ppb	2.91	9893.22	100	
Cd	111	115	HMI He	3.233	ppb	5.80	1256.73	2000	
Sn	120	115	HMI He	1.566	ppb	8.53	1763.46	2000	
Sb	121	115	HMI He	0.344	ppb	34.21	353.34	1000	
Ba	137	115	HMI He	39.292	ppb	4.44	11794.65	5000	
W	182	165	HMI He	1.269	ppb	3.10	5621.14	100	
Pt	195	165	HMI He	0.001	ppb	550.64	50.00	100	
Tl	205	165	HMI He	3.462	ppb	2.39	22938.06	2000	
Pb	208	165	HMI He	113.042	ppb	2.48	975133.42	5000	
Th	232	165	HMI He	5.154	ppb	0.48	49200.35	2000	
U	238	165	HMI He	3.690	ppb	3.70	37963.56	2000	
Li	7	45	No Gas	6.723	ppb	177.33	3039522.94	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	654229.41	1.58	677045.616666667	96.63	60	125	
Ge Internal Standard	72	HMI H2	14093149.99	0.68	14473454.2466667	97.37	60	125	
Sc (IS)	45	HMI He	782278.59	1.93	796963.27	98.16	60	125	
Ge Internal Standard	72	HMI He	1070721.30	1.72	1098224.49	97.5	60	125	
In Internal standard	115	HMI He	2978697.66	3.99	3046117.2	97.79	60	125	
Ho-165	165	HMI He	14203488.22	1.82	14305382.6933333	99.29	60	125	
Sc IS)	45	No Gas	49757761.99	1.85	50351432.79	98.82	60	120	

Sample Report

Sample Name	280-104412-a-1-kPDS@50
File Name	286SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:05:25 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	232.114	ppb	0.54	80860.63	2000	
B	11	6	HMI H2	4.180	ppb	6.48	1393.41	100	
Se	78	72	HMI H2	228.076	ppb	2.92	72543.72	2000	
Na	23	45	HMI He	50.561	ppb	7.78	16815.23	400000	
Mg	24	45	HMI He	5821.722	ppb	0.70	441960.12	400000	
Al	27	45	HMI He	5729.407	ppb	0.99	101944.86	400000	
K	39	45	HMI He	786.623	ppb	8.15	63380.65	400000	
Ca	44	45	HMI He	35293.590	ppb	0.78	83660.59	400000	
V	51	72	HMI He	232.708	ppb	1.82	240929.90	2000	
Cr	52	72	HMI He	231.583	ppb	0.51	317349.61	5000	
Mn	55	72	HMI He	307.646	ppb	1.20	149196.44	10000	
Fe	57	72	HMI He	5465.646	ppb	2.71	135136.71	400000	
Co	59	72	HMI He	220.839	ppb	1.49	547696.62	2000	
Ni	60	72	HMI He	223.633	ppb	1.77	158986.83	5000	
Cu	63	72	HMI He	231.335	ppb	0.15	454017.77	5000	
Zn	66	72	HMI He	251.060	ppb	1.59	63962.28	5000	
As	75	72	HMI He	223.595	ppb	0.60	42442.21	2000	
Sr	88	45	HMI He	288.167	ppb	1.00	147329.72	2000	
Zr	90	72	HMI He	340993.051	ppb	1.43	342329.33	1000	>LDR
Nb	93	72	HMI He	0.482	ppb	7.54	1876.80	200	
Mo	95	115	HMI He	223.241	ppb	2.98	206732.68	2000	
Pd	105	115	HMI He	0.012	ppb	140.37	43.33	100	
Ag	107	115	HMI He	55.804	ppb	2.05	174378.16	100	
Cd	111	115	HMI He	222.327	ppb	3.97	83719.18	2000	
Sn	120	115	HMI He	224.005	ppb	4.24	217273.57	2000	
Sb	121	115	HMI He	224.099	ppb	0.08	205410.02	1000	
Ba	137	115	HMI He	259.990	ppb	1.87	75782.03	5000	
W	182	165	HMI He	232.280	ppb	1.20	850703.93	100	
Pt	195	165	HMI He	0.037	ppb	17.95	153.33	100	
Tl	205	165	HMI He	239.362	ppb	2.48	1530666.18	2000	
Pb	208	165	HMI He	424.852	ppb	1.01	3549707.22	5000	
Th	232	165	HMI He	180.479	ppb	0.32	1665066.95	2000	
U	238	165	HMI He	243.102	ppb	0.65	2421699.07	2000	
Li	7	45	No Gas	244.005	ppb	6.50	5042098.28	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	644094.89	0.17	677045.616666667	95.13	60	125	
Ge Internal Standard	72	HMI H2	13572975.54	1.92	14473454.2466667	93.78	60	125	
Sc (IS)	45	HMI He	765429.81	1.33	796963.27	96.04	60	125	
Ge Internal Standard	72	HMI He	1045994.87	0.56	1098224.49	95.24	60	125	
In Internal standard	115	HMI He	2890712.54	1.02	3046117.2	94.9	60	125	
Ho-165	165	HMI He	13767828.76	0.98	14305382.6933333	96.24	60	125	
Sc IS)	45	No Gas	50592306.94	2.30	50351432.79	100.48	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	287_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:09:01 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	492.951	ppb	2.64	233849.30	500	98.59	90	110	
Be	9	6	HMI H2	51.810	ppb	1.95	17987.87	50	103.62	90	110	
B	11	6	HMI H2	54.231	ppb	4.91	16458.14	50	108.46	90	110	
Se	78	72	HMI H2	50.557	ppb	3.79	17027.71	50	101.11	90	110	
Na	23	45	HMI He	4857.207	ppb	0.64	886104.33	5000	97.14	90	110	
Mg	24	45	HMI He	4983.531	ppb	1.63	381431.43	5000	99.67	90	110	
Al	27	45	HMI He	5067.476	ppb	1.87	90888.69	5000	101.35	90	110	
K	39	45	HMI He	5010.277	ppb	1.09	247831.96	5000	100.21	90	110	
Ca	44	45	HMI He	5248.495	ppb	3.43	12588.25	5000	104.97	90	110	
V	51	72	HMI He	51.165	ppb	0.70	54242.67	50	102.33	90	110	
Cr	52	72	HMI He	50.924	ppb	0.91	70617.95	50	101.85	90	110	
Mn	55	72	HMI He	50.443	ppb	1.30	24738.80	50	100.89	90	110	
Fe	57	72	HMI He	5061.506	ppb	1.40	126374.11	5000	101.23	90	110	
Co	59	72	HMI He	51.639	ppb	0.25	129329.03	50	103.28	90	110	
Ni	60	72	HMI He	50.506	ppb	1.87	36544.32	50	101.01	90	110	
Cu	63	72	HMI He	51.146	ppb	2.08	102228.66	50	102.29	90	110	
Zn	66	72	HMI He	55.048	ppb	1.68	14356.56	50	110.1	90	110	>+\-10%
As	75	72	HMI He	52.760	ppb	0.88	10129.32	50	105.52	90	110	
Sr	88	45	HMI He	51.753	ppb	3.31	26672.47	50	103.51	90	110	
Zr	90	72	HMI He	96.348	ppb	48.44	216.67	50	192.7	90	110	>+\-10%
Nb	93	72	HMI He	104.118	ppb	1.64	394702.78	100	104.12	90	110	
Mo	95	115	HMI He	50.118	ppb	2.46	47227.02	50	100.24	90	110	
Pd	105	115	HMI He	51.382	ppb	2.76	74759.64	50	102.76	90	110	
Ag	107	115	HMI He	50.401	ppb	1.03	160247.14	50	100.8	90	110	
Cd	111	115	HMI He	50.806	ppb	3.47	19465.59	50	101.61	90	110	
Sn	120	115	HMI He	51.233	ppb	2.07	50712.46	50	102.47	90	110	
Sb	121	115	HMI He	50.274	ppb	2.15	46893.78	50	100.55	90	110	
Ba	137	115	HMI He	48.592	ppb	1.63	14416.96	50	97.18	90	110	
W	182	165	HMI He	51.742	ppb	3.01	197863.57	50	103.48	90	110	
Pt	195	165	HMI He	51.333	ppb	1.70	157496.55	50	102.67	90	110	
Tl	205	165	HMI He	50.913	ppb	0.68	338941.22	50	101.83	90	110	
Pb	208	165	HMI He	51.304	ppb	1.33	447291.54	50	102.61	90	110	
Th	232	165	HMI He	50.464	ppb	2.94	484567.36	50	100.93	90	110	
U	238	165	HMI He	51.275	ppb	0.37	531602.93	50	102.55	90	110	
Li	7	45	No Gas	547.142	ppb	3.98	7739183.14	500	109.43	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	641840.86	0.50	677045.616666667	94.8	60	125	
Ge Internal Standard	72	HMI H2	14352377.27	0.70	14473454.2466667	99.16	60	125	
Sc (IS)	45	HMI He	771604.04	0.83	796963.27	96.82	60	125	
Ge Internal Standard	72	HMI He	1056172.85	1.45	1098224.49	96.17	60	125	
In Internal standard	115	HMI He	2940731.32	1.44	3046117.2	96.54	60	125	
Ho-165	165	HMI He	14327775.40	0.98	14305382.6933333	100.16	60	125	
Sc IS)	45	No Gas	51969785.21	2.11	50351432.79	103.21	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	288_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:12:57 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	12.069	ppb	80.51	95864.49	0.1	>RL
Be	9	6	HMI H2	0.170	ppb	16.07	63.33	0.5	
B	11	6	HMI H2	2.466	ppb	13.51	890.04	0.1	>RL
Se	78	72	HMI H2	0.079	ppb	88.79	49.33	1	
Na	23	45	HMI He	-0.659	ppb	-344.81	7695.16	25	
Mg	24	45	HMI He	-0.650	ppb	-39.42	270.01	25	
Al	27	45	HMI He	-1.161	ppb	-193.44	53.33	15	
K	39	45	HMI He	1.164	ppb	1420.63	29743.69	50	
Ca	44	45	HMI He	-6.226	ppb	-156.99	36.67	25	
V	51	72	HMI He	0.111	ppb	27.20	1083.38	1	
Cr	52	72	HMI He	0.008	ppb	777.13	213.34	1	
Mn	55	72	HMI He	0.017	ppb	575.71	56.67	0.5	
Fe	57	72	HMI He	2.376	ppb	88.69	123.33	25	
Co	59	72	HMI He	0.020	ppb	74.55	63.33	0.5	
Ni	60	72	HMI He	-0.060	ppb	-134.02	320.01	1	
Cu	63	72	HMI He	-0.123	ppb	-5.32	903.37	1	
Zn	66	72	HMI He	0.025	ppb	148.81	260.01	5	
As	75	72	HMI He	0.001	ppb	854.65	23.53	1	
Sr	88	45	HMI He	0.052	ppb	57.19	26.67	1	
Zr	90	72	HMI He	-47.788	ppb	-104.66	70.00	1	
Nb	93	72	HMI He	0.321	ppb	13.38	1286.74	2	
Mo	95	115	HMI He	0.120	ppb	49.81	133.33	0.5	
Pd	105	115	HMI He	0.044	ppb	25.42	90.00	1	
Ag	107	115	HMI He	0.011	ppb	38.59	46.67	1	
Cd	111	115	HMI He	0.044	ppb	36.05	16.67	0.5	
Sn	120	115	HMI He	0.016	ppb	432.42	213.34	1	
Sb	121	115	HMI He	0.400	ppb	13.91	396.68	1	
Ba	137	115	HMI He	-0.010	ppb	-188.52	3.33	0.5	
W	182	165	HMI He	0.058	ppb	78.61	1033.39	1	
Pt	195	165	HMI He	0.013	ppb	108.30	83.33	1	
Tl	205	165	HMI He	0.037	ppb	46.35	340.01	0.1	
Pb	208	165	HMI He	-0.010	ppb	-64.71	1256.71	0.5	
Th	232	165	HMI He	0.058	ppb	8.85	696.72	1	
U	238	165	HMI He	0.010	ppb	54.59	153.34	0.5	
Li	7	45	No Gas	9.245	ppb	42.62	3158530.38	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	655393.91	2.57	677045.616666667	96.8	60	125	
Ge Internal Standard	72	HMI H2	13807173.86	1.42	14473454.2466667	95.4	60	125	
Sc (IS)	45	HMI He	772405.68	1.77	796963.27	96.92	60	125	
Ge Internal Standard	72	HMI He	1058252.05	1.04	1098224.49	96.36	60	125	
In Internal standard	115	HMI He	2920484.26	2.96	3046117.2	95.88	60	125	
Ho-165	165	HMI He	13932570.21	1.27	14305382.6933333	97.39	60	125	
Sc IS)	45	No Gas	51341251.07	0.07	50351432.79	101.97	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	289LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:16:31 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.007	ppb	6.86	363.34	1	100.74	70	130	
Se	78	72	HMI H2	5.077	ppb	7.52	1669.43	5	101.54	70	130	
Na	23	45	HMI He	54.906	ppb	5.49	17699.48	50	109.81	70	130	
Mg	24	45	HMI He	49.269	ppb	3.03	4080.54	50	98.54	70	130	
Al	27	45	HMI He	28.996	ppb	25.65	593.35	30	96.65	70	130	
K	39	45	HMI He	85.572	ppb	19.79	33327.02	100	85.57	70	130	
Ca	44	45	HMI He	60.878	ppb	20.42	196.67	50	121.76	70	130	
V	51	72	HMI He	5.123	ppb	6.74	6401.33	5	102.47	70	130	
Cr	52	72	HMI He	2.114	ppb	7.17	3173.68	2	105.71	70	130	
Mn	55	72	HMI He	0.813	ppb	6.22	453.35	1	81.32	70	130	
Fe	57	72	HMI He	45.702	ppb	9.01	1223.40	50	91.4	70	130	
Co	59	72	HMI He	1.036	ppb	7.73	2646.92	1	103.56	70	130	
Ni	60	72	HMI He	1.912	ppb	11.18	1760.12	2	95.62	70	130	
Cu	63	72	HMI He	2.033	ppb	12.63	5244.25	2	101.63	70	130	
Zn	66	72	HMI He	9.626	ppb	9.89	2763.60	10	96.26	70	130	
As	75	72	HMI He	4.641	ppb	4.95	926.83	5	92.82	70	130	
Sr	88	45	HMI He	1.062	ppb	12.78	546.68	1	106.24	70	130	
Zr	90	72	HMI He	89.944	ppb	53.50	213.34	0.5	17988.77	70	130	>+/-30%
Nb	93	72	HMI He	0.268	ppb	10.57	1100.05	2	13.39	70	130	>+/-30%
Mo	95	115	HMI He	1.855	ppb	4.97	1810.12	2	92.75	70	130	
Pd	105	115	HMI He	0.013	ppb	28.96	46.67	1	1.35	70	130	>+/-30%
Ag	107	115	HMI He	4.738	ppb	1.54	15421.07	5	94.76	70	130	
Cd	111	115	HMI He	1.089	ppb	20.35	426.68	1	108.89	70	130	
Sn	120	115	HMI He	9.635	ppb	2.03	9923.31	10	96.35	70	130	
Sb	121	115	HMI He	1.964	ppb	10.06	1900.15	2	98.21	70	130	
Ba	137	115	HMI He	1.176	ppb	11.14	363.34	1	117.6	70	130	
W	182	165	HMI He	4.979	ppb	3.15	19636.43	1	497.85	70	130	>+/-30%
Pt	195	165	HMI He	0.020	ppb	49.15	106.67	1	1.98	70	130	>+/-30%
Tl	205	165	HMI He	1.022	ppb	4.59	6848.37	1	102.17	70	130	
Pb	208	165	HMI He	1.040	ppb	8.35	10318.24	1	103.97	70	130	
Th	232	165	HMI He	2.047	ppb	3.39	19640.23	2	102.35	70	130	
U	238	165	HMI He	0.945	ppb	2.56	9763.51	1	94.47	70	130	
Li	7	45	No Gas	17.842	ppb	29.66	3357497.72	50	35.68	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	660991.78	0.27	677045.616666667	97.63	60	125	
Ge Internal Standard	72	HMI H2	13811826.57	2.45	14473454.2466667	95.43	60	125	
Sc (IS)	45	HMI He	770341.61	0.48	796963.27	96.66	60	125	
Ge Internal Standard	72	HMI He	1072870.92	0.85	1098224.49	97.69	60	125	
In Internal standard	115	HMI He	3008141.62	0.73	3046117.2	98.75	60	125	
Ho-165	165	HMI He	14207999.47	1.53	14305382.6933333	99.32	60	125	
Sc IS)	45	No Gas	53368223.05	2.23	50351432.79	105.99	60	120	

Sample Report

Sample Name	280-104412-a-2-e@50
File Name	290SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:20:04 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.245	ppb	24.62	93.33	2000	
B	11	6	HMI H2	4.216	ppb	12.18	1486.76	100	
Se	78	72	HMI H2	0.099	ppb	30.87	57.33	2000	
Na	23	45	HMI He	42.550	ppb	5.84	15740.85	400000	
Mg	24	45	HMI He	6094.386	ppb	1.83	473802.27	400000	
Al	27	45	HMI He	3652.638	ppb	1.75	66582.16	400000	
K	39	45	HMI He	898.081	ppb	1.84	69856.54	400000	
Ca	44	45	HMI He	36203.263	ppb	1.50	87885.47	400000	
V	51	72	HMI He	6.057	ppb	3.51	7478.46	2000	
Cr	52	72	HMI He	7.510	ppb	4.03	10887.07	5000	
Mn	55	72	HMI He	89.197	ppb	2.30	44948.37	10000	
Fe	57	72	HMI He	3369.178	ppb	2.62	86518.14	400000	
Co	59	72	HMI He	1.406	ppb	4.86	3633.80	2000	
Ni	60	72	HMI He	3.881	ppb	7.50	3230.36	5000	
Cu	63	72	HMI He	13.138	ppb	1.17	27884.12	5000	
Zn	66	72	HMI He	16.701	ppb	0.63	4660.73	5000	
As	75	72	HMI He	1.256	ppb	9.99	271.24	2000	
Sr	88	45	HMI He	77.387	ppb	0.92	40518.08	2000	
Zr	90	72	HMI He	4346.928	ppb	11.44	4650.73	1000	
Nb	93	72	HMI He	0.125	ppb	8.08	556.69	200	
Mo	95	115	HMI He	0.306	ppb	18.78	316.68	2000	
Pd	105	115	HMI He	0.023	ppb	111.05	60.00	100	
Ag	107	115	HMI He	0.027	ppb	52.04	100.00	100	
Cd	111	115	HMI He	0.213	ppb	40.29	83.33	2000	
Sn	120	115	HMI He	0.124	ppb	61.81	330.01	2000	
Sb	121	115	HMI He	0.254	ppb	35.14	266.68	1000	
Ba	137	115	HMI He	36.575	ppb	5.60	11040.79	5000	
W	182	165	HMI He	0.052	ppb	22.13	1016.72	100	
Pt	195	165	HMI He	-0.002	ppb	-3.64	40.00	100	
Tl	205	165	HMI He	0.054	ppb	32.54	450.01	2000	
Pb	208	165	HMI He	261.770	ppb	1.17	2226988.69	5000	
Th	232	165	HMI He	1.752	ppb	2.16	16603.07	2000	
U	238	165	HMI He	0.316	ppb	7.86	3257.09	2000	
Li	7	45	No Gas	12.876	ppb	52.79	3322927.04	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	682959.01	2.68	677045.616666667	100.87	60	125	
Ge Internal Standard	72	HMI H2	14142317.18	3.20	14473454.2466667	97.71	60	125	
Sc (IS)	45	HMI He	783862.65	0.45	796963.27	98.36	60	125	
Ge Internal Standard	72	HMI He	1086095.66	0.57	1098224.49	98.9	60	125	
In Internal standard	115	HMI He	2994693.64	2.65	3046117.2	98.31	60	125	
Ho-165	165	HMI He	14015144.38	0.52	14305382.6933333	97.97	60	125	
Sc IS)	45	No Gas	53497027.21	1.72	50351432.79	106.25	60	120	

Sample Report

Sample Name	280-104412-a-3-e@50
File Name	291SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:23:36 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.206	ppb	25.56	78.33	2000	
B	11	6	HMI H2	3.190	ppb	18.30	1140.05	100	
Se	78	72	HMI H2	0.173	ppb	20.63	82.67	2000	
Na	23	45	HMI He	45.776	ppb	11.83	16245.05	400000	
Mg	24	45	HMI He	5701.676	ppb	0.23	440826.13	400000	
Al	27	45	HMI He	3438.354	ppb	1.63	62328.99	400000	
K	39	45	HMI He	800.936	ppb	0.60	65194.37	400000	
Ca	44	45	HMI He	34549.566	ppb	0.27	83406.56	400000	
V	51	72	HMI He	5.961	ppb	6.45	7318.39	2000	
Cr	52	72	HMI He	10.004	ppb	9.15	14326.52	5000	
Mn	55	72	HMI He	83.864	ppb	4.79	41937.09	10000	
Fe	57	72	HMI He	3260.908	ppb	1.26	83103.40	400000	
Co	59	72	HMI He	1.374	ppb	7.76	3523.75	2000	
Ni	60	72	HMI He	3.824	ppb	13.63	3163.68	5000	
Cu	63	72	HMI He	10.860	ppb	2.09	23073.22	5000	
Zn	66	72	HMI He	14.982	ppb	10.16	4177.28	5000	
As	75	72	HMI He	1.264	ppb	15.85	270.59	2000	
Sr	88	45	HMI He	73.850	ppb	0.53	38449.72	2000	
Zr	90	72	HMI He	4311.204	ppb	6.82	4580.71	1000	
Nb	93	72	HMI He	0.092	ppb	35.76	423.35	200	
Mo	95	115	HMI He	0.331	ppb	21.98	333.34	2000	
Pd	105	115	HMI He	0.007	ppb	194.62	36.67	100	
Ag	107	115	HMI He	0.024	ppb	21.57	90.00	100	
Cd	111	115	HMI He	0.044	ppb	91.96	16.67	2000	
Sn	120	115	HMI He	0.157	ppb	44.62	353.34	2000	
Sb	121	115	HMI He	0.503	ppb	11.96	493.34	1000	
Ba	137	115	HMI He	34.130	ppb	1.30	10100.09	5000	
W	182	165	HMI He	0.018	ppb	100.10	880.04	100	
Pt	195	165	HMI He	-0.006	ppb	-157.00	26.67	100	
Tl	205	165	HMI He	0.053	ppb	5.68	443.34	2000	
Pb	208	165	HMI He	432.114	ppb	1.95	3638659.22	5000	
Th	232	165	HMI He	1.739	ppb	3.63	16319.40	2000	
U	238	165	HMI He	0.291	ppb	12.11	2967.02	2000	
Li	7	45	No Gas	9.840	ppb	77.57	3250851.78	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	671506.80	1.54	677045.616666667	99.18	60	125	
Ge Internal Standard	72	HMI H2	14246840.82	1.61	14473454.2466667	98.43	60	125	
Sc (IS)	45	HMI He	779477.42	0.41	796963.27	97.81	60	125	
Ge Internal Standard	72	HMI He	1077789.51	0.72	1098224.49	98.14	60	125	
In Internal standard	115	HMI He	2932773.51	0.71	3046117.2	96.28	60	125	
Ho-165	165	HMI He	13877094.69	1.32	14305382.6933333	97.01	60	125	
Sc IS)	45	No Gas	52757751.83	0.22	50351432.79	104.78	60	120	

Sample Report

Sample Name	280-104412-a-4-e@50
File Name	292SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:27:06 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.256	ppb	28.30	93.33	2000	
B	11	6	HMI H2	3.213	ppb	11.90	1110.05	100	
Se	78	72	HMI H2	0.120	ppb	24.67	62.67	2000	
Na	23	45	HMI He	41.849	ppb	9.51	15330.44	400000	
Mg	24	45	HMI He	6527.586	ppb	0.78	498390.78	400000	
Al	27	45	HMI He	4358.486	ppb	3.44	77987.35	400000	
K	39	45	HMI He	1015.891	ppb	3.26	73712.98	400000	
Ca	44	45	HMI He	31128.870	ppb	2.91	74206.02	400000	
V	51	72	HMI He	6.664	ppb	4.87	7988.71	2000	
Cr	52	72	HMI He	6.998	ppb	4.57	9983.13	5000	
Mn	55	72	HMI He	103.879	ppb	1.26	51444.26	10000	
Fe	57	72	HMI He	3939.936	ppb	3.46	99420.86	400000	
Co	59	72	HMI He	1.533	ppb	7.27	3893.85	2000	
Ni	60	72	HMI He	4.481	ppb	0.85	3610.45	5000	
Cu	63	72	HMI He	28.332	ppb	0.62	57762.15	5000	
Zn	66	72	HMI He	19.079	ppb	3.69	5197.56	5000	
As	75	72	HMI He	1.684	ppb	4.84	349.68	2000	
Sr	88	45	HMI He	64.466	ppb	0.98	33147.84	2000	
Zr	90	72	HMI He	5047.926	ppb	3.35	5290.96	1000	>LDR
Nb	93	72	HMI He	0.075	ppb	27.71	356.68	200	
Mo	95	115	HMI He	0.195	ppb	32.13	210.00	2000	
Pd	105	115	HMI He	0.016	ppb	169.33	50.00	100	
Ag	107	115	HMI He	0.006	ppb	56.58	33.33	100	
Cd	111	115	HMI He	0.136	ppb	74.70	53.33	2000	
Sn	120	115	HMI He	0.169	ppb	72.85	373.34	2000	
Sb	121	115	HMI He	0.064	ppb	32.97	86.67	1000	
Ba	137	115	HMI He	40.048	ppb	1.90	12091.59	5000	
W	182	165	HMI He	0.054	ppb	48.06	1036.72	100	
Pt	195	165	HMI He	-0.001	ppb	-971.83	43.33	100	
Tl	205	165	HMI He	0.057	ppb	25.14	480.01	2000	
Pb	208	165	HMI He	54.934	ppb	1.53	475010.77	5000	
Th	232	165	HMI He	1.951	ppb	0.62	18742.40	2000	
U	238	165	HMI He	0.303	ppb	4.66	3167.06	2000	
Li	7	45	No Gas	6.659	ppb	88.46	3171668.27	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	649453.21	2.16	677045.616666667	95.92	60	125	
Ge Internal Standard	72	HMI H2	13708025.43	2.08	14473454.2466667	94.71	60	125	
Sc (IS)	45	HMI He	769792.86	1.06	796963.27	96.59	60	125	
Ge Internal Standard	72	HMI He	1067483.59	0.73	1098224.49	97.2	60	125	
In Internal standard	115	HMI He	2992678.72	1.03	3046117.2	98.25	60	125	
Ho-165	165	HMI He	14216155.61	2.72	14305382.6933333	99.38	60	125	
Sc IS)	45	No Gas	51917713.54	1.94	50351432.79	103.11	60	120	

Sample Report

Sample Name	280-104412-a-5-e@50
File Name	293SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:30:38 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.273	ppb	22.47	100.00	2000	
B	11	6	HMI H2	3.888	ppb	24.44	1323.41	100	
Se	78	72	HMI H2	0.064	ppb	111.57	44.00	2000	
Na	23	45	HMI He	48.703	ppb	7.79	16681.77	400000	
Mg	24	45	HMI He	7181.076	ppb	0.73	552013.19	400000	
Al	27	45	HMI He	4640.394	ppb	1.35	83617.78	400000	
K	39	45	HMI He	1044.592	ppb	3.60	75484.21	400000	
Ca	44	45	HMI He	32976.777	ppb	1.56	79162.08	400000	
V	51	72	HMI He	7.405	ppb	3.06	8759.09	2000	
Cr	52	72	HMI He	7.614	ppb	5.22	10830.34	5000	
Mn	55	72	HMI He	113.868	ppb	1.29	56313.24	10000	
Fe	57	72	HMI He	4176.585	ppb	1.15	105259.77	400000	
Co	59	72	HMI He	1.555	ppb	6.60	3943.88	2000	
Ni	60	72	HMI He	4.716	ppb	11.25	3773.82	5000	
Cu	63	72	HMI He	14.483	ppb	3.19	30047.98	5000	
Zn	66	72	HMI He	22.497	ppb	3.07	6074.53	5000	
As	75	72	HMI He	1.630	ppb	11.94	338.57	2000	
Sr	88	45	HMI He	70.460	ppb	2.73	36475.07	2000	
Zr	90	72	HMI He	5621.597	ppb	4.79	5871.16	1000	>LDR
Nb	93	72	HMI He	0.098	ppb	19.45	443.35	200	
Mo	95	115	HMI He	0.194	ppb	8.99	206.67	2000	
Pd	105	115	HMI He	0.025	ppb	13.58	63.33	100	
Ag	107	115	HMI He	0.014	ppb	35.78	56.67	100	
Cd	111	115	HMI He	0.139	ppb	54.69	53.33	2000	
Sn	120	115	HMI He	0.183	ppb	34.53	383.34	2000	
Sb	121	115	HMI He	0.054	ppb	29.49	76.67	1000	
Ba	137	115	HMI He	45.644	ppb	2.08	13642.86	5000	
W	182	165	HMI He	0.034	ppb	101.71	950.04	100	
Pt	195	165	HMI He	0.011	ppb	55.41	80.00	100	
Tl	205	165	HMI He	0.060	ppb	5.56	496.68	2000	
Pb	208	165	HMI He	106.253	ppb	1.88	907795.04	5000	
Th	232	165	HMI He	2.129	ppb	8.43	20197.69	2000	
U	238	165	HMI He	0.344	ppb	5.24	3550.48	2000	
Li	7	45	No Gas	1.190	ppb	354.56	3240399.65	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	655090.87	2.09	677045.616666667	96.76	60	125	
Ge Internal Standard	72	HMI H2	13579224.60	0.95	14473454.2466667	93.82	60	125	
Sc (IS)	45	HMI He	775096.55	0.47	796963.27	97.26	60	125	
Ge Internal Standard	72	HMI He	1066054.35	0.80	1098224.49	97.07	60	125	
In Internal standard	115	HMI He	2963144.87	1.33	3046117.2	97.28	60	125	
Ho-165	165	HMI He	14066729.27	2.69	14305382.6933333	98.33	60	125	
Sc IS)	45	No Gas	53830031.78	3.10	50351432.79	106.91	60	120	

Sample Report

Sample Name	280-104412-a-6-e@50
File Name	294SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:34:13 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.202	ppb	26.00	75.00	2000	
B	11	6	HMI H2	4.026	ppb	7.15	1366.74	100	
Se	78	72	HMI H2	0.179	ppb	32.86	82.67	2000	
Na	23	45	HMI He	46.156	ppb	2.45	16064.55	400000	
Mg	24	45	HMI He	6848.383	ppb	1.86	521350.83	400000	
Al	27	45	HMI He	4514.536	ppb	3.50	80563.10	400000	
K	39	45	HMI He	1055.903	ppb	1.94	75249.73	400000	
Ca	44	45	HMI He	32747.775	ppb	1.39	77855.61	400000	
V	51	72	HMI He	6.999	ppb	3.57	8355.55	2000	
Cr	52	72	HMI He	9.767	ppb	2.64	13875.98	5000	
Mn	55	72	HMI He	110.112	ppb	2.09	54617.35	10000	
Fe	57	72	HMI He	4150.215	ppb	0.96	104904.31	400000	
Co	59	72	HMI He	1.713	ppb	7.03	4353.97	2000	
Ni	60	72	HMI He	4.833	ppb	8.42	3870.53	5000	
Cu	63	72	HMI He	12.002	ppb	1.01	25176.28	5000	
Zn	66	72	HMI He	17.404	ppb	6.81	4770.77	5000	
As	75	72	HMI He	1.678	ppb	3.24	349.03	2000	
Sr	88	45	HMI He	68.850	ppb	1.57	35302.37	2000	
Zr	90	72	HMI He	5508.648	ppb	2.19	5771.12	1000	>LDR
Nb	93	72	HMI He	0.092	ppb	18.79	420.01	200	
Mo	95	115	HMI He	0.308	ppb	22.09	320.01	2000	
Pd	105	115	HMI He	-0.005	ppb	-141.62	20.00	100	
Ag	107	115	HMI He	0.021	ppb	42.83	83.33	100	
Cd	111	115	HMI He	0.086	ppb	76.28	33.33	2000	
Sn	120	115	HMI He	0.114	ppb	14.68	320.01	2000	
Sb	121	115	HMI He	0.025	ppb	154.36	50.00	1000	
Ba	137	115	HMI He	43.359	ppb	6.34	13155.71	5000	
W	182	165	HMI He	0.007	ppb	625.18	856.71	100	
Pt	195	165	HMI He	0.002	ppb	161.52	53.33	100	
Tl	205	165	HMI He	0.059	ppb	20.51	493.35	2000	
Pb	208	165	HMI He	97.068	ppb	0.41	835183.11	5000	
Th	232	165	HMI He	2.101	ppb	1.79	20090.80	2000	
U	238	165	HMI He	0.314	ppb	6.12	3270.42	2000	
Li	7	45	No Gas	14.512	ppb	23.03	3227768.82	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	654169.95	2.25	677045.616666667	96.62	60	125	
Ge Internal Standard	72	HMI H2	13895451.25	0.90	14473454.2466667	96.01	60	125	
Sc (IS)	45	HMI He	767628.93	0.39	796963.27	96.32	60	125	
Ge Internal Standard	72	HMI He	1069171.62	0.25	1098224.49	97.35	60	125	
In Internal standard	115	HMI He	3010114.18	2.37	3046117.2	98.82	60	125	
Ho-165	165	HMI He	14159405.51	0.00	14305382.6933333	98.98	60	125	
Sc IS)	45	No Gas	51744166.88	0.91	50351432.79	102.77	60	120	

Sample Report

Sample Name	280-104412-a-41-e@50
File Name	295SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:37:48 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.265	ppb	25.58	98.33	2000	
B	11	6	HMI H2	3.564	ppb	3.08	1243.39	100	
Se	78	72	HMI H2	0.083	ppb	71.88	50.67	2000	
Na	23	45	HMI He	43.785	ppb	8.18	15717.52	400000	
Mg	24	45	HMI He	6878.777	ppb	2.64	526033.40	400000	
Al	27	45	HMI He	4399.478	ppb	2.68	78874.61	400000	
K	39	45	HMI He	997.222	ppb	2.65	73043.59	400000	
Ca	44	45	HMI He	34238.880	ppb	1.10	81778.35	400000	
V	51	72	HMI He	6.877	ppb	5.31	8205.49	2000	
Cr	52	72	HMI He	7.880	ppb	4.01	11203.91	5000	
Mn	55	72	HMI He	104.663	ppb	2.23	51771.88	10000	
Fe	57	72	HMI He	4064.304	ppb	1.00	102448.89	400000	
Co	59	72	HMI He	1.716	ppb	9.07	4350.64	2000	
Ni	60	72	HMI He	4.146	ppb	5.28	3363.73	5000	
Cu	63	72	HMI He	15.033	ppb	2.19	31153.33	5000	
Zn	66	72	HMI He	18.155	ppb	5.31	4950.81	5000	
As	75	72	HMI He	1.437	ppb	7.57	301.31	2000	
Sr	88	45	HMI He	69.188	ppb	2.10	35646.72	2000	
Zr	90	72	HMI He	5485.079	ppb	3.27	5731.10	1000	>LDR
Nb	93	72	HMI He	0.062	ppb	25.17	306.68	200	
Mo	95	115	HMI He	0.156	ppb	16.34	170.00	2000	
Pd	105	115	HMI He	0.009	ppb	73.49	40.00	100	
Ag	107	115	HMI He	0.018	ppb	91.59	70.00	100	
Cd	111	115	HMI He	0.138	ppb	10.29	53.33	2000	
Sn	120	115	HMI He	0.149	ppb	15.85	350.01	2000	
Sb	121	115	HMI He	0.040	ppb	90.77	63.33	1000	
Ba	137	115	HMI He	41.217	ppb	2.14	12328.41	5000	
W	182	165	HMI He	0.033	ppb	41.84	956.72	100	
Pt	195	165	HMI He	-0.001	ppb	-639.76	43.33	100	
Tl	205	165	HMI He	0.053	ppb	49.46	450.01	2000	
Pb	208	165	HMI He	83.548	ppb	3.55	720164.85	5000	
Th	232	165	HMI He	2.023	ppb	4.39	19379.85	2000	
U	238	165	HMI He	0.330	ppb	10.49	3437.13	2000	
Li	7	45	No Gas	7.479	ppb	24.44	3233291.32	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	663378.27	0.85	677045.616666667	97.98	60	125	
Ge Internal Standard	72	HMI H2	13692408.76	1.82	14473454.2466667	94.6	60	125	
Sc (IS)	45	HMI He	771283.24	1.59	796963.27	96.78	60	125	
Ge Internal Standard	72	HMI He	1066177.85	0.27	1098224.49	97.08	60	125	
In Internal standard	115	HMI He	2965936.71	2.90	3046117.2	97.37	60	125	
Ho-165	165	HMI He	14187012.39	1.67	14305382.6933333	99.17	60	125	
Sc IS)	45	No Gas	52800518.92	1.66	50351432.79	104.86	60	120	

Sample Report

Sample Name	280-104412-a-42-e@50
File Name	296SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:41:27 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.208	ppb	24.64	75.00	2000	
B	11	6	HMI H2	3.053	ppb	14.47	1040.05	100	
Se	78	72	HMI H2	0.089	ppb	13.53	53.33	2000	
Na	23	45	HMI He	39.775	ppb	4.03	14973.49	400000	
Mg	24	45	HMI He	6089.204	ppb	3.02	465134.59	400000	
Al	27	45	HMI He	3624.294	ppb	2.02	64912.05	400000	
K	39	45	HMI He	809.310	ppb	4.71	64789.54	400000	
Ca	44	45	HMI He	27014.182	ppb	1.84	64479.12	400000	
V	51	72	HMI He	5.548	ppb	2.29	6781.49	2000	
Cr	52	72	HMI He	7.742	ppb	2.60	10967.12	5000	
Mn	55	72	HMI He	88.846	ppb	1.61	43781.82	10000	
Fe	57	72	HMI He	3399.421	ppb	1.55	85361.75	400000	
Co	59	72	HMI He	1.388	ppb	7.22	3507.09	2000	
Ni	60	72	HMI He	3.730	ppb	2.14	3050.33	5000	
Cu	63	72	HMI He	11.515	ppb	6.12	24041.34	5000	
Zn	66	72	HMI He	14.218	ppb	3.16	3917.17	5000	
As	75	72	HMI He	1.208	ppb	14.07	256.21	2000	
Sr	88	45	HMI He	54.848	ppb	1.53	28225.16	2000	
Zr	90	72	HMI He	4705.419	ppb	1.24	4914.16	1000	
Nb	93	72	HMI He	0.100	ppb	17.08	450.01	200	
Mo	95	115	HMI He	0.280	ppb	16.75	290.01	2000	
Pd	105	115	HMI He	-0.004	ppb	-262.63	20.00	100	
Ag	107	115	HMI He	0.031	ppb	36.36	113.33	100	
Cd	111	115	HMI He	0.173	ppb	47.50	66.67	2000	
Sn	120	115	HMI He	0.164	ppb	41.39	366.69	2000	
Sb	121	115	HMI He	0.172	ppb	46.51	190.00	1000	
Ba	137	115	HMI He	34.840	ppb	3.51	10480.38	5000	
W	182	165	HMI He	0.004	ppb	582.14	863.37	100	
Pt	195	165	HMI He	0.006	ppb	180.20	66.67	100	
Tl	205	165	HMI He	0.046	ppb	17.62	413.35	2000	
Pb	208	165	HMI He	241.831	ppb	0.36	2119162.66	5000	
Th	232	165	HMI He	1.725	ppb	3.54	16843.41	2000	
U	238	165	HMI He	0.269	ppb	7.59	2863.66	2000	
Li	7	45	No Gas	5.796	ppb	58.52	3162025.02	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	637498.79	2.36	677045.616666667	94.16	60	125	
Ge Internal Standard	72	HMI H2	13877347.71	2.07	14473454.2466667	95.88	60	125	
Sc (IS)	45	HMI He	770409.54	2.06	796963.27	96.67	60	125	
Ge Internal Standard	72	HMI He	1062040.26	0.90	1098224.49	96.71	60	125	
In Internal standard	115	HMI He	2981775.02	1.75	3046117.2	97.89	60	125	
Ho-165	165	HMI He	14434982.58	0.65	14305382.6933333	100.91	60	125	
Sc IS)	45	No Gas	51875408.54	1.52	50351432.79	103.03	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	297_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:45:03 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	478.363	ppb	1.93	225472.58	500	95.67	90	110	
Be	9	6	HMI H2	50.916	ppb	0.97	17172.02	50	101.83	90	110	
B	11	6	HMI H2	51.035	ppb	3.11	15053.55	50	102.07	90	110	
Se	78	72	HMI H2	51.616	ppb	3.03	16903.57	50	103.23	90	110	
Na	23	45	HMI He	4820.330	ppb	0.98	898169.73	5000	96.41	90	110	
Mg	24	45	HMI He	4922.940	ppb	1.24	384867.72	5000	98.46	90	110	
Al	27	45	HMI He	4975.044	ppb	2.89	91132.92	5000	99.5	90	110	
K	39	45	HMI He	5032.342	ppb	3.06	254064.75	5000	100.65	90	110	
Ca	44	45	HMI He	5080.816	ppb	5.25	12441.50	5000	101.62	90	110	
V	51	72	HMI He	50.509	ppb	3.68	55132.50	50	101.02	90	110	
Cr	52	72	HMI He	49.328	ppb	1.81	70417.00	50	98.66	90	110	
Mn	55	72	HMI He	49.598	ppb	1.38	25035.93	50	99.2	90	110	
Fe	57	72	HMI He	4944.226	ppb	1.09	127039.27	5000	98.88	90	110	
Co	59	72	HMI He	49.470	ppb	2.73	127497.06	50	98.94	90	110	
Ni	60	72	HMI He	48.570	ppb	2.69	36173.62	50	97.14	90	110	
Cu	63	72	HMI He	50.554	ppb	3.20	104007.26	50	101.11	90	110	
Zn	66	72	HMI He	52.290	ppb	5.97	14046.21	50	104.58	90	110	
As	75	72	HMI He	51.133	ppb	2.39	10103.82	50	102.27	90	110	
Sr	88	45	HMI He	48.310	ppb	3.66	25423.63	50	96.62	90	110	
Zr	90	72	HMI He	110.086	ppb	37.84	236.67	50	220.17	90	110	>+\-10%
Nb	93	72	HMI He	99.313	ppb	1.97	387521.00	100	99.31	90	110	
Mo	95	115	HMI He	50.043	ppb	1.01	48196.53	50	100.09	90	110	
Pd	105	115	HMI He	50.411	ppb	3.53	74940.55	50	100.82	90	110	
Ag	107	115	HMI He	50.271	ppb	3.81	163260.92	50	100.54	90	110	
Cd	111	115	HMI He	48.165	ppb	1.48	18858.11	50	96.33	90	110	
Sn	120	115	HMI He	49.795	ppb	1.68	50371.10	50	99.59	90	110	
Sb	121	115	HMI He	50.122	ppb	2.85	47766.37	50	100.24	90	110	
Ba	137	115	HMI He	49.455	ppb	4.52	14987.43	50	98.91	90	110	
W	182	165	HMI He	51.065	ppb	1.29	191892.93	50	102.13	90	110	
Pt	195	165	HMI He	51.243	ppb	1.96	154506.25	50	102.49	90	110	
Tl	205	165	HMI He	51.719	ppb	2.56	338305.19	50	103.44	90	110	
Pb	208	165	HMI He	51.585	ppb	0.77	441942.23	50	103.17	90	110	
Th	232	165	HMI He	51.922	ppb	1.06	489937.29	50	103.84	90	110	
U	238	165	HMI He	50.184	ppb	2.53	511226.39	50	100.37	90	110	
Li	7	45	No Gas	536.758	ppb	2.06	7712540.43	500	107.35	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	623490.49	0.63	677045.616666667	92.09	60	125	
Ge Internal Standard	72	HMI H2	13954968.13	0.30	14473454.2466667	96.42	60	125	
Sc (IS)	45	HMI He	788068.04	1.02	796963.27	98.88	60	125	
Ge Internal Standard	72	HMI He	1086979.58	0.83	1098224.49	98.98	60	125	
In Internal standard	115	HMI He	3004832.12	1.31	3046117.2	98.64	60	125	
Ho-165	165	HMI He	14078596.46	0.32	14305382.6933333	98.41	60	125	
Sc IS)	45	No Gas	52370766.85	0.84	50351432.79	104.01	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	298_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:48:49 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	8.501	ppb	146.71	96918.45	0.1	>RL
Be	9	6	HMI H2	0.081	ppb	8.58	31.67	0.5	
B	11	6	HMI H2	1.922	ppb	25.08	720.03	0.1	>RL
Se	78	72	HMI H2	0.039	ppb	66.11	37.33	1	
Na	23	45	HMI He	-2.453	ppb	-112.42	7385.06	25	
Mg	24	45	HMI He	-0.268	ppb	-154.61	300.01	25	
Al	27	45	HMI He	1.235	ppb	206.62	96.67	15	
K	39	45	HMI He	-11.133	ppb	-223.25	29306.14	50	
Ca	44	45	HMI He	-3.624	ppb	-237.43	43.33	25	
V	51	72	HMI He	-0.094	ppb	-105.15	880.04	1	
Cr	52	72	HMI He	0.051	ppb	62.95	276.67	1	
Mn	55	72	HMI He	0.022	ppb	175.80	60.00	0.5	
Fe	57	72	HMI He	3.209	ppb	36.10	146.67	25	
Co	59	72	HMI He	0.007	ppb	154.03	30.00	0.5	
Ni	60	72	HMI He	-0.080	ppb	-34.93	310.01	1	
Cu	63	72	HMI He	-0.052	ppb	-35.27	1056.72	1	
Zn	66	72	HMI He	0.230	ppb	88.30	316.68	5	
As	75	72	HMI He	-0.031	ppb	-81.66	17.65	1	
Sr	88	45	HMI He	0.007	ppb	173.21	3.33	1	
Zr	90	72	HMI He	-55.577	ppb	-42.48	63.33	1	
Nb	93	72	HMI He	0.332	ppb	12.08	1343.41	2	
Mo	95	115	HMI He	0.062	ppb	91.05	83.33	0.5	
Pd	105	115	HMI He	0.060	ppb	41.19	116.67	1	
Ag	107	115	HMI He	0.003	ppb	153.70	23.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.047	ppb	118.25	253.34	1	
Sb	121	115	HMI He	0.229	ppb	20.63	246.68	1	
Ba	137	115	HMI He	0.055	ppb	68.13	23.33	0.5	
W	182	165	HMI He	0.035	ppb	103.02	976.71	1	
Pt	195	165	HMI He	0.003	ppb	212.98	56.67	1	
Tl	205	165	HMI He	0.018	ppb	80.46	226.67	0.1	
Pb	208	165	HMI He	-0.003	ppb	-1032.88	1356.71	0.5	
Th	232	165	HMI He	0.019	ppb	42.19	343.34	1	
U	238	165	HMI He	0.005	ppb	63.54	110.00	0.5	
Li	7	45	No Gas	5.483	ppb	247.30	3179520.72	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	653618.06	1.76	677045.616666667	96.54	60	125	
Ge Internal Standard	72	HMI H2	13937877.71	2.08	14473454.2466667	96.3	60	125	
Sc (IS)	45	HMI He	775064.81	1.87	796963.27	97.25	60	125	
Ge Internal Standard	72	HMI He	1071277.16	2.48	1098224.49	97.55	60	125	
In Internal standard	115	HMI He	3026034.95	0.93	3046117.2	99.34	60	125	
Ho-165	165	HMI He	14375846.02	0.74	14305382.6933333	100.49	60	125	
Sc IS)	45	No Gas	52227503.94	2.08	50351432.79	103.73	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	299LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:52:26 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.070	ppb	11.48	380.01	1	106.96	70	130	
Se	78	72	HMI H2	4.918	ppb	8.43	1629.43	5	98.36	70	130	
Na	23	45	HMI He	49.616	ppb	12.19	17055.52	50	99.23	70	130	
Mg	24	45	HMI He	49.427	ppb	10.98	4167.24	50	98.85	70	130	
Al	27	45	HMI He	31.690	ppb	9.66	653.35	30	105.63	70	130	
K	39	45	HMI He	73.019	ppb	34.04	33397.14	100	73.02	70	130	
Ca	44	45	HMI He	53.901	ppb	17.66	183.33	50	107.8	70	130	
V	51	72	HMI He	4.686	ppb	7.08	5954.45	5	93.71	70	130	
Cr	52	72	HMI He	1.855	ppb	26.02	2816.96	2	92.76	70	130	
Mn	55	72	HMI He	1.218	ppb	9.73	656.69	1	121.81	70	130	
Fe	57	72	HMI He	54.431	ppb	16.48	1450.08	50	108.86	70	130	
Co	59	72	HMI He	1.012	ppb	9.78	2596.91	1	101.23	70	130	
Ni	60	72	HMI He	1.966	ppb	10.14	1803.45	2	98.31	70	130	
Cu	63	72	HMI He	1.861	ppb	6.16	4914.15	2	93.06	70	130	
Zn	66	72	HMI He	10.172	ppb	4.51	2913.63	10	101.72	70	130	
As	75	72	HMI He	5.049	ppb	6.36	1009.18	5	100.97	70	130	
Sr	88	45	HMI He	1.025	ppb	15.14	536.68	1	102.49	70	130	
Zr	90	72	HMI He	102.517	ppb	68.50	226.67	0.5	20503.46	70	130	>+/-30%
Nb	93	72	HMI He	0.353	ppb	11.08	1433.41	2	17.67	70	130	>+/-30%
Mo	95	115	HMI He	1.910	ppb	7.78	1833.47	2	95.48	70	130	
Pd	105	115	HMI He	0.009	ppb	69.37	40.00	1	0.94	70	130	>+/-30%
Ag	107	115	HMI He	4.887	ppb	3.48	15634.59	5	97.74	70	130	
Cd	111	115	HMI He	0.909	ppb	14.21	350.01	1	90.92	70	130	
Sn	120	115	HMI He	9.417	ppb	5.18	9536.38	10	94.17	70	130	
Sb	121	115	HMI He	2.092	ppb	10.64	1990.15	2	104.6	70	130	
Ba	137	115	HMI He	1.074	ppb	40.05	326.67	1	107.44	70	130	
W	182	165	HMI He	4.928	ppb	2.36	19429.54	1	492.81	70	130	>+/-30%
Pt	195	165	HMI He	0.036	ppb	44.42	156.67	1	3.62	70	130	>+/-30%
Tl	205	165	HMI He	0.995	ppb	6.93	6661.58	1	99.45	70	130	
Pb	208	165	HMI He	1.084	ppb	2.45	10705.04	1	108.43	70	130	
Th	232	165	HMI He	1.985	ppb	0.47	19039.35	2	99.24	70	130	
U	238	165	HMI He	1.012	ppb	6.42	10453.91	1	101.25	70	130	
Li	7	45	No Gas	20.260	ppb	9.73	3301235.48	50	40.52	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	651964.76	1.05	677045.616666667	96.3	60	125	
Ge Internal Standard	72	HMI H2	13929324.79	0.50	14473454.2466667	96.24	60	125	
Sc (IS)	45	HMI He	785006.21	1.38	796963.27	98.5	60	125	
Ge Internal Standard	72	HMI He	1076073.91	0.60	1098224.49	97.98	60	125	
In Internal standard	115	HMI He	2958175.52	1.85	3046117.2	97.11	60	125	
Ho-165	165	HMI He	14199581.65	0.86	14305382.6933333	99.26	60	125	
Sc IS)	45	No Gas	52143568.53	0.86	50351432.79	103.56	60	120	

Sample Report

Sample Name	280-104412-a-43-e@50
File Name	300SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:56:04 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.242	ppb	23.05	88.33	2000	
B	11	6	HMI H2	2.840	ppb	10.53	996.71	100	
Se	78	72	HMI H2	0.105	ppb	46.46	60.00	2000	
Na	23	45	HMI He	38.233	ppb	3.85	15023.49	400000	
Mg	24	45	HMI He	6154.621	ppb	2.38	480760.11	400000	
Al	27	45	HMI He	3755.449	ppb	0.70	68780.62	400000	
K	39	45	HMI He	850.487	ppb	4.20	68072.52	400000	
Ca	44	45	HMI He	32031.742	ppb	1.96	78134.15	400000	
V	51	72	HMI He	5.998	ppb	5.91	7405.09	2000	
Cr	52	72	HMI He	6.882	ppb	4.05	9979.81	5000	
Mn	55	72	HMI He	92.469	ppb	0.83	46529.53	10000	
Fe	57	72	HMI He	3539.061	ppb	0.53	90746.79	400000	
Co	59	72	HMI He	1.380	ppb	12.04	3560.44	2000	
Ni	60	72	HMI He	3.778	ppb	8.22	3150.34	5000	
Cu	63	72	HMI He	10.774	ppb	4.02	23043.08	5000	
Zn	66	72	HMI He	15.823	ppb	9.18	4424.00	5000	
As	75	72	HMI He	1.447	ppb	5.49	308.50	2000	
Sr	88	45	HMI He	65.317	ppb	2.89	34367.09	2000	
Zr	90	72	HMI He	4474.456	ppb	6.85	4777.44	1000	
Nb	93	72	HMI He	0.094	ppb	29.20	433.35	200	
Mo	95	115	HMI He	0.263	ppb	29.28	273.34	2000	
Pd	105	115	HMI He	0.021	ppb	35.46	56.67	100	
Ag	107	115	HMI He	0.022	ppb	15.73	83.33	100	
Cd	111	115	HMI He	0.181	ppb	15.28	70.00	2000	
Sn	120	115	HMI He	0.118	ppb	40.09	320.01	2000	
Sb	121	115	HMI He	0.227	ppb	53.96	240.01	1000	
Ba	137	115	HMI He	37.335	ppb	2.54	11194.25	5000	
W	182	165	HMI He	0.029	ppb	146.11	963.38	100	
Pt	195	165	HMI He	0.004	ppb	162.08	60.00	100	
Tl	205	165	HMI He	0.052	ppb	15.61	453.35	2000	
Pb	208	165	HMI He	158.716	ppb	1.57	1399114.54	5000	
Th	232	165	HMI He	1.727	ppb	2.45	16953.50	2000	
U	238	165	HMI He	0.267	ppb	10.59	2867.00	2000	
Li	7	45	No Gas	14.139	ppb	30.06	3215051.45	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	649350.94	0.74	677045.616666667	95.91	60	125	
Ge Internal Standard	72	HMI H2	14250786.96	1.64	14473454.2466667	98.46	60	125	
Sc (IS)	45	HMI He	787665.28	1.05	796963.27	98.83	60	125	
Ge Internal Standard	72	HMI He	1084490.12	0.67	1098224.49	98.75	60	125	
In Internal standard	115	HMI He	2972355.19	1.29	3046117.2	97.58	60	125	
Ho-165	165	HMI He	14517998.72	1.82	14305382.6933333	101.49	60	125	
Sc IS)	45	No Gas	51596308.56	1.70	50351432.79	102.47	60	120	

Sample Report

Sample Name	280-104412-a-44-e@50
File Name	301SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 4:59:44 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.196	ppb	14.91	71.67	2000	
B	11	6	HMI H2	3.067	ppb	16.63	1060.04	100	
Se	78	72	HMI H2	0.185	ppb	46.35	86.67	2000	
Na	23	45	HMI He	42.872	ppb	5.42	15760.87	400000	
Mg	24	45	HMI He	6729.955	ppb	1.90	521858.23	400000	
Al	27	45	HMI He	3913.879	ppb	0.87	71157.54	400000	
K	39	45	HMI He	881.286	ppb	0.54	68942.82	400000	
Ca	44	45	HMI He	32546.501	ppb	2.16	78820.68	400000	
V	51	72	HMI He	6.095	ppb	4.35	7431.76	2000	
Cr	52	72	HMI He	7.060	ppb	1.60	10126.62	5000	
Mn	55	72	HMI He	99.606	ppb	1.67	49601.68	10000	
Fe	57	72	HMI He	3677.392	ppb	0.53	93324.28	400000	
Co	59	72	HMI He	1.517	ppb	12.57	3870.50	2000	
Ni	60	72	HMI He	3.973	ppb	1.52	3260.36	5000	
Cu	63	72	HMI He	50.553	ppb	2.01	102711.58	5000	
Zn	66	72	HMI He	21.189	ppb	3.43	5774.45	5000	
As	75	72	HMI He	1.503	ppb	5.97	316.34	2000	
Sr	88	45	HMI He	66.094	ppb	1.81	34517.64	2000	
Zr	90	72	HMI He	4676.571	ppb	6.01	4937.51	1000	
Nb	93	72	HMI He	0.081	ppb	21.99	380.01	200	
Mo	95	115	HMI He	0.237	ppb	21.15	250.00	2000	
Pd	105	115	HMI He	0.009	ppb	323.71	40.00	100	
Ag	107	115	HMI He	0.025	ppb	74.85	93.33	100	
Cd	111	115	HMI He	0.128	ppb	33.24	50.00	2000	
Sn	120	115	HMI He	0.119	ppb	49.26	323.34	2000	
Sb	121	115	HMI He	0.683	ppb	8.76	673.36	1000	
Ba	137	115	HMI He	39.843	ppb	1.91	12024.81	5000	
W	182	165	HMI He	0.019	ppb	157.43	913.38	100	
Pt	195	165	HMI He	0.000	ppb	-12034.73	46.67	100	
Tl	205	165	HMI He	0.062	ppb	13.61	513.35	2000	
Pb	208	165	HMI He	644.329	ppb	4.60	5572678.13	5000	
Th	232	165	HMI He	1.892	ppb	2.47	18234.98	2000	
U	238	165	HMI He	0.301	ppb	10.96	3153.72	2000	
Li	7	45	No Gas	0.456	ppb	1857.55	3195473.97	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	646616.77	2.48	677045.616666667	95.51	60	125	
Ge Internal Standard	72	HMI H2	14170955.30	2.24	14473454.2466667	97.91	60	125	
Sc (IS)	45	HMI He	781896.49	0.40	796963.27	98.11	60	125	
Ge Internal Standard	72	HMI He	1073382.13	0.81	1098224.49	97.74	60	125	
In Internal standard	115	HMI He	2990888.76	1.35	3046117.2	98.19	60	125	
Ho-165	165	HMI He	14268443.63	3.78	14305382.6933333	99.74	60	125	
Sc IS)	45	No Gas	53176335.14	1.73	50351432.79	105.61	60	120	

Sample Report

Sample Name	280-104412-a-73-e@50
File Name	302SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:03:18 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.109	ppb	23.25	41.67	2000	
B	11	6	HMI H2	2.097	ppb	36.94	786.70	100	
Se	78	72	HMI H2	0.175	ppb	13.78	81.33	2000	
Na	23	45	HMI He	22.367	ppb	21.22	12107.84	400000	
Mg	24	45	HMI He	3703.500	ppb	4.42	289956.66	400000	
Al	27	45	HMI He	1918.639	ppb	6.65	35223.77	400000	
K	39	45	HMI He	456.723	ppb	5.91	50687.37	400000	
Ca	44	45	HMI He	44548.678	ppb	6.78	108802.67	400000	
V	51	72	HMI He	3.625	ppb	2.86	4930.79	2000	
Cr	52	72	HMI He	5.580	ppb	7.50	8232.19	5000	
Mn	55	72	HMI He	47.034	ppb	5.20	23987.74	10000	
Fe	57	72	HMI He	2181.587	ppb	4.76	56667.88	400000	
Co	59	72	HMI He	0.831	ppb	6.51	2176.84	2000	
Ni	60	72	HMI He	2.869	ppb	7.66	2516.89	5000	
Cu	63	72	HMI He	399.426	ppb	5.56	821979.33	5000	
Zn	66	72	HMI He	55.522	ppb	3.64	15057.18	5000	
As	75	72	HMI He	1.223	ppb	2.20	267.98	2000	
Sr	88	45	HMI He	112.227	ppb	4.65	59142.77	2000	
Zr	90	72	HMI He	2636.089	ppb	6.28	2900.31	1000	
Nb	93	72	HMI He	0.063	ppb	15.11	316.68	200	
Mo	95	115	HMI He	0.193	ppb	24.31	213.33	2000	
Pd	105	115	HMI He	0.000	ppb	-4422.10	26.67	100	
Ag	107	115	HMI He	0.059	ppb	26.39	210.01	100	
Cd	111	115	HMI He	0.106	ppb	86.75	43.33	2000	
Sn	120	115	HMI He	0.290	ppb	30.12	510.01	2000	
Sb	121	115	HMI He	2.907	ppb	11.86	2863.63	1000	
Ba	137	115	HMI He	22.475	ppb	4.81	6991.68	5000	
W	182	165	HMI He	0.029	ppb	70.14	960.05	100	
Pt	195	165	HMI He	0.008	ppb	19.18	73.33	100	
Tl	205	165	HMI He	0.035	ppb	42.56	340.01	2000	
Pb	208	165	HMI He	2210.399	ppb	4.31	19403656.08	5000	
Th	232	165	HMI He	0.915	ppb	2.89	9032.94	2000	
U	238	165	HMI He	0.320	ppb	2.17	3403.80	2000	
Li	7	45	No Gas	8.014	ppb	66.31	3199130.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	657477.60	4.46	677045.616666667	97.11	60	125	
Ge Internal Standard	72	HMI H2	13886360.73	0.64	14473454.2466667	95.94	60	125	
Sc (IS)	45	HMI He	789699.08	2.93	796963.27	99.09	60	125	
Ge Internal Standard	72	HMI He	1098712.44	1.90	1098224.49	100.04	60	125	
In Internal standard	115	HMI He	3086178.90	4.73	3046117.2	101.32	60	125	
Ho-165	165	HMI He	14473295.08	1.61	14305382.6933333	101.17	60	125	
Sc IS)	45	No Gas	52172488.53	1.01	50351432.79	103.62	60	120	

Sample Report

Sample Name	280-104412-a-74-e@50
File Name	303SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:06:51 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.120	ppb	41.73	45.00	2000	
B	11	6	HMI H2	2.603	ppb	12.06	916.70	100	
Se	78	72	HMI H2	0.112	ppb	13.12	61.33	2000	
Na	23	45	HMI He	26.516	ppb	7.69	12754.94	400000	
Mg	24	45	HMI He	3903.089	ppb	1.14	302577.18	400000	
Al	27	45	HMI He	2089.209	ppb	1.22	37989.95	400000	
K	39	45	HMI He	495.406	ppb	0.89	51877.66	400000	
Ca	44	45	HMI He	45312.992	ppb	0.75	109634.23	400000	
V	51	72	HMI He	4.247	ppb	11.01	5484.32	2000	
Cr	52	72	HMI He	9.239	ppb	0.41	13208.87	5000	
Mn	55	72	HMI He	49.912	ppb	4.09	24912.53	10000	
Fe	57	72	HMI He	2094.115	ppb	1.96	53246.69	400000	
Co	59	72	HMI He	0.934	ppb	6.08	2393.55	2000	
Ni	60	72	HMI He	2.881	ppb	7.70	2470.21	5000	
Cu	63	72	HMI He	76.634	ppb	1.59	155336.61	5000	
Zn	66	72	HMI He	20.446	ppb	6.39	5591.03	5000	
As	75	72	HMI He	1.219	ppb	4.86	261.44	2000	
Sr	88	45	HMI He	115.552	ppb	1.68	60303.63	2000	
Zr	90	72	HMI He	2817.269	ppb	1.72	3026.99	1000	
Nb	93	72	HMI He	0.081	ppb	18.12	380.01	200	
Mo	95	115	HMI He	0.326	ppb	43.65	336.67	2000	
Pd	105	115	HMI He	-0.009	ppb	-87.13	13.33	100	
Ag	107	115	HMI He	0.055	ppb	20.95	190.00	100	
Cd	111	115	HMI He	0.213	ppb	19.01	83.33	2000	
Sn	120	115	HMI He	0.181	ppb	50.03	386.68	2000	
Sb	121	115	HMI He	1.939	ppb	3.30	1870.14	1000	
Ba	137	115	HMI He	25.397	ppb	3.07	7688.67	5000	
W	182	165	HMI He	0.043	ppb	107.93	983.38	100	
Pt	195	165	HMI He	-0.003	ppb	-183.57	36.67	100	
Tl	205	165	HMI He	0.020	ppb	26.79	230.01	2000	
Pb	208	165	HMI He	2390.981	ppb	1.92	20274824.67	5000	
Th	232	165	HMI He	1.033	ppb	1.17	9833.49	2000	
U	238	165	HMI He	0.326	ppb	7.05	3350.44	2000	
Li	7	45	No Gas	15.915	ppb	106.79	3193349.03	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	643765.42	0.95	677045.616666667	95.08	60	125	
Ge Internal Standard	72	HMI H2	13976204.48	2.23	14473454.2466667	96.56	60	125	
Sc (IS)	45	HMI He	781338.69	0.63	796963.27	98.04	60	125	
Ge Internal Standard	72	HMI He	1075068.56	1.55	1098224.49	97.89	60	125	
In Internal standard	115	HMI He	3000388.09	1.08	3046117.2	98.5	60	125	
Ho-165	165	HMI He	13980754.58	2.45	14305382.6933333	97.73	60	125	
Sc IS)	45	No Gas	51018597.76	0.95	50351432.79	101.33	60	120	

Sample Report

Sample Name	280-104412-a-75-e@50
File Name	304SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:10:31 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.135	ppb	10.82	50.00	2000	
B	11	6	HMI H2	2.299	ppb	30.11	823.37	100	
Se	78	72	HMI H2	0.022	ppb	280.95	32.00	2000	
Na	23	45	HMI He	25.553	ppb	2.59	12431.37	400000	
Mg	24	45	HMI He	3796.891	ppb	0.89	290902.78	400000	
Al	27	45	HMI He	1932.452	ppb	2.34	34729.49	400000	
K	39	45	HMI He	495.902	ppb	2.71	51285.99	400000	
Ca	44	45	HMI He	44256.681	ppb	2.32	105809.67	400000	
V	51	72	HMI He	3.827	ppb	7.76	5064.19	2000	
Cr	52	72	HMI He	6.720	ppb	2.85	9712.98	5000	
Mn	55	72	HMI He	47.459	ppb	1.06	23817.49	10000	
Fe	57	72	HMI He	1974.159	ppb	2.89	50464.25	400000	
Co	59	72	HMI He	0.796	ppb	16.60	2053.48	2000	
Ni	60	72	HMI He	2.856	ppb	3.86	2463.56	5000	
Cu	63	72	HMI He	171.977	ppb	1.02	348942.34	5000	
Zn	66	72	HMI He	30.629	ppb	3.66	8288.86	5000	
As	75	72	HMI He	1.189	ppb	10.03	256.87	2000	
Sr	88	45	HMI He	111.124	ppb	1.08	57309.17	2000	
Zr	90	72	HMI He	2796.337	ppb	5.82	3020.32	1000	
Nb	93	72	HMI He	0.076	ppb	32.75	363.35	200	
Mo	95	115	HMI He	0.412	ppb	15.71	423.34	2000	
Pd	105	115	HMI He	0.000	ppb	-7758.19	26.67	100	
Ag	107	115	HMI He	0.066	ppb	33.66	230.00	100	
Cd	111	115	HMI He	0.118	ppb	53.13	46.67	2000	
Sn	120	115	HMI He	0.190	ppb	12.98	400.01	2000	
Sb	121	115	HMI He	2.362	ppb	6.68	2296.86	1000	
Ba	137	115	HMI He	22.748	ppb	3.39	6961.65	5000	
W	182	165	HMI He	0.049	ppb	30.05	1006.72	100	
Pt	195	165	HMI He	-0.001	ppb	-558.65	43.33	100	
Tl	205	165	HMI He	0.021	ppb	53.91	240.00	2000	
Pb	208	165	HMI He	2041.968	ppb	3.04	17363950.13	5000	
Th	232	165	HMI He	0.958	ppb	6.44	9149.70	2000	
U	238	165	HMI He	0.302	ppb	4.27	3113.71	2000	
Li	7	45	No Gas	1.855	ppb	441.86	3185113.69	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	643207.29	0.45	677045.616666667	95	60	125	
Ge Internal Standard	72	HMI H2	14083905.83	1.88	14473454.2466667	97.31	60	125	
Sc (IS)	45	HMI He	772156.19	0.77	796963.27	96.89	60	125	
Ge Internal Standard	72	HMI He	1080508.77	0.67	1098224.49	98.39	60	125	
In Internal standard	115	HMI He	3031792.04	1.43	3046117.2	99.53	60	125	
Ho-165	165	HMI He	14022401.67	2.38	14305382.6933333	98.02	60	125	
Sc IS)	45	No Gas	52793933.08	1.89	50351432.79	104.85	60	120	

Sample Report

Sample Name	280-104412-a-76-e@50
File Name	305SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:14:09 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.236	ppb	19.70	86.67	2000	
B	11	6	HMI H2	3.880	ppb	14.11	1323.40	100	
Se	78	72	HMI H2	0.092	ppb	64.13	54.67	2000	
Na	23	45	HMI He	48.790	ppb	3.33	16615.00	400000	
Mg	24	45	HMI He	7534.049	ppb	0.52	576177.69	400000	
Al	27	45	HMI He	4814.889	ppb	2.01	86315.22	400000	
K	39	45	HMI He	1113.115	ppb	1.73	78083.39	400000	
Ca	44	45	HMI He	35549.729	ppb	3.37	84907.04	400000	
V	51	72	HMI He	7.173	ppb	0.42	8558.98	2000	
Cr	52	72	HMI He	7.012	ppb	4.39	10041.51	5000	
Mn	55	72	HMI He	115.074	ppb	1.74	57206.36	10000	
Fe	57	72	HMI He	4348.992	ppb	1.27	110178.31	400000	
Co	59	72	HMI He	1.731	ppb	5.86	4410.65	2000	
Ni	60	72	HMI He	4.488	ppb	6.37	3630.45	5000	
Cu	63	72	HMI He	22.702	ppb	3.18	46680.22	5000	
Zn	66	72	HMI He	20.119	ppb	1.76	5487.65	5000	
As	75	72	HMI He	1.682	ppb	7.73	350.33	2000	
Sr	88	45	HMI He	73.106	ppb	2.12	37654.48	2000	
Zr	90	72	HMI He	5519.782	ppb	9.04	5791.13	1000	>LDR
Nb	93	72	HMI He	0.067	ppb	38.31	326.67	200	
Mo	95	115	HMI He	0.217	ppb	18.68	230.00	2000	
Pd	105	115	HMI He	0.009	ppb	222.62	40.00	100	
Ag	107	115	HMI He	0.019	ppb	24.78	73.33	100	
Cd	111	115	HMI He	0.181	ppb	72.69	70.00	2000	
Sn	120	115	HMI He	0.087	ppb	172.60	290.01	2000	
Sb	121	115	HMI He	0.131	ppb	31.14	150.00	1000	
Ba	137	115	HMI He	44.068	ppb	3.27	13292.52	5000	
W	182	165	HMI He	0.027	ppb	208.56	930.04	100	
Pt	195	165	HMI He	0.002	ppb	509.76	53.33	100	
Tl	205	165	HMI He	0.063	ppb	19.70	516.68	2000	
Pb	208	165	HMI He	216.783	ppb	2.46	1862797.02	5000	
Th	232	165	HMI He	2.187	ppb	2.63	20905.27	2000	
U	238	165	HMI He	0.366	ppb	4.41	3800.55	2000	
Li	7	45	No Gas	10.815	ppb	80.49	3175497.57	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	655152.65	1.55	677045.616666667	96.77	60	125	
Ge Internal Standard	72	HMI H2	13943973.54	0.87	14473454.2466667	96.34	60	125	
Sc (IS)	45	HMI He	771155.67	0.34	796963.27	96.76	60	125	
Ge Internal Standard	72	HMI He	1071593.28	1.37	1098224.49	97.58	60	125	
In Internal standard	115	HMI He	2990662.49	1.60	3046117.2	98.18	60	125	
Ho-165	165	HMI He	14158947.80	2.40	14305382.6933333	98.98	60	125	
Sc IS)	45	No Gas	51420406.48	2.16	50351432.79	102.12	60	120	

Sample Report

Sample Name	280-104412-a-77-e@50
File Name	306SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:17:45 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.268	ppb	12.52	98.33	2000	
B	11	6	HMI H2	3.048	ppb	13.83	1070.05	100	
Se	78	72	HMI H2	0.117	ppb	35.61	62.67	2000	
Na	23	45	HMI He	31.858	ppb	4.55	13605.69	400000	
Mg	24	45	HMI He	5279.898	ppb	1.10	405317.29	400000	
Al	27	45	HMI He	3464.561	ppb	0.91	62352.50	400000	
K	39	45	HMI He	844.209	ppb	1.82	66616.90	400000	
Ca	44	45	HMI He	25012.461	ppb	0.41	59968.31	400000	
V	51	72	HMI He	5.275	ppb	7.86	6528.06	2000	
Cr	52	72	HMI He	4.964	ppb	4.33	7141.65	5000	
Mn	55	72	HMI He	82.418	ppb	2.02	40827.82	10000	
Fe	57	72	HMI He	3239.400	ppb	0.81	81770.25	400000	
Co	59	72	HMI He	1.224	ppb	7.88	3110.33	2000	
Ni	60	72	HMI He	3.058	ppb	10.51	2580.25	5000	
Cu	63	72	HMI He	14.428	ppb	0.93	29984.51	5000	
Zn	66	72	HMI He	15.210	ppb	9.02	4193.94	5000	
As	75	72	HMI He	1.212	ppb	1.09	258.17	2000	
Sr	88	45	HMI He	52.444	ppb	4.95	27103.13	2000	
Zr	90	72	HMI He	4166.941	ppb	4.35	4387.33	1000	
Nb	93	72	HMI He	0.068	ppb	23.26	326.68	200	
Mo	95	115	HMI He	0.216	ppb	30.08	226.67	2000	
Pd	105	115	HMI He	0.017	ppb	153.84	50.00	100	
Ag	107	115	HMI He	0.021	ppb	17.59	80.00	100	
Cd	111	115	HMI He	0.079	ppb	87.68	30.00	2000	
Sn	120	115	HMI He	0.158	ppb	14.63	356.68	2000	
Sb	121	115	HMI He	0.108	ppb	24.64	126.67	1000	
Ba	137	115	HMI He	31.092	ppb	3.20	9232.85	5000	
W	182	165	HMI He	0.007	ppb	717.13	860.04	100	
Pt	195	165	HMI He	0.010	ppb	19.41	76.67	100	
Tl	205	165	HMI He	0.038	ppb	11.44	356.68	2000	
Pb	208	165	HMI He	194.095	ppb	0.46	1676820.27	5000	
Th	232	165	HMI He	1.562	ppb	4.53	15051.40	2000	
U	238	165	HMI He	0.233	ppb	5.31	2453.59	2000	
Li	7	45	No Gas	1.608	ppb	571.13	3156286.63	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	656019.22	0.94	677045.616666667	96.89	60	125	
Ge Internal Standard	72	HMI H2	13917915.84	1.24	14473454.2466667	96.16	60	125	
Sc (IS)	45	HMI He	773949.37	1.15	796963.27	97.11	60	125	
Ge Internal Standard	72	HMI He	1067542.14	0.59	1098224.49	97.21	60	125	
In Internal standard	115	HMI He	2944500.00	2.63	3046117.2	96.66	60	125	
Ho-165	165	HMI He	14228692.18	0.14	14305382.6933333	99.46	60	125	
Sc IS)	45	No Gas	52370740.19	1.04	50351432.79	104.01	60	120	

Sample Report

Sample Name	280-104412-a-78-e@50
File Name	307SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:21:26 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399895 SOIL 6020A Q5
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.216	ppb	44.64	78.33	2000	
B	11	6	HMI H2	3.638	ppb	12.95	1230.06	100	
Se	78	72	HMI H2	0.087	ppb	84.64	52.00	2000	
Na	23	45	HMI He	40.825	ppb	6.48	15423.87	400000	
Mg	24	45	HMI He	6743.222	ppb	2.24	524187.07	400000	
Al	27	45	HMI He	4287.999	ppb	1.95	78151.04	400000	
K	39	45	HMI He	963.508	ppb	3.41	72748.87	400000	
Ca	44	45	HMI He	31587.052	ppb	3.68	76683.83	400000	
V	51	72	HMI He	6.657	ppb	5.76	7978.74	2000	
Cr	52	72	HMI He	7.139	ppb	0.80	10176.68	5000	
Mn	55	72	HMI He	105.298	ppb	3.40	52129.64	10000	
Fe	57	72	HMI He	4082.083	ppb	1.12	102965.13	400000	
Co	59	72	HMI He	1.598	ppb	4.85	4057.22	2000	
Ni	60	72	HMI He	4.215	ppb	5.64	3417.07	5000	
Cu	63	72	HMI He	24.652	ppb	2.85	50377.90	5000	
Zn	66	72	HMI He	20.487	ppb	8.22	5561.01	5000	
As	75	72	HMI He	1.645	ppb	8.79	341.83	2000	
Sr	88	45	HMI He	64.853	ppb	2.17	33952.84	2000	
Zr	90	72	HMI He	5549.830	ppb	10.98	5797.82	1000	>LDR
Nb	93	72	HMI He	0.044	ppb	41.21	236.67	200	
Mo	95	115	HMI He	0.215	ppb	40.23	233.34	2000	
Pd	105	115	HMI He	-0.009	ppb	-109.40	13.33	100	
Ag	107	115	HMI He	0.021	ppb	25.30	83.33	100	
Cd	111	115	HMI He	0.210	ppb	50.65	83.33	2000	
Sn	120	115	HMI He	0.156	ppb	29.57	370.01	2000	
Sb	121	115	HMI He	0.089	ppb	44.21	113.33	1000	
Ba	137	115	HMI He	40.671	ppb	7.56	12611.97	5000	
W	182	165	HMI He	0.026	ppb	111.15	940.05	100	
Pt	195	165	HMI He	0.000	ppb	5993.80	46.67	100	
Tl	205	165	HMI He	0.047	ppb	13.19	416.68	2000	
Pb	208	165	HMI He	318.931	ppb	0.07	2766171.84	5000	
Th	232	165	HMI He	2.007	ppb	1.82	19379.83	2000	
U	238	165	HMI He	0.304	ppb	6.83	3190.40	2000	
Li	7	45	No Gas	4.879	ppb	74.25	3179488.43	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	644507.84	2.01	677045.616666667	95.19	60	125	
Ge Internal Standard	72	HMI H2	13639356.27	2.47	14473454.2466667	94.24	60	125	
Sc (IS)	45	HMI He	783941.57	1.20	796963.27	98.37	60	125	
Ge Internal Standard	72	HMI He	1066972.35	0.87	1098224.49	97.15	60	125	
In Internal standard	115	HMI He	3075663.59	2.75	3046117.2	100.97	60	125	
Ho-165	165	HMI He	14289332.07	2.53	14305382.6933333	99.89	60	125	
Sc IS)	45	No Gas	52287939.36	2.31	50351432.79	103.85	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	308_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:25:15 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	502.372	ppb	8.40	233380.55	500	100.47	90	110	
Be	9	6	HMI H2	49.674	ppb	2.70	17106.99	50	99.35	90	110	
B	11	6	HMI H2	52.802	ppb	4.98	15897.58	50	105.6	90	110	
Se	78	72	HMI H2	50.082	ppb	2.63	16580.56	50	100.16	90	110	
Na	23	45	HMI He	4810.217	ppb	2.33	885930.70	5000	96.2	90	110	
Mg	24	45	HMI He	5035.573	ppb	2.16	389100.66	5000	100.71	90	110	
Al	27	45	HMI He	5053.519	ppb	1.54	91511.63	5000	101.07	90	110	
K	39	45	HMI He	5039.620	ppb	2.23	251496.00	5000	100.79	90	110	
Ca	44	45	HMI He	5141.073	ppb	4.83	12444.83	5000	102.82	90	110	
V	51	72	HMI He	49.885	ppb	1.72	54175.83	50	99.77	90	110	
Cr	52	72	HMI He	49.067	ppb	2.23	69674.04	50	98.13	90	110	
Mn	55	72	HMI He	48.960	ppb	1.24	24591.97	50	97.92	90	110	
Fe	57	72	HMI He	4986.885	ppb	0.65	127482.78	5000	99.74	90	110	
Co	59	72	HMI He	50.096	ppb	0.84	128464.34	50	100.19	90	110	
Ni	60	72	HMI He	49.586	ppb	0.86	36738.07	50	99.17	90	110	
Cu	63	72	HMI He	50.960	ppb	3.46	104325.77	50	101.92	90	110	
Zn	66	72	HMI He	54.896	ppb	4.66	14663.45	50	109.79	90	110	
As	75	72	HMI He	51.948	ppb	1.54	10212.38	50	103.9	90	110	
Sr	88	45	HMI He	51.047	ppb	3.52	26559.02	50	102.09	90	110	
Zr	90	72	HMI He	259.183	ppb	34.01	390.01	50	518.37	90	110	>+\-10%
Nb	93	72	HMI He	103.218	ppb	1.16	400710.08	100	103.22	90	110	
Mo	95	115	HMI He	49.144	ppb	3.24	48189.70	50	98.29	90	110	
Pd	105	115	HMI He	50.073	ppb	1.18	75817.91	50	100.15	90	110	
Ag	107	115	HMI He	48.887	ppb	1.87	161711.77	50	97.77	90	110	
Cd	111	115	HMI He	49.254	ppb	3.27	19635.80	50	98.51	90	110	
Sn	120	115	HMI He	48.739	ppb	1.58	50214.11	50	97.48	90	110	
Sb	121	115	HMI He	49.113	ppb	1.50	47669.71	50	98.23	90	110	
Ba	137	115	HMI He	48.482	ppb	1.91	14964.09	50	96.96	90	110	
W	182	165	HMI He	50.547	ppb	1.37	193355.78	50	101.09	90	110	
Pt	195	165	HMI He	50.050	ppb	1.72	153598.98	50	100.1	90	110	
Tl	205	165	HMI He	50.817	ppb	0.79	338378.02	50	101.63	90	110	
Pb	208	165	HMI He	51.481	ppb	1.13	448958.44	50	102.96	90	110	
Th	232	165	HMI He	50.822	ppb	0.61	488162.91	50	101.64	90	110	
U	238	165	HMI He	49.744	ppb	0.37	515843.65	50	99.49	90	110	
Li	7	45	No Gas	532.046	ppb	1.39	7552522.73	500	106.41	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	637134.20	4.48	677045.616666667	94.11	60	125	
Ge Internal Standard	72	HMI H2	14109042.81	1.16	14473454.2466667	97.48	60	125	
Sc (IS)	45	HMI He	779094.57	1.57	796963.27	97.76	60	125	
Ge Internal Standard	72	HMI He	1081437.85	0.80	1098224.49	98.47	60	125	
In Internal standard	115	HMI He	3059648.80	0.35	3046117.2	100.44	60	125	
Ho-165	165	HMI He	14330783.00	0.45	14305382.6933333	100.18	60	125	
Sc IS)	45	No Gas	51549451.48	0.16	50351432.79	102.38	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	309_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:28:53 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	14.398	ppb	58.55	94494.42	0.1	>RL
Be	9	6	HMI H2	0.100	ppb	20.77	38.33	0.5	
B	11	6	HMI H2	1.437	ppb	39.30	570.02	0.1	>RL
Se	78	72	HMI H2	0.041	ppb	152.27	37.33	1	
Na	23	45	HMI He	-1.651	ppb	-50.47	7608.47	25	
Mg	24	45	HMI He	0.042	ppb	3040.50	326.67	25	
Al	27	45	HMI He	-0.485	ppb	-454.58	66.67	15	
K	39	45	HMI He	-10.326	ppb	-118.51	29623.37	50	
Ca	44	45	HMI He	-6.492	ppb	-37.48	36.67	25	
V	51	72	HMI He	-0.187	ppb	-85.06	783.36	1	
Cr	52	72	HMI He	0.051	ppb	42.30	276.67	1	
Mn	55	72	HMI He	0.009	ppb	574.69	53.33	0.5	
Fe	57	72	HMI He	0.850	ppb	117.59	86.67	25	
Co	59	72	HMI He	-0.004	ppb	-60.04	3.33	0.5	
Ni	60	72	HMI He	-0.002	ppb	-4778.54	366.68	1	
Cu	63	72	HMI He	-0.073	ppb	-41.08	1016.71	1	
Zn	66	72	HMI He	0.203	ppb	87.92	310.01	5	
As	75	72	HMI He	-0.014	ppb	-39.74	20.92	1	
Sr	88	45	HMI He	0.019	ppb	99.37	10.00	1	
Zr	90	72	HMI He	-45.871	ppb	-48.62	73.33	1	
Nb	93	72	HMI He	0.288	ppb	17.92	1176.73	2	
Mo	95	115	HMI He	0.025	ppb	23.85	46.67	0.5	
Pd	105	115	HMI He	0.059	ppb	24.05	113.33	1	
Ag	107	115	HMI He	0.004	ppb	153.49	26.67	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.024	ppb	137.53	226.67	1	
Sb	121	115	HMI He	0.191	ppb	27.36	206.67	1	
Ba	137	115	HMI He	0.001	ppb	5230.48	6.67	0.5	
W	182	165	HMI He	0.036	ppb	182.93	970.05	1	
Pt	195	165	HMI He	0.013	ppb	157.24	86.67	1	
Tl	205	165	HMI He	0.014	ppb	60.61	196.67	0.1	
Pb	208	165	HMI He	0.055	ppb	8.46	1833.40	0.5	
Th	232	165	HMI He	0.020	ppb	38.27	346.68	1	
U	238	165	HMI He	0.008	ppb	18.44	140.00	0.5	
Li	7	45	No Gas	12.150	ppb	85.07	3228804.29	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	650501.47	1.23	677045.616666667	96.08	60	125	
Ge Internal Standard	72	HMI H2	13787150.53	2.42	14473454.2466667	95.26	60	125	
Sc (IS)	45	HMI He	782516.24	1.46	796963.27	98.19	60	125	
Ge Internal Standard	72	HMI He	1073205.45	0.27	1098224.49	97.72	60	125	
In Internal standard	115	HMI He	2982340.40	0.15	3046117.2	97.91	60	125	
Ho-165	165	HMI He	14194416.34	1.14	14305382.6933333	99.22	60	125	
Sc IS)	45	No Gas	52106658.53	2.60	50351432.79	103.49	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	310LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:33:31 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.093	ppb	5.30	395.01	1	109.32	70	130	
Se	78	72	HMI H2	4.644	ppb	8.70	1584.08	5	92.87	70	130	
Na	23	45	HMI He	48.826	ppb	1.69	17188.93	50	97.65	70	130	
Mg	24	45	HMI He	49.134	ppb	2.03	4213.90	50	98.27	70	130	
Al	27	45	HMI He	31.306	ppb	9.36	656.69	30	104.35	70	130	
K	39	45	HMI He	79.715	ppb	34.89	34242.13	100	79.71	70	130	
Ca	44	45	HMI He	55.320	ppb	40.57	190.00	50	110.64	70	130	
V	51	72	HMI He	5.088	ppb	7.13	6461.36	5	101.75	70	130	
Cr	52	72	HMI He	1.995	ppb	10.04	3053.66	2	99.75	70	130	
Mn	55	72	HMI He	1.037	ppb	16.54	573.35	1	103.7	70	130	
Fe	57	72	HMI He	50.119	ppb	8.52	1356.74	50	100.24	70	130	
Co	59	72	HMI He	0.976	ppb	2.29	2533.56	1	97.56	70	130	
Ni	60	72	HMI He	2.103	ppb	23.53	1930.14	2	105.15	70	130	
Cu	63	72	HMI He	1.852	ppb	10.26	4957.50	2	92.62	70	130	
Zn	66	72	HMI He	10.857	ppb	6.57	3130.34	10	108.57	70	130	
As	75	72	HMI He	5.197	ppb	1.67	1051.01	5	103.93	70	130	
Sr	88	45	HMI He	0.970	ppb	14.04	516.68	1	97	70	130	
Zr	90	72	HMI He	70.962	ppb	53.78	196.67	0.5	14192.31	70	130	>+/-30%
Nb	93	72	HMI He	0.275	ppb	2.22	1143.39	2	13.73	70	130	>+/-30%
Mo	95	115	HMI He	2.013	ppb	7.69	2013.50	2	100.67	70	130	
Pd	105	115	HMI He	0.015	ppb	177.46	50.00	1	1.5	70	130	>+/-30%
Ag	107	115	HMI He	4.702	ppb	3.17	15681.35	5	94.03	70	130	
Cd	111	115	HMI He	1.154	ppb	7.14	463.35	1	115.36	70	130	
Sn	120	115	HMI He	9.486	ppb	5.49	10013.36	10	94.86	70	130	
Sb	121	115	HMI He	2.153	ppb	9.56	2133.50	2	107.67	70	130	
Ba	137	115	HMI He	0.792	ppb	31.46	253.34	1	79.15	70	130	
W	182	165	HMI He	4.745	ppb	2.07	19032.35	1	474.53	70	130	>+/-30%
Pt	195	165	HMI He	0.024	ppb	37.89	120.00	1	2.37	70	130	>+/-30%
Tl	205	165	HMI He	0.968	ppb	10.17	6591.59	1	96.79	70	130	
Pb	208	165	HMI He	1.089	ppb	2.33	10908.39	1	108.88	70	130	
Th	232	165	HMI He	1.983	ppb	1.64	19323.17	2	99.17	70	130	
U	238	165	HMI He	1.031	ppb	0.46	10810.88	1	103.11	70	130	
Li	7	45	No Gas	22.978	ppb	15.97	3573292.16	50	45.96	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	662693.95	2.65	677045.616666667	97.88	60	125	
Ge Internal Standard	72	HMI H2	14326580.60	1.99	14473454.2466667	98.99	60	125	
Sc (IS)	45	HMI He	797500.56	0.29	796963.27	100.07	60	125	
Ge Internal Standard	72	HMI He	1089711.31	0.91	1098224.49	99.22	60	125	
In Internal standard	115	HMI He	3083523.48	1.57	3046117.2	101.23	60	125	
Ho-165	165	HMI He	14418686.64	1.32	14305382.6933333	100.79	60	125	
Sc IS)	45	No Gas	56047576.25	0.55	50351432.79	111.31	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	311SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:37:17 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.026	ppb	144.80	11.67	2000	
B	11	6	HMI H2	1.159	ppb	48.75	456.68	100	
Se	78	72	HMI H2	0.107	ppb	15.37	54.67	2000	
Na	23	45	HMI He	4.162	ppb	28.25	7368.37	400000	
Mg	24	45	HMI He	-1.086	ppb	-83.33	203.34	400000	
Al	27	45	HMI He	5.574	ppb	80.91	150.00	400000	
K	39	45	HMI He	-15.476	ppb	-182.23	24969.14	400000	
Ca	44	45	HMI He	2.599	ppb	668.56	50.00	400000	
V	51	72	HMI He	0.963	ppb	23.52	1756.79	2000	
Cr	52	72	HMI He	0.092	ppb	15.31	293.34	5000	
Mn	55	72	HMI He	0.351	ppb	29.49	196.67	10000	
Fe	57	72	HMI He	8.206	ppb	15.53	240.01	400000	
Co	59	72	HMI He	0.008	ppb	1.76	30.00	2000	
Ni	60	72	HMI He	0.068	ppb	101.41	366.68	5000	
Cu	63	72	HMI He	0.186	ppb	33.67	1350.07	5000	
Zn	66	72	HMI He	0.836	ppb	17.15	416.68	5000	
As	75	72	HMI He	0.031	ppb	230.85	26.14	2000	
Sr	88	45	HMI He	0.090	ppb	65.67	40.00	2000	
Zr	90	72	HMI He	-2.634	ppb	-906.87	103.33	1000	
Nb	93	72	HMI He	0.060	ppb	18.77	263.34	200	
Mo	95	115	HMI He	0.006	ppb	203.21	26.67	2000	
Pd	105	115	HMI He	0.094	ppb	39.32	153.33	100	
Ag	107	115	HMI He	0.020	ppb	25.84	73.33	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.708	ppb	22.44	846.70	2000	
Sb	121	115	HMI He	0.259	ppb	39.50	253.34	1000	
Ba	137	115	HMI He	0.061	ppb	86.15	23.33	5000	
W	182	165	HMI He	0.108	ppb	54.03	1153.40	100	
Pt	195	165	HMI He	-0.007	ppb	-165.43	23.33	100	
Tl	205	165	HMI He	0.009	ppb	80.79	150.00	2000	
Pb	208	165	HMI He	0.265	ppb	16.98	3393.54	5000	
Th	232	165	HMI He	0.027	ppb	23.23	386.68	2000	
U	238	165	HMI He	0.000	ppb	-898.17	46.67	2000	
Li	7	45	No Gas	25.898	ppb	21.48	3175303.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	612150.93	0.40	677045.616666667	90.42	60	125	
Ge Internal Standard	72	HMI H2	12849343.60	2.26	14473454.2466667	88.78	60	125	
Sc (IS)	45	HMI He	664593.37	0.80	796963.27	83.39	60	125	
Ge Internal Standard	72	HMI He	942320.12	1.09	1098224.49	85.8	60	125	
In Internal standard	115	HMI He	2776957.81	1.69	3046117.2	91.16	60	125	
Ho-165	165	HMI He	13221431.81	2.06	14305382.6933333	92.42	60	125	
Sc IS)	45	No Gas	49448169.50	2.33	50351432.79	98.21	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	312SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:40:51 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.035	ppb	2.13	15.00	2000	
B	11	6	HMI H2	0.263	ppb	77.81	206.67	100	
Se	78	72	HMI H2	0.041	ppb	61.09	38.67	2000	
Na	23	45	HMI He	-1.784	ppb	-103.08	7728.54	400000	
Mg	24	45	HMI He	-1.229	ppb	-78.52	233.34	400000	
Al	27	45	HMI He	2.174	ppb	209.33	116.67	400000	
K	39	45	HMI He	-4.147	ppb	-350.07	30451.54	400000	
Ca	44	45	HMI He	-5.346	ppb	-276.98	40.00	400000	
V	51	72	HMI He	0.043	ppb	149.69	1060.04	2000	
Cr	52	72	HMI He	0.006	ppb	651.80	220.00	5000	
Mn	55	72	HMI He	-0.020	ppb	-166.08	40.00	10000	
Fe	57	72	HMI He	2.013	ppb	130.65	120.00	400000	
Co	59	72	HMI He	0.003	ppb	303.06	20.00	2000	
Ni	60	72	HMI He	0.005	ppb	1403.46	383.34	5000	
Cu	63	72	HMI He	-0.081	ppb	-191.71	1033.38	5000	
Zn	66	72	HMI He	0.340	ppb	99.24	356.68	5000	
As	75	72	HMI He	-0.030	ppb	-36.44	18.30	2000	
Sr	88	45	HMI He	0.050	ppb	57.82	26.67	2000	
Zr	90	72	HMI He	-63.713	ppb	-47.57	56.67	1000	
Nb	93	72	HMI He	0.007	ppb	122.43	100.00	200	
Mo	95	115	HMI He	0.000	ppb	-75995.51	23.33	2000	
Pd	105	115	HMI He	0.004	ppb	185.53	33.33	100	
Ag	107	115	HMI He	-0.002	ppb	-85.01	6.67	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	-0.060	ppb	-8.42	146.67	2000	
Sb	121	115	HMI He	0.007	ppb	501.84	33.33	1000	
Ba	137	115	HMI He	0.076	ppb	42.35	30.00	5000	
W	182	165	HMI He	0.023	ppb	279.44	933.37	100	
Pt	195	165	HMI He	0.006	ppb	289.64	66.67	100	
Tl	205	165	HMI He	-0.002	ppb	-185.08	90.00	2000	
Pb	208	165	HMI He	0.004	ppb	215.07	1423.38	5000	
Th	232	165	HMI He	0.004	ppb	14.04	193.34	2000	
U	238	165	HMI He	0.001	ppb	252.17	66.67	2000	
Li	7	45	No Gas	1.557	ppb	42.40	3319831.34	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	632504.50	1.69	677045.616666667	93.42	60	125	
Ge Internal Standard	72	HMI H2	14223854.26	0.61	14473454.2466667	98.28	60	125	
Sc (IS)	45	HMI He	797128.27	0.84	796963.27	100.02	60	125	
Ge Internal Standard	72	HMI He	1107149.10	0.34	1098224.49	100.81	60	125	
In Internal standard	115	HMI He	3065552.89	0.40	3046117.2	100.64	60	125	
Ho-165	165	HMI He	14437499.35	0.70	14305382.6933333	100.92	60	125	
Sc IS)	45	No Gas	55082714.63	1.26	50351432.79	109.4	60	120	

Sample Report

Sample Name	RINSE-4884883
File Name	313SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:44:25 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.032	ppb	121.46	13.33	2000	
B	11	6	HMI H2	0.647	ppb	38.96	303.34	100	
Se	78	72	HMI H2	0.052	ppb	48.96	38.67	2000	
Na	23	45	HMI He	1.731	ppb	60.69	7041.54	400000	
Mg	24	45	HMI He	0.440	ppb	95.94	306.68	400000	
Al	27	45	HMI He	5.520	ppb	101.97	150.00	400000	
K	39	45	HMI He	-25.712	ppb	-67.74	24768.79	400000	
Ca	44	45	HMI He	12.140	ppb	40.15	70.00	400000	
V	51	72	HMI He	1.038	ppb	25.97	1836.80	2000	
Cr	52	72	HMI He	0.112	ppb	35.65	320.01	5000	
Mn	55	72	HMI He	0.387	ppb	72.17	213.34	10000	
Fe	57	72	HMI He	9.787	ppb	11.69	276.68	400000	
Co	59	72	HMI He	0.016	ppb	43.81	46.67	2000	
Ni	60	72	HMI He	0.023	ppb	662.35	340.01	5000	
Cu	63	72	HMI He	0.129	ppb	77.66	1256.73	5000	
Zn	66	72	HMI He	1.505	ppb	37.24	573.35	5000	
As	75	72	HMI He	0.038	ppb	30.55	27.45	2000	
Sr	88	45	HMI He	0.089	ppb	25.18	40.00	2000	
Zr	90	72	HMI He	-21.646	ppb	-241.93	86.67	1000	
Nb	93	72	HMI He	0.022	ppb	85.07	136.67	200	
Mo	95	115	HMI He	-0.013	ppb	-87.95	10.00	2000	
Pd	105	115	HMI He	0.082	ppb	41.73	136.67	100	
Ag	107	115	HMI He	0.017	ppb	31.74	63.33	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.584	ppb	22.77	733.36	2000	
Sb	121	115	HMI He	0.120	ppb	8.04	130.00	1000	
Ba	137	115	HMI He	0.074	ppb	102.44	26.67	5000	
W	182	165	HMI He	0.111	ppb	29.40	1170.06	100	
Pt	195	165	HMI He	-0.011	ppb	-52.01	13.33	100	
Tl	205	165	HMI He	0.000	ppb	-718.51	93.33	2000	
Pb	208	165	HMI He	0.097	ppb	28.55	2053.42	5000	
Th	232	165	HMI He	0.018	ppb	49.72	303.34	2000	
U	238	165	HMI He	0.001	ppb	190.38	60.00	2000	
Li	7	45	No Gas	25.908	ppb	25.85	3168788.19	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	600012.40	1.29	677045.616666667	88.62	60	125	
Ge Internal Standard	72	HMI H2	13001329.53	1.50	14473454.2466667	89.83	60	125	
Sc (IS)	45	HMI He	669625.04	0.85	796963.27	84.02	60	125	
Ge Internal Standard	72	HMI He	947866.38	0.38	1098224.49	86.31	60	125	
In Internal standard	115	HMI He	2782493.86	1.48	3046117.2	91.35	60	125	
Ho-165	165	HMI He	13270467.02	1.45	14305382.6933333	92.77	60	125	
Sc IS)	45	No Gas	49346620.34	3.00	50351432.79	98	60	120	

Sample Report

Sample Name	RINSE-4875024
File Name	314SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:48:02 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.005	ppb	263.02	5.00	2000	
B	11	6	HMI H2	0.221	ppb	82.30	196.67	100	
Se	78	72	HMI H2	-0.012	ppb	-120.23	21.33	2000	
Na	23	45	HMI He	0.432	ppb	353.07	8132.06	400000	
Mg	24	45	HMI He	0.847	ppb	63.66	396.68	400000	
Al	27	45	HMI He	0.180	ppb	583.41	80.00	400000	
K	39	45	HMI He	-36.936	ppb	-43.02	28935.42	400000	
Ca	44	45	HMI He	-9.417	ppb	-75.46	30.00	400000	
V	51	72	HMI He	-0.188	ppb	-64.69	813.36	2000	
Cr	52	72	HMI He	0.084	ppb	132.74	336.69	5000	
Mn	55	72	HMI He	-0.028	ppb	-263.79	36.67	10000	
Fe	57	72	HMI He	0.718	ppb	198.40	86.67	400000	
Co	59	72	HMI He	0.000	ppb	-5714.80	13.33	2000	
Ni	60	72	HMI He	-0.051	ppb	-220.13	343.34	5000	
Cu	63	72	HMI He	-0.073	ppb	-143.41	1053.39	5000	
Zn	66	72	HMI He	0.232	ppb	12.60	330.01	5000	
As	75	72	HMI He	0.008	ppb	153.48	26.14	2000	
Sr	88	45	HMI He	0.019	ppb	99.36	10.00	2000	
Zr	90	72	HMI He	-45.330	ppb	-32.18	76.67	1000	
Nb	93	72	HMI He	0.001	ppb	2093.80	73.33	200	
Mo	95	115	HMI He	0.037	ppb	99.44	60.00	2000	
Pd	105	115	HMI He	-0.005	ppb	-235.42	20.00	100	
Ag	107	115	HMI He	0.004	ppb	43.56	26.67	100	
Cd	111	115	HMI He	0.008	ppb	173.21	3.33	2000	
Sn	120	115	HMI He	-0.046	ppb	-75.34	163.33	2000	
Sb	121	115	HMI He	0.013	ppb	155.47	40.00	1000	
Ba	137	115	HMI He	0.000	ppb	-18295.35	6.67	5000	
W	182	165	HMI He	0.056	ppb	108.38	1083.40	100	
Pt	195	165	HMI He	0.003	ppb	239.77	56.67	100	
Tl	205	165	HMI He	-0.007	ppb	-2.54	60.00	2000	
Pb	208	165	HMI He	0.002	ppb	87.21	1430.05	5000	
Th	232	165	HMI He	0.005	ppb	68.31	210.00	2000	
U	238	165	HMI He	0.000	ppb	-2215.84	53.33	2000	
Li	7	45	No Gas	7.589	ppb	68.72	3352061.33	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	642825.58	1.10	677045.616666667	94.95	60	125	
Ge Internal Standard	72	HMI H2	14520885.91	1.31	14473454.2466667	100.33	60	125	
Sc (IS)	45	HMI He	796120.61	0.99	796963.27	99.89	60	125	
Ge Internal Standard	72	HMI He	1114752.52	1.15	1098224.49	101.5	60	125	
In Internal standard	115	HMI He	3092504.87	0.51	3046117.2	101.52	60	125	
Ho-165	165	HMI He	14667097.78	1.97	14305382.6933333	102.53	60	125	
Sc IS)	45	No Gas	54722677.56	1.55	50351432.79	108.68	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	315SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:51:37 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.043	ppb	76.12	18.33	2000	
B	11	6	HMI H2	-0.106	ppb	-200.48	100.00	100	
Se	78	72	HMI H2	0.023	ppb	111.99	33.33	2000	
Na	23	45	HMI He	-2.244	ppb	-72.89	7878.61	400000	
Mg	24	45	HMI He	-0.329	ppb	-218.18	313.34	400000	
Al	27	45	HMI He	-1.180	ppb	-166.24	56.67	400000	
K	39	45	HMI He	-23.536	ppb	-197.41	30491.69	400000	
Ca	44	45	HMI He	-9.838	ppb	-80.29	30.00	400000	
V	51	72	HMI He	-0.148	ppb	-58.51	866.70	2000	
Cr	52	72	HMI He	-0.026	ppb	-102.46	176.67	5000	
Mn	55	72	HMI He	0.035	ppb	192.29	70.00	10000	
Fe	57	72	HMI He	0.811	ppb	93.42	90.00	400000	
Co	59	72	HMI He	-0.003	ppb	-82.42	6.67	2000	
Ni	60	72	HMI He	-0.183	ppb	-62.04	246.67	5000	
Cu	63	72	HMI He	-0.083	ppb	-85.28	1046.72	5000	
Zn	66	72	HMI He	0.059	ppb	334.35	286.67	5000	
As	75	72	HMI He	-0.022	ppb	-177.71	20.26	2000	
Sr	88	45	HMI He	0.018	ppb	0.54	10.00	2000	
Zr	90	72	HMI He	-61.645	ppb	-39.55	60.00	1000	
Nb	93	72	HMI He	-0.006	ppb	-46.39	46.67	200	
Mo	95	115	HMI He	0.020	ppb	108.29	43.33	2000	
Pd	105	115	HMI He	-0.003	ppb	-588.29	23.33	100	
Ag	107	115	HMI He	0.001	ppb	193.25	16.67	100	
Cd	111	115	HMI He	0.017	ppb	173.21	6.67	2000	
Sn	120	115	HMI He	-0.040	ppb	-175.64	170.00	2000	
Sb	121	115	HMI He	0.009	ppb	160.85	36.67	1000	
Ba	137	115	HMI He	0.000	ppb	-56414.61	6.67	5000	
W	182	165	HMI He	-0.026	ppb	-216.26	766.70	100	
Pt	195	165	HMI He	0.004	ppb	258.13	60.00	100	
Tl	205	165	HMI He	-0.004	ppb	-127.00	80.00	2000	
Pb	208	165	HMI He	-0.016	ppb	-93.74	1283.38	5000	
Th	232	165	HMI He	0.000	ppb	-2299.54	160.00	2000	
U	238	165	HMI He	-0.001	ppb	-237.56	40.00	2000	
Li	7	45	No Gas	1.852	ppb	295.76	3358910.76	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	656996.79	0.60	677045.616666667	97.04	60	125	
Ge Internal Standard	72	HMI H2	14546637.06	1.33	14473454.2466667	100.51	60	125	
Sc (IS)	45	HMI He	821819.38	0.54	796963.27	103.12	60	125	
Ge Internal Standard	72	HMI He	1127249.17	0.87	1098224.49	102.64	60	125	
In Internal standard	115	HMI He	3121375.63	1.91	3046117.2	102.47	60	125	
Ho-165	165	HMI He	14821622.77	0.50	14305382.6933333	103.61	60	125	
Sc IS)	45	No Gas	55698384.18	2.17	50351432.79	110.62	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	316SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:56:00 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.005	ppb	271.22	5.00	2000	
B	11	6	HMI H2	0.076	ppb	291.86	156.67	100	
Se	78	72	HMI H2	-0.013	ppb	-343.77	21.33	2000	
Na	23	45	HMI He	-3.009	ppb	-36.11	7678.51	400000	
Mg	24	45	HMI He	-0.553	ppb	-130.05	293.34	400000	
Al	27	45	HMI He	-0.981	ppb	-160.77	60.00	400000	
K	39	45	HMI He	-42.768	ppb	-45.55	29406.18	400000	
Ca	44	45	HMI He	2.137	ppb	493.86	60.00	400000	
V	51	72	HMI He	-0.058	ppb	-164.65	970.04	2000	
Cr	52	72	HMI He	0.000	ppb	6926.46	216.67	5000	
Mn	55	72	HMI He	0.048	ppb	165.06	76.67	10000	
Fe	57	72	HMI He	2.676	ppb	15.83	140.00	400000	
Co	59	72	HMI He	0.005	ppb	161.26	26.67	2000	
Ni	60	72	HMI He	-0.049	ppb	-183.51	350.01	5000	
Cu	63	72	HMI He	-0.122	ppb	-43.44	966.71	5000	
Zn	66	72	HMI He	0.217	ppb	105.79	330.01	5000	
As	75	72	HMI He	-0.004	ppb	-890.53	24.18	2000	
Sr	88	45	HMI He	0.031	ppb	91.44	16.67	2000	
Zr	90	72	HMI He	-43.233	ppb	-77.84	80.00	1000	
Nb	93	72	HMI He	-0.002	ppb	-69.61	63.33	200	
Mo	95	115	HMI He	-0.001	ppb	-2986.24	23.33	2000	
Pd	105	115	HMI He	-0.007	ppb	-103.48	16.67	100	
Ag	107	115	HMI He	0.003	ppb	162.24	23.33	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.061	ppb	40.10	280.01	2000	
Sb	121	115	HMI He	-0.004	ppb	-354.40	23.33	1000	
Ba	137	115	HMI He	0.031	ppb	155.46	16.67	5000	
W	182	165	HMI He	0.032	ppb	129.17	1000.05	100	
Pt	195	165	HMI He	-0.007	ppb	-105.70	26.67	100	
Tl	205	165	HMI He	-0.003	ppb	-62.64	83.33	2000	
Pb	208	165	HMI He	-0.009	ppb	-52.70	1343.38	5000	
Th	232	165	HMI He	0.000	ppb	-789.72	160.00	2000	
U	238	165	HMI He	0.002	ppb	144.09	80.00	2000	
Li	7	45	No Gas	0.237	ppb	938.97	3376514.41	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	656438.11	1.20	677045.616666667	96.96	60	125	
Ge Internal Standard	72	HMI H2	14597892.99	1.63	14473454.2466667	100.86	60	125	
Sc (IS)	45	HMI He	816374.75	0.46	796963.27	102.44	60	125	
Ge Internal Standard	72	HMI He	1130349.76	1.08	1098224.49	102.93	60	125	
In Internal standard	115	HMI He	3158506.32	0.33	3046117.2	103.69	60	125	
Ho-165	165	HMI He	14869758.70	1.16	14305382.6933333	103.95	60	125	
Sc IS)	45	No Gas	56224569.15	0.89	50351432.79	111.66	60	120	

Sample Report

Sample Name	RINSE-4896488
File Name	317SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 5:59:29 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	274CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.015	ppb	54.24	8.33	2000	
B	11	6	HMI H2	0.027	ppb	401.56	140.00	100	
Se	78	72	HMI H2	-0.012	ppb	-145.89	21.33	2000	
Na	23	45	HMI He	-1.510	ppb	-143.38	7911.99	400000	
Mg	24	45	HMI He	-1.321	ppb	-75.99	230.00	400000	
Al	27	45	HMI He	-1.317	ppb	-161.40	53.33	400000	
K	39	45	HMI He	-22.630	ppb	-133.18	30130.85	400000	
Ca	44	45	HMI He	-15.020	ppb	-55.07	16.67	400000	
V	51	72	HMI He	-0.038	ppb	-255.47	993.38	2000	
Cr	52	72	HMI He	0.047	ppb	91.64	286.67	5000	
Mn	55	72	HMI He	-0.022	ppb	-230.80	40.00	10000	
Fe	57	72	HMI He	2.288	ppb	1.87	130.00	400000	
Co	59	72	HMI He	-0.001	ppb	-263.70	10.00	2000	
Ni	60	72	HMI He	0.011	ppb	702.42	396.68	5000	
Cu	63	72	HMI He	-0.068	ppb	-26.95	1083.38	5000	
Zn	66	72	HMI He	0.335	ppb	114.32	363.34	5000	
As	75	72	HMI He	-0.048	ppb	-98.61	15.03	2000	
Sr	88	45	HMI He	0.067	ppb	68.30	36.67	2000	
Zr	90	72	HMI He	-31.407	ppb	-160.12	93.33	1000	
Nb	93	72	HMI He	-0.001	ppb	-382.24	66.67	200	
Mo	95	115	HMI He	-0.004	ppb	-456.27	20.00	2000	
Pd	105	115	HMI He	0.016	ppb	233.13	53.34	100	
Ag	107	115	HMI He	0.002	ppb	331.78	20.00	100	
Cd	111	115	HMI He	0.016	ppb	173.21	6.67	2000	
Sn	120	115	HMI He	0.008	ppb	306.46	226.67	2000	
Sb	121	115	HMI He	-0.008	ppb	-220.34	20.00	1000	
Ba	137	115	HMI He	-0.001	ppb	-6397.20	6.67	5000	
W	182	165	HMI He	-0.016	ppb	-198.06	816.70	100	
Pt	195	165	HMI He	-0.001	ppb	-1556.24	46.67	100	
Tl	205	165	HMI He	-0.009	ppb	-44.57	43.33	2000	
Pb	208	165	HMI He	-0.016	ppb	-62.09	1290.04	5000	
Th	232	165	HMI He	0.003	ppb	268.28	193.34	2000	
U	238	165	HMI He	-0.001	ppb	-445.40	50.00	2000	
Li	7	45	No Gas	-2.089	ppb	-250.26	3368898.94	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	649400.37	1.80	677045.616666667	95.92	60	125	
Ge Internal Standard	72	HMI H2	14662399.96	0.90	14473454.2466667	101.31	60	125	
Sc (IS)	45	HMI He	811026.02	0.72	796963.27	101.76	60	125	
Ge Internal Standard	72	HMI He	1132880.10	0.88	1098224.49	103.16	60	125	
In Internal standard	115	HMI He	3202878.56	1.44	3046117.2	105.15	60	125	
Ho-165	165	HMI He	14979401.20	0.81	14305382.6933333	104.71	60	125	
Sc IS)	45	No Gas	56448979.97	0.70	50351432.79	112.11	60	120	

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	318CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:02:55 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	97661.89	ppb	0.19
Be	9	6	HMI H2	13.33	ppb	86.60
B	11	6	HMI H2	130.00	ppb	23.08
Se	78	72	HMI H2	14.67	ppb	41.66
Na	23	45	HMI He	7865.27	ppb	2.93
Mg	24	45	HMI He	323.34	ppb	28.06
Al	27	45	HMI He	93.33	ppb	16.37
K	39	45	HMI He	29403.03	ppb	4.38
Ca	44	45	HMI He	46.67	ppb	65.47
V	51	72	HMI He	846.70	ppb	6.82
Cr	52	72	HMI He	243.34	ppb	42.78
Mn	55	72	HMI He	50.00	ppb	40.00
Fe	57	72	HMI He	63.33	ppb	9.12
Co	59	72	HMI He	6.67	ppb	173.21
Ni	60	72	HMI He	323.34	ppb	30.98
Cu	63	72	HMI He	946.71	ppb	9.82
Zn	66	72	HMI He	250.00	ppb	6.93
As	75	72	HMI He	13.72	ppb	75.62
Sr	88	45	HMI He	10.00	ppb	100.00
Zr	90	72	HMI He	83.33	ppb	6.93
Nb	93	72	HMI He	83.33	ppb	30.20
Mo	95	115	HMI He	26.67	ppb	57.28
Pd	105	115	HMI He	10.00	ppb	100.00
Ag	107	115	HMI He	23.33	ppb	89.21
Sn	120	115	HMI He	200.01	ppb	10.00
Sb	121	115	HMI He	26.67	ppb	57.28
Ba	137	115	HMI He	10.00	ppb	100.00
W	182	165	HMI He	993.38	ppb	17.62
Pt	195	165	HMI He	20.00	ppb	50.00
Tl	205	165	HMI He	70.00	ppb	14.29
Pb	208	165	HMI He	1376.72	ppb	6.87
Th	232	165	HMI He	136.67	ppb	4.22
U	238	165	HMI He	60.00	ppb	50.00
Li	7	45	No Gas	3347401.73	ppb	2.58

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	659107.21	0.16
Ge Internal Standard	72	HMI H2	14754747.04	1.54
Sc (IS)	45	HMI He	813740.90	1.48
Ge Internal Standard	72	HMI He	1117328.63	1.04
In Internal standard	115	HMI He	3102279.77	2.85
Ho-165	165	HMI He	14882965.79	1.50
Sc IS)	45	No Gas	54746399.65	0.91

Calibration Standard Report

Sample Name	IC-4905894
File Name	319CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:06:21 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	376145.69	ppb	3.36
Be	9	6	HMI H2	36138.23	ppb	3.59
B	11	6	HMI H2	30334.08	ppb	5.35
Se	78	72	HMI H2	34301.69	ppb	1.27
Na	23	45	HMI He	1914204.56	ppb	1.38
Mg	24	45	HMI He	787121.17	ppb	0.31
Al	27	45	HMI He	185681.69	ppb	0.63
K	39	45	HMI He	486719.07	ppb	0.85
Ca	44	45	HMI He	25740.22	ppb	2.34
V	51	72	HMI He	109680.03	ppb	1.83
Cr	52	72	HMI He	143094.63	ppb	1.65
Mn	55	72	HMI He	50153.23	ppb	1.74
Fe	57	72	HMI He	260017.01	ppb	1.74
Co	59	72	HMI He	260195.69	ppb	1.90
Ni	60	72	HMI He	72705.37	ppb	1.78
Cu	63	72	HMI He	205353.13	ppb	1.04
Zn	66	72	HMI He	27733.79	ppb	1.41
As	75	72	HMI He	20620.94	ppb	0.38
Sr	88	45	HMI He	53158.22	ppb	1.60
Zr	90	72	HMI He	220.00	ppb	27.65
Nb	93	72	HMI He	810521.67	ppb	0.78
Mo	95	115	HMI He	97209.12	ppb	2.33
Pd	105	115	HMI He	148141.25	ppb	1.64
Ag	107	115	HMI He	327437.04	ppb	1.70
Cd	111	115	HMI He	39469.72	ppb	4.08
Sn	120	115	HMI He	100169.26	ppb	1.65
Sb	121	115	HMI He	97499.01	ppb	0.34
Ba	137	115	HMI He	30690.84	ppb	1.75
W	182	165	HMI He	383934.56	ppb	1.28
Pt	195	165	HMI He	316744.56	ppb	0.75
Tl	205	165	HMI He	671776.60	ppb	0.70
Pb	208	165	HMI He	886337.44	ppb	0.49
Th	232	165	HMI He	981045.34	ppb	2.09
U	238	165	HMI He	1038174.22	ppb	1.74
Li	7	45	No Gas	12573447.16	ppb	1.36

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	663669.02	2.69	659107.213333333	100.69	60	125	
Ge Internal Standard	72	HMI H2	14479749.56	1.92	14754747.04	98.14	60	125	
Sc (IS)	45	HMI He	807560.42	1.72	813740.9	99.24	60	125	
Ge Internal Standard	72	HMI He	1110729.63	1.32	1117328.62666667	99.41	60	125	
In Internal standard	115	HMI He	3130263.03	0.43	3102279.77	100.9	60	125	
Ho-165	165	HMI He	14550377.57	1.44	14882965.7866667	97.77	60	125	
Sc IS)	45	No Gas	55118039.63	1.02	54746399.6466667	100.68	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	320_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:09:47 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	481.584	ppb	5.50	234920.43	500	96.32	90	110	
Be	9	6	HMI H2	50.642	ppb	1.09	18141.39	50	101.28	90	110	
B	11	6	HMI H2	55.362	ppb	3.17	16711.74	50	110.72	90	110	>+\-10%
Se	78	72	HMI H2	51.403	ppb	1.29	17779.15	50	102.81	90	110	
Na	23	45	HMI He	4830.891	ppb	0.72	939353.45	5000	96.62	90	110	
Mg	24	45	HMI He	5098.155	ppb	1.19	406093.71	5000	101.96	90	110	
Al	27	45	HMI He	5165.557	ppb	1.68	97066.15	5000	103.31	90	110	
K	39	45	HMI He	5131.906	ppb	1.01	267020.57	5000	102.64	90	110	
Ca	44	45	HMI He	4914.693	ppb	3.31	12818.42	5000	98.29	90	110	
V	51	72	HMI He	51.030	ppb	2.27	57664.48	50	102.06	90	110	
Cr	52	72	HMI He	51.326	ppb	0.30	75208.22	50	102.65	90	110	
Mn	55	72	HMI He	52.408	ppb	1.26	26895.49	50	104.82	90	110	
Fe	57	72	HMI He	4989.112	ppb	2.81	132639.11	5000	99.78	90	110	
Co	59	72	HMI He	51.373	ppb	0.22	136663.08	50	102.75	90	110	
Ni	60	72	HMI He	52.488	ppb	3.29	39173.90	50	104.98	90	110	
Cu	63	72	HMI He	51.552	ppb	2.50	108699.90	50	103.1	90	110	
Zn	66	72	HMI He	51.036	ppb	3.18	14596.64	50	102.07	90	110	
As	75	72	HMI He	51.578	ppb	1.72	10881.44	50	103.16	90	110	
Sr	88	45	HMI He	52.603	ppb	1.57	28291.96	50	105.21	90	110	
Zr	90	72	HMI He	115.220	ppb	30.20	246.67	50	230.44	90	110	>+\-10%
Nb	93	72	HMI He	101.804	ppb	2.55	421812.29	100	101.8	90	110	
Mo	95	115	HMI He	50.888	ppb	0.91	50249.34	50	101.78	90	110	
Pd	105	115	HMI He	53.113	ppb	0.12	79914.96	50	106.23	90	110	
Ag	107	115	HMI He	51.537	ppb	0.94	171397.07	50	103.07	90	110	
Cd	111	115	HMI He	52.376	ppb	2.61	20997.52	50	104.75	90	110	
Sn	120	115	HMI He	52.158	ppb	4.11	53150.31	50	104.32	90	110	
Sb	121	115	HMI He	51.643	ppb	0.51	51150.47	50	103.29	90	110	
Ba	137	115	HMI He	51.224	ppb	0.39	15971.76	50	102.45	90	110	
W	182	165	HMI He	50.924	ppb	1.27	200863.78	50	101.85	90	110	
Pt	195	165	HMI He	49.173	ppb	2.72	159604.79	50	98.35	90	110	
Tl	205	165	HMI He	51.162	ppb	0.55	352252.38	50	102.32	90	110	
Pb	208	165	HMI He	50.868	ppb	1.27	462706.87	50	101.74	90	110	
Th	232	165	HMI He	50.250	ppb	2.74	505256.38	50	100.5	90	110	
U	238	165	HMI He	50.738	ppb	1.92	539691.83	50	101.48	90	110	
Li	7	45	No Gas	541.090	ppb	2.78	8314231.96	500	108.22	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	657594.52	0.93	659107.213333333	99.77	60	125	
Ge Internal Standard	72	HMI H2	14593086.43	1.41	14754747.04	98.9	60	125	
Sc (IS)	45	HMI He	816736.17	0.09	813740.9	100.37	60	125	
Ge Internal Standard	72	HMI He	1135575.71	0.70	1117328.62666667	101.63	60	125	
In Internal standard	115	HMI He	3179026.32	0.69	3102279.77	102.47	60	125	
Ho-165	165	HMI He	14909918.39	1.40	14882965.7866667	100.18	60	125	
Sc IS)	45	No Gas	54883610.05	0.31	54746399.6466667	100.25	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	321_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:13:15 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	6.429	ppb	213.39	97025.41	0.1	>RL
Be	9	6	HMI H2	0.042	ppb	52.89	28.33	0.5	
B	11	6	HMI H2	2.080	ppb	8.67	750.02	0.1	>RL
Se	78	72	HMI H2	0.126	ppb	84.99	57.33	1	
Na	23	45	HMI He	0.322	ppb	580.57	8031.99	25	
Mg	24	45	HMI He	-1.049	ppb	-33.88	243.34	25	
Al	27	45	HMI He	-2.522	ppb	-32.00	46.67	15	
K	39	45	HMI He	16.250	ppb	12.06	30562.05	50	
Ca	44	45	HMI He	-11.774	ppb	-49.54	16.67	25	
V	51	72	HMI He	0.273	ppb	52.87	1166.72	1	
Cr	52	72	HMI He	-0.024	ppb	-86.71	213.33	1	
Mn	55	72	HMI He	-0.008	ppb	-746.85	46.67	0.5	
Fe	57	72	HMI He	3.334	ppb	34.78	153.33	25	
Co	59	72	HMI He	0.012	ppb	59.47	40.00	0.5	
Ni	60	72	HMI He	0.073	ppb	12.15	383.34	1	
Cu	63	72	HMI He	0.018	ppb	466.96	1003.38	1	
Zn	66	72	HMI He	-0.076	ppb	-162.06	233.34	5	
As	75	72	HMI He	0.027	ppb	32.23	19.61	1	
Sr	88	45	HMI He	-0.006	ppb	-166.43	6.67	1	
Zr	90	72	HMI He	-27.044	ppb	-31.01	46.67	1	
Nb	93	72	HMI He	0.396	ppb	9.77	1726.79	2	
Mo	95	115	HMI He	0.043	ppb	84.64	70.00	0.5	
Pd	105	115	HMI He	0.077	ppb	4.79	126.67	1	
Ag	107	115	HMI He	0.006	ppb	211.29	43.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	-0.025	ppb	-39.13	180.00	1	
Sb	121	115	HMI He	0.456	ppb	18.61	480.01	1	
Ba	137	115	HMI He	-0.023	ppb	-81.64	3.33	0.5	
W	182	165	HMI He	0.011	ppb	82.37	1046.72	1	
Pt	195	165	HMI He	0.020	ppb	65.63	86.67	1	
Tl	205	165	HMI He	0.018	ppb	94.27	196.67	0.1	
Pb	208	165	HMI He	-0.010	ppb	-120.73	1300.05	0.5	
Th	232	165	HMI He	0.031	ppb	23.89	450.01	1	
U	238	165	HMI He	0.011	ppb	37.81	183.34	0.5	
Li	7	45	No Gas	-4.843	ppb	-110.53	3450315.42	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	655506.50	1.52	659107.213333333	99.45	60	125	
Ge Internal Standard	72	HMI H2	14470520.70	0.89	14754747.04	98.07	60	125	
Sc (IS)	45	HMI He	824407.18	0.22	813740.9	101.31	60	125	
Ge Internal Standard	72	HMI He	1138198.25	0.67	1117328.62666667	101.87	60	125	
In Internal standard	115	HMI He	3184457.38	1.45	3102279.77	102.65	60	125	
Ho-165	165	HMI He	15028354.43	2.28	14882965.7866667	100.98	60	125	
Sc IS)	45	No Gas	57187035.35	0.54	54746399.6466667	104.46	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	322LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:16:41 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.159	ppb	39.94	398.34	1	115.93	70	130	
Se	78	72	HMI H2	5.219	ppb	27.12	1686.76	5	104.39	70	130	
Na	23	45	HMI He	50.234	ppb	7.00	17599.36	50	100.47	70	130	
Mg	24	45	HMI He	50.133	ppb	6.31	4320.60	50	100.27	70	130	
Al	27	45	HMI He	29.960	ppb	18.64	656.69	30	99.87	70	130	
K	39	45	HMI He	111.729	ppb	22.26	34739.94	100	111.73	70	130	
Ca	44	45	HMI He	65.135	ppb	43.47	216.67	50	130.27	70	130	>+/-30%
V	51	72	HMI He	4.603	ppb	3.65	6001.16	5	92.06	70	130	
Cr	52	72	HMI He	1.962	ppb	7.21	3120.35	2	98.09	70	130	
Mn	55	72	HMI He	1.167	ppb	5.14	650.02	1	116.66	70	130	
Fe	57	72	HMI He	55.146	ppb	16.54	1533.43	50	110.29	70	130	
Co	59	72	HMI He	1.037	ppb	1.16	2773.62	1	103.73	70	130	
Ni	60	72	HMI He	1.931	ppb	9.05	1763.45	2	96.57	70	130	
Cu	63	72	HMI He	2.216	ppb	10.00	5611.05	2	110.8	70	130	
Zn	66	72	HMI He	10.425	ppb	2.80	3193.68	10	104.25	70	130	
As	75	72	HMI He	5.070	ppb	3.85	1085.01	5	101.39	70	130	
Sr	88	45	HMI He	1.022	ppb	24.02	560.02	1	102.16	70	130	
Zr	90	72	HMI He	138.339	ppb	21.67	280.01	0.5	27667.77	70	130	>+/-30%
Nb	93	72	HMI He	0.364	ppb	11.02	1596.77	2	18.19	70	130	>+/-30%
Mo	95	115	HMI He	2.046	ppb	10.04	2010.16	2	102.28	70	130	
Pd	105	115	HMI He	0.074	ppb	35.38	120.00	1	7.41	70	130	>+/-30%
Ag	107	115	HMI He	5.002	ppb	3.07	16352.04	5	100.05	70	130	
Cd	111	115	HMI He	1.135	ppb	21.10	446.68	1	113.51	70	130	
Sn	120	115	HMI He	10.569	ppb	3.02	10733.84	10	105.69	70	130	
Sb	121	115	HMI He	2.260	ppb	8.72	2223.52	2	113	70	130	
Ba	137	115	HMI He	1.013	ppb	6.65	320.01	1	101.28	70	130	
W	182	165	HMI He	5.053	ppb	1.89	21088.42	1	505.35	70	130	>+/-30%
Pt	195	165	HMI He	0.025	ppb	8.00	103.33	1	2.53	70	130	>+/-30%
Tl	205	165	HMI He	0.978	ppb	2.17	6888.37	1	97.83	70	130	
Pb	208	165	HMI He	1.024	ppb	2.91	10801.73	1	102.44	70	130	
Th	232	165	HMI He	1.956	ppb	3.91	20044.14	2	97.81	70	130	
U	238	165	HMI He	0.974	ppb	2.84	10557.31	1	97.44	70	130	
Li	7	45	No Gas	21.370	ppb	69.47	3641678.35	50	42.74	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	635448.60	15.54	659107.213333333	96.41	60	125	
Ge Internal Standard	72	HMI H2	13938061.56	16.10	14754747.04	94.46	60	125	
Sc (IS)	45	HMI He	817688.01	0.54	813740.9	100.49	60	125	
Ge Internal Standard	72	HMI He	1138806.33	0.86	1117328.62666667	101.92	60	125	
In Internal standard	115	HMI He	3120862.64	1.29	3102279.77	100.6	60	125	
Ho-165	165	HMI He	15096986.92	1.99	14882965.7866667	101.44	60	125	
Sc IS)	45	No Gas	56303010.40	2.05	54746399.6466667	102.84	60	120	

Blank Report

Sample Name	mb 280-399896/1-a
File Name	323_BLK.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:20:08 AM
Sample Type	Blank
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	28.125	ppb	34.65	95054.23	0.1	>DL
Be	9	6	HMI H2	-0.008	ppb	-372.57	10.00	0.5	
Se	78	72	HMI H2	0.134	ppb	55.04	57.33	1	
Na	23	45	HMI He	218.886	ppb	7.11	43052.19	25	>DL
Mg	24	45	HMI He	39.625	ppb	3.64	2990.30	25	>DL
Al	27	45	HMI He	5.772	ppb	46.42	173.33	15	
K	39	45	HMI He	64.486	ppb	64.53	27957.15	50	>DL
Ca	44	45	HMI He	123.469	ppb	49.53	316.67	25	>DL
V	51	72	HMI He	1.421	ppb	12.84	2160.18	1	>DL
Cr	52	72	HMI He	0.375	ppb	10.24	703.36	1	
Mn	55	72	HMI He	0.702	ppb	45.86	363.34	0.5	>DL
Fe	57	72	HMI He	22.539	ppb	9.68	586.69	25	
Co	59	72	HMI He	0.017	ppb	61.88	46.67	0.5	
Ni	60	72	HMI He	0.620	ppb	23.67	696.69	1	
Cu	63	72	HMI He	2.053	ppb	7.95	4647.38	1	>DL
Zn	66	72	HMI He	3.145	ppb	16.62	1006.71	5	
As	75	72	HMI He	0.099	ppb	31.02	30.72	1	
Sr	88	45	HMI He	0.365	ppb	55.77	176.67	1	
Zr	90	72	HMI He	65.686	ppb	69.78	156.67	1	>DL
Nb	93	72	HMI He	0.082	ppb	19.44	373.34	2	
Mo	95	115	HMI He	0.077	ppb	86.63	93.33	0.5	
Pd	105	115	HMI He	0.118	ppb	55.17	170.00	1	
Ag	107	115	HMI He	0.013	ppb	78.39	60.00	1	
Cd	111	115	HMI He	0.009	ppb	173.21	3.33	0.5	
Sn	120	115	HMI He	0.241	ppb	21.41	406.68	1	
Sb	121	115	HMI He	0.296	ppb	16.66	290.01	1	
Ba	137	115	HMI He	0.558	ppb	25.52	166.67	0.5	>DL
W	182	165	HMI He	0.053	ppb	62.53	1123.39	1	
Pt	195	165	HMI He	0.043	ppb	48.79	150.00	1	
Tl	205	165	HMI He	0.007	ppb	134.51	113.34	0.1	
Pb	208	165	HMI He	0.421	ppb	1.42	4843.71	0.5	
Th	232	165	HMI He	0.018	ppb	28.60	300.01	1	
U	238	165	HMI He	0.007	ppb	37.07	123.33	0.5	
Li	7	45	No Gas	19.058	ppb	7.51	3362718.26	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	630075.06	1.34	659107.213333333	95.6	60	125	
Ge Internal Standard	72	HMI H2	13712078.87	0.42	14754747.04	92.93	60	125	
Sc (IS)	45	HMI He	702080.28	1.02	813740.9	86.28	60	125	
Ge Internal Standard	72	HMI He	1004443.00	0.35	1117328.62666667	89.9	60	125	
In Internal standard	115	HMI He	2874690.48	1.12	3102279.77	92.66	60	125	
Ho-165	165	HMI He	13893979.49	1.35	14882965.7866667	93.35	60	125	
Sc IS)	45	No Gas	52276181.44	2.00	54746399.6466667	95.49	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399896/2-a
File Name	324LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:23:35 AM
Sample Type	LCS-s
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	200.901	ppb	1.45	65388.30	200	100.45	80	120	
Mg	24	45	HMI H2	32.659	ppb	1.85	90231.21	200	16.33	80	120	NewName Main CR1 Failed
Se	78	72	HMI H2	205.542	ppb	2.28	65255.17	200	102.77	80	120	
(Se)	82	72	HMI H2	202.350	ppb	3.41	27330.14	200	101.18	80	120	
Na	23	45	HMI He	202.342	ppb	1.47	39924.24	200	101.17	80	120	
Mg	24	45	HMI He	33.177	ppb	1.90	2523.56	200000	0.02	80	120	NewName Main CR1 Failed
Al	27	45	HMI He	2014.628	ppb	2.83	32261.17	200000	1.01	80	120	NewName Main CR1 Failed
K	39	45	HMI He	93.817	ppb	25.05	28818.57	200000	0.05	80	120	NewName Main CR1 Failed
Ca	44	45	HMI He	1405.035	ppb	6.89	3147.00	200000	0.7	80	120	NewName Main CR1 Failed
V	51	72	HMI He	207.400	ppb	3.32	203039.37	200	103.7	80	120	
Cr	52	72	HMI He	204.858	ppb	0.69	262439.51	200	102.43	80	120	
(Cr)	53	72	HMI He	214.010	ppb	3.57	33661.50	200	107.01	80	120	
Mn	55	72	HMI He	206.499	ppb	2.92	92740.72	200	103.25	80	120	
Fe	57	72	HMI He	2112.228	ppb	3.07	49250.68	200000	1.06	80	120	NewName Main CR1 Failed
Co	59	72	HMI He	211.207	ppb	0.99	492399.60	200	105.6	80	120	
Ni	60	72	HMI He	217.687	ppb	1.89	141463.58	200	108.84	80	120	
Cu	63	72	HMI He	221.114	ppb	1.83	405859.44	200	110.56	80	120	
Zn	66	72	HMI He	207.935	ppb	1.09	51448.09	200	103.97	80	120	
As	75	72	HMI He	205.926	ppb	2.36	38039.21	200	102.96	80	120	
Sr	88	45	HMI He	217.117	ppb	2.66	99357.11	200	108.56	80	120	
Nb	93	72	HMI He	0.090	ppb	17.32	400.01	400	0.02	80	120	NewName Main CR1 Failed
Mo	95	115	HMI He	214.765	ppb	1.93	189656.25	200	107.38	80	120	
Pd	105	115	HMI He	0.052	ppb	36.93	80.00	200	0.03	80	120	NewName Main CR1 Failed
Ag	107	115	HMI He	212.622	ppb	2.12	632567.74	200	106.31	80	120	
Cd	111	115	HMI He	212.055	ppb	1.77	76046.62	200	106.03	80	120	
(Cd)	114	115	HMI He	215.693	ppb	0.85	194803.04	200	107.85	80	120	
Sn	120	115	HMI He	211.269	ppb	3.67	192055.34	200	105.63	80	120	
Sb	121	115	HMI He	205.461	ppb	3.64	181952.39	200	102.73	80	110	
Ba	137	115	HMI He	205.121	ppb	2.28	57212.89	200	102.56	80	120	
W	182	165	HMI He	236.918	ppb	1.85	845743.84	200	118.46	80	120	
Pt	195	165	HMI He	0.049	ppb	5.37	163.33	200	0.02	80	120	NewName Main CR1 Failed
Tl	205	165	HMI He	218.532	ppb	4.91	1367977.61	200	109.27	80	120	
(Pb)	206	165	HMI He	217.047	ppb	1.64	431036.61	200	108.52	80	120	
(Pb)	207	165	HMI He	217.403	ppb	0.99	397868.51	200	108.7	80	120	
Pb	208	165	HMI He	215.675	ppb	1.63	1778330.20	200	107.84	80	120	

Laboratory Control Sample (LCS) Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	229.282	ppb	1.48	2094686.45	200	114.64	80	120	
U	238	165	HMI He	232.833	ppb	2.78	2250107.25	200	116.42	80	120	
Li	7	45	No Gas	224.389	ppb	1.87	5064059.53	2000	11.22	80	120	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	597861.85	0.83	659107.213333333	90.71	60	125	
Ge Internal Standard	72	HMI H2	13404420.76	1.24	14754747.04	90.85	60	125	
Sc (IS)	45	HMI He	695073.70	0.79	813740.9	85.42	60	125	
Ge Internal Standard	72	HMI He	995288.72	0.92	1117328.62666667	89.08	60	125	
In Internal standard	115	HMI He	2844559.45	1.52	3102279.77	91.69	60	125	
Ho-165	165	HMI He	13548511.59	2.11	14882965.7866667	91.03	60	125	
Sc IS)	45	No Gas	51353076.49	0.26	54746399.6466667	93.8	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcsd 280-399896/3-a
File Name	325LCS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:27:03 AM
Sample Type	LCS-s
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	206.262	ppb	2.65	67371.02	200	103.13	80	120	
Mg	24	45	HMI H2	39.505	ppb	3.14	107216.74	200	19.75	80	120	NewName Main CR1 Failed
Se	78	72	HMI H2	212.101	ppb	3.16	67536.54	200	106.05	80	120	
(Se)	82	72	HMI H2	205.152	ppb	1.52	27787.66	200	102.58	80	120	
Na	23	45	HMI He	245.765	ppb	1.05	46848.51	200	122.88	80	120	NewName Main CR1 Failed
Mg	24	45	HMI He	39.174	ppb	0.91	2916.96	200000	0.02	80	120	NewName Main CR1 Failed
Al	27	45	HMI He	2147.023	ppb	1.31	34231.74	200000	1.07	80	120	NewName Main CR1 Failed
K	39	45	HMI He	89.810	ppb	12.03	28544.71	200000	0.04	80	120	NewName Main CR1 Failed
Ca	44	45	HMI He	1351.079	ppb	16.84	3016.99	200000	0.68	80	120	NewName Main CR1 Failed
V	51	72	HMI He	213.689	ppb	1.15	209900.00	200	106.84	80	120	
Cr	52	72	HMI He	216.689	ppb	0.29	278511.32	200	108.34	80	120	
(Cr)	53	72	HMI He	220.901	ppb	2.05	34857.38	200	110.45	80	120	
Mn	55	72	HMI He	216.521	ppb	1.76	97572.23	200	108.26	80	120	
Fe	57	72	HMI He	2175.247	ppb	2.07	50895.55	200000	1.09	80	120	NewName Main CR1 Failed
Co	59	72	HMI He	217.858	ppb	0.69	509611.48	200	108.93	80	120	
Ni	60	72	HMI He	221.355	ppb	1.84	144328.68	200	110.68	80	120	
Cu	63	72	HMI He	226.582	ppb	0.67	417283.41	200	113.29	80	120	
Zn	66	72	HMI He	218.678	ppb	2.14	54273.57	200	109.34	80	120	
As	75	72	HMI He	214.143	ppb	1.87	39692.84	200	107.07	80	120	
Sr	88	45	HMI He	225.610	ppb	3.50	102775.40	200	112.8	80	120	
Nb	93	72	HMI He	0.073	ppb	20.45	340.01	400	0.02	80	120	NewName Main CR1 Failed
Mo	95	115	HMI He	228.370	ppb	1.74	195529.59	200	114.19	80	120	
Pd	105	115	HMI He	0.019	ppb	118.95	33.33	200	0.01	80	120	NewName Main CR1 Failed
Ag	107	115	HMI He	232.059	ppb	1.45	669396.30	200	116.03	80	120	
Cd	111	115	HMI He	227.652	ppb	1.65	79158.59	200	113.83	80	120	
(Cd)	114	115	HMI He	225.289	ppb	0.87	197267.72	200	112.64	80	120	
Sn	120	115	HMI He	227.319	ppb	2.25	200385.09	200	113.66	80	120	
Sb	121	115	HMI He	221.785	ppb	0.88	190471.93	200	110.89	80	110	NewName Main CR1 Failed
Ba	137	115	HMI He	220.000	ppb	0.97	59474.36	200	110	80	120	
W	182	165	HMI He	245.770	ppb	1.48	867278.04	200	122.88	80	120	NewName Main CR1 Failed
Pt	195	165	HMI He	0.030	ppb	16.34	106.67	200	0.02	80	120	NewName Main CR1 Failed
Tl	205	165	HMI He	227.661	ppb	6.16	1406868.00	200	113.83	80	120	
(Pb)	206	165	HMI He	230.415	ppb	5.28	451982.78	200	115.21	80	120	
(Pb)	207	165	HMI He	228.861	ppb	3.77	413763.04	200	114.43	80	120	
Pb	208	165	HMI He	228.838	ppb	4.29	1864085.45	200	114.42	80	120	

Laboratory Control Sample (LCS) Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	240.452	ppb	3.49	2170375.49	200	120.23	80	120	NewName Main CR1 Failed
U	238	165	HMI He	244.652	ppb	2.20	2336906.73	200	122.33	80	120	NewName Main CR1 Failed
Li	7	45	No Gas	230.870	ppb	2.53	5154504.26	2000	11.54	80	120	NewName Main CR1 Failed

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	600016.45	1.79	659107.213333333	91.03	60	125	
Ge Internal Standard	72	HMI H2	13443177.11	0.65	14754747.04	91.11	60	125	
Sc (IS)	45	HMI He	692113.07	1.01	813740.9	85.05	60	125	
Ge Internal Standard	72	HMI He	998591.00	0.52	1117328.62666667	89.37	60	125	
In Internal standard	115	HMI He	2757668.78	0.23	3102279.77	88.89	60	125	
Ho-165	165	HMI He	13393773.47	2.96	14882965.7866667	89.99	60	125	
Sc IS)	45	No Gas	51702886.05	1.77	54746399.6466667	94.44	60	120	

Sample Report

Sample Name	280-104412-a-1-h
File Name	326SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:30:32 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	10.731	ppb	4.02	3108.64	2000	
B	11	6	HMI H2	163.577	ppb	1.59	39659.93	100	
Se	78	72	HMI H2	7.941	ppb	3.40	2220.17	2000	
Na	23	45	HMI He	2540.032	ppb	0.77	416291.91	400000	
Mg	24	45	HMI He	330426.533	ppb	1.53	21997834.90	400000	
Al	27	45	HMI He	195915.488	ppb	2.09	3076324.63	400000	
K	39	45	HMI He	46407.277	ppb	3.15	1820938.79	400000	
Ca	44	45	HMI He	2079865.550	ppb	2.06	4520548.30	400000	>LDR
V	51	72	HMI He	463.072	ppb	0.83	408564.46	2000	
Cr	52	72	HMI He	398.997	ppb	0.67	461369.67	5000	
Mn	55	72	HMI He	5847.906	ppb	1.52	2370721.05	10000	
Fe	57	72	HMI He	264018.225	ppb	1.55	5552658.56	400000	
Co	59	72	HMI He	88.289	ppb	0.57	185865.11	2000	
Ni	60	72	HMI He	243.051	ppb	0.40	142604.34	5000	
Cu	63	72	HMI He	538.106	ppb	0.93	890811.13	5000	
Zn	66	72	HMI He	860.700	ppb	0.38	191646.85	5000	
As	75	72	HMI He	102.251	ppb	1.63	17061.27	2000	
Sr	88	45	HMI He	4728.791	ppb	0.87	2126631.97	2000	
Zr	90	72	HMI He	173397.762	ppb	3.06	193240.53	1000	>LDR
Nb	93	72	HMI He	11.112	ppb	2.00	36502.03	200	
Mo	95	115	HMI He	23.768	ppb	0.26	18601.06	2000	
Pd	105	115	HMI He	0.256	ppb	12.28	313.34	100	
Ag	107	115	HMI He	0.957	ppb	2.19	2540.23	100	
Cd	111	115	HMI He	9.462	ppb	2.90	3003.65	2000	
Sn	120	115	HMI He	14.056	ppb	2.29	11467.69	2000	
Sb	121	115	HMI He	213.582	ppb	1.01	167475.81	1000	
Ba	137	115	HMI He	2194.108	ppb	0.97	541516.96	5000	
W	182	165	HMI He	4.383	ppb	7.38	15441.49	100	
Pt	195	165	HMI He	0.052	ppb	24.73	160.00	100	
Tl	205	165	HMI He	2.818	ppb	2.78	16526.14	2000	
Pb	208	165	HMI He	12400.646	ppb	1.42	95457675.86	5000	
Th	232	165	HMI He	100.991	ppb	2.04	861789.97	2000	
U	238	165	HMI He	18.857	ppb	2.47	170271.27	2000	
Li	7	45	No Gas	223.227	ppb	4.39	4658617.52	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	530983.38	4.41	659107.213333333	80.56	60	125	
Ge Internal Standard	72	HMI H2	11739880.01	0.74	14754747.04	79.57	60	125	
Sc (IS)	45	HMI He	683192.92	0.66	813740.9	83.96	60	125	
Ge Internal Standard	72	HMI He	898686.40	0.52	1117328.62666667	80.43	60	125	
In Internal standard	115	HMI He	2518039.42	1.24	3102279.77	81.17	60	125	
Ho-165	165	HMI He	12654064.65	0.99	14882965.7866667	85.02	60	125	
Sc IS)	45	No Gas	47337891.70	1.30	54746399.6466667	86.47	60	120	

Sample Report

Sample Name	280-104412-a-1-hSD@5
File Name	327SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:33:57 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	2.093	ppb	9.69	641.68	2000	
B	11	6	HMI H2	36.263	ppb	6.27	9212.62	100	
Se	78	72	HMI H2	1.196	ppb	3.69	386.68	2000	
Na	23	45	HMI He	508.599	ppb	1.47	93465.04	400000	
Mg	24	45	HMI He	67716.746	ppb	0.22	4754233.66	400000	
Al	27	45	HMI He	38059.863	ppb	1.19	630279.56	400000	
K	39	45	HMI He	8691.038	ppb	1.07	380803.77	400000	
Ca	44	45	HMI He	402496.637	ppb	0.22	922586.97	400000	
V	51	72	HMI He	84.843	ppb	1.76	83645.12	2000	
Cr	52	72	HMI He	73.389	ppb	1.22	94305.96	5000	
Mn	55	72	HMI He	1051.170	ppb	1.71	472661.97	10000	
Fe	57	72	HMI He	47998.106	ppb	0.72	1119731.93	400000	
Co	59	72	HMI He	16.776	ppb	1.06	39177.12	2000	
Ni	60	72	HMI He	47.342	ppb	2.63	31036.33	5000	
Cu	63	72	HMI He	105.969	ppb	1.75	195239.31	5000	
Zn	66	72	HMI He	172.780	ppb	3.15	42843.17	5000	
As	75	72	HMI He	19.504	ppb	2.11	3619.37	2000	
Sr	88	45	HMI He	915.358	ppb	1.26	434083.64	2000	
Zr	90	72	HMI He	30973.179	ppb	0.64	38349.43	1000	>LDR
Nb	93	72	HMI He	2.084	ppb	4.25	7655.24	200	
Mo	95	115	HMI He	4.152	ppb	6.45	3690.47	2000	
Pd	105	115	HMI He	0.045	ppb	32.09	70.00	100	
Ag	107	115	HMI He	0.219	ppb	5.43	673.36	100	
Cd	111	115	HMI He	1.585	ppb	22.33	566.69	2000	
Sn	120	115	HMI He	2.908	ppb	4.86	2823.62	2000	
Sb	121	115	HMI He	40.083	ppb	1.42	35513.79	1000	
Ba	137	115	HMI He	415.353	ppb	1.66	115750.76	5000	
W	182	165	HMI He	0.787	ppb	12.26	3810.55	100	
Pt	195	165	HMI He	0.007	ppb	2.51	40.00	100	
Tl	205	165	HMI He	0.543	ppb	2.61	3557.15	2000	
Pb	208	165	HMI He	2428.135	ppb	1.84	20567135.29	5000	
Th	232	165	HMI He	18.711	ppb	2.86	175799.29	2000	
U	238	165	HMI He	3.623	ppb	1.14	36052.26	2000	
Li	7	45	No Gas	34.851	ppb	33.34	3530221.80	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	552007.09	3.94	659107.213333333	83.75	60	125	
Ge Internal Standard	72	HMI H2	13192026.81	1.26	14754747.04	89.41	60	125	
Sc (IS)	45	HMI He	720402.63	0.39	813740.9	88.53	60	125	
Ge Internal Standard	72	HMI He	996780.53	0.85	1117328.62666667	89.21	60	125	
In Internal standard	115	HMI He	2843504.88	1.82	3102279.77	91.66	60	125	
Ho-165	165	HMI He	13925835.21	1.33	14882965.7866667	93.57	60	125	
Sc IS)	45	No Gas	52712461.83	0.67	54746399.6466667	96.28	60	120	

Sample Report

Sample Name	280-104412-a-1-n ms
File Name	328SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:37:23 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	198.668	ppb	1.83	51191.85	2000	
B	11	6	HMI H2	346.468	ppb	4.24	74737.38	100	
Se	78	72	HMI H2	188.822	ppb	2.61	49373.94	2000	
Na	23	45	HMI He	2326.444	ppb	1.99	344311.80	400000	
Mg	24	45	HMI He	309308.927	ppb	1.69	18570681.74	400000	
Al	27	45	HMI He	193813.904	ppb	2.38	2744552.67	400000	
K	39	45	HMI He	43224.581	ppb	1.52	1531205.78	400000	
Ca	44	45	HMI He	1886168.855	ppb	1.82	3697229.57	400000	
V	51	72	HMI He	622.479	ppb	0.22	508869.40	2000	
Cr	52	72	HMI He	553.493	ppb	2.26	593105.34	5000	
Mn	55	72	HMI He	5566.423	ppb	1.96	2091931.92	10000	
Fe	57	72	HMI He	251485.784	ppb	1.73	4902322.14	400000	
Co	59	72	HMI He	255.011	ppb	1.27	497579.31	2000	
Ni	60	72	HMI He	400.180	ppb	0.96	217466.46	5000	
Cu	63	72	HMI He	657.347	ppb	1.71	1008453.84	5000	
Zn	66	72	HMI He	978.982	ppb	1.18	202020.85	5000	
As	75	72	HMI He	277.235	ppb	1.18	42861.00	2000	
Sr	88	45	HMI He	4629.835	ppb	2.05	1877870.17	2000	
Zr	90	72	HMI He	342546.292	ppb	1.56	353800.11	1000	>LDR
Nb	93	72	HMI He	11.410	ppb	3.64	34734.72	200	
Mo	95	115	HMI He	206.656	ppb	1.39	152594.78	2000	
Pd	105	115	HMI He	0.185	ppb	36.19	216.67	100	
Ag	107	115	HMI He	179.930	ppb	0.81	447632.42	100	
Cd	111	115	HMI He	184.685	ppb	0.90	55384.43	2000	
Sn	120	115	HMI He	196.582	ppb	3.03	149431.46	2000	
Sb	121	115	HMI He	208.153	ppb	1.41	154163.75	1000	
Ba	137	115	HMI He	2192.088	ppb	2.55	510921.46	5000	
W	182	165	HMI He	153.256	ppb	2.49	495591.03	100	
Pt	195	165	HMI He	0.034	ppb	82.48	106.67	100	
Tl	205	165	HMI He	179.235	ppb	1.23	1014935.47	2000	
Pb	208	165	HMI He	6963.001	ppb	1.36	51944610.41	5000	
Th	232	165	HMI He	300.633	ppb	1.29	2486387.73	2000	
U	238	165	HMI He	214.978	ppb	0.63	1881252.96	2000	
Li	7	45	No Gas	408.825	ppb	1.56	5773039.13	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	473277.23	3.69	659107.213333333	71.81	60	125	
Ge Internal Standard	72	HMI H2	11039664.74	1.62	14754747.04	74.82	60	125	
Sc (IS)	45	HMI He	616121.42	0.70	813740.9	75.71	60	125	
Ge Internal Standard	72	HMI He	833007.72	0.85	1117328.62666667	74.55	60	125	
In Internal standard	115	HMI He	2378519.92	1.73	3102279.77	76.67	60	125	
Ho-165	165	HMI He	12264988.32	1.10	14882965.7866667	82.41	60	125	
Sc IS)	45	No Gas	44614664.75	1.28	54746399.6466667	81.49	60	120	

Sample Report

Sample Name	280-104412-a-1-j msd
File Name	329SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:40:48 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	199.850	ppb	3.53	46817.38	2000	
B	11	6	HMI H2	349.694	ppb	4.12	68628.38	100	
Se	78	72	HMI H2	186.047	ppb	0.88	45013.23	2000	
Na	23	45	HMI He	2272.566	ppb	0.56	308320.68	400000	
Mg	24	45	HMI He	298319.751	ppb	0.62	16411266.85	400000	
Al	27	45	HMI He	187670.694	ppb	0.62	2435176.57	400000	
K	39	45	HMI He	43815.257	ppb	0.60	1421898.97	400000	
Ca	44	45	HMI He	1825774.716	ppb	0.69	3279268.56	400000	
V	51	72	HMI He	611.079	ppb	0.94	466358.72	2000	
Cr	52	72	HMI He	535.450	ppb	1.21	535682.48	5000	
Mn	55	72	HMI He	5444.979	ppb	1.17	1910215.54	10000	
Fe	57	72	HMI He	241879.829	ppb	1.25	4402012.53	400000	
Co	59	72	HMI He	250.904	ppb	0.66	457060.28	2000	
Ni	60	72	HMI He	395.891	ppb	0.71	200854.63	5000	
Cu	63	72	HMI He	693.176	ppb	0.29	992815.16	5000	
Zn	66	72	HMI He	956.547	ppb	0.60	184285.42	5000	
As	75	72	HMI He	271.516	ppb	0.87	39188.36	2000	
Sr	88	45	HMI He	4757.254	ppb	0.60	1767854.54	2000	
Zr	90	72	HMI He	349553.680	ppb	0.64	337067.48	1000	>LDR
Nb	93	72	HMI He	10.299	ppb	1.96	29280.41	200	
Mo	95	115	HMI He	213.355	ppb	1.29	148884.43	2000	
Pd	105	115	HMI He	0.181	ppb	35.67	200.01	100	
Ag	107	115	HMI He	181.040	ppb	0.35	425648.55	100	
Cd	111	115	HMI He	184.860	ppb	1.68	52387.12	2000	
Sn	120	115	HMI He	202.220	ppb	0.63	145310.34	2000	
Sb	121	115	HMI He	376.111	ppb	0.26	263263.93	1000	
Ba	137	115	HMI He	2195.943	ppb	0.11	483800.80	5000	
W	182	165	HMI He	150.116	ppb	1.69	464754.76	100	
Pt	195	165	HMI He	0.041	ppb	1.90	120.00	100	
Tl	205	165	HMI He	177.229	ppb	0.34	960849.32	2000	
Pb	208	165	HMI He	10815.576	ppb	1.32	77246432.22	5000	
Th	232	165	HMI He	305.168	ppb	2.41	2415865.68	2000	
U	238	165	HMI He	218.176	ppb	2.07	1827425.19	2000	
Li	7	45	No Gas	437.553	ppb	1.38	5684012.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	430438.02	1.81	659107.213333333	65.31	60	125	
Ge Internal Standard	72	HMI H2	10212384.88	1.36	14754747.04	69.21	60	125	
Sc (IS)	45	HMI He	564512.28	0.20	813740.9	69.37	60	125	
Ge Internal Standard	72	HMI He	777666.31	0.63	1117328.62666667	69.6	60	125	
In Internal standard	115	HMI He	2247712.93	1.19	3102279.77	72.45	60	125	
Ho-165	165	HMI He	11742308.45	1.64	14882965.7866667	78.9	60	125	
Sc IS)	45	No Gas	42358140.29	2.26	54746399.6466667	77.37	60	120	

Sample Report

Sample Name	280-104412-a-1-hPDS
File Name	330SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:44:11 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	255.941	ppb	1.03	54205.89	2000	
B	11	6	HMI H2	164.379	ppb	3.78	29185.21	100	
Se	78	72	HMI H2	240.317	ppb	1.17	55001.22	2000	
Na	23	45	HMI He	2373.876	ppb	0.67	302239.08	400000	
Mg	24	45	HMI He	314511.298	ppb	1.02	16249337.48	400000	
Al	27	45	HMI He	199374.963	ppb	1.96	2429560.52	400000	
K	39	45	HMI He	43441.264	ppb	1.86	1324291.11	400000	
Ca	44	45	HMI He	2002255.447	ppb	3.01	3377481.39	400000	>LDR
V	51	72	HMI He	649.081	ppb	0.31	470100.05	2000	
Cr	52	72	HMI He	582.728	ppb	0.87	553241.03	5000	
Mn	55	72	HMI He	5548.812	ppb	1.23	1847450.39	10000	
Fe	57	72	HMI He	245977.774	ppb	2.25	4247839.88	400000	
Co	59	72	HMI He	301.082	ppb	0.72	520494.46	2000	
Ni	60	72	HMI He	445.663	ppb	1.64	214528.46	5000	
Cu	63	72	HMI He	724.469	ppb	1.61	984601.77	5000	
Zn	66	72	HMI He	1045.101	ppb	1.35	191050.41	5000	
As	75	72	HMI He	329.878	ppb	1.03	45182.24	2000	
Sr	88	45	HMI He	5269.732	ppb	0.65	1839067.40	2000	
Zr	90	72	HMI He	455534.309	ppb	1.22	416825.71	1000	>LDR
Nb	93	72	HMI He	10.980	ppb	1.00	29617.69	200	
Mo	95	115	HMI He	261.116	ppb	1.07	174442.70	2000	
Pd	105	115	HMI He	0.225	ppb	22.04	236.67	100	
Ag	107	115	HMI He	57.405	ppb	0.69	129222.32	100	
Cd	111	115	HMI He	241.246	ppb	1.08	65455.99	2000	
Sn	120	115	HMI He	257.325	ppb	0.07	176981.57	2000	
Sb	121	115	HMI He	450.461	ppb	1.74	301831.89	1000	
Ba	137	115	HMI He	2378.024	ppb	0.38	501577.93	5000	
W	182	165	HMI He	236.050	ppb	2.09	704021.09	100	
Pt	195	165	HMI He	0.064	ppb	25.04	173.34	100	
Tl	205	165	HMI He	228.962	ppb	1.00	1196319.46	2000	
Pb	208	165	HMI He	12205.833	ppb	1.38	84024354.78	5000	
Th	232	165	HMI He	189.798	ppb	4.70	1448014.60	2000	
U	238	165	HMI He	273.604	ppb	3.37	2208664.42	2000	
Li	7	45	No Gas	508.542	ppb	2.37	6005298.80	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	389136.24	4.19	659107.213333333	59.04	60	125	IS Failed
Ge Internal Standard	72	HMI H2	9662144.29	0.66	14754747.04	65.48	60	125	
Sc (IS)	45	HMI He	530164.07	0.84	813740.9	65.15	60	125	
Ge Internal Standard	72	HMI He	738029.91	1.29	1117328.62666667	66.05	60	125	
In Internal standard	115	HMI He	2151834.87	1.03	3102279.77	69.36	60	125	
Ho-165	165	HMI He	11317256.39	1.25	14882965.7866667	76.04	60	125	
Sc IS)	45	No Gas	41116319.94	0.05	54746399.6466667	75.1	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	331_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:47:34 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	436.841	ppb	2.84	158030.39	500	87.37	90	110	>+\-10%
Be	9	6	HMI H2	52.323	ppb	3.94	12504.67	50	104.65	90	110	
B	11	6	HMI H2	61.742	ppb	1.89	12428.04	50	123.48	90	110	>+\-10%
Se	78	72	HMI H2	50.436	ppb	2.56	12987.94	50	100.87	90	110	
Na	23	45	HMI He	4536.563	ppb	1.88	652313.33	5000	90.73	90	110	
Mg	24	45	HMI He	4965.716	ppb	1.38	292365.40	5000	99.31	90	110	
Al	27	45	HMI He	5228.599	ppb	0.72	72620.03	5000	104.57	90	110	
K	39	45	HMI He	5020.829	ppb	1.68	193565.30	5000	100.42	90	110	
Ca	44	45	HMI He	5351.797	ppb	1.65	10313.32	5000	107.04	90	110	
V	51	72	HMI He	49.378	ppb	1.33	43250.30	50	98.76	90	110	
Cr	52	72	HMI He	48.588	ppb	2.50	55172.45	50	97.18	90	110	
Mn	55	72	HMI He	51.121	ppb	0.98	20329.39	50	102.24	90	110	
Fe	57	72	HMI He	4891.835	ppb	0.68	100785.11	5000	97.84	90	110	
Co	59	72	HMI He	49.588	ppb	0.27	102217.53	50	99.18	90	110	
Ni	60	72	HMI He	50.274	ppb	3.62	29076.11	50	100.55	90	110	
Cu	63	72	HMI He	50.548	ppb	0.99	82608.61	50	101.1	90	110	
Zn	66	72	HMI He	51.417	ppb	2.33	11394.11	50	102.83	90	110	
As	75	72	HMI He	51.006	ppb	2.13	8338.75	50	102.01	90	110	
Sr	88	45	HMI He	57.012	ppb	5.53	22659.61	50	114.02	90	110	>+\-10%
Zr	90	72	HMI He	627.068	ppb	8.56	750.03	50	1254.14	90	110	>+\-10%
Nb	93	72	HMI He	103.021	ppb	2.69	330744.95	100	103.02	90	110	
Mo	95	115	HMI He	48.457	ppb	2.84	39275.15	50	96.91	90	110	
Pd	105	115	HMI He	51.140	ppb	3.24	63149.16	50	102.28	90	110	
Ag	107	115	HMI He	49.829	ppb	2.40	136011.62	50	99.66	90	110	
Cd	111	115	HMI He	50.677	ppb	2.42	16679.05	50	101.35	90	110	
Sn	120	115	HMI He	53.127	ppb	1.12	44453.29	50	106.25	90	110	
Sb	121	115	HMI He	50.516	ppb	1.31	41070.66	50	101.03	90	110	
Ba	137	115	HMI He	50.811	ppb	3.97	13002.30	50	101.62	90	110	
W	182	165	HMI He	50.645	ppb	0.70	171803.08	50	101.29	90	110	
Pt	195	165	HMI He	49.033	ppb	1.59	136874.97	50	98.07	90	110	
Tl	205	165	HMI He	51.629	ppb	1.79	305635.31	50	103.26	90	110	
Pb	208	165	HMI He	53.868	ppb	2.19	421219.01	50	107.74	90	110	
Th	232	165	HMI He	51.262	ppb	2.09	443241.39	50	102.52	90	110	
U	238	165	HMI He	51.407	ppb	2.22	470196.71	50	102.81	90	110	
Li	7	45	No Gas	570.425	ppb	1.25	7510110.39	500	114.08	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	438816.00	1.01	659107.213333333	66.58	60	125	
Ge Internal Standard	72	HMI H2	10865843.08	1.26	14754747.04	73.64	60	125	
Sc (IS)	45	HMI He	603702.14	1.03	813740.9	74.19	60	125	
Ge Internal Standard	72	HMI He	879905.09	0.92	1117328.62666667	78.75	60	125	
In Internal standard	115	HMI He	2609752.56	1.36	3102279.77	84.12	60	125	
Ho-165	165	HMI He	12822206.10	1.93	14882965.7866667	86.15	60	125	
Sc IS)	45	No Gas	48021257.91	0.67	54746399.6466667	87.72	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	332_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:51:02 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-24.629	ppb	-29.49	70917.13	0.1	
Be	9	6	HMI H2	0.121	ppb	49.41	41.67	0.5	
B	11	6	HMI H2	4.900	ppb	12.09	1173.39	0.1	>RL
Se	78	72	HMI H2	0.083	ppb	85.76	34.67	1	
Na	23	45	HMI He	2.639	ppb	105.33	6598.02	25	
Mg	24	45	HMI He	7.071	ppb	17.46	696.69	25	
Al	27	45	HMI He	2.024	ppb	151.02	103.33	15	
K	39	45	HMI He	40.951	ppb	61.78	24671.85	50	
Ca	44	45	HMI He	12.913	ppb	44.29	63.33	25	
V	51	72	HMI He	-0.037	ppb	-487.94	666.69	1	
Cr	52	72	HMI He	-0.007	ppb	-541.38	193.33	1	
Mn	55	72	HMI He	0.173	ppb	44.29	113.33	0.5	
Fe	57	72	HMI He	11.140	ppb	9.93	293.34	25	
Co	59	72	HMI He	0.018	ppb	55.19	43.33	0.5	
Ni	60	72	HMI He	0.037	ppb	151.66	290.01	1	
Cu	63	72	HMI He	1.280	ppb	12.99	2960.32	1	>RL
Zn	66	72	HMI He	0.247	ppb	159.16	263.34	5	
As	75	72	HMI He	0.071	ppb	69.74	23.53	1	
Sr	88	45	HMI He	0.092	ppb	39.62	46.67	1	
Zr	90	72	HMI He	6.742	ppb	935.35	76.67	1	>RL
Nb	93	72	HMI He	0.410	ppb	2.97	1450.08	2	
Mo	95	115	HMI He	0.105	ppb	47.52	113.33	0.5	
Pd	105	115	HMI He	0.042	ppb	30.08	63.33	1	
Ag	107	115	HMI He	0.013	ppb	87.44	56.67	1	
Cd	111	115	HMI He	0.039	ppb	86.67	13.33	0.5	
Sn	120	115	HMI He	0.005	ppb	769.12	180.00	1	
Sb	121	115	HMI He	0.306	ppb	34.88	283.34	1	
Ba	137	115	HMI He	0.054	ppb	80.49	23.33	0.5	
W	182	165	HMI He	0.111	ppb	57.70	1276.74	1	
Pt	195	165	HMI He	0.016	ppb	11.60	63.33	1	
Tl	205	165	HMI He	0.044	ppb	17.16	333.34	0.1	
Pb	208	165	HMI He	0.397	ppb	6.90	4430.33	0.5	
Th	232	165	HMI He	0.225	ppb	12.71	2133.53	1	
U	238	165	HMI He	0.011	ppb	56.05	160.00	0.5	
Li	7	45	No Gas	18.896	ppb	98.52	3201287.91	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	483346.98	0.98	659107.213333333	73.33	60	125	
Ge Internal Standard	72	HMI H2	11653368.56	1.79	14754747.04	78.98	60	125	
Sc (IS)	45	HMI He	641281.82	0.24	813740.9	78.81	60	125	
Ge Internal Standard	72	HMI He	924254.61	0.29	1117328.62666667	82.72	60	125	
In Internal standard	115	HMI He	2734157.77	2.23	3102279.77	88.13	60	125	
Ho-165	165	HMI He	13274978.27	0.94	14882965.7866667	89.2	60	125	
Sc IS)	45	No Gas	49783237.40	1.88	54746399.6466667	90.93	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	333LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:54:28 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.143	ppb	15.99	323.34	1	114.26	70	130	
Se	78	72	HMI H2	4.761	ppb	8.52	1350.73	5	95.22	70	130	
Na	23	45	HMI He	54.505	ppb	2.48	14893.44	50	109.01	70	130	
Mg	24	45	HMI He	56.442	ppb	9.56	3897.18	50	112.88	70	130	
Al	27	45	HMI He	29.698	ppb	17.20	526.68	30	98.99	70	130	
K	39	45	HMI He	156.830	ppb	21.83	29760.56	100	156.83	70	130	>+/-30%
Ca	44	45	HMI He	97.447	ppb	44.41	243.34	50	194.89	70	130	>+/-30%
V	51	72	HMI He	4.804	ppb	10.05	5200.90	5	96.08	70	130	
Cr	52	72	HMI He	1.887	ppb	6.09	2516.90	2	94.37	70	130	
Mn	55	72	HMI He	1.246	ppb	16.49	576.69	1	124.6	70	130	
Fe	57	72	HMI He	55.679	ppb	7.01	1293.40	50	111.36	70	130	
Co	59	72	HMI He	0.958	ppb	3.64	2140.17	1	95.81	70	130	
Ni	60	72	HMI He	2.221	ppb	15.83	1653.44	2	111.06	70	130	
Cu	63	72	HMI He	3.001	ppb	6.98	6061.20	2	150.03	70	130	>+/-30%
Zn	66	72	HMI He	9.628	ppb	7.08	2480.22	10	96.28	70	130	
As	75	72	HMI He	4.661	ppb	6.19	834.66	5	93.22	70	130	
Sr	88	45	HMI He	1.230	ppb	15.51	543.35	1	122.97	70	130	
Zr	90	72	HMI He	166.051	ppb	61.73	266.67	0.5	33210.23	70	130	>+/-30%
Nb	93	72	HMI He	0.360	ppb	17.82	1320.08	2	18.01	70	130	>+/-30%
Mo	95	115	HMI He	1.895	ppb	12.42	1660.11	2	94.77	70	130	
Pd	105	115	HMI He	0.019	ppb	28.11	33.33	1	1.85	70	130	>+/-30%
Ag	107	115	HMI He	4.844	ppb	6.75	14079.76	5	96.88	70	130	
Cd	111	115	HMI He	0.978	ppb	15.60	343.34	1	97.85	70	130	
Sn	120	115	HMI He	9.999	ppb	2.13	9042.74	10	99.99	70	130	
Sb	121	115	HMI He	2.037	ppb	5.91	1783.47	2	101.85	70	130	
Ba	137	115	HMI He	0.983	ppb	35.24	276.67	1	98.31	70	130	
W	182	165	HMI He	4.809	ppb	5.24	17443.67	1	480.92	70	130	>+/-30%
Pt	195	165	HMI He	0.033	ppb	54.58	110.00	1	3.25	70	130	>+/-30%
Tl	205	165	HMI He	1.033	ppb	5.10	6298.11	1	103.29	70	130	
Pb	208	165	HMI He	1.261	ppb	1.54	11241.85	1	126.08	70	130	
Th	232	165	HMI He	1.979	ppb	0.97	17577.58	2	98.96	70	130	
U	238	165	HMI He	1.066	ppb	6.40	9993.61	1	106.57	70	130	
Li	7	45	No Gas	30.237	ppb	37.11	3315171.60	50	60.47	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	503505.11	0.10	659107.213333333	76.39	60	125	
Ge Internal Standard	72	HMI H2	11877816.26	1.02	14754747.04	80.5	60	125	
Sc (IS)	45	HMI He	660942.31	0.75	813740.9	81.22	60	125	
Ge Internal Standard	72	HMI He	951261.88	0.79	1117328.62666667	85.14	60	125	
In Internal standard	115	HMI He	2776722.31	2.87	3102279.77	89.51	60	125	
Ho-165	165	HMI He	13081045.15	1.47	14882965.7866667	87.89	60	125	
Sc IS)	45	No Gas	50101700.30	2.42	54746399.6466667	91.52	60	120	

Sample Report

Sample Name	280-104412-a-2-d
File Name	334SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 6:57:55 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	10.222	ppb	4.18	2180.16	2000	
B	11	6	HMI H2	173.678	ppb	4.57	30955.11	100	
Se	78	72	HMI H2	7.933	ppb	2.57	1804.11	2000	
Na	23	45	HMI He	2538.341	ppb	1.61	315173.85	400000	
Mg	24	45	HMI He	331163.424	ppb	0.62	16705420.79	400000	
Al	27	45	HMI He	197747.449	ppb	0.55	2353045.16	400000	
K	39	45	HMI He	46403.596	ppb	1.29	1379711.96	400000	
Ca	44	45	HMI He	2040176.723	ppb	0.53	3360349.67	400000	>LDR
V	51	72	HMI He	453.573	ppb	0.27	318933.55	2000	
Cr	52	72	HMI He	423.134	ppb	0.73	389905.42	5000	
Mn	55	72	HMI He	5756.687	ppb	1.26	1859908.08	10000	
Fe	57	72	HMI He	258925.311	ppb	0.61	4339992.07	400000	
Co	59	72	HMI He	84.936	ppb	1.00	142492.31	2000	
Ni	60	72	HMI He	235.316	ppb	2.36	110024.54	5000	
Cu	63	72	HMI He	22517.649	ppb	1.20	29681759.70	5000	
Zn	66	72	HMI He	3250.647	ppb	0.56	576377.34	5000	
As	75	72	HMI He	102.176	ppb	2.25	13586.09	2000	
Sr	88	45	HMI He	5079.831	ppb	1.17	1730949.27	2000	
Zr	90	72	HMI He	158413.321	ppb	1.45	140708.35	1000	>LDR
Nb	93	72	HMI He	9.696	ppb	1.19	25387.04	200	
Mo	95	115	HMI He	21.597	ppb	2.67	13946.29	2000	
Pd	105	115	HMI He	0.241	ppb	14.86	243.34	100	
Ag	107	115	HMI He	1.905	ppb	8.14	4153.93	100	
Cd	111	115	HMI He	10.048	ppb	9.48	2633.59	2000	
Sn	120	115	HMI He	18.837	ppb	1.05	12631.90	2000	
Sb	121	115	HMI He	138.826	ppb	0.88	89827.47	1000	
Ba	137	115	HMI He	2349.566	ppb	1.23	478446.30	5000	
W	182	165	HMI He	4.148	ppb	2.19	12869.04	100	
Pt	195	165	HMI He	0.034	ppb	25.32	96.67	100	
Tl	205	165	HMI He	2.584	ppb	1.02	13296.15	2000	
Pb	208	165	HMI He	12614.111	ppb	0.52	85198543.27	5000	
Th	232	165	HMI He	104.723	ppb	0.94	784233.73	2000	
U	238	165	HMI He	18.913	ppb	0.51	149873.89	2000	
Li	7	45	No Gas	277.058	ppb	8.79	4387973.52	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	390430.27	1.14	659107.213333333	59.24	60	125	IS Failed
Ge Internal Standard	72	HMI H2	9553520.96	1.40	14754747.04	64.75	60	125	
Sc (IS)	45	HMI He	517663.06	1.14	813740.9	63.62	60	125	
Ge Internal Standard	72	HMI He	716182.09	0.60	1117328.62666667	64.1	60	125	
In Internal standard	115	HMI He	2077635.41	0.90	3102279.77	66.97	60	125	
Ho-165	165	HMI He	11103414.84	0.53	14882965.7866667	74.6	60	125	
Sc IS)	45	No Gas	40871842.87	1.72	54746399.6466667	74.66	60	120	

Sample Report

Sample Name	280-104412-a-3-d
File Name	335SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:01:20 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	9.441	ppb	8.73	1715.10	2000	
B	11	6	HMI H2	169.816	ppb	3.89	25796.44	100	
Se	78	72	HMI H2	8.123	ppb	6.72	1632.09	2000	
Na	23	45	HMI He	2568.397	ppb	1.46	286570.63	400000	
Mg	24	45	HMI He	308502.501	ppb	2.19	13985769.69	400000	
Al	27	45	HMI He	189996.561	ppb	2.28	2031532.86	400000	
K	39	45	HMI He	42285.806	ppb	0.79	1131516.31	400000	
Ca	44	45	HMI He	2022081.439	ppb	0.98	2993258.07	400000	>LDR
V	51	72	HMI He	445.743	ppb	0.89	282211.22	2000	
Cr	52	72	HMI He	537.892	ppb	2.00	446210.84	5000	
Mn	55	72	HMI He	5583.898	ppb	2.18	1624461.11	10000	
Fe	57	72	HMI He	251937.705	ppb	0.97	3802175.71	400000	
Co	59	72	HMI He	82.664	ppb	0.28	124873.89	2000	
Ni	60	72	HMI He	231.648	ppb	0.28	97532.86	5000	
Cu	63	72	HMI He	1051.262	ppb	1.21	1248216.64	5000	
Zn	66	72	HMI He	956.327	ppb	1.72	152791.22	5000	
As	75	72	HMI He	100.762	ppb	1.61	12065.29	2000	
Sr	88	45	HMI He	5240.016	ppb	2.13	1604960.48	2000	
Zr	90	72	HMI He	168768.620	ppb	2.75	134959.43	1000	>LDR
Nb	93	72	HMI He	13.833	ppb	1.33	32590.24	200	
Mo	95	115	HMI He	27.198	ppb	1.97	16542.14	2000	
Pd	105	115	HMI He	0.147	ppb	40.90	143.33	100	
Ag	107	115	HMI He	1.203	ppb	13.25	2473.56	100	
Cd	111	115	HMI He	9.622	ppb	8.56	2373.55	2000	
Sn	120	115	HMI He	31.233	ppb	2.11	19642.51	2000	
Sb	121	115	HMI He	210.850	ppb	2.69	128453.56	1000	
Ba	137	115	HMI He	2313.713	ppb	3.44	443607.91	5000	
W	182	165	HMI He	4.148	ppb	0.71	12418.62	100	
Pt	195	165	HMI He	0.028	ppb	96.84	80.00	100	
Tl	205	165	HMI He	2.571	ppb	4.46	12765.66	2000	
Pb	208	165	HMI He	14636.472	ppb	1.11	95402964.82	5000	
Th	232	165	HMI He	101.356	ppb	1.59	732427.90	2000	
U	238	165	HMI He	19.100	ppb	1.38	146054.55	2000	
Li	7	45	No Gas	296.621	ppb	1.29	4150563.12	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	332737.27	1.61	659107.213333333	50.48	60	125	IS Failed
Ge Internal Standard	72	HMI H2	8438897.79	1.04	14754747.04	57.19	60	125	IS Failed
Sc (IS)	45	HMI He	465246.64	0.95	813740.9	57.17	60	125	IS Failed
Ge Internal Standard	72	HMI He	644856.93	0.61	1117328.62666667	57.71	60	125	IS Failed
In Internal standard	115	HMI He	1956783.45	1.70	3102279.77	63.08	60	125	
Ho-165	165	HMI He	10716366.00	1.52	14882965.7866667	72	60	125	
Sc IS)	45	No Gas	37504023.88	1.24	54746399.6466667	68.51	60	120	

Sample Report

Sample Name	280-104412-a-4-d
File Name	336SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:04:44 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	12.692	ppb	13.95	1970.12	2000	
B	11	6	HMI H2	188.058	ppb	3.48	24394.37	100	
Se	78	72	HMI H2	6.997	ppb	7.46	1273.39	2000	
Na	23	45	HMI He	2406.051	ppb	1.11	234504.85	400000	
Mg	24	45	HMI He	336314.848	ppb	1.58	13303928.47	400000	
Al	27	45	HMI He	224367.033	ppb	1.51	2093432.68	400000	
K	39	45	HMI He	48201.934	ppb	0.93	1123373.22	400000	
Ca	44	45	HMI He	1739362.681	ppb	1.55	2246561.37	400000	
V	51	72	HMI He	477.766	ppb	0.88	273742.80	2000	
Cr	52	72	HMI He	378.197	ppb	2.18	283979.57	5000	
Mn	55	72	HMI He	6251.256	ppb	1.79	1645688.57	10000	
Fe	57	72	HMI He	275783.043	ppb	0.73	3766847.02	400000	
Co	59	72	HMI He	94.829	ppb	1.38	129649.56	2000	
Ni	60	72	HMI He	245.491	ppb	0.44	93539.49	5000	
Cu	63	72	HMI He	506.204	ppb	1.85	544216.18	5000	
Zn	66	72	HMI He	900.091	ppb	0.23	130152.92	5000	
As	75	72	HMI He	101.242	ppb	0.53	10971.70	2000	
Sr	88	45	HMI He	4064.303	ppb	1.78	1086022.24	2000	
Zr	90	72	HMI He	202808.823	ppb	1.18	146785.66	1000	>LDR
Nb	93	72	HMI He	10.049	ppb	1.15	21441.22	200	
Mo	95	115	HMI He	21.180	ppb	1.14	11997.98	2000	
Pd	105	115	HMI He	0.258	ppb	23.07	230.00	100	
Ag	107	115	HMI He	0.813	ppb	7.01	1563.43	100	
Cd	111	115	HMI He	7.902	ppb	9.78	1816.80	2000	
Sn	120	115	HMI He	12.300	ppb	3.48	7268.42	2000	
Sb	121	115	HMI He	27.293	ppb	5.39	15477.78	1000	
Ba	137	115	HMI He	2531.618	ppb	3.31	451695.76	5000	
W	182	165	HMI He	3.943	ppb	4.82	10900.77	100	
Pt	195	165	HMI He	0.056	ppb	24.24	133.33	100	
Tl	205	165	HMI He	3.036	ppb	3.91	13876.71	2000	
Pb	208	165	HMI He	3244.704	ppb	1.44	19475881.79	5000	
Th	232	165	HMI He	119.007	ppb	1.48	791914.78	2000	
U	238	165	HMI He	18.358	ppb	1.13	129299.78	2000	
Li	7	45	No Gas	347.453	ppb	8.54	4303914.72	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	284168.20	0.86	659107.213333333	43.11	60	125	IS Failed
Ge Internal Standard	72	HMI H2	7636800.28	1.70	14754747.04	51.76	60	125	IS Failed
Sc (IS)	45	HMI He	405946.19	0.57	813740.9	49.89	60	125	IS Failed
Ge Internal Standard	72	HMI He	583641.60	0.80	1117328.62666667	52.24	60	125	IS Failed
In Internal standard	115	HMI He	1821868.78	3.93	3102279.77	58.73	60	125	IS Failed
Ho-165	165	HMI He	9868877.92	2.03	14882965.7866667	66.31	60	125	
Sc IS)	45	No Gas	36152356.87	3.60	54746399.6466667	66.04	60	120	

Sample Report

Sample Name	280-104412-a-5-d
File Name	337SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:08:09 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	11.828	ppb	10.53	1676.76	2000	
B	11	6	HMI H2	195.850	ppb	8.17	23202.70	100	
Se	78	72	HMI H2	6.688	ppb	1.38	1169.38	2000	
Na	23	45	HMI He	2427.939	ppb	0.92	222458.44	400000	
Mg	24	45	HMI He	334468.798	ppb	0.24	12439787.48	400000	
Al	27	45	HMI He	221064.055	ppb	1.63	1938984.72	400000	
K	39	45	HMI He	47259.323	ppb	1.25	1035670.22	400000	
Ca	44	45	HMI He	1690219.083	ppb	1.52	2052140.52	400000	
V	51	72	HMI He	478.460	ppb	0.43	258059.66	2000	
Cr	52	72	HMI He	380.005	ppb	0.52	268624.95	5000	
Mn	55	72	HMI He	6247.506	ppb	2.76	1548323.12	10000	
Fe	57	72	HMI He	273861.070	ppb	0.19	3521228.49	400000	
Co	59	72	HMI He	91.407	ppb	1.22	117640.44	2000	
Ni	60	72	HMI He	245.621	ppb	2.87	88096.26	5000	
Cu	63	72	HMI He	629.921	ppb	1.19	637427.77	5000	
Zn	66	72	HMI He	999.845	ppb	0.62	136081.35	5000	
As	75	72	HMI He	103.492	ppb	1.59	10557.04	2000	
Sr	88	45	HMI He	4039.052	ppb	1.62	1014609.05	2000	
Zr	90	72	HMI He	187848.043	ppb	0.83	127988.46	1000	>LDR
Nb	93	72	HMI He	11.506	ppb	2.08	23103.64	200	
Mo	95	115	HMI He	20.501	ppb	2.99	11020.62	2000	
Pd	105	115	HMI He	0.250	ppb	22.80	210.00	100	
Ag	107	115	HMI He	1.000	ppb	18.01	1820.13	100	
Cd	111	115	HMI He	8.408	ppb	5.22	1833.47	2000	
Sn	120	115	HMI He	14.438	ppb	3.37	8085.53	2000	
Sb	121	115	HMI He	36.240	ppb	2.16	19529.01	1000	
Ba	137	115	HMI He	2571.953	ppb	2.49	435909.06	5000	
W	182	165	HMI He	4.276	ppb	5.30	11511.26	100	
Pt	195	165	HMI He	0.032	ppb	13.06	80.00	100	
Tl	205	165	HMI He	3.081	ppb	2.28	13776.59	2000	
Pb	208	165	HMI He	5710.962	ppb	0.39	33537167.10	5000	
Th	232	165	HMI He	115.837	ppb	1.82	754104.94	2000	
U	238	165	HMI He	18.524	ppb	1.89	127597.33	2000	
Li	7	45	No Gas	359.449	ppb	3.70	4113198.69	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	259961.01	3.22	659107.213333333	39.44	60	125	IS Failed
Ge Internal Standard	72	HMI H2	7335683.73	1.24	14754747.04	49.72	60	125	IS Failed
Sc (IS)	45	HMI He	381645.77	1.27	813740.9	46.9	60	125	IS Failed
Ge Internal Standard	72	HMI He	549393.29	0.05	1117328.62666667	49.17	60	125	IS Failed
In Internal standard	115	HMI He	1729284.94	0.74	3102279.77	55.74	60	125	IS Failed
Ho-165	165	HMI He	9653826.48	1.62	14882965.7866667	64.86	60	125	
Sc IS)	45	No Gas	33951574.90	1.11	54746399.6466667	62.02	60	120	

Sample Report

Sample Name	280-104412-a-6-d
File Name	338SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:11:34 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	12.868	ppb	5.90	1643.43	2000	
B	11	6	HMI H2	207.918	ppb	2.82	22214.73	100	
Se	78	72	HMI H2	7.216	ppb	12.07	1153.38	2000	
Na	23	45	HMI He	2692.483	ppb	1.34	226631.74	400000	
Mg	24	45	HMI He	351584.763	ppb	0.56	12033444.48	400000	
Al	27	45	HMI He	243032.662	ppb	2.71	1961884.20	400000	
K	39	45	HMI He	52080.763	ppb	1.18	1049108.28	400000	
Ca	44	45	HMI He	1776266.386	ppb	2.32	1984761.86	400000	
V	51	72	HMI He	504.068	ppb	2.46	253276.30	2000	
Cr	52	72	HMI He	496.260	ppb	1.38	326831.16	5000	
Mn	55	72	HMI He	6545.460	ppb	0.88	1511573.18	10000	
Fe	57	72	HMI He	291197.828	ppb	1.96	3488723.80	400000	
Co	59	72	HMI He	94.977	ppb	2.45	113890.48	2000	
Ni	60	72	HMI He	256.675	ppb	1.57	85784.20	5000	
Cu	63	72	HMI He	684.267	ppb	1.09	645134.31	5000	
Zn	66	72	HMI He	1033.871	ppb	2.58	131098.31	5000	
As	75	72	HMI He	107.337	ppb	1.22	10201.91	2000	
Sr	88	45	HMI He	4444.299	ppb	0.85	1027492.37	2000	
Zr	90	72	HMI He	215690.972	ppb	1.31	136922.66	1000	>LDR
Nb	93	72	HMI He	12.545	ppb	4.75	23464.13	200	
Mo	95	115	HMI He	24.851	ppb	2.85	12508.41	2000	
Pd	105	115	HMI He	0.267	ppb	12.73	210.00	100	
Ag	107	115	HMI He	1.022	ppb	3.91	1743.45	100	
Cd	111	115	HMI He	9.076	ppb	8.95	1853.47	2000	
Sn	120	115	HMI He	15.725	ppb	9.85	8235.63	2000	
Sb	121	115	HMI He	36.093	ppb	1.04	18214.10	1000	
Ba	137	115	HMI He	2748.126	ppb	2.01	436230.78	5000	
W	182	165	HMI He	4.404	ppb	1.44	11221.00	100	
Pt	195	165	HMI He	0.052	ppb	43.56	116.67	100	
Tl	205	165	HMI He	3.312	ppb	3.99	14033.52	2000	
Pb	208	165	HMI He	5162.628	ppb	2.61	28733868.29	5000	
Th	232	165	HMI He	132.375	ppb	2.10	816848.76	2000	
U	238	165	HMI He	21.068	ppb	1.44	137569.24	2000	
Li	7	45	No Gas	382.919	ppb	2.66	4073698.90	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	234163.93	2.34	659107.213333333	35.53	60	125	IS Failed
Ge Internal Standard	72	HMI H2	6710909.08	0.87	14754747.04	45.48	60	125	IS Failed
Sc (IS)	45	HMI He	351218.88	0.68	813740.9	43.16	60	125	IS Failed
Ge Internal Standard	72	HMI He	511936.09	0.94	1117328.62666667	45.82	60	125	IS Failed
In Internal standard	115	HMI He	1619408.01	0.37	3102279.77	52.2	60	125	IS Failed
Ho-165	165	HMI He	9150041.08	0.35	14882965.7866667	61.48	60	125	
Sc IS)	45	No Gas	32568789.55	0.94	54746399.6466667	59.49	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-41-d
File Name	339SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:14:59 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	13.199	ppb	5.62	1498.41	2000	
B	11	6	HMI H2	212.390	ppb	1.64	20158.86	100	
Se	78	72	HMI H2	7.667	ppb	6.09	1141.38	2000	
Na	23	45	HMI He	2469.775	ppb	1.65	191647.42	400000	
Mg	24	45	HMI He	353417.700	ppb	1.67	11136358.48	400000	
Al	27	45	HMI He	245972.605	ppb	3.54	1828231.62	400000	
K	39	45	HMI He	50921.385	ppb	1.56	944607.50	400000	
Ca	44	45	HMI He	1963640.013	ppb	0.37	2020034.41	400000	
V	51	72	HMI He	483.100	ppb	0.93	227090.17	2000	
Cr	52	72	HMI He	407.527	ppb	1.66	251060.67	5000	
Mn	55	72	HMI He	6520.816	ppb	2.66	1408525.02	10000	
Fe	57	72	HMI He	280208.850	ppb	2.43	3139882.94	400000	
Co	59	72	HMI He	96.210	ppb	1.20	107916.92	2000	
Ni	60	72	HMI He	252.064	ppb	0.78	78792.33	5000	
Cu	63	72	HMI He	629.001	ppb	0.78	554741.85	5000	
Zn	66	72	HMI He	948.579	ppb	1.85	112530.48	5000	
As	75	72	HMI He	107.813	ppb	0.61	9585.20	2000	
Sr	88	45	HMI He	4741.121	ppb	1.23	1009082.71	2000	
Zr	90	72	HMI He	217475.191	ppb	1.05	129137.78	1000	>LDR
Nb	93	72	HMI He	11.929	ppb	1.70	20873.89	200	
Mo	95	115	HMI He	19.415	ppb	3.44	9426.26	2000	
Pd	105	115	HMI He	0.235	ppb	38.61	180.00	100	
Ag	107	115	HMI He	0.872	ppb	13.52	1440.08	100	
Cd	111	115	HMI He	8.967	ppb	1.14	1766.78	2000	
Sn	120	115	HMI He	13.152	ppb	5.12	6658.16	2000	
Sb	121	115	HMI He	42.229	ppb	0.93	20560.38	1000	
Ba	137	115	HMI He	2589.945	ppb	2.05	396492.44	5000	
W	182	165	HMI He	4.337	ppb	3.01	10500.45	100	
Pt	195	165	HMI He	0.057	ppb	21.78	120.00	100	
Tl	205	165	HMI He	3.220	ppb	1.74	12962.54	2000	
Pb	208	165	HMI He	4137.270	ppb	1.92	21870599.85	5000	
Th	232	165	HMI He	127.398	ppb	1.82	746618.59	2000	
U	238	165	HMI He	20.517	ppb	3.53	127194.17	2000	
Li	7	45	No Gas	415.604	ppb	2.04	3933970.76	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	207937.27	1.37	659107.213333333	31.55	60	125	IS Failed
Ge Internal Standard	72	HMI H2	6248500.87	1.41	14754747.04	42.35	60	125	IS Failed
Sc (IS)	45	HMI He	323331.19	0.43	813740.9	39.73	60	125	IS Failed
Ge Internal Standard	72	HMI He	478836.05	0.58	1117328.62666667	42.86	60	125	IS Failed
In Internal standard	115	HMI He	1562302.12	2.50	3102279.77	50.36	60	125	IS Failed
Ho-165	165	HMI He	8692757.46	2.76	14882965.7866667	58.41	60	125	IS Failed
Sc IS)	45	No Gas	30136740.72	1.00	54746399.6466667	55.05	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-42-d
File Name	340SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:18:23 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	12.708	ppb	5.66	1330.06	2000	
B	11	6	HMI H2	209.595	ppb	6.50	18350.11	100	
Se	78	72	HMI H2	7.384	ppb	14.57	994.71	2000	
Na	23	45	HMI He	2634.655	ppb	0.76	188252.29	400000	
Mg	24	45	HMI He	357361.324	ppb	1.21	10379398.00	400000	
Al	27	45	HMI He	233999.183	ppb	0.79	1603045.65	400000	
K	39	45	HMI He	49949.583	ppb	1.44	854331.13	400000	
Ca	44	45	HMI He	1883774.305	ppb	0.44	1786277.68	400000	
V	51	72	HMI He	484.267	ppb	1.91	208400.06	2000	
Cr	52	72	HMI He	468.493	ppb	1.37	264230.50	5000	
Mn	55	72	HMI He	6058.560	ppb	1.26	1198072.97	10000	
Fe	57	72	HMI He	284161.331	ppb	1.36	2915323.47	400000	
Co	59	72	HMI He	94.432	ppb	1.33	96972.54	2000	
Ni	60	72	HMI He	249.445	ppb	2.95	71381.87	5000	
Cu	63	72	HMI He	2076.854	ppb	1.31	1676053.47	5000	
Zn	66	72	HMI He	1118.528	ppb	0.39	121462.87	5000	
As	75	72	HMI He	105.780	ppb	0.57	8610.15	2000	
Sr	88	45	HMI He	4631.888	ppb	1.87	908687.48	2000	
Zr	90	72	HMI He	206269.647	ppb	0.87	112137.54	1000	>LDR
Nb	93	72	HMI He	10.085	ppb	5.15	16161.69	200	
Mo	95	115	HMI He	24.902	ppb	6.79	10573.65	2000	
Pd	105	115	HMI He	0.273	ppb	41.94	180.00	100	
Ag	107	115	HMI He	1.097	ppb	10.73	1576.77	100	
Cd	111	115	HMI He	8.793	ppb	13.93	1513.43	2000	
Sn	120	115	HMI He	14.672	ppb	6.81	6498.12	2000	
Sb	121	115	HMI He	58.815	ppb	2.92	25060.26	1000	
Ba	137	115	HMI He	2770.741	ppb	3.66	371363.01	5000	
W	182	165	HMI He	3.936	ppb	4.96	9199.64	100	
Pt	195	165	HMI He	0.058	ppb	34.90	116.67	100	
Tl	205	165	HMI He	3.198	ppb	6.35	12351.98	2000	
Pb	208	165	HMI He	7775.908	ppb	0.48	39463468.88	5000	
Th	232	165	HMI He	125.231	ppb	1.61	704581.61	2000	
U	238	165	HMI He	20.758	ppb	1.57	123582.67	2000	
Li	7	45	No Gas	404.833	ppb	3.08	3691566.03	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	191873.02	2.56	659107.213333333	29.11	60	125	IS Failed
Ge Internal Standard	72	HMI H2	5654083.30	0.62	14754747.04	38.32	60	125	IS Failed
Sc (IS)	45	HMI He	298040.51	0.62	813740.9	36.63	60	125	IS Failed
Ge Internal Standard	72	HMI He	438390.43	0.57	1117328.62666667	39.24	60	125	IS Failed
In Internal standard	115	HMI He	1368833.90	4.30	3102279.77	44.12	60	125	IS Failed
Ho-165	165	HMI He	8343252.06	0.83	14882965.7866667	56.06	60	125	IS Failed
Sc IS)	45	No Gas	28675217.67	0.25	54746399.6466667	52.38	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	341_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:21:48 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	341.703	ppb	4.71	78312.70	500	68.34	90	110	>+\-10%
Be	9	6	HMI H2	53.667	ppb	3.71	6317.87	50	107.33	90	110	
B	11	6	HMI H2	64.090	ppb	9.84	6351.27	50	128.18	90	110	>+\-10%
Se	78	72	HMI H2	50.738	ppb	6.22	7749.89	50	101.48	90	110	
Na	23	45	HMI He	4366.844	ppb	6.41	340626.96	5000	87.34	90	110	>+\-10%
Mg	24	45	HMI He	4979.942	ppb	5.36	159035.14	5000	99.6	90	110	
Al	27	45	HMI He	5262.923	ppb	7.97	39627.65	5000	105.26	90	110	
K	39	45	HMI He	5057.468	ppb	5.45	105674.09	5000	101.15	90	110	
Ca	44	45	HMI He	5487.770	ppb	7.10	5737.73	5000	109.76	90	110	
V	51	72	HMI He	46.486	ppb	6.05	24274.90	50	92.97	90	110	
Cr	52	72	HMI He	46.979	ppb	9.54	31764.34	50	93.96	90	110	
Mn	55	72	HMI He	51.046	ppb	2.08	12097.97	50	102.09	90	110	
Fe	57	72	HMI He	4774.488	ppb	4.83	58598.36	5000	95.49	90	110	
Co	59	72	HMI He	48.825	ppb	6.67	59937.05	50	97.65	90	110	
Ni	60	72	HMI He	50.177	ppb	5.53	17289.33	50	100.35	90	110	
Cu	63	72	HMI He	50.645	ppb	7.16	49291.54	50	101.29	90	110	
Zn	66	72	HMI He	52.300	ppb	2.16	6904.88	50	104.6	90	110	
As	75	72	HMI He	50.661	ppb	5.78	4933.44	50	101.32	90	110	
Sr	88	45	HMI He	68.141	ppb	5.39	14690.28	50	136.28	90	110	>+\-10%
Zr	90	72	HMI He	827.537	ppb	22.74	576.68	50	1655.07	90	110	>+\-10%
Nb	93	72	HMI He	110.764	ppb	4.82	211855.53	100	110.76	90	110	>+\-10%
Mo	95	115	HMI He	47.816	ppb	3.39	25677.60	50	95.63	90	110	
Pd	105	115	HMI He	50.218	ppb	2.40	41103.82	50	100.44	90	110	
Ag	107	115	HMI He	49.050	ppb	3.13	88715.48	50	98.1	90	110	
Cd	111	115	HMI He	54.023	ppb	4.41	11777.85	50	108.05	90	110	
Sn	120	115	HMI He	55.371	ppb	2.61	30687.19	50	110.74	90	110	>+\-10%
Sb	121	115	HMI He	54.460	ppb	4.49	29327.79	50	108.92	90	110	
Ba	137	115	HMI He	57.345	ppb	3.34	9723.19	50	114.69	90	110	>+\-10%
W	182	165	HMI He	51.989	ppb	2.54	127317.08	50	103.98	90	110	
Pt	195	165	HMI He	49.904	ppb	3.95	100571.47	50	99.81	90	110	
Tl	205	165	HMI He	54.132	ppb	2.13	231431.02	50	108.26	90	110	
Pb	208	165	HMI He	55.877	ppb	4.59	315408.38	50	111.75	90	110	>+\-10%
Th	232	165	HMI He	56.555	ppb	4.66	353025.25	50	113.11	90	110	>+\-10%
U	238	165	HMI He	56.403	ppb	3.56	372491.51	50	112.81	90	110	>+\-10%
Li	7	45	No Gas	652.099	ppb	3.31	5689093.20	500	130.42	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	216140.56	0.39	659107.213333333	32.79	60	125	IS Failed
Ge Internal Standard	72	HMI H2	6444633.57	0.78	14754747.04	43.68	60	125	IS Failed
Sc (IS)	45	HMI He	327789.88	3.23	813740.9	40.28	60	125	IS Failed
Ge Internal Standard	72	HMI He	524492.18	2.03	1117328.62666667	46.94	60	125	IS Failed
In Internal standard	115	HMI He	1729761.52	2.52	3102279.77	55.76	60	125	IS Failed
Ho-165	165	HMI He	9260222.85	2.11	14882965.7866667	62.22	60	125	
Sc IS)	45	No Gas	33470817.01	2.25	54746399.6466667	61.14	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	342_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:25:15 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-59.577	ppb	-9.74	35089.71	0.1	
Be	9	6	HMI H2	0.066	ppb	35.08	13.33	0.5	
B	11	6	HMI H2	4.911	ppb	11.64	580.01	0.1	>RL
Se	78	72	HMI H2	0.073	ppb	151.51	18.67	1	
Na	23	45	HMI He	-3.351	ppb	-94.54	3273.70	25	
Mg	24	45	HMI He	8.911	ppb	20.53	466.68	25	
Al	27	45	HMI He	-2.234	ppb	-29.70	23.33	15	
K	39	45	HMI He	16.199	ppb	246.57	13665.77	50	
Ca	44	45	HMI He	21.622	ppb	60.02	46.67	25	
V	51	72	HMI He	0.100	ppb	213.61	490.01	1	
Cr	52	72	HMI He	0.089	ppb	26.05	190.00	1	
Mn	55	72	HMI He	0.146	ppb	30.11	63.33	0.5	
Fe	57	72	HMI He	12.753	ppb	52.98	203.34	25	
Co	59	72	HMI He	0.032	ppb	127.54	46.67	0.5	
Ni	60	72	HMI He	0.020	ppb	537.39	173.33	1	
Cu	63	72	HMI He	0.921	ppb	27.06	1453.42	1	
Zn	66	72	HMI He	0.226	ppb	144.39	160.00	5	
As	75	72	HMI He	0.039	ppb	26.78	11.11	1	
Sr	88	45	HMI He	0.036	ppb	131.24	13.33	1	
Zr	90	72	HMI He	80.819	ppb	16.77	100.00	1	>RL
Nb	93	72	HMI He	0.551	ppb	14.46	1193.40	2	
Mo	95	115	HMI He	-0.005	ppb	-183.43	13.33	0.5	
Pd	105	115	HMI He	0.031	ppb	78.02	33.33	1	
Ag	107	115	HMI He	0.023	ppb	17.56	60.00	1	
Cd	111	115	HMI He	0.027	ppb	173.21	6.67	0.5	
Sn	120	115	HMI He	0.013	ppb	671.16	130.00	1	
Sb	121	115	HMI He	0.245	ppb	26.53	160.00	1	
Ba	137	115	HMI He	-0.033	ppb	0.00	0.00	0.5	
W	182	165	HMI He	0.033	ppb	207.85	733.37	1	
Pt	195	165	HMI He	0.014	ppb	21.22	43.33	1	
Tl	205	165	HMI He	0.022	ppb	47.04	146.67	0.1	
Pb	208	165	HMI He	0.329	ppb	2.03	2840.14	0.5	
Th	232	165	HMI He	0.104	ppb	16.41	770.03	1	
U	238	165	HMI He	0.011	ppb	67.73	116.67	0.5	
Li	7	45	No Gas	60.995	ppb	31.10	2528027.89	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	238434.07	1.08	659107.213333333	36.18	60	125	IS Failed
Ge Internal Standard	72	HMI H2	6882534.80	1.42	14754747.04	46.65	60	125	IS Failed
Sc (IS)	45	HMI He	368748.66	0.57	813740.9	45.32	60	125	IS Failed
Ge Internal Standard	72	HMI He	572067.74	0.49	1117328.62666667	51.2	60	125	IS Failed
In Internal standard	115	HMI He	1869348.48	4.71	3102279.77	60.26	60	125	
Ho-165	165	HMI He	9709955.43	2.00	14882965.7866667	65.24	60	125	
Sc IS)	45	No Gas	35443267.74	0.29	54746399.6466667	64.74	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	343LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:28:41 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.828	ppb	27.41	123.33	1	82.76	70	130	
Se	78	72	HMI H2	4.946	ppb	12.58	850.69	5	98.92	70	130	
Na	23	45	HMI He	46.833	ppb	2.84	8238.79	50	93.67	70	130	
Mg	24	45	HMI He	57.519	ppb	8.87	2386.87	50	115.04	70	130	
Al	27	45	HMI He	31.120	ppb	13.68	330.01	30	103.73	70	130	
K	39	45	HMI He	155.285	ppb	8.28	17869.75	100	155.29	70	130	>+/-30%
Ca	44	45	HMI He	39.888	ppb	50.48	73.33	50	79.78	70	130	
V	51	72	HMI He	4.457	ppb	12.81	3090.33	5	89.13	70	130	
Cr	52	72	HMI He	1.804	ppb	4.71	1530.09	2	90.2	70	130	
Mn	55	72	HMI He	1.176	ppb	7.92	346.68	1	117.57	70	130	
Fe	57	72	HMI He	57.818	ppb	8.84	850.03	50	115.64	70	130	
Co	59	72	HMI He	0.951	ppb	4.83	1346.74	1	95.1	70	130	
Ni	60	72	HMI He	1.923	ppb	14.32	930.04	2	96.14	70	130	
Cu	63	72	HMI He	2.667	ppb	9.71	3470.42	2	133.36	70	130	>+/-30%
Zn	66	72	HMI He	10.064	ppb	3.34	1636.78	10	100.64	70	130	
As	75	72	HMI He	4.824	ppb	8.35	547.07	5	96.48	70	130	
Sr	88	45	HMI He	1.065	ppb	27.39	283.34	1	106.48	70	130	
Zr	90	72	HMI He	336.761	ppb	12.17	296.68	0.5	67352.24	70	130	>+/-30%
Nb	93	72	HMI He	0.449	ppb	2.08	1033.38	2	22.47	70	130	>+/-30%
Mo	95	115	HMI He	1.907	ppb	17.86	1183.39	2	95.34	70	130	
Pd	105	115	HMI He	0.000	ppb	5648.92	6.67	1	0.02	70	130	>+/-30%
Ag	107	115	HMI He	4.541	ppb	2.90	9392.92	5	90.83	70	130	
Cd	111	115	HMI He	1.018	ppb	5.89	253.34	1	101.84	70	130	
Sn	120	115	HMI He	10.189	ppb	2.67	6551.49	10	101.89	70	130	
Sb	121	115	HMI He	2.171	ppb	10.40	1350.08	2	108.53	70	130	
Ba	137	115	HMI He	0.999	ppb	29.95	200.00	1	99.85	70	130	
W	182	165	HMI He	4.743	ppb	5.75	13269.42	1	474.33	70	130	>+/-30%
Pt	195	165	HMI He	0.027	ppb	33.79	73.33	1	2.72	70	130	>+/-30%
Tl	205	165	HMI He	1.100	ppb	5.90	5170.96	1	109.99	70	130	
Pb	208	165	HMI He	1.368	ppb	4.21	9327.95	1	136.79	70	130	>+/-30%
Th	232	165	HMI He	2.119	ppb	5.01	14500.79	2	105.96	70	130	
U	238	165	HMI He	1.074	ppb	4.61	7768.92	1	107.45	70	130	
Li	7	45	No Gas	91.420	ppb	4.25	2821668.40	50	182.84	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	261956.31	0.35	659107.213333333	39.74	60	125	IS Failed
Ge Internal Standard	72	HMI H2	7206622.80	1.90	14754747.04	48.84	60	125	IS Failed
Sc (IS)	45	HMI He	397558.90	0.39	813740.9	48.86	60	125	IS Failed
Ge Internal Standard	72	HMI He	602920.82	0.05	1117328.62666667	53.96	60	125	IS Failed
In Internal standard	115	HMI He	1973819.16	1.45	3102279.77	63.62	60	125	
Ho-165	165	HMI He	10084680.51	1.32	14882965.7866667	67.76	60	125	
Sc IS)	45	No Gas	36931513.07	1.80	54746399.6466667	67.46	60	120	

Sample Report

Sample Name	280-104412-a-43-d
File Name	344SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:32:10 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	11.952	ppb	5.65	1371.73	2000	
B	11	6	HMI H2	192.876	ppb	0.70	18493.61	100	
Se	78	72	HMI H2	6.616	ppb	3.54	960.03	2000	
Na	23	45	HMI He	2414.032	ppb	2.29	180866.84	400000	
Mg	24	45	HMI He	343515.012	ppb	1.40	10448196.12	400000	
Al	27	45	HMI He	218829.082	ppb	1.82	1570009.86	400000	
K	39	45	HMI He	47968.831	ppb	1.36	859522.41	400000	
Ca	44	45	HMI He	2007898.662	ppb	3.66	1993306.89	400000	>LDR
V	51	72	HMI He	465.401	ppb	0.89	210374.62	2000	
Cr	52	72	HMI He	387.728	ppb	2.01	229683.80	5000	
Mn	55	72	HMI He	5710.838	ppb	0.66	1186090.54	10000	
Fe	57	72	HMI He	267454.615	ppb	0.42	2881992.58	400000	
Co	59	72	HMI He	88.789	ppb	0.57	95762.52	2000	
Ni	60	72	HMI He	246.646	ppb	3.01	74147.68	5000	
Cu	63	72	HMI He	745.932	ppb	0.62	632522.50	5000	
Zn	66	72	HMI He	919.028	ppb	1.56	104842.61	5000	
As	75	72	HMI He	104.910	ppb	0.30	8968.50	2000	
Sr	88	45	HMI He	5111.107	ppb	1.70	1049964.56	2000	
Zr	90	72	HMI He	192297.685	ppb	1.82	109791.10	1000	>LDR
Nb	93	72	HMI He	9.375	ppb	1.64	15784.64	200	
Mo	95	115	HMI He	23.320	ppb	3.90	10416.82	2000	
Pd	105	115	HMI He	0.249	ppb	22.87	173.33	100	
Ag	107	115	HMI He	0.865	ppb	9.31	1310.08	100	
Cd	111	115	HMI He	7.780	ppb	4.66	1410.08	2000	
Sn	120	115	HMI He	13.556	ppb	5.17	6311.36	2000	
Sb	121	115	HMI He	48.699	ppb	7.32	21778.68	1000	
Ba	137	115	HMI He	2667.281	ppb	5.59	375484.24	5000	
W	182	165	HMI He	3.880	ppb	0.88	9222.97	100	
Pt	195	165	HMI He	0.024	ppb	103.75	56.67	100	
Tl	205	165	HMI He	3.049	ppb	1.22	11971.71	2000	
Pb	208	165	HMI He	5860.717	ppb	1.19	30213148.74	5000	
Th	232	165	HMI He	118.087	ppb	2.38	674967.43	2000	
U	238	165	HMI He	20.045	ppb	0.78	121233.41	2000	
Li	7	45	No Gas	406.444	ppb	1.18	3721509.18	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	210012.49	2.37	659107.213333333	31.86	60	125	IS Failed
Ge Internal Standard	72	HMI H2	6091892.60	3.30	14754747.04	41.29	60	125	IS Failed
Sc (IS)	45	HMI He	312113.19	1.41	813740.9	38.36	60	125	IS Failed
Ge Internal Standard	72	HMI He	460423.86	0.84	1117328.62666667	41.21	60	125	IS Failed
In Internal standard	115	HMI He	1438863.32	5.12	3102279.77	46.38	60	125	IS Failed
Ho-165	165	HMI He	8474469.97	0.64	14882965.7866667	56.94	60	125	IS Failed
Sc IS)	45	No Gas	28846648.08	0.46	54746399.6466667	52.69	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-44-d
File Name	345SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:35:36 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	10.820	ppb	5.34	933.36	2000	
B	11	6	HMI H2	180.155	ppb	6.32	12985.11	100	
Se	78	72	HMI H2	6.131	ppb	8.71	764.02	2000	
Na	23	45	HMI He	2165.156	ppb	1.96	135844.56	400000	
Mg	24	45	HMI He	320153.526	ppb	2.37	8137927.39	400000	
Al	27	45	HMI He	186797.711	ppb	1.57	1119992.02	400000	
K	39	45	HMI He	43208.261	ppb	0.68	648136.31	400000	
Ca	44	45	HMI He	1759336.041	ppb	1.66	1460514.81	400000	
V	51	72	HMI He	429.403	ppb	1.71	167497.34	2000	
Cr	52	72	HMI He	347.171	ppb	1.83	177454.46	5000	
Mn	55	72	HMI He	5271.994	ppb	1.98	944725.72	10000	
Fe	57	72	HMI He	244549.773	ppb	0.36	2273683.92	400000	
Co	59	72	HMI He	81.742	ppb	0.78	76072.80	2000	
Ni	60	72	HMI He	219.962	ppb	3.91	57052.68	5000	
Cu	63	72	HMI He	593.919	ppb	0.99	434586.65	5000	
Zn	66	72	HMI He	855.152	ppb	1.62	84166.83	5000	
As	75	72	HMI He	97.330	ppb	1.13	7180.03	2000	
Sr	88	45	HMI He	4543.726	ppb	1.41	780210.83	2000	
Zr	90	72	HMI He	184187.083	ppb	0.15	90746.08	1000	>LDR
Nb	93	72	HMI He	12.153	ppb	1.06	17643.27	200	
Mo	95	115	HMI He	21.772	ppb	3.52	8392.30	2000	
Pd	105	115	HMI He	0.203	ppb	25.78	123.33	100	
Ag	107	115	HMI He	0.921	ppb	8.33	1203.40	100	
Cd	111	115	HMI He	7.736	ppb	18.33	1210.06	2000	
Sn	120	115	HMI He	13.413	ppb	5.73	5391.00	2000	
Sb	121	115	HMI He	45.432	ppb	2.53	17553.34	1000	
Ba	137	115	HMI He	2584.238	ppb	0.51	314098.91	5000	
W	182	165	HMI He	4.237	ppb	3.52	9096.22	100	
Pt	195	165	HMI He	0.058	ppb	44.15	106.67	100	
Tl	205	165	HMI He	2.853	ppb	3.23	10173.60	2000	
Pb	208	165	HMI He	5761.964	ppb	5.05	26963810.26	5000	
Th	232	165	HMI He	110.739	ppb	2.36	574737.30	2000	
U	238	165	HMI He	18.632	ppb	4.47	102311.55	2000	
Li	7	45	No Gas	356.149	ppb	1.06	3180674.91	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	157893.94	0.81	659107.213333333	23.96	60	125	IS Failed
Ge Internal Standard	72	HMI H2	5225195.51	1.26	14754747.04	35.41	60	125	IS Failed
Sc (IS)	45	HMI He	260890.26	1.76	813740.9	32.06	60	125	IS Failed
Ge Internal Standard	72	HMI He	397269.17	0.79	1117328.62666667	35.56	60	125	IS Failed
In Internal standard	115	HMI He	1240003.19	0.36	3102279.77	39.97	60	125	IS Failed
Ho-165	165	HMI He	7697902.93	1.97	14882965.7866667	51.72	60	125	IS Failed
Sc IS)	45	No Gas	26371329.46	1.05	54746399.6466667	48.17	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-73-d
File Name	346SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:39:32 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.501	ppb	14.54	581.68	2000	
B	11	6	HMI H2	116.860	ppb	5.48	7561.78	100	
Se	78	72	HMI H2	8.309	ppb	10.46	896.03	2000	
Na	23	45	HMI He	1579.727	ppb	4.20	89698.09	400000	
Mg	24	45	HMI He	200688.660	ppb	0.08	4585487.47	400000	
Al	27	45	HMI He	102056.094	ppb	0.54	550011.66	400000	
K	39	45	HMI He	24713.759	ppb	2.14	336786.86	400000	
Ca	44	45	HMI He	2786854.556	ppb	1.15	2078881.90	400000	>LDR
V	51	72	HMI He	279.354	ppb	1.35	96732.44	2000	
Cr	52	72	HMI He	292.776	ppb	1.67	132747.65	5000	
Mn	55	72	HMI He	2960.642	ppb	1.22	470558.07	10000	
Fe	57	72	HMI He	161966.113	ppb	3.93	1335628.62	400000	
Co	59	72	HMI He	51.876	ppb	0.79	42816.28	2000	
Ni	60	72	HMI He	168.633	ppb	0.90	38819.53	5000	
Cu	63	72	HMI He	9326.506	ppb	1.08	6048566.77	5000	
Zn	66	72	HMI He	1532.789	ppb	0.52	133746.21	5000	
As	75	72	HMI He	92.722	ppb	0.73	6066.50	2000	
Sr	88	45	HMI He	9444.739	ppb	0.18	1457725.29	2000	
Zr	90	72	HMI He	78731.733	ppb	2.17	34417.21	1000	>LDR
Nb	93	72	HMI He	8.988	ppb	3.19	11581.01	200	
Mo	95	115	HMI He	22.653	ppb	2.86	7935.40	2000	
Pd	105	115	HMI He	0.306	ppb	29.31	166.67	100	
Ag	107	115	HMI He	3.626	ppb	8.47	4280.64	100	
Cd	111	115	HMI He	10.084	ppb	7.09	1433.42	2000	
Sn	120	115	HMI He	544.311	ppb	2.32	195923.33	2000	
Sb	121	115	HMI He	1335.176	ppb	1.13	468453.79	1000	
Ba	137	115	HMI He	1742.496	ppb	1.61	192439.21	5000	
W	182	165	HMI He	4.361	ppb	3.51	8682.62	100	
Pt	195	165	HMI He	0.013	ppb	49.85	30.00	100	
Tl	205	165	HMI He	1.807	ppb	1.43	5997.98	2000	
Pb	208	165	HMI He	119715.859	ppb	1.27	520403879.52	5000	>LDR
Th	232	165	HMI He	60.533	ppb	1.99	291773.86	2000	
U	238	165	HMI He	21.577	ppb	1.25	110041.10	2000	
Li	7	45	No Gas	241.196	ppb	2.17	2302105.24	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	141553.74	2.41	659107.213333333	21.48	60	125	IS Failed
Ge Internal Standard	72	HMI H2	4530400.60	0.03	14754747.04	30.7	60	125	IS Failed
Sc (IS)	45	HMI He	234461.48	0.34	813740.9	28.81	60	125	IS Failed
Ge Internal Standard	72	HMI He	352335.12	0.71	1117328.62666667	31.53	60	125	IS Failed
In Internal standard	115	HMI He	1126805.10	1.04	3102279.77	36.32	60	125	IS Failed
Ho-165	165	HMI He	7146717.28	0.79	14882965.7866667	48.02	60	125	IS Failed
Sc IS)	45	No Gas	22701009.23	1.39	54746399.6466667	41.47	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-74-d
File Name	347SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:43:48 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.197	ppb	3.70	381.68	2000	
B	11	6	HMI H2	134.503	ppb	3.83	5957.78	100	
Se	78	72	HMI H2	8.151	ppb	2.65	710.69	2000	
Na	23	45	HMI He	1710.279	ppb	1.84	77029.33	400000	
Mg	24	45	HMI He	204163.154	ppb	0.78	3707123.87	400000	
Al	27	45	HMI He	109502.594	ppb	0.85	468988.47	400000	
K	39	45	HMI He	26563.525	ppb	1.16	287195.74	400000	
Ca	44	45	HMI He	2683295.808	ppb	2.39	1590718.99	400000	>LDR
V	51	72	HMI He	282.262	ppb	1.40	80626.46	2000	
Cr	52	72	HMI He	438.750	ppb	2.66	164023.05	5000	
Mn	55	72	HMI He	2883.991	ppb	1.54	378069.42	10000	
Fe	57	72	HMI He	150574.560	ppb	1.90	1024118.94	400000	
Co	59	72	HMI He	51.799	ppb	1.85	35264.92	2000	
Ni	60	72	HMI He	172.989	ppb	4.45	32836.59	5000	
Cu	63	72	HMI He	11382.401	ppb	2.04	6087724.22	5000	
Zn	66	72	HMI He	1724.998	ppb	1.68	124136.72	5000	
As	75	72	HMI He	89.475	ppb	2.69	4828.18	2000	
Sr	88	45	HMI He	9121.314	ppb	0.56	1118772.10	2000	
Zr	90	72	HMI He	82931.361	ppb	3.42	29894.82	1000	>LDR
Nb	93	72	HMI He	9.824	ppb	3.27	10436.87	200	
Mo	95	115	HMI He	28.198	ppb	3.36	8332.28	2000	
Pd	105	115	HMI He	0.223	ppb	25.34	103.33	100	
Ag	107	115	HMI He	3.580	ppb	5.26	3567.11	100	
Cd	111	115	HMI He	10.396	ppb	13.14	1246.73	2000	
Sn	120	115	HMI He	25.297	ppb	5.78	7742.01	2000	
Sb	121	115	HMI He	1433.265	ppb	0.59	424355.29	1000	
Ba	137	115	HMI He	1821.338	ppb	0.69	169743.33	5000	
W	182	165	HMI He	4.365	ppb	5.15	7658.71	100	
Pt	195	165	HMI He	0.035	ppb	92.48	56.67	100	
Tl	205	165	HMI He	1.751	ppb	5.48	5124.32	2000	
Pb	208	165	HMI He	125695.240	ppb	0.96	481664945.71	5000	>LDR
Th	232	165	HMI He	63.463	ppb	1.09	269647.77	2000	
U	238	165	HMI He	21.631	ppb	0.89	97243.14	2000	
Li	7	45	No Gas	234.936	ppb	3.42	1879253.47	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	96921.51	0.28	659107.213333333	14.7	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3662736.42	0.97	14754747.04	24.82	60	125	IS Failed
Sc (IS)	45	HMI He	186329.30	0.63	813740.9	22.9	60	125	IS Failed
Ge Internal Standard	72	HMI He	290611.06	0.93	1117328.62666667	26.01	60	125	IS Failed
In Internal standard	115	HMI He	950806.26	0.38	3102279.77	30.65	60	125	IS Failed
Ho-165	165	HMI He	6300046.81	1.62	14882965.7866667	42.33	60	125	IS Failed
Sc IS)	45	No Gas	18722172.15	1.04	54746399.6466667	34.2	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-75-d
File Name	348SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 7:48:35 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	6.370	ppb	15.82	281.67	2000	
B	11	6	HMI H2	113.880	ppb	10.65	4203.91	100	
Se	78	72	HMI H2	7.286	ppb	9.21	541.34	2000	
Na	23	45	HMI He	1493.832	ppb	3.99	58250.97	400000	
Mg	24	45	HMI He	193705.937	ppb	1.53	3034925.23	400000	
Al	27	45	HMI He	96957.820	ppb	1.71	358314.16	400000	
K	39	45	HMI He	23415.697	ppb	1.39	219124.86	400000	
Ca	44	45	HMI He	2598279.781	ppb	1.51	1329100.44	400000	>LDR
V	51	72	HMI He	270.901	ppb	1.75	67635.07	2000	
Cr	52	72	HMI He	306.033	ppb	0.80	100028.98	5000	
Mn	55	72	HMI He	2851.849	ppb	0.36	326765.18	10000	
Fe	57	72	HMI He	143299.889	ppb	0.62	851826.03	400000	
Co	59	72	HMI He	50.096	ppb	0.88	29807.23	2000	
Ni	60	72	HMI He	157.679	ppb	3.44	26177.91	5000	
Cu	63	72	HMI He	6787.997	ppb	1.13	3173538.98	5000	
Zn	66	72	HMI He	1331.632	ppb	2.64	83761.33	5000	
As	75	72	HMI He	85.522	ppb	2.62	4033.85	2000	
Sr	88	45	HMI He	8898.804	ppb	0.78	941822.16	2000	
Zr	90	72	HMI He	77733.068	ppb	2.35	24495.69	1000	>LDR
Nb	93	72	HMI He	9.591	ppb	2.20	8905.93	200	
Mo	95	115	HMI He	25.108	ppb	2.57	6708.20	2000	
Pd	105	115	HMI He	0.239	ppb	47.82	100.00	100	
Ag	107	115	HMI He	3.323	ppb	6.71	2993.67	100	
Cd	111	115	HMI He	9.838	ppb	9.77	1066.72	2000	
Sn	120	115	HMI He	22.848	ppb	1.36	6328.02	2000	
Sb	121	115	HMI He	1420.871	ppb	0.46	380353.82	1000	
Ba	137	115	HMI He	1741.706	ppb	1.47	146751.17	5000	
W	182	165	HMI He	4.285	ppb	5.13	6901.69	100	
Pt	195	165	HMI He	0.055	ppb	60.12	76.67	100	
Tl	205	165	HMI He	1.840	ppb	5.14	4930.90	2000	
Pb	208	165	HMI He	135418.965	ppb	2.71	475562142.70	5000	>LDR
Th	232	165	HMI He	60.952	ppb	0.95	237366.38	2000	
U	238	165	HMI He	21.195	ppb	1.12	87330.11	2000	
Li	7	45	No Gas	194.104	ppb	2.11	1553598.72	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	80596.61	3.18	659107.213333333	12.23	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3118837.78	0.24	14754747.04	21.14	60	125	IS Failed
Sc (IS)	45	HMI He	160781.17	0.52	813740.9	19.76	60	125	IS Failed
Ge Internal Standard	72	HMI He	254001.40	0.83	1117328.62666667	22.73	60	125	IS Failed
In Internal standard	115	HMI He	859643.75	0.63	3102279.77	27.71	60	125	IS Failed
Ho-165	165	HMI He	5774064.70	0.84	14882965.7866667	38.8	60	125	IS Failed
Sc IS)	45	No Gas	16606626.84	0.40	54746399.6466667	30.33	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-76-d
File Name	349SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:06:46 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	10.333	ppb	13.60	481.68	2000	
B	11	6	HMI H2	193.090	ppb	4.25	7545.11	100	
Se	78	72	HMI H2	6.668	ppb	9.02	508.01	2000	
Na	23	45	HMI He	2130.519	ppb	3.19	84534.58	400000	
Mg	24	45	HMI He	327857.733	ppb	1.34	5269860.09	400000	
Al	27	45	HMI He	211363.747	ppb	2.04	801320.71	400000	
K	39	45	HMI He	47564.017	ppb	2.27	450439.41	400000	
Ca	44	45	HMI He	1787047.227	ppb	0.96	937844.07	400000	
V	51	72	HMI He	444.377	ppb	0.03	113427.92	2000	
Cr	52	72	HMI He	336.972	ppb	1.71	112730.30	5000	
Mn	55	72	HMI He	5712.449	ppb	0.97	669953.25	10000	
Fe	57	72	HMI He	269619.856	ppb	2.87	1640617.61	400000	
Co	59	72	HMI He	87.702	ppb	1.37	53407.19	2000	
Ni	60	72	HMI He	230.085	ppb	0.79	39053.40	5000	
Cu	63	72	HMI He	1272.288	ppb	1.10	608965.50	5000	
Zn	66	72	HMI He	984.314	ppb	2.05	63386.65	5000	
As	75	72	HMI He	106.672	ppb	1.19	5149.19	2000	
Sr	88	45	HMI He	5244.228	ppb	1.88	569381.63	2000	
Zr	90	72	HMI He	209958.206	ppb	1.60	67693.04	1000	>LDR
Nb	93	72	HMI He	8.992	ppb	3.56	8549.09	200	
Mo	95	115	HMI He	19.463	ppb	9.77	5344.29	2000	
Pd	105	115	HMI He	0.320	ppb	29.61	136.67	100	
Ag	107	115	HMI He	1.072	ppb	13.42	996.71	100	
Cd	111	115	HMI He	8.171	ppb	11.60	910.03	2000	
Sn	120	115	HMI He	13.781	ppb	6.17	3943.89	2000	
Sb	121	115	HMI He	96.255	ppb	2.46	26469.26	1000	
Ba	137	115	HMI He	2887.337	ppb	0.99	249848.61	5000	
W	182	165	HMI He	3.698	ppb	2.48	6218.04	100	
Pt	195	165	HMI He	0.045	ppb	36.04	66.67	100	
Tl	205	165	HMI He	3.096	ppb	4.56	8569.25	2000	
Pb	208	165	HMI He	14783.151	ppb	0.69	53736172.93	5000	
Th	232	165	HMI He	130.413	ppb	1.01	525557.36	2000	
U	238	165	HMI He	20.987	ppb	1.74	89489.69	2000	
Li	7	45	No Gas	336.300	ppb	3.73	1972437.87	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	85570.90	4.06	659107.213333333	12.98	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3193894.26	1.63	14754747.04	21.65	60	125	IS Failed
Sc (IS)	45	HMI He	164965.70	1.85	813740.9	20.27	60	125	IS Failed
Ge Internal Standard	72	HMI He	259970.51	0.88	1117328.62666667	23.27	60	125	IS Failed
In Internal standard	115	HMI He	882828.05	1.07	3102279.77	28.46	60	125	IS Failed
Ho-165	165	HMI He	5976088.96	1.68	14882965.7866667	40.15	60	125	IS Failed
Sc IS)	45	No Gas	16815077.46	0.34	54746399.6466667	30.71	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-77-d
File Name	350SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:10:17 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	11.779	ppb	6.51	410.01	2000	
B	11	6	HMI H2	178.441	ppb	2.76	5200.85	100	
Se	78	72	HMI H2	6.672	ppb	11.61	436.01	2000	
Na	23	45	HMI He	1889.405	ppb	0.28	65283.41	400000	
Mg	24	45	HMI He	311045.202	ppb	2.02	4342278.89	400000	
Al	27	45	HMI He	186588.811	ppb	1.52	614408.38	400000	
K	39	45	HMI He	42788.127	ppb	1.35	352494.21	400000	
Ca	44	45	HMI He	1777455.138	ppb	0.93	810152.52	400000	
V	51	72	HMI He	385.360	ppb	0.77	88221.77	2000	
Cr	52	72	HMI He	291.107	ppb	1.27	87324.05	5000	
Mn	55	72	HMI He	5305.296	ppb	1.76	557882.46	10000	
Fe	57	72	HMI He	234741.429	ppb	3.41	1280659.96	400000	
Co	59	72	HMI He	81.855	ppb	0.73	44697.90	2000	
Ni	60	72	HMI He	219.462	ppb	1.68	33404.42	5000	
Cu	63	72	HMI He	1017.687	ppb	0.64	436819.59	5000	
Zn	66	72	HMI He	954.458	ppb	3.90	55116.96	5000	
As	75	72	HMI He	105.815	ppb	1.79	4579.74	2000	
Sr	88	45	HMI He	5450.535	ppb	1.09	513987.20	2000	
Zr	90	72	HMI He	190746.375	ppb	1.16	55141.45	1000	>LDR
Nb	93	72	HMI He	9.393	ppb	6.06	8005.44	200	
Mo	95	115	HMI He	19.130	ppb	6.40	4794.10	2000	
Pd	105	115	HMI He	0.290	ppb	9.61	113.33	100	
Ag	107	115	HMI He	1.522	ppb	11.19	1290.07	100	
Cd	111	115	HMI He	8.127	ppb	7.95	826.70	2000	
Sn	120	115	HMI He	13.605	ppb	4.08	3553.77	2000	
Sb	121	115	HMI He	266.750	ppb	1.11	66973.08	1000	
Ba	137	115	HMI He	2790.210	ppb	1.76	220444.05	5000	
W	182	165	HMI He	3.422	ppb	9.89	5314.37	100	
Pt	195	165	HMI He	0.044	ppb	51.80	60.00	100	
Tl	205	165	HMI He	2.979	ppb	3.46	7585.41	2000	
Pb	208	165	HMI He	29419.011	ppb	1.05	98363063.62	5000	>LDR
Th	232	165	HMI He	116.299	ppb	0.93	431090.64	2000	
U	238	165	HMI He	19.663	ppb	3.75	77105.74	2000	
Li	7	45	No Gas	305.370	ppb	3.82	1736947.31	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	63805.65	2.17	659107.213333333	9.68	60	125	IS Failed
Ge Internal Standard	72	HMI H2	2742464.83	0.71	14754747.04	18.59	60	125	IS Failed
Sc (IS)	45	HMI He	143254.81	0.35	813740.9	17.6	60	125	IS Failed
Ge Internal Standard	72	HMI He	233100.66	0.31	1117328.62666667	20.86	60	125	IS Failed
In Internal standard	115	HMI He	806138.76	1.26	3102279.77	25.99	60	125	IS Failed
Ho-165	165	HMI He	5496723.00	1.38	14882965.7866667	36.93	60	125	IS Failed
Sc IS)	45	No Gas	15492964.71	2.32	54746399.6466667	28.3	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-78-d
File Name	351SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:13:56 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399896 HOT Sb 6020A Q5
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	9.878	ppb	19.58	288.34	2000	
B	11	6	HMI H2	186.429	ppb	10.67	4523.99	100	
Se	78	72	HMI H2	6.166	ppb	14.23	362.67	2000	
Na	23	45	HMI He	1927.726	ppb	1.74	58856.18	400000	
Mg	24	45	HMI He	294227.050	ppb	1.49	3631054.32	400000	
Al	27	45	HMI He	185781.495	ppb	0.53	540833.12	400000	
K	39	45	HMI He	42905.421	ppb	2.95	312406.85	400000	
Ca	44	45	HMI He	1605289.286	ppb	1.71	646797.45	400000	
V	51	72	HMI He	409.097	ppb	3.26	83380.68	2000	
Cr	52	72	HMI He	314.997	ppb	0.48	84127.50	5000	
Mn	55	72	HMI He	5141.465	ppb	1.02	481368.06	10000	
Fe	57	72	HMI He	231561.523	ppb	0.23	1124774.99	400000	
Co	59	72	HMI He	80.249	ppb	2.44	39016.60	2000	
Ni	60	72	HMI He	213.469	ppb	0.34	28932.42	5000	
Cu	63	72	HMI He	1405.078	ppb	1.73	536916.47	5000	
Zn	66	72	HMI He	985.706	ppb	1.05	50682.33	5000	
As	75	72	HMI He	97.427	ppb	1.59	3754.69	2000	
Sr	88	45	HMI He	5024.327	ppb	1.57	418842.12	2000	
Zr	90	72	HMI He	203816.403	ppb	1.05	52459.59	1000	>LDR
Nb	93	72	HMI He	9.939	ppb	3.69	7541.88	200	
Mo	95	115	HMI He	20.277	ppb	6.60	4580.71	2000	
Pd	105	115	HMI He	0.214	ppb	96.32	76.67	100	
Ag	107	115	HMI He	1.159	ppb	20.61	886.70	100	
Cd	111	115	HMI He	8.366	ppb	10.31	766.70	2000	
Sn	120	115	HMI He	14.981	ppb	9.46	3523.78	2000	
Sb	121	115	HMI He	169.406	ppb	2.02	38357.32	1000	
Ba	137	115	HMI He	2784.072	ppb	1.22	198387.02	5000	
W	182	165	HMI He	4.382	ppb	3.80	6258.07	100	
Pt	195	165	HMI He	0.027	ppb	103.51	36.67	100	
Tl	205	165	HMI He	2.890	ppb	6.13	6858.34	2000	
Pb	208	165	HMI He	23593.236	ppb	0.35	73550204.70	5000	
Th	232	165	HMI He	126.166	ppb	1.02	436026.22	2000	
U	238	165	HMI He	20.528	ppb	1.01	75074.91	2000	
Li	7	45	No Gas	298.662	ppb	7.08	1557794.63	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	53156.38	3.88	659107.213333333	8.06	60	125	IS Failed
Ge Internal Standard	72	HMI H2	2467145.13	0.71	14754747.04	16.72	60	125	IS Failed
Sc (IS)	45	HMI He	126654.77	1.41	813740.9	15.56	60	125	IS Failed
Ge Internal Standard	72	HMI He	207547.79	0.12	1117328.62666667	18.58	60	125	IS Failed
In Internal standard	115	HMI He	727046.56	1.18	3102279.77	23.44	60	125	IS Failed
Ho-165	165	HMI He	5125119.53	2.20	14882965.7866667	34.44	60	125	IS Failed
Sc IS)	45	No Gas	14034930.73	1.22	54746399.6466667	25.64	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	352_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:17:30 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	148.069	ppb	6.05	23109.20	500	29.61	90	110	>+\-10%
Be	9	6	HMI H2	58.755	ppb	6.75	2120.14	50	117.51	90	110	>+\-10%
B	11	6	HMI H2	67.664	ppb	8.74	2056.81	50	135.33	90	110	>+\-10%
Se	78	72	HMI H2	51.225	ppb	2.85	3639.10	50	102.45	90	110	
Na	23	45	HMI He	3810.679	ppb	0.95	129524.37	5000	76.21	90	110	>+\-10%
Mg	24	45	HMI He	4220.551	ppb	1.05	58645.64	5000	84.41	90	110	>+\-10%
Al	27	45	HMI He	4952.736	ppb	3.08	16234.67	5000	99.05	90	110	
K	39	45	HMI He	4807.491	ppb	3.13	43955.01	5000	96.15	90	110	
Ca	44	45	HMI He	5395.415	ppb	0.92	2453.55	5000	107.91	90	110	
V	51	72	HMI He	40.891	ppb	2.90	10159.91	50	81.78	90	110	>+\-10%
Cr	52	72	HMI He	42.548	ppb	0.53	13665.79	50	85.1	90	110	>+\-10%
Mn	55	72	HMI He	47.799	ppb	0.93	5374.29	50	95.6	90	110	
Fe	57	72	HMI He	4358.466	ppb	2.00	25383.10	5000	87.17	90	110	>+\-10%
Co	59	72	HMI He	44.208	ppb	0.97	25760.47	50	88.42	90	110	>+\-10%
Ni	60	72	HMI He	45.902	ppb	10.83	7515.15	50	91.8	90	110	
Cu	63	72	HMI He	46.679	ppb	2.66	21581.22	50	93.36	90	110	
Zn	66	72	HMI He	55.412	ppb	7.27	3467.09	50	110.82	90	110	>+\-10%
As	75	72	HMI He	50.540	ppb	2.62	2336.12	50	101.08	90	110	
Sr	88	45	HMI He	80.619	ppb	6.05	7561.88	50	161.24	90	110	>+\-10%
Zr	90	72	HMI He	1366.646	ppb	3.82	440.01	50	2733.29	90	110	>+\-10%
Nb	93	72	HMI He	113.906	ppb	0.53	103393.16	100	113.91	90	110	>+\-10%
Mo	95	115	HMI He	45.688	ppb	4.91	12455.03	50	91.38	90	110	
Pd	105	115	HMI He	50.495	ppb	0.61	20977.51	50	100.99	90	110	
Ag	107	115	HMI He	50.961	ppb	0.58	46796.11	50	101.92	90	110	
Cd	111	115	HMI He	52.282	ppb	5.88	5787.80	50	104.56	90	110	
Sn	120	115	HMI He	58.290	ppb	3.11	16398.83	50	116.58	90	110	>+\-10%
Sb	121	115	HMI He	57.799	ppb	1.35	15804.82	50	115.6	90	110	>+\-10%
Ba	137	115	HMI He	59.976	ppb	6.59	5164.26	50	119.95	90	110	>+\-10%
W	182	165	HMI He	49.469	ppb	1.62	74417.97	50	98.94	90	110	
Pt	195	165	HMI He	47.338	ppb	2.77	58602.38	50	94.68	90	110	
Tl	205	165	HMI He	54.710	ppb	2.32	143625.03	50	109.42	90	110	
Pb	208	165	HMI He	59.680	ppb	1.08	206921.62	50	119.36	90	110	>+\-10%
Th	232	165	HMI He	59.015	ppb	1.92	226286.78	50	118.03	90	110	>+\-10%
U	238	165	HMI He	59.206	ppb	1.01	240187.27	50	118.41	90	110	>+\-10%
Li	7	45	No Gas	565.904	ppb	1.35	2473211.15	500	113.18	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	66315.49	2.26	659107.213333333	10.06	60	125	IS Failed
Ge Internal Standard	72	HMI H2	2997101.12	0.77	14754747.04	20.31	60	125	IS Failed
Sc (IS)	45	HMI He	142452.01	0.62	813740.9	17.51	60	125	IS Failed
Ge Internal Standard	72	HMI He	248743.53	1.08	1117328.62666667	22.26	60	125	IS Failed
In Internal standard	115	HMI He	877762.91	0.62	3102279.77	28.29	60	125	IS Failed
Ho-165	165	HMI He	5685540.43	0.92	14882965.7866667	38.2	60	125	IS Failed
Sc IS)	45	No Gas	15891188.54	0.08	54746399.6466667	29.03	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	353_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:21:06 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-126.362	ppb	-7.27	10793.53	0.1	
Be	9	6	HMI H2	0.227	ppb	100.82	10.00	0.5	
B	11	6	HMI H2	4.796	ppb	35.74	166.67	0.1	>RL
Se	78	72	HMI H2	-0.024	ppb	-132.74	1.33	1	
Na	23	45	HMI He	-0.915	ppb	-384.53	1413.41	25	
Mg	24	45	HMI He	15.902	ppb	49.88	290.01	25	
Al	27	45	HMI He	1.703	ppb	350.13	23.33	15	
K	39	45	HMI He	89.889	ppb	38.72	6161.21	50	>RL
Ca	44	45	HMI He	38.117	ppb	34.04	26.67	25	>RL
V	51	72	HMI He	0.011	ppb	2758.62	200.00	1	
Cr	52	72	HMI He	-0.050	ppb	-104.14	40.00	1	
Mn	55	72	HMI He	0.382	ppb	83.10	56.67	0.5	
Fe	57	72	HMI He	20.598	ppb	45.61	140.00	25	
Co	59	72	HMI He	0.046	ppb	92.16	30.00	0.5	
Ni	60	72	HMI He	-0.071	ppb	-175.24	63.33	1	
Cu	63	72	HMI He	0.534	ppb	43.23	476.68	1	
Zn	66	72	HMI He	3.541	ppb	14.17	286.68	5	
As	75	72	HMI He	0.245	ppb	47.54	15.03	1	
Sr	88	45	HMI He	0.250	ppb	114.97	26.67	1	
Zr	90	72	HMI He	11.996	ppb	143.76	23.33	1	>RL
Nb	93	72	HMI He	0.663	ppb	29.27	650.03	2	
Mo	95	115	HMI He	0.044	ppb	1.04	20.00	0.5	
Pd	105	115	HMI He	0.016	ppb	246.74	10.00	1	
Ag	107	115	HMI He	0.014	ppb	200.61	20.00	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.088	ppb	203.89	83.33	1	
Sb	121	115	HMI He	0.316	ppb	73.30	96.67	1	
Ba	137	115	HMI He	0.042	ppb	310.06	6.67	0.5	
W	182	165	HMI He	0.080	ppb	20.06	510.02	1	
Pt	195	165	HMI He	0.018	ppb	78.93	30.00	1	
Tl	205	165	HMI He	0.026	ppb	35.64	96.67	0.1	
Pb	208	165	HMI He	1.325	ppb	6.47	5207.09	0.5	>RL
Th	232	165	HMI He	0.067	ppb	33.76	316.67	1	
U	238	165	HMI He	0.018	ppb	73.10	100.00	0.5	
Li	7	45	No Gas	36.059	ppb	39.08	1127931.79	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	69759.08	1.68	659107.213333333	10.58	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3070852.60	0.36	14754747.04	20.81	60	125	IS Failed
Sc (IS)	45	HMI He	149395.26	2.74	813740.9	18.36	60	125	IS Failed
Ge Internal Standard	72	HMI He	260575.64	1.03	1117328.62666667	23.32	60	125	IS Failed
In Internal standard	115	HMI He	901501.67	0.64	3102279.77	29.06	60	125	IS Failed
Ho-165	165	HMI He	5797667.15	1.94	14882965.7866667	38.96	60	125	IS Failed
Sc IS)	45	No Gas	16793624.54	1.02	54746399.6466667	30.68	60	120	IS Failed

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	354LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:24:39 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.257	ppb	21.69	53.33	1	125.7	70	130	
Se	78	72	HMI H2	4.425	ppb	7.33	340.01	5	88.49	70	130	
Na	23	45	HMI He	40.824	ppb	22.39	2996.98	50	81.65	70	130	
Mg	24	45	HMI He	61.951	ppb	5.13	1000.05	50	123.9	70	130	
Al	27	45	HMI He	40.580	ppb	32.03	163.34	30	135.27	70	130	>+/-30%
K	39	45	HMI He	168.767	ppb	2.12	7108.26	100	168.77	70	130	>+/-30%
Ca	44	45	HMI He	21.723	ppb	183.06	20.00	50	43.45	70	130	>+/-30%
V	51	72	HMI He	4.251	ppb	18.90	1323.41	5	85.02	70	130	
Cr	52	72	HMI He	1.797	ppb	13.36	680.02	2	89.87	70	130	
Mn	55	72	HMI He	1.330	ppb	37.20	173.33	1	132.98	70	130	>+/-30%
Fe	57	72	HMI He	61.724	ppb	15.54	403.34	50	123.45	70	130	
Co	59	72	HMI He	0.771	ppb	15.32	486.68	1	77.06	70	130	
Ni	60	72	HMI He	1.402	ppb	26.29	323.34	2	70.1	70	130	
Cu	63	72	HMI He	2.115	ppb	15.05	1273.40	2	105.75	70	130	
Zn	66	72	HMI He	12.871	ppb	22.02	916.71	10	128.71	70	130	
As	75	72	HMI He	5.347	ppb	11.30	269.94	5	106.95	70	130	
Sr	88	45	HMI He	2.033	ppb	17.08	210.00	1	203.31	70	130	>+/-30%
Zr	90	72	HMI He	449.386	ppb	60.62	170.00	0.5	89877.29	70	130	>+/-30%
Nb	93	72	HMI He	0.408	ppb	16.80	420.01	2	20.39	70	130	>+/-30%
Mo	95	115	HMI He	1.808	ppb	5.02	540.02	2	90.39	70	130	
Pd	105	115	HMI He	-0.007	ppb	0.00	0.00	1	-0.69	70	130	>+/-30%
Ag	107	115	HMI He	4.993	ppb	0.59	4957.54	5	99.86	70	130	
Cd	111	115	HMI He	0.893	ppb	46.22	106.67	1	89.26	70	130	
Sn	120	115	HMI He	10.824	ppb	6.75	3337.06	10	108.24	70	130	
Sb	121	115	HMI He	2.320	ppb	23.09	693.35	2	116.02	70	130	
Ba	137	115	HMI He	1.148	ppb	56.61	110.00	1	114.8	70	130	
W	182	165	HMI He	5.091	ppb	8.49	8185.68	1	509.07	70	130	>+/-30%
Pt	195	165	HMI He	0.033	ppb	117.76	50.00	1	3.32	70	130	>+/-30%
Tl	205	165	HMI He	1.107	ppb	7.43	3003.69	1	110.69	70	130	
Pb	208	165	HMI He	2.003	ppb	1.20	7630.90	1	200.29	70	130	>+/-30%
Th	232	165	HMI He	2.290	ppb	5.24	9039.62	2	114.5	70	130	
U	238	165	HMI He	1.188	ppb	4.35	4960.92	1	118.84	70	130	
Li	7	45	No Gas	62.573	ppb	8.77	1244958.08	50	125.15	70	130	

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	75637.24	1.60	659107.213333333	11.48	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3215760.04	1.27	14754747.04	21.79	60	125	IS Failed
Sc (IS)	45	HMI He	155505.19	2.28	813740.9	19.11	60	125	IS Failed
Ge Internal Standard	72	HMI He	268773.04	0.52	1117328.62666667	24.05	60	125	IS Failed
In Internal standard	115	HMI He	947826.94	0.60	3102279.77	30.55	60	125	IS Failed
Ho-165	165	HMI He	5821514.23	1.15	14882965.7866667	39.12	60	125	IS Failed
Sc IS)	45	No Gas	17390320.34	1.52	54746399.6466667	31.77	60	120	IS Failed

Sample Report

Sample Name	RINSE-4875024
File Name	355SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:28:31 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.081	ppb	252.46	5.00	2000	
B	11	6	HMI H2	2.739	ppb	75.81	113.33	100	
Se	78	72	HMI H2	0.026	ppb	298.73	5.33	2000	
Na	23	45	HMI He	-0.975	ppb	-734.17	1506.75	400000	
Mg	24	45	HMI He	48.334	ppb	129.33	817.44	400000	
Al	27	45	HMI He	1.348	ppb	307.18	23.33	400000	
K	39	45	HMI He	89.599	ppb	55.07	6591.42	400000	
Ca	44	45	HMI He	1.219	ppb	2751.17	10.00	400000	
V	51	72	HMI He	-0.306	ppb	-25.21	126.67	2000	
Cr	52	72	HMI He	0.027	ppb	205.17	70.00	5000	
Mn	55	72	HMI He	0.408	ppb	11.42	63.33	10000	
Fe	57	72	HMI He	14.551	ppb	36.61	110.00	400000	
Co	59	72	HMI He	0.003	ppb	340.81	3.33	2000	
Ni	60	72	HMI He	-0.093	ppb	-34.42	63.33	5000	
Cu	63	72	HMI He	0.567	ppb	27.94	523.35	5000	
Zn	66	72	HMI He	3.328	ppb	56.99	290.01	5000	
As	75	72	HMI He	0.163	ppb	23.54	11.76	2000	
Sr	88	45	HMI He	0.171	ppb	147.26	20.00	2000	
Zr	90	72	HMI He	7.808	ppb	568.92	23.33	1000	
Nb	93	72	HMI He	0.042	ppb	71.50	63.33	200	
Mo	95	115	HMI He	0.039	ppb	170.56	20.00	2000	
Pd	105	115	HMI He	0.030	ppb	154.84	16.67	100	
Ag	107	115	HMI He	-0.004	ppb	-148.61	3.33	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	-0.007	ppb	-1895.77	60.00	2000	
Sb	121	115	HMI He	0.038	ppb	86.60	20.00	1000	
Ba	137	115	HMI He	0.035	ppb	336.94	6.67	5000	
W	182	165	HMI He	0.038	ppb	89.51	460.01	100	
Pt	195	165	HMI He	0.025	ppb	62.35	40.00	100	
Tl	205	165	HMI He	0.006	ppb	265.67	43.33	2000	
Pb	208	165	HMI He	0.786	ppb	12.54	3413.54	5000	
Th	232	165	HMI He	0.044	ppb	23.57	233.34	2000	
U	238	165	HMI He	0.004	ppb	109.91	40.00	2000	
Li	7	45	No Gas	43.955	ppb	17.59	1209852.15	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	78211.91	0.97	659107.213333333	11.87	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3285042.93	1.07	14754747.04	22.26	60	125	IS Failed
Sc (IS)	45	HMI He	159899.44	1.60	813740.9	19.65	60	125	IS Failed
Ge Internal Standard	72	HMI He	276844.50	0.10	1117328.62666667	24.78	60	125	IS Failed
In Internal standard	115	HMI He	972938.63	1.53	3102279.77	31.36	60	125	IS Failed
Ho-165	165	HMI He	5978213.70	0.76	14882965.7866667	40.17	60	125	IS Failed
Sc IS)	45	No Gas	17666465.95	0.21	54746399.6466667	32.27	60	120	IS Failed

Sample Report

Sample Name	RINSE-4896488
File Name	356SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:32:06 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.112	ppb	152.18	6.67	2000	
B	11	6	HMI H2	1.554	ppb	87.24	73.33	100	
Se	78	72	HMI H2	-0.009	ppb	-323.01	2.67	2000	
Na	23	45	HMI He	0.011	ppb	12199.96	1593.44	400000	
Mg	24	45	HMI He	9.632	ppb	24.15	220.00	400000	
Al	27	45	HMI He	-1.470	ppb	-207.00	13.33	400000	
K	39	45	HMI He	118.873	ppb	16.89	7068.29	400000	
Ca	44	45	HMI He	-5.517	ppb	-396.23	6.67	400000	
V	51	72	HMI He	0.122	ppb	51.79	246.67	2000	
Cr	52	72	HMI He	-0.040	ppb	-102.55	46.67	5000	
Mn	55	72	HMI He	0.294	ppb	95.41	50.00	10000	
Fe	57	72	HMI He	11.748	ppb	19.09	93.33	400000	
Co	59	72	HMI He	0.013	ppb	208.18	10.00	2000	
Ni	60	72	HMI He	-0.116	ppb	-127.54	60.00	5000	
Cu	63	72	HMI He	0.416	ppb	42.88	453.35	5000	
Zn	66	72	HMI He	4.170	ppb	15.03	353.34	5000	
As	75	72	HMI He	0.085	ppb	118.29	7.84	2000	
Sr	88	45	HMI He	0.166	ppb	0.72	20.00	2000	
Zr	90	72	HMI He	-12.569	ppb	-470.35	16.67	1000	
Nb	93	72	HMI He	0.012	ppb	248.81	33.33	200	
Mo	95	115	HMI He	0.006	ppb	575.87	10.00	2000	
Pd	105	115	HMI He	0.000	ppb	5135.14	3.33	100	
Ag	107	115	HMI He	0.003	ppb	370.78	10.00	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.055	ppb	406.30	80.00	2000	
Sb	121	115	HMI He	0.027	ppb	251.99	16.67	1000	
Ba	137	115	HMI He	-0.033	ppb	0.00	0.00	5000	
W	182	165	HMI He	0.057	ppb	119.03	500.01	100	
Pt	195	165	HMI He	0.014	ppb	60.81	26.67	100	
Tl	205	165	HMI He	0.003	ppb	263.17	36.67	2000	
Pb	208	165	HMI He	0.720	ppb	4.42	3236.84	5000	
Th	232	165	HMI He	0.024	ppb	13.87	156.67	2000	
U	238	165	HMI He	0.006	ppb	2.24	50.00	2000	
Li	7	45	No Gas	44.335	ppb	8.79	1226550.67	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	81360.12	0.94	659107.213333333	12.34	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3394925.32	0.86	14754747.04	23.01	60	125	IS Failed
Sc (IS)	45	HMI He	164799.72	0.65	813740.9	20.25	60	125	IS Failed
Ge Internal Standard	72	HMI He	281277.64	0.94	1117328.62666667	25.17	60	125	IS Failed
In Internal standard	115	HMI He	972334.67	0.92	3102279.77	31.34	60	125	IS Failed
Ho-165	165	HMI He	6101111.97	1.14	14882965.7866667	40.99	60	125	IS Failed
Sc IS)	45	No Gas	17894394.07	0.99	54746399.6466667	32.69	60	120	IS Failed

Sample Report

Sample Name	RINSE-4896488
File Name	357SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:35:46 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.001	ppb	-11563.78	1.67	2000	
B	11	6	HMI H2	1.240	ppb	70.10	63.33	100	
Se	78	72	HMI H2	0.007	ppb	708.94	4.00	2000	
Na	23	45	HMI He	-0.981	ppb	-44.17	1573.43	400000	
Mg	24	45	HMI He	14.171	ppb	24.28	296.67	400000	
Al	27	45	HMI He	-0.649	ppb	-835.83	16.67	400000	
K	39	45	HMI He	67.037	ppb	40.51	6661.43	400000	
Ca	44	45	HMI He	0.673	ppb	4838.22	10.00	400000	
V	51	72	HMI He	-0.146	ppb	-112.73	176.67	2000	
Cr	52	72	HMI He	0.048	ppb	252.84	80.00	5000	
Mn	55	72	HMI He	0.234	ppb	36.80	43.33	10000	
Fe	57	72	HMI He	9.455	ppb	41.30	80.00	400000	
Co	59	72	HMI He	0.007	ppb	232.73	6.67	2000	
Ni	60	72	HMI He	-0.213	ppb	-13.38	43.33	5000	
Cu	63	72	HMI He	0.333	ppb	16.87	420.01	5000	
Zn	66	72	HMI He	3.918	ppb	35.28	343.34	5000	
As	75	72	HMI He	-0.041	ppb	-51.57	1.31	2000	
Sr	88	45	HMI He	0.163	ppb	96.30	20.00	2000	
Zr	90	72	HMI He	33.012	ppb	126.47	33.33	1000	
Nb	93	72	HMI He	0.012	ppb	211.39	33.33	200	
Mo	95	115	HMI He	0.016	ppb	469.61	13.33	2000	
Pd	105	115	HMI He	0.000	ppb	5705.13	3.33	100	
Ag	107	115	HMI He	-0.001	ppb	-1708.93	6.67	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.149	ppb	19.70	110.00	2000	
Sb	121	115	HMI He	0.016	ppb	118.74	13.33	1000	
Ba	137	115	HMI He	0.036	ppb	336.20	6.67	5000	
W	182	165	HMI He	0.047	ppb	199.45	486.68	100	
Pt	195	165	HMI He	0.006	ppb	249.11	16.67	100	
Tl	205	165	HMI He	0.004	ppb	4.16	40.00	2000	
Pb	208	165	HMI He	0.582	ppb	11.92	2736.81	5000	
Th	232	165	HMI He	0.025	ppb	11.13	160.00	2000	
U	238	165	HMI He	0.000	ppb	820.55	26.67	2000	
Li	7	45	No Gas	35.911	ppb	20.03	1192823.21	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	83386.62	1.18	659107.213333333	12.65	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3452323.18	0.86	14754747.04	23.4	60	125	IS Failed
Sc (IS)	45	HMI He	166759.30	0.70	813740.9	20.49	60	125	IS Failed
Ge Internal Standard	72	HMI He	287703.97	1.10	1117328.62666667	25.75	60	125	IS Failed
In Internal standard	115	HMI He	982053.78	0.77	3102279.77	31.66	60	125	IS Failed
Ho-165	165	HMI He	6132265.51	1.15	14882965.7866667	41.2	60	125	IS Failed
Sc IS)	45	No Gas	17766501.37	0.57	54746399.6466667	32.45	60	120	IS Failed

Sample Report

Sample Name	RINSE-4896488
File Name	358SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:40:34 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	318CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.037	ppb	0.00	0.00	2000	
B	11	6	HMI H2	1.333	ppb	28.98	66.67	100	
Se	78	72	HMI H2	0.007	ppb	719.77	4.00	2000	
Na	23	45	HMI He	-2.847	ppb	-17.17	1500.08	400000	
Mg	24	45	HMI He	12.303	ppb	33.63	266.67	400000	
Al	27	45	HMI He	0.247	ppb	1069.92	20.00	400000	
K	39	45	HMI He	94.676	ppb	91.10	6918.23	400000	
Ca	44	45	HMI He	25.577	ppb	183.03	23.33	400000	
V	51	72	HMI He	-0.118	ppb	-143.76	183.33	2000	
Cr	52	72	HMI He	0.011	ppb	762.91	66.67	5000	
Mn	55	72	HMI He	0.316	ppb	93.68	53.33	10000	
Fe	57	72	HMI He	11.515	ppb	41.94	93.33	400000	
Co	59	72	HMI He	0.002	ppb	348.83	3.33	2000	
Ni	60	72	HMI He	-0.104	ppb	-213.31	63.33	5000	
Cu	63	72	HMI He	0.286	ppb	32.21	393.34	5000	
Zn	66	72	HMI He	3.278	ppb	40.54	296.67	5000	
As	75	72	HMI He	0.032	ppb	174.12	5.23	2000	
Sr	88	45	HMI He	0.103	ppb	204.53	13.33	2000	
Zr	90	72	HMI He	5.518	ppb	780.16	23.33	1000	
Nb	93	72	HMI He	0.027	ppb	60.31	50.00	200	
Mo	95	115	HMI He	-0.027	ppb	0.00	0.00	2000	
Pd	105	115	HMI He	0.008	ppb	331.58	6.67	100	
Ag	107	115	HMI He	-0.007	ppb	0.00	0.00	100	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	2000	
Sn	120	115	HMI He	0.023	ppb	875.81	70.00	2000	
Sb	121	115	HMI He	0.027	ppb	186.21	16.67	1000	
Ba	137	115	HMI He	0.001	ppb	7346.43	3.33	5000	
W	182	165	HMI He	0.035	ppb	172.00	456.68	100	
Pt	195	165	HMI He	0.001	ppb	523.96	10.00	100	
Tl	205	165	HMI He	-0.004	ppb	-131.97	16.67	2000	
Pb	208	165	HMI He	0.600	ppb	7.86	2750.14	5000	
Th	232	165	HMI He	0.028	ppb	53.30	170.00	2000	
U	238	165	HMI He	0.004	ppb	254.17	40.00	2000	
Li	7	45	No Gas	32.809	ppb	21.40	1218695.36	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	82773.63	2.12	659107.213333333	12.56	60	125	IS Failed
Ge Internal Standard	72	HMI H2	3405090.42	2.41	14754747.04	23.08	60	125	IS Failed
Sc (IS)	45	HMI He	166763.18	1.09	813740.9	20.49	60	125	IS Failed
Ge Internal Standard	72	HMI He	286312.27	1.10	1117328.62666667	25.62	60	125	IS Failed
In Internal standard	115	HMI He	981789.78	1.11	3102279.77	31.65	60	125	IS Failed
Ho-165	165	HMI He	6012113.28	0.69	14882965.7866667	40.4	60	125	IS Failed
Sc IS)	45	No Gas	18293009.26	0.70	54746399.6466667	33.41	60	120	IS Failed

Calibration Blank Report

Sample Name	ICIS-4905893
File Name	359CALB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:44:47 AM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	13325.38	ppb	1.95
B	11	6	HMI H2	93.33	ppb	83.22
Na	23	45	HMI He	1383.41	ppb	3.42
Mg	24	45	HMI He	313.34	ppb	12.90
Al	27	45	HMI He	30.00	ppb	66.67
K	39	45	HMI He	7605.17	ppb	5.24
Ca	44	45	HMI He	23.33	ppb	89.21
V	51	72	HMI He	176.67	ppb	34.12
Cr	52	72	HMI He	53.33	ppb	39.03
Mn	55	72	HMI He	56.67	ppb	36.74
Fe	57	72	HMI He	66.67	ppb	70.89
Co	59	72	HMI He	10.00	ppb	100.00
Ni	60	72	HMI He	120.00	ppb	43.30
Cu	63	72	HMI He	510.02	ppb	18.91
Zn	66	72	HMI He	313.34	ppb	22.64
As	75	72	HMI He	7.19	ppb	68.63
Sr	88	45	HMI He	6.67	ppb	173.21
Zr	90	72	HMI He	33.33	ppb	17.32
Nb	93	72	HMI He	60.00	ppb	16.67
Mo	95	115	HMI He	13.33	ppb	173.21
Ag	107	115	HMI He	6.67	ppb	173.21
Sn	120	115	HMI He	53.33	ppb	60.27
Sb	121	115	HMI He	26.67	ppb	57.28
Ba	137	115	HMI He	3.33	ppb	173.21
W	182	165	HMI He	516.68	ppb	22.43
Pt	195	165	HMI He	20.00	ppb	132.29
Tl	205	165	HMI He	26.67	ppb	21.65
Pb	208	165	HMI He	2740.14	ppb	3.85
Th	232	165	HMI He	116.67	ppb	30.10
U	238	165	HMI He	16.67	ppb	34.64
Li	7	45	No Gas	1236169.63	ppb	2.47

QC ISTD Table

Calibration Blank Report

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	87935.94	3.36
Ge Internal Standard	72	HMI H2	3514373.85	3.59
Sc (IS)	45	HMI He	170210.70	0.93
Ge Internal Standard	72	HMI He	291105.98	0.23
In Internal standard	115	HMI He	1005086.62	0.38
Ho-165	165	HMI He	6081416.04	1.13
Sc IS)	45	No Gas	18444261.33	0.79

Calibration Standard Report

Sample Name	IC-4905894
File Name	360CALS.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:48:23 AM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	49298.10	ppb	0.88
Be	9	6	HMI H2	5217.49	ppb	6.18
B	11	6	HMI H2	5987.81	ppb	2.59
Se	78	72	HMI H2	8343.52	ppb	5.91
Na	23	45	HMI He	317857.33	ppb	1.59
Mg	24	45	HMI He	146986.85	ppb	1.27
Al	27	45	HMI He	38029.97	ppb	2.74
K	39	45	HMI He	100214.02	ppb	2.50
Ca	44	45	HMI He	5907.81	ppb	2.55
V	51	72	HMI He	23633.83	ppb	3.73
Cr	52	72	HMI He	30641.95	ppb	2.94
Mn	55	72	HMI He	12211.32	ppb	6.92
Fe	57	72	HMI He	58986.09	ppb	2.21
Co	59	72	HMI He	58992.87	ppb	3.37
Ni	60	72	HMI He	17322.72	ppb	3.01
Cu	63	72	HMI He	48218.13	ppb	4.87
Zn	66	72	HMI He	6788.18	ppb	7.46
As	75	72	HMI He	5324.41	ppb	2.60
Sr	88	45	HMI He	16275.07	ppb	2.32
Zr	90	72	HMI He	320.01	ppb	14.32
Nb	93	72	HMI He	234025.89	ppb	0.98
Mo	95	115	HMI He	29090.14	ppb	5.07
Pd	105	115	HMI He	46023.69	ppb	2.57
Ag	107	115	HMI He	100924.55	ppb	2.80
Cd	111	115	HMI He	13162.30	ppb	2.85
Sn	120	115	HMI He	36051.78	ppb	1.94
Sb	121	115	HMI He	34809.09	ppb	1.44
Ba	137	115	HMI He	11581.10	ppb	2.27
W	182	165	HMI He	159452.52	ppb	0.66
Pt	195	165	HMI He	125990.90	ppb	1.62
Tl	205	165	HMI He	306427.25	ppb	1.32
Pb	208	165	HMI He	404678.18	ppb	0.48
Th	232	165	HMI He	472312.95	ppb	0.50
U	238	165	HMI He	495842.24	ppb	1.06
Li	7	45	No Gas	4488805.81	ppb	1.78

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	87892.27	0.33	87935.9366666667	99.95	60	125	
Ge Internal Standard	72	HMI H2	3502458.20	1.49	3514373.85333333	99.66	60	125	
Sc (IS)	45	HMI He	173613.08	0.70	170210.703333333	102	60	125	
Ge Internal Standard	72	HMI He	292258.02	0.48	291105.983333333	100.4	60	125	
In Internal standard	115	HMI He	1001113.32	0.69	1005086.61666667	99.6	60	125	
Ho-165	165	HMI He	6142251.82	1.34	6081416.03666667	101	60	125	
Sc IS)	45	No Gas	18358027.38	0.42	18444261.3266667	99.53	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	361_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:52:19 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	516.880	ppb	5.14	31362.47	500	103.38	90	110	
Be	9	6	HMI H2	51.368	ppb	3.33	2651.88	50	102.74	90	110	
B	11	6	HMI H2	41.467	ppb	19.02	2503.55	50	82.93	90	110	>+\-10%
Se	78	72	HMI H2	51.055	ppb	2.44	4187.24	50	102.11	90	110	
Na	23	45	HMI He	5136.733	ppb	1.56	159170.00	5000	102.73	90	110	
Mg	24	45	HMI He	5150.200	ppb	0.04	73640.63	5000	103	90	110	
Al	27	45	HMI He	5040.262	ppb	2.02	18627.18	5000	100.81	90	110	
K	39	45	HMI He	5092.553	ppb	0.30	53235.42	5000	101.85	90	110	
Ca	44	45	HMI He	4808.310	ppb	7.99	2770.26	5000	96.17	90	110	
V	51	72	HMI He	50.865	ppb	4.46	12037.84	50	101.73	90	110	
Cr	52	72	HMI He	50.470	ppb	1.04	15407.41	50	100.94	90	110	
Mn	55	72	HMI He	48.480	ppb	1.22	5917.82	50	96.96	90	110	
Fe	57	72	HMI He	5243.292	ppb	2.49	30792.37	5000	104.87	90	110	
Co	59	72	HMI He	51.924	ppb	0.79	30468.57	50	103.85	90	110	
Ni	60	72	HMI He	48.323	ppb	2.96	8385.58	50	96.65	90	110	
Cu	63	72	HMI He	51.831	ppb	3.48	25102.93	50	103.66	90	110	
Zn	66	72	HMI He	54.788	ppb	5.23	3840.50	50	109.58	90	110	
As	75	72	HMI He	50.395	ppb	6.03	2670.82	50	100.79	90	110	
Sr	88	45	HMI He	53.893	ppb	1.46	8519.06	50	107.79	90	110	
Zr	90	72	HMI He	17.527	ppb	62.98	83.33	50	35.05	90	110	>+\-10%
Nb	93	72	HMI He	102.139	ppb	2.94	118859.21	100	102.14	90	110	
Mo	95	115	HMI He	49.138	ppb	3.45	14116.44	50	98.28	90	110	
Pd	105	115	HMI He	53.796	ppb	4.68	24439.08	50	107.59	90	110	
Ag	107	115	HMI He	52.304	ppb	1.15	52102.68	50	104.61	90	110	
Cd	111	115	HMI He	52.491	ppb	2.00	6818.24	50	104.98	90	110	
Sn	120	115	HMI He	50.738	ppb	4.58	18080.61	50	101.48	90	110	
Sb	121	115	HMI He	52.035	ppb	0.61	17890.40	50	104.07	90	110	
Ba	137	115	HMI He	49.806	ppb	5.36	5694.46	50	99.61	90	110	
W	182	165	HMI He	51.808	ppb	0.31	82221.69	50	103.62	90	110	
Pt	195	165	HMI He	51.144	ppb	2.55	63937.45	50	102.29	90	110	
Tl	205	165	HMI He	51.099	ppb	2.17	155338.57	50	102.2	90	110	
Pb	208	165	HMI He	52.106	ppb	1.25	210517.97	50	104.21	90	110	
Th	232	165	HMI He	52.370	ppb	2.54	245428.32	50	104.74	90	110	
U	238	165	HMI He	51.523	ppb	1.27	253512.57	50	103.05	90	110	
Li	7	45	No Gas	521.519	ppb	1.95	2913989.90	500	104.3	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	87007.84	2.90	87935.9366666667	98.94	60	125	
Ge Internal Standard	72	HMI H2	3442910.47	1.35	3514373.85333333	97.97	60	125	
Sc (IS)	45	HMI He	168540.83	1.17	170210.703333333	99.02	60	125	
Ge Internal Standard	72	HMI He	290634.55	1.01	291105.983333333	99.84	60	125	
In Internal standard	115	HMI He	988026.62	0.18	1005086.61666667	98.3	60	125	
Ho-165	165	HMI He	6094034.37	1.42	6081416.03666667	100.21	60	125	
Sc IS)	45	No Gas	18258272.17	0.52	18444261.3266667	98.99	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	362_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 8:59:14 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	6.368	ppb	200.77	13402.13	0.1	>RL
Be	9	6	HMI H2	0.033	ppb	173.21	1.67	0.5	
B	11	6	HMI H2	0.069	ppb	1275.77	93.33	0.1	
Se	78	72	HMI H2	0.097	ppb	86.61	8.00	1	
Na	23	45	HMI He	9.307	ppb	40.35	1693.44	25	
Mg	24	45	HMI He	0.425	ppb	2258.53	323.34	25	
Al	27	45	HMI He	-5.434	ppb	-48.56	10.00	15	
K	39	45	HMI He	-85.768	ppb	-60.34	6914.88	50	
Ca	44	45	HMI He	-17.864	ppb	-54.71	13.33	25	
V	51	72	HMI He	0.076	ppb	336.25	196.67	1	
Cr	52	72	HMI He	0.074	ppb	127.27	76.67	1	
Mn	55	72	HMI He	-0.169	ppb	-99.22	36.67	0.5	
Fe	57	72	HMI He	3.793	ppb	115.45	90.00	25	
Co	59	72	HMI He	0.000	ppb	-10466.09	10.00	0.5	
Ni	60	72	HMI He	-0.354	ppb	-28.86	60.00	1	
Cu	63	72	HMI He	-0.157	ppb	-152.93	440.01	1	
Zn	66	72	HMI He	0.915	ppb	131.16	376.68	5	
As	75	72	HMI He	-0.063	ppb	-116.27	3.92	1	
Sr	88	45	HMI He	0.020	ppb	526.18	10.00	1	
Zr	90	72	HMI He	1.057	ppb	508.22	36.67	1	>RL
Nb	93	72	HMI He	0.254	ppb	23.74	360.01	2	
Mo	95	115	HMI He	-0.023	ppb	-165.40	6.67	0.5	
Pd	105	115	HMI He	0.071	ppb	46.61	33.33	1	
Ag	107	115	HMI He	-0.003	ppb	-163.63	3.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.080	ppb	38.63	83.33	1	
Sb	121	115	HMI He	0.236	ppb	79.60	110.00	1	
Ba	137	115	HMI He	0.029	ppb	346.17	6.67	0.5	
W	182	165	HMI He	0.009	ppb	484.97	540.02	1	
Pt	195	165	HMI He	-0.003	ppb	-143.99	16.67	1	
Tl	205	165	HMI He	0.020	ppb	57.20	90.00	0.1	
Pb	208	165	HMI He	-0.064	ppb	-35.71	2533.45	0.5	
Th	232	165	HMI He	0.012	ppb	61.62	176.67	1	
U	238	165	HMI He	0.003	ppb	127.15	33.33	0.5	
Li	7	45	No Gas	8.977	ppb	133.59	1274674.83	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	85664.78	1.07	87935.9366666667	97.42	60	125	
Ge Internal Standard	72	HMI H2	3448115.94	0.53	3514373.85333333	98.11	60	125	
Sc (IS)	45	HMI He	172356.49	0.44	170210.703333333	101.26	60	125	
Ge Internal Standard	72	HMI He	294262.94	0.67	291105.983333333	101.08	60	125	
In Internal standard	115	HMI He	1015784.87	1.26	1005086.61666667	101.06	60	125	
Ho-165	165	HMI He	6196419.52	0.83	6081416.03666667	101.89	60	125	
Sc IS)	45	No Gas	18575642.57	0.19	18444261.3266667	100.71	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	363LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:02:45 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	1.039	ppb	16.97	55.00	1	103.86	70	130	
Se	78	72	HMI H2	4.922	ppb	24.19	413.34	5	98.43	70	130	
Na	23	45	HMI He	73.671	ppb	12.77	3777.16	50	147.34	70	130	>+/-30%
Mg	24	45	HMI He	50.955	ppb	20.48	1076.71	50	101.91	70	130	
Al	27	45	HMI He	31.020	ppb	44.34	150.00	30	103.4	70	130	
K	39	45	HMI He	63.447	ppb	53.48	8422.26	100	63.45	70	130	>+/-30%
Ca	44	45	HMI He	60.324	ppb	55.47	60.00	50	120.65	70	130	
V	51	72	HMI He	5.368	ppb	10.99	1466.75	5	107.36	70	130	
Cr	52	72	HMI He	1.994	ppb	14.60	676.69	2	99.72	70	130	
Mn	55	72	HMI He	1.361	ppb	18.58	226.67	1	136.1	70	130	>+/-30%
Fe	57	72	HMI He	63.997	ppb	12.23	453.35	50	127.99	70	130	
Co	59	72	HMI He	1.056	ppb	20.26	646.69	1	105.65	70	130	
Ni	60	72	HMI He	1.883	ppb	8.82	453.34	2	94.13	70	130	
Cu	63	72	HMI He	1.980	ppb	10.74	1486.75	2	99	70	130	
Zn	66	72	HMI He	9.271	ppb	18.25	933.37	10	92.71	70	130	
As	75	72	HMI He	5.299	ppb	12.07	294.78	5	105.98	70	130	
Sr	88	45	HMI He	0.731	ppb	51.12	126.67	1	73.05	70	130	
Zr	90	72	HMI He	54.547	ppb	38.74	193.34	0.5	10909.35	70	130	>+/-30%
Nb	93	72	HMI He	0.462	ppb	9.32	613.35	2	23.11	70	130	>+/-30%
Mo	95	115	HMI He	1.754	ppb	10.87	540.02	2	87.68	70	130	
Pd	105	115	HMI He	0.000	ppb	NaN	0.00	1	0	70	130	>+/-30%
Ag	107	115	HMI He	5.132	ppb	3.54	5344.30	5	102.64	70	130	
Cd	111	115	HMI He	0.763	ppb	23.32	103.33	1	76.27	70	130	
Sn	120	115	HMI He	10.150	ppb	7.13	3820.53	10	101.5	70	130	
Sb	121	115	HMI He	1.950	ppb	9.58	726.69	2	97.49	70	130	
Ba	137	115	HMI He	1.257	ppb	11.62	153.33	1	125.75	70	130	
W	182	165	HMI He	5.017	ppb	5.40	8615.92	1	501.65	70	130	>+/-30%
Pt	195	165	HMI He	0.028	ppb	33.12	56.67	1	2.82	70	130	>+/-30%
Tl	205	165	HMI He	1.095	ppb	6.05	3430.45	1	109.5	70	130	
Pb	208	165	HMI He	1.026	ppb	4.65	6987.40	1	102.59	70	130	
Th	232	165	HMI He	1.989	ppb	2.20	9643.36	2	99.45	70	130	
U	238	165	HMI He	1.044	ppb	1.04	5264.37	1	104.36	70	130	
Li	7	45	No Gas	13.674	ppb	54.42	1316761.36	50	27.35	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	89333.34	1.55	87935.9366666667	101.59	60	125	
Ge Internal Standard	72	HMI H2	3526934.24	0.75	3514373.85333333	100.36	60	125	
Sc (IS)	45	HMI He	175199.18	0.24	170210.703333333	102.93	60	125	
Ge Internal Standard	72	HMI He	298257.81	1.07	291105.983333333	102.46	60	125	
In Internal standard	115	HMI He	1032135.37	1.95	1005086.61666667	102.69	60	125	
Ho-165	165	HMI He	6228472.18	0.88	6081416.03666667	102.42	60	125	
Sc IS)	45	No Gas	18957653.18	0.74	18444261.3266667	102.78	60	120	

Sample Report

Sample Name	280-104412-a-7-c
File Name	364SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:06:19 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.494	ppb	20.58	286.67	2000	
B	11	6	HMI H2	102.588	ppb	6.02	4493.97	100	
Se	78	72	HMI H2	4.907	ppb	14.64	322.67	2000	
Na	23	45	HMI He	2621.811	ppb	0.91	74159.60	400000	
Mg	24	45	HMI He	329064.872	ppb	2.06	4241660.67	400000	
Al	27	45	HMI He	179190.826	ppb	1.15	598510.00	400000	
K	39	45	HMI He	44042.801	ppb	1.08	364644.35	400000	
Ca	44	45	HMI He	1780148.299	ppb	0.36	920643.29	400000	
V	51	72	HMI He	328.754	ppb	4.85	65988.83	2000	
Cr	52	72	HMI He	419.673	ppb	2.41	109673.64	5000	
Mn	55	72	HMI He	4936.614	ppb	2.90	512467.03	10000	
Fe	57	72	HMI He	183905.697	ppb	3.11	925212.17	400000	
Co	59	72	HMI He	73.946	ppb	0.50	37262.60	2000	
Ni	60	72	HMI He	189.183	ppb	4.91	27884.02	5000	
Cu	63	72	HMI He	509.132	ppb	2.50	207829.72	5000	
Zn	66	72	HMI He	852.056	ppb	1.85	47382.33	5000	
As	75	72	HMI He	74.547	ppb	5.63	3389.90	2000	
Sr	88	45	HMI He	4424.768	ppb	1.03	632659.27	2000	
Zr	90	72	HMI He	25540.386	ppb	2.77	62502.09	1000	>LDR
Nb	93	72	HMI He	3.871	ppb	4.75	3917.21	200	
Mo	95	115	HMI He	12.847	ppb	5.23	3183.71	2000	
Pd	105	115	HMI He	0.247	ppb	21.68	96.67	100	
Ag	107	115	HMI He	0.896	ppb	6.76	773.36	100	
Cd	111	115	HMI He	8.667	ppb	13.12	970.04	2000	
Sn	120	115	HMI He	7.885	ppb	3.24	2456.89	2000	
Sb	121	115	HMI He	1.162	ppb	36.20	366.67	1000	
Ba	137	115	HMI He	2160.407	ppb	1.27	212443.02	5000	
W	182	165	HMI He	0.991	ppb	15.23	1886.81	100	
Pt	195	165	HMI He	0.090	ppb	34.14	120.00	100	
Tl	205	165	HMI He	2.478	ppb	4.37	6851.68	2000	
Pb	208	165	HMI He	4597.228	ppb	3.36	16620206.22	5000	
Th	232	165	HMI He	86.187	ppb	2.04	366316.56	2000	
U	238	165	HMI He	16.226	ppb	2.95	72378.42	2000	
Li	7	45	No Gas	227.938	ppb	6.68	1569368.51	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	64404.81	3.72	87935.9366666667	73.24	60	125	
Ge Internal Standard	72	HMI H2	2760492.09	0.97	3514373.85333333	78.55	60	125	
Sc (IS)	45	HMI He	152574.41	0.19	170210.703333333	89.64	60	125	
Ge Internal Standard	72	HMI He	249616.79	1.48	291105.983333333	85.75	60	125	
In Internal standard	115	HMI He	850404.23	1.35	1005086.61666667	84.61	60	125	
Ho-165	165	HMI He	5526961.43	2.72	6081416.03666667	90.88	60	125	
Sc IS)	45	No Gas	14599104.45	1.11	18444261.3266667	79.15	60	120	

Sample Report

Sample Name	280-104412-a-8-c
File Name	365SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:09:58 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	9.057	ppb	20.59	296.67	2000	
B	11	6	HMI H2	101.194	ppb	2.40	3800.47	100	
Se	78	72	HMI H2	4.185	ppb	17.71	254.67	2000	
Na	23	45	HMI He	2393.335	ppb	0.23	62693.25	400000	
Mg	24	45	HMI He	319900.021	ppb	2.05	3812616.94	400000	
Al	27	45	HMI He	171172.860	ppb	1.15	528630.60	400000	
K	39	45	HMI He	42054.273	ppb	0.94	322205.02	400000	
Ca	44	45	HMI He	1706899.859	ppb	0.66	816192.94	400000	
V	51	72	HMI He	309.516	ppb	3.28	57423.49	2000	
Cr	52	72	HMI He	338.656	ppb	2.06	81792.54	5000	
Mn	55	72	HMI He	4904.797	ppb	1.55	470560.55	10000	
Fe	57	72	HMI He	178970.500	ppb	2.19	832091.40	400000	
Co	59	72	HMI He	71.605	ppb	1.45	33340.80	2000	
Ni	60	72	HMI He	180.904	ppb	4.07	24645.41	5000	
Cu	63	72	HMI He	641.692	ppb	0.89	241981.08	5000	
Zn	66	72	HMI He	869.029	ppb	2.04	44651.24	5000	
As	75	72	HMI He	71.823	ppb	3.31	3019.24	2000	
Sr	88	45	HMI He	4334.870	ppb	0.67	573080.31	2000	
Zr	90	72	HMI He	24510.813	ppb	1.76	55435.88	1000	>LDR
Nb	93	72	HMI He	4.197	ppb	7.41	3923.88	200	
Mo	95	115	HMI He	8.763	ppb	2.36	2056.82	2000	
Pd	105	115	HMI He	0.379	ppb	12.58	140.00	100	
Ag	107	115	HMI He	0.813	ppb	16.42	663.36	100	
Cd	111	115	HMI He	8.018	ppb	17.57	846.70	2000	
Sn	120	115	HMI He	7.303	ppb	6.22	2153.51	2000	
Sb	121	115	HMI He	0.700	ppb	15.01	216.67	1000	
Ba	137	115	HMI He	2167.533	ppb	0.39	201454.88	5000	
W	182	165	HMI He	0.844	ppb	16.77	1573.44	100	
Pt	195	165	HMI He	0.046	ppb	62.17	66.67	100	
Tl	205	165	HMI He	2.509	ppb	0.44	6518.22	2000	
Pb	208	165	HMI He	4407.731	ppb	1.62	14971668.65	5000	
Th	232	165	HMI He	86.679	ppb	2.10	345955.39	2000	
U	238	165	HMI He	16.158	ppb	1.74	67705.55	2000	
Li	7	45	No Gas	227.550	ppb	4.84	1516296.60	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	55132.57	0.49	87935.9366666667	62.7	60	125	
Ge Internal Standard	72	HMI H2	2550063.46	2.03	3514373.85333333	72.56	60	125	
Sc (IS)	45	HMI He	141070.18	0.47	170210.703333333	82.88	60	125	
Ge Internal Standard	72	HMI He	230659.32	1.42	291105.983333333	79.24	60	125	
In Internal standard	115	HMI He	803682.28	0.88	1005086.61666667	79.96	60	125	
Ho-165	165	HMI He	5189535.15	0.33	6081416.03666667	85.33	60	125	
Sc IS)	45	No Gas	14114746.25	0.96	18444261.3266667	76.53	60	120	

Sample Report

Sample Name	280-104412-a-9-c
File Name	366SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:13:30 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	8.411	ppb	20.13	243.33	2000	
B	11	6	HMI H2	95.713	ppb	13.57	3190.35	100	
Se	78	72	HMI H2	3.537	ppb	20.40	198.67	2000	
Na	23	45	HMI He	2299.763	ppb	2.46	56407.96	400000	
Mg	24	45	HMI He	315266.744	ppb	1.93	3515288.93	400000	
Al	27	45	HMI He	170801.867	ppb	1.83	493468.69	400000	
K	39	45	HMI He	42042.446	ppb	0.41	301387.47	400000	
Ca	44	45	HMI He	1797995.887	ppb	1.50	804338.81	400000	
V	51	72	HMI He	314.125	ppb	2.59	54857.94	2000	
Cr	52	72	HMI He	316.876	ppb	2.85	72034.14	5000	
Mn	55	72	HMI He	4782.815	ppb	2.28	431870.06	10000	
Fe	57	72	HMI He	176697.922	ppb	1.52	773288.05	400000	
Co	59	72	HMI He	69.950	ppb	1.33	30655.65	2000	
Ni	60	72	HMI He	181.305	ppb	2.11	23253.37	5000	
Cu	63	72	HMI He	447.563	ppb	1.95	158970.52	5000	
Zn	66	72	HMI He	816.752	ppb	3.30	39511.48	5000	
As	75	72	HMI He	75.690	ppb	2.48	2994.40	2000	
Sr	88	45	HMI He	4630.536	ppb	1.47	572714.05	2000	
Zr	90	72	HMI He	25882.469	ppb	3.59	55091.75	1000	>LDR
Nb	93	72	HMI He	4.766	ppb	9.71	4183.94	200	
Mo	95	115	HMI He	10.377	ppb	9.20	2296.86	2000	
Pd	105	115	HMI He	0.115	ppb	75.59	40.00	100	
Ag	107	115	HMI He	0.795	ppb	14.72	613.36	100	
Cd	111	115	HMI He	8.353	ppb	8.87	833.36	2000	
Sn	120	115	HMI He	7.250	ppb	12.47	2020.16	2000	
Sb	121	115	HMI He	2.605	ppb	14.07	706.69	1000	
Ba	137	115	HMI He	2169.338	ppb	1.11	190379.99	5000	
W	182	165	HMI He	0.879	ppb	8.32	1556.77	100	
Pt	195	165	HMI He	0.069	ppb	35.37	86.67	100	
Tl	205	165	HMI He	2.662	ppb	3.11	6641.59	2000	
Pb	208	165	HMI He	7050.267	ppb	0.08	22996582.45	5000	
Th	232	165	HMI He	85.073	ppb	0.26	326077.41	2000	
U	238	165	HMI He	16.181	ppb	1.09	65120.58	2000	
Li	7	45	No Gas	193.070	ppb	2.84	1307750.93	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	48820.01	2.56	87935.9366666667	55.52	60	125	IS Failed
Ge Internal Standard	72	HMI H2	2358660.11	0.55	3514373.85333333	67.11	60	125	
Sc (IS)	45	HMI He	131996.05	1.50	170210.703333333	77.55	60	125	
Ge Internal Standard	72	HMI He	217092.37	0.95	291105.983333333	74.58	60	125	
In Internal standard	115	HMI He	758901.94	0.78	1005086.61666667	75.51	60	125	
Ho-165	165	HMI He	4983931.56	0.94	6081416.03666667	81.95	60	125	
Sc IS)	45	No Gas	12909260.47	0.76	18444261.3266667	69.99	60	120	

Sample Report

Sample Name	280-104412-a-10-c
File Name	367SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:17:01 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	6.618	ppb	22.61	171.67	2000	
B	11	6	HMI H2	71.008	ppb	6.81	2120.16	100	
Se	78	72	HMI H2	5.014	ppb	17.21	256.00	2000	
Na	23	45	HMI He	1883.422	ppb	2.78	43593.23	400000	
Mg	24	45	HMI He	212062.421	ppb	3.02	2222613.71	400000	
Al	27	45	HMI He	105266.911	ppb	1.52	285905.25	400000	
K	39	45	HMI He	28172.479	ppb	2.06	191627.62	400000	
Ca	44	45	HMI He	3095854.081	ppb	3.53	1301507.03	400000	>LDR
V	51	72	HMI He	244.566	ppb	1.94	39758.25	2000	
Cr	52	72	HMI He	316.373	ppb	1.59	66902.22	5000	
Mn	55	72	HMI He	3034.229	ppb	0.95	254877.15	10000	
Fe	57	72	HMI He	111649.170	ppb	1.19	454518.69	400000	
Co	59	72	HMI He	46.368	ppb	1.27	18904.50	2000	
Ni	60	72	HMI He	154.582	ppb	3.79	18453.87	5000	
Cu	63	72	HMI He	7316.995	ppb	2.32	2411894.38	5000	
Zn	66	72	HMI He	1408.945	ppb	1.21	63245.89	5000	
As	75	72	HMI He	74.843	ppb	4.86	2754.49	2000	
Sr	88	45	HMI He	8572.071	ppb	1.27	996531.39	2000	
Zr	90	72	HMI He	17141.309	ppb	2.35	33949.66	1000	>LDR
Nb	93	72	HMI He	4.647	ppb	3.20	3797.16	200	
Mo	95	115	HMI He	14.482	ppb	14.84	3033.66	2000	
Pd	105	115	HMI He	0.362	ppb	32.95	120.00	100	
Ag	107	115	HMI He	7.708	ppb	3.37	5594.38	100	
Cd	111	115	HMI He	10.469	ppb	3.66	990.05	2000	
Sn	120	115	HMI He	12.038	ppb	8.86	3150.35	2000	
Sb	121	115	HMI He	329.142	ppb	1.84	82269.00	1000	
Ba	137	115	HMI He	1646.688	ppb	2.75	136946.57	5000	
W	182	165	HMI He	0.978	ppb	10.28	1583.44	100	
Pt	195	165	HMI He	0.053	ppb	60.30	66.67	100	
Tl	205	165	HMI He	1.796	ppb	6.68	4220.66	2000	
Pb	208	165	HMI He	218639.916	ppb	1.89	670834556.68	5000	>LDR
Th	232	165	HMI He	52.155	ppb	1.58	188108.56	2000	
U	238	165	HMI He	21.735	ppb	2.00	82287.99	2000	
Li	7	45	No Gas	113.353	ppb	10.53	1006525.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	43666.31	6.61	87935.9366666667	49.66	60	125	IS Failed
Ge Internal Standard	72	HMI H2	2147141.37	1.63	3514373.85333333	61.1	60	125	
Sc (IS)	45	HMI He	124065.64	1.33	170210.703333333	72.89	60	125	
Ge Internal Standard	72	HMI He	201918.75	0.31	291105.983333333	69.36	60	125	
In Internal standard	115	HMI He	719218.89	0.78	1005086.61666667	71.56	60	125	
Ho-165	165	HMI He	4689002.57	0.96	6081416.03666667	77.1	60	125	
Sc IS)	45	No Gas	11551093.98	0.96	18444261.3266667	62.63	60	120	

Sample Report

Sample Name	280-104412-a-11-c
File Name	368SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:20:39 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	5.154	ppb	9.53	111.67	2000	
B	11	6	HMI H2	79.749	ppb	0.93	1993.47	100	
Se	78	72	HMI H2	4.690	ppb	10.29	209.33	2000	
Na	23	45	HMI He	1755.947	ppb	2.86	35581.10	400000	
Mg	24	45	HMI He	195355.014	ppb	2.26	1789425.43	400000	
Al	27	45	HMI He	95446.771	ppb	1.26	226545.27	400000	
K	39	45	HMI He	25415.640	ppb	1.80	151569.08	400000	
Ca	44	45	HMI He	2831739.819	ppb	0.92	1040692.39	400000	>LDR
V	51	72	HMI He	222.084	ppb	1.86	32174.94	2000	
Cr	52	72	HMI He	279.241	ppb	1.72	52617.39	5000	
Mn	55	72	HMI He	2787.857	ppb	0.71	208655.79	10000	
Fe	57	72	HMI He	101741.122	ppb	1.11	369026.35	400000	
Co	59	72	HMI He	41.461	ppb	4.09	15063.75	2000	
Ni	60	72	HMI He	134.574	ppb	3.01	14323.05	5000	
Cu	63	72	HMI He	16852.184	ppb	2.31	4948698.34	5000	
Zn	66	72	HMI He	2351.722	ppb	2.36	93940.11	5000	
As	75	72	HMI He	69.644	ppb	2.08	2283.83	2000	
Sr	88	45	HMI He	8333.844	ppb	1.88	846685.42	2000	
Zr	90	72	HMI He	15182.328	ppb	0.43	26792.68	1000	>LDR
Nb	93	72	HMI He	4.171	ppb	3.45	3040.35	200	
Mo	95	115	HMI He	11.728	ppb	8.41	2190.17	2000	
Pd	105	115	HMI He	0.339	ppb	16.17	100.00	100	
Ag	107	115	HMI He	4.843	ppb	7.48	3133.70	100	
Cd	111	115	HMI He	10.872	ppb	13.29	916.71	2000	
Sn	120	115	HMI He	27.308	ppb	4.36	6328.03	2000	
Sb	121	115	HMI He	249.529	ppb	2.18	55565.27	1000	
Ba	137	115	HMI He	1552.499	ppb	1.96	115025.47	5000	
W	182	165	HMI He	0.879	ppb	8.69	1340.08	100	
Pt	195	165	HMI He	0.109	ppb	52.90	110.00	100	
Tl	205	165	HMI He	1.640	ppb	7.15	3530.47	2000	
Pb	208	165	HMI He	165526.332	ppb	0.64	464927063.25	5000	>LDR
Th	232	165	HMI He	48.014	ppb	2.28	158517.21	2000	
U	238	165	HMI He	19.864	ppb	0.81	68837.29	2000	
Li	7	45	No Gas	42.207	ppb	13.78	751583.84	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	36552.90	3.12	87935.9366666667	41.57	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1873404.39	2.39	3514373.85333333	53.31	60	125	IS Failed
Sc (IS)	45	HMI He	108426.44	1.08	170210.703333333	63.7	60	125	
Ge Internal Standard	72	HMI He	179909.15	0.64	291105.983333333	61.8	60	125	
In Internal standard	115	HMI He	640751.68	1.09	1005086.61666667	63.75	60	125	
Ho-165	165	HMI He	4292227.85	0.67	6081416.03666667	70.58	60	125	
Sc IS)	45	No Gas	10085282.70	0.23	18444261.3266667	54.68	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-12-c
File Name	369SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:24:12 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	5.647	ppb	11.93	108.33	2000	
B	11	6	HMI H2	76.816	ppb	4.19	1700.10	100	
Se	78	72	HMI H2	5.904	ppb	25.21	237.33	2000	
Na	23	45	HMI He	1842.074	ppb	2.86	34659.35	400000	
Mg	24	45	HMI He	199561.326	ppb	4.04	1697729.46	400000	
Al	27	45	HMI He	96360.559	ppb	3.17	212433.43	400000	
K	39	45	HMI He	25426.397	ppb	2.97	140859.01	400000	
Ca	44	45	HMI He	2899022.491	ppb	1.70	989739.97	400000	>LDR
V	51	72	HMI He	224.920	ppb	0.15	30224.55	2000	
Cr	52	72	HMI He	331.836	ppb	3.23	57982.15	5000	
Mn	55	72	HMI He	2952.529	ppb	2.36	204946.82	10000	
Fe	57	72	HMI He	105839.841	ppb	1.05	356076.58	400000	
Co	59	72	HMI He	43.835	ppb	2.92	14770.13	2000	
Ni	60	72	HMI He	142.516	ppb	2.30	14066.21	5000	
Cu	63	72	HMI He	17804.414	ppb	1.85	4849122.51	5000	
Zn	66	72	HMI He	2627.973	ppb	1.92	97319.66	5000	
As	75	72	HMI He	78.258	ppb	0.17	2379.92	2000	
Sr	88	45	HMI He	8468.299	ppb	2.99	799213.36	2000	
Zr	90	72	HMI He	16071.382	ppb	2.08	26301.96	1000	>LDR
Nb	93	72	HMI He	4.517	ppb	3.23	3050.34	200	
Mo	95	115	HMI He	14.379	ppb	7.39	2516.90	2000	
Pd	105	115	HMI He	0.446	ppb	20.12	123.33	100	
Ag	107	115	HMI He	5.201	ppb	11.45	3153.69	100	
Cd	111	115	HMI He	11.904	ppb	18.10	940.05	2000	
Sn	120	115	HMI He	14.744	ppb	7.87	3217.05	2000	
Sb	121	115	HMI He	314.250	ppb	1.87	65600.40	1000	
Ba	137	115	HMI He	1635.202	ppb	0.41	113584.74	5000	
W	182	165	HMI He	1.184	ppb	14.41	1590.10	100	
Pt	195	165	HMI He	0.044	ppb	72.78	50.00	100	
Tl	205	165	HMI He	1.835	ppb	2.64	3740.52	2000	
Pb	208	165	HMI He	213670.090	ppb	1.69	568696248.67	5000	>LDR
Th	232	165	HMI He	48.475	ppb	2.40	151658.65	2000	
U	238	165	HMI He	20.403	ppb	0.66	67005.48	2000	
Li	7	45	No Gas	34.268	ppb	7.63	656718.62	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	32350.86	2.10	87935.9366666667	36.79	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1685021.68	1.48	3514373.85333333	47.95	60	125	IS Failed
Sc (IS)	45	HMI He	100745.03	2.15	170210.703333333	59.19	60	125	IS Failed
Ge Internal Standard	72	HMI He	166865.07	1.11	291105.983333333	57.32	60	125	IS Failed
In Internal standard	115	HMI He	600646.62	0.30	1005086.61666667	59.76	60	125	IS Failed
Ho-165	165	HMI He	4067549.50	0.88	6081416.03666667	66.88	60	125	
Sc IS)	45	No Gas	8982424.95	1.14	18444261.3266667	48.7	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-13-c
File Name	370SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:28:09 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	5.650	ppb	2.28	98.33	2000	
B	11	6	HMI H2	72.916	ppb	16.42	1463.41	100	
Se	78	72	HMI H2	4.185	ppb	2.82	162.67	2000	
Na	23	45	HMI He	1608.788	ppb	3.50	28183.88	400000	
Mg	24	45	HMI He	191841.899	ppb	1.53	1515206.37	400000	
Al	27	45	HMI He	96718.232	ppb	0.83	197955.68	400000	
K	39	45	HMI He	25642.012	ppb	0.81	131825.67	400000	
Ca	44	45	HMI He	2341124.541	ppb	2.63	741705.07	400000	>LDR
V	51	72	HMI He	213.431	ppb	4.67	27369.63	2000	
Cr	52	72	HMI He	308.425	ppb	11.28	51482.08	5000	
Mn	55	72	HMI He	2686.377	ppb	2.04	177958.41	10000	
Fe	57	72	HMI He	99731.660	ppb	1.28	320198.59	400000	
Co	59	72	HMI He	41.056	ppb	4.39	13198.85	2000	
Ni	60	72	HMI He	135.394	ppb	4.59	12758.47	5000	
Cu	63	72	HMI He	2926.848	ppb	0.19	761098.86	5000	
Zn	66	72	HMI He	910.942	ppb	1.47	32308.89	5000	
As	75	72	HMI He	63.846	ppb	4.62	1854.36	2000	
Sr	88	45	HMI He	6499.040	ppb	1.41	569347.33	2000	
Zr	90	72	HMI He	15781.524	ppb	0.64	24652.52	1000	>LDR
Nb	93	72	HMI He	4.586	ppb	3.02	2956.97	200	
Mo	95	115	HMI He	10.735	ppb	4.05	1793.46	2000	
Pd	105	115	HMI He	0.190	ppb	20.54	50.00	100	
Ag	107	115	HMI He	2.222	ppb	7.10	1286.75	100	
Cd	111	115	HMI He	7.517	ppb	15.74	566.69	2000	
Sn	120	115	HMI He	38.514	ppb	3.43	7962.14	2000	
Sb	121	115	HMI He	131.775	ppb	3.98	26225.49	1000	
Ba	137	115	HMI He	1373.879	ppb	3.57	90949.87	5000	
W	182	165	HMI He	0.845	ppb	18.07	1186.73	100	
Pt	195	165	HMI He	0.042	ppb	33.42	46.67	100	
Tl	205	165	HMI He	1.771	ppb	11.09	3470.45	2000	
Pb	208	165	HMI He	60813.443	ppb	0.80	155639626.88	5000	>LDR
Th	232	165	HMI He	51.058	ppb	0.22	153609.07	2000	
U	238	165	HMI He	16.243	ppb	0.29	51294.60	2000	
Li	7	45	No Gas	12.830	ppb	26.48	585757.29	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	29312.21	0.68	87935.9366666667	33.33	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1631471.19	4.29	3514373.85333333	46.42	60	125	IS Failed
Sc (IS)	45	HMI He	93496.43	1.94	170210.703333333	54.93	60	125	IS Failed
Ge Internal Standard	72	HMI He	159255.07	1.08	291105.983333333	54.71	60	125	IS Failed
In Internal standard	115	HMI He	572575.57	1.51	1005086.61666667	56.97	60	125	IS Failed
Ho-165	165	HMI He	3911078.75	1.12	6081416.03666667	64.31	60	125	
Sc IS)	45	No Gas	8452091.64	1.07	18444261.3266667	45.83	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-14-c
File Name	371SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:31:46 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	5.169	ppb	30.16	83.33	2000	
B	11	6	HMI H2	69.176	ppb	17.52	1293.40	100	
Se	78	72	HMI H2	4.236	ppb	15.16	154.67	2000	
Na	23	45	HMI He	1553.424	ppb	6.02	26380.97	400000	
Mg	24	45	HMI He	191212.503	ppb	3.76	1463506.22	400000	
Al	27	45	HMI He	95768.524	ppb	2.56	189948.54	400000	
K	39	45	HMI He	25012.013	ppb	3.42	124694.74	400000	
Ca	44	45	HMI He	2316277.831	ppb	2.46	711294.81	400000	>LDR
V	51	72	HMI He	210.843	ppb	1.66	26331.19	2000	
Cr	52	72	HMI He	273.913	ppb	1.33	44483.62	5000	
Mn	55	72	HMI He	2765.591	ppb	2.09	178396.50	10000	
Fe	57	72	HMI He	104754.368	ppb	1.16	327469.12	400000	
Co	59	72	HMI He	41.958	ppb	0.67	13135.44	2000	
Ni	60	72	HMI He	134.867	ppb	0.50	12371.49	5000	
Cu	63	72	HMI He	2309.326	ppb	1.08	584688.77	5000	
Zn	66	72	HMI He	923.636	ppb	2.45	31891.48	5000	
As	75	72	HMI He	64.425	ppb	1.77	1821.02	2000	
Sr	88	45	HMI He	6650.580	ppb	1.20	564713.41	2000	
Zr	90	72	HMI He	15459.845	ppb	2.99	23510.90	1000	>LDR
Nb	93	72	HMI He	4.344	ppb	13.04	2726.94	200	
Mo	95	115	HMI He	15.090	ppb	7.00	2443.55	2000	
Pd	105	115	HMI He	0.430	ppb	30.85	110.00	100	
Ag	107	115	HMI He	2.617	ppb	5.21	1470.09	100	
Cd	111	115	HMI He	10.098	ppb	25.31	736.69	2000	
Sn	120	115	HMI He	36.696	ppb	5.35	7365.15	2000	
Sb	121	115	HMI He	78.275	ppb	4.14	15134.16	1000	
Ba	137	115	HMI He	1398.743	ppb	0.95	89897.23	5000	
W	182	165	HMI He	0.731	ppb	18.37	1050.05	100	
Pt	195	165	HMI He	0.065	ppb	70.25	63.33	100	
Tl	205	165	HMI He	1.658	ppb	4.69	3187.06	2000	
Pb	208	165	HMI He	69126.087	ppb	1.08	173374737.63	5000	>LDR
Th	232	165	HMI He	48.848	ppb	0.35	144022.36	2000	
U	238	165	HMI He	15.778	ppb	1.22	48829.62	2000	
Li	7	45	No Gas	6.205	ppb	84.26	544887.08	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	27248.71	1.88	87935.9366666667	30.99	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1533797.37	0.46	3514373.85333333	43.64	60	125	IS Failed
Sc (IS)	45	HMI He	90620.32	1.82	170210.703333333	53.24	60	125	IS Failed
Ge Internal Standard	72	HMI He	155044.35	0.48	291105.983333333	53.26	60	125	IS Failed
In Internal standard	115	HMI He	555773.57	0.87	1005086.61666667	55.3	60	125	IS Failed
Ho-165	165	HMI He	3832818.97	0.77	6081416.03666667	63.03	60	125	
Sc IS)	45	No Gas	7998477.24	1.27	18444261.3266667	43.37	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	372_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:35:37 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	265.232	ppb	7.29	11672.46	500	53.05	90	110	>+\-10%
Be	9	6	HMI H2	53.738	ppb	9.21	1038.37	50	107.48	90	110	
B	11	6	HMI H2	44.242	ppb	13.05	1000.04	50	88.48	90	110	>+\-10%
Se	78	72	HMI H2	49.757	ppb	1.82	2266.84	50	99.51	90	110	
Na	23	45	HMI He	4565.762	ppb	2.25	78911.04	5000	91.32	90	110	
Mg	24	45	HMI He	4726.260	ppb	3.92	37655.59	5000	94.53	90	110	
Al	27	45	HMI He	4937.210	ppb	6.58	10176.57	5000	98.74	90	110	
K	39	45	HMI He	5235.550	ppb	2.75	30391.37	5000	104.71	90	110	
Ca	44	45	HMI He	4761.477	ppb	7.84	1530.09	5000	95.23	90	110	
V	51	72	HMI He	48.238	ppb	2.71	6808.15	50	96.48	90	110	
Cr	52	72	HMI He	46.841	ppb	1.68	8518.99	50	93.68	90	110	
Mn	55	72	HMI He	44.255	ppb	3.03	3220.36	50	88.51	90	110	>+\-10%
Fe	57	72	HMI He	4721.004	ppb	7.84	16521.88	5000	94.42	90	110	
Co	59	72	HMI He	47.702	ppb	2.63	16675.33	50	95.4	90	110	
Ni	60	72	HMI He	45.827	ppb	3.59	4740.76	50	91.65	90	110	
Cu	63	72	HMI He	52.965	ppb	7.21	15263.94	50	105.93	90	110	
Zn	66	72	HMI He	49.928	ppb	11.10	2100.17	50	99.86	90	110	
As	75	72	HMI He	48.768	ppb	4.68	1540.60	50	97.54	90	110	
Sr	88	45	HMI He	61.591	ppb	2.39	5424.31	50	123.18	90	110	>+\-10%
Zr	90	72	HMI He	29.538	ppb	105.18	70.00	50	59.08	90	110	>+\-10%
Nb	93	72	HMI He	104.086	ppb	0.90	72156.07	100	104.09	90	110	
Mo	95	115	HMI He	47.786	ppb	5.74	8819.22	50	95.57	90	110	
Pd	105	115	HMI He	50.742	ppb	5.03	14803.75	50	101.48	90	110	
Ag	107	115	HMI He	48.069	ppb	1.45	30750.16	50	96.14	90	110	
Cd	111	115	HMI He	45.651	ppb	6.72	3807.18	50	91.3	90	110	
Sn	120	115	HMI He	51.072	ppb	0.58	11687.87	50	102.14	90	110	
Sb	121	115	HMI He	50.568	ppb	5.71	11167.53	50	101.14	90	110	
Ba	137	115	HMI He	54.049	ppb	6.22	3967.23	50	108.1	90	110	
W	182	165	HMI He	49.793	ppb	4.04	52234.59	50	99.59	90	110	
Pt	195	165	HMI He	48.539	ppb	1.24	40114.56	50	97.08	90	110	
Tl	205	165	HMI He	51.928	ppb	2.42	104340.66	50	103.86	90	110	
Pb	208	165	HMI He	85.680	ppb	1.26	227631.29	50	171.36	90	110	>+\-10%
Th	232	165	HMI He	53.479	ppb	1.67	165680.66	50	106.96	90	110	
U	238	165	HMI He	53.907	ppb	1.64	175277.94	50	107.81	90	110	
Li	7	45	No Gas	322.243	ppb	3.72	1115192.29	500	64.45	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	32527.86	1.25	87935.9366666667	36.99	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1912858.78	0.69	3514373.85333333	54.43	60	125	IS Failed
Sc (IS)	45	HMI He	93921.98	2.10	170210.703333333	55.18	60	125	IS Failed
Ge Internal Standard	72	HMI He	173112.98	0.77	291105.983333333	59.47	60	125	IS Failed
In Internal standard	115	HMI He	634516.17	0.78	1005086.61666667	63.13	60	125	
Ho-165	165	HMI He	4027536.98	0.54	6081416.03666667	66.23	60	125	
Sc IS)	45	No Gas	8977169.95	1.31	18444261.3266667	48.67	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	373_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:39:10 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-93.411	ppb	-8.75	4870.76	0.1	
Be	9	6	HMI H2	0.000	ppb	NaN	0.00	0.5	
B	11	6	HMI H2	0.895	ppb	83.20	53.33	0.1	>RL
Se	78	72	HMI H2	0.061	ppb	86.62	2.67	1	
Na	23	45	HMI He	19.583	ppb	9.55	1093.38	25	
Mg	24	45	HMI He	20.830	ppb	78.80	336.68	25	
Al	27	45	HMI He	-1.587	ppb	-170.55	13.33	15	
K	39	45	HMI He	76.921	ppb	59.30	4560.69	50	>RL
Ca	44	45	HMI He	0.857	ppb	5558.59	13.33	25	
V	51	72	HMI He	-0.323	ppb	-110.62	60.00	1	
Cr	52	72	HMI He	0.103	ppb	236.41	50.00	1	
Mn	55	72	HMI He	0.603	ppb	25.09	76.67	0.5	>RL
Fe	57	72	HMI He	22.278	ppb	26.91	116.67	25	
Co	59	72	HMI He	0.060	ppb	182.15	26.67	0.5	
Ni	60	72	HMI He	-0.371	ppb	-41.56	33.33	1	
Cu	63	72	HMI He	3.401	ppb	13.00	1256.73	1	>RL
Zn	66	72	HMI He	0.384	ppb	332.46	200.00	5	
As	75	72	HMI He	0.010	ppb	1293.41	4.57	1	
Sr	88	45	HMI He	0.110	ppb	57.77	13.33	1	
Zr	90	72	HMI He	0.271	ppb	5844.96	20.00	1	
Nb	93	72	HMI He	0.364	ppb	27.72	286.67	2	
Mo	95	115	HMI He	-0.046	ppb	0.00	0.00	0.5	
Pd	105	115	HMI He	0.046	ppb	115.36	13.33	1	
Ag	107	115	HMI He	0.025	ppb	126.99	20.00	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.186	ppb	12.24	76.67	1	
Sb	121	115	HMI He	0.300	ppb	48.89	83.33	1	
Ba	137	115	HMI He	0.197	ppb	39.47	16.67	0.5	
W	182	165	HMI He	0.042	ppb	88.54	386.68	1	
Pt	195	165	HMI He	0.016	ppb	45.56	26.67	1	
Tl	205	165	HMI He	0.016	ppb	3.07	50.00	0.1	
Pb	208	165	HMI He	16.654	ppb	1.50	45851.68	0.5	>RL
Th	232	165	HMI He	0.043	ppb	22.85	210.00	1	
U	238	165	HMI He	0.013	ppb	28.34	53.33	0.5	
Li	7	45	No Gas	-98.227	ppb	-5.18	445393.85	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	32558.01	3.72	87935.9366666667	37.02	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1857432.87	1.99	3514373.85333333	52.85	60	125	IS Failed
Sc (IS)	45	HMI He	93439.56	2.59	170210.703333333	54.9	60	125	IS Failed
Ge Internal Standard	72	HMI He	172027.69	0.95	291105.983333333	59.09	60	125	IS Failed
In Internal standard	115	HMI He	638216.05	1.12	1005086.61666667	63.5	60	125	
Ho-165	165	HMI He	4039681.43	1.96	6081416.03666667	66.43	60	125	
Sc IS)	45	No Gas	8981976.09	1.36	18444261.3266667	48.7	60	120	IS Failed

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	374LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:42:45 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.673	ppb	77.33	13.33	1	67.32	70	130	>+/-30%
Se	78	72	HMI H2	5.544	ppb	15.43	249.33	5	110.88	70	130	
Na	23	45	HMI He	85.648	ppb	12.84	2213.50	50	171.3	70	130	>+/-30%
Mg	24	45	HMI He	64.146	ppb	15.27	676.69	50	128.29	70	130	
Al	27	45	HMI He	26.149	ppb	47.69	70.00	30	87.16	70	130	
K	39	45	HMI He	139.541	ppb	26.40	4854.13	100	139.54	70	130	>+/-30%
Ca	44	45	HMI He	116.911	ppb	70.14	50.00	50	233.82	70	130	>+/-30%
V	51	72	HMI He	4.274	ppb	18.43	686.69	5	85.48	70	130	
Cr	52	72	HMI He	2.540	ppb	6.86	483.34	2	127.01	70	130	
Mn	55	72	HMI He	1.749	ppb	36.88	156.67	1	174.86	70	130	>+/-30%
Fe	57	72	HMI He	90.753	ppb	6.68	350.01	50	181.51	70	130	>+/-30%
Co	59	72	HMI He	0.624	ppb	20.71	220.00	1	62.43	70	130	>+/-30%
Ni	60	72	HMI He	1.464	ppb	20.38	216.67	2	73.18	70	130	
Cu	63	72	HMI He	4.307	ppb	8.90	1493.42	2	215.33	70	130	>+/-30%
Zn	66	72	HMI He	12.840	ppb	6.96	666.69	10	128.4	70	130	
As	75	72	HMI He	5.549	ppb	12.46	175.82	5	110.98	70	130	
Sr	88	45	HMI He	1.326	ppb	58.02	120.00	1	132.64	70	130	>+/-30%
Zr	90	72	HMI He	66.283	ppb	32.39	130.00	0.5	13256.56	70	130	>+/-30%
Nb	93	72	HMI He	0.311	ppb	48.01	246.67	2	15.53	70	130	>+/-30%
Mo	95	115	HMI He	2.006	ppb	14.06	373.34	2	100.31	70	130	
Pd	105	115	HMI He	0.034	ppb	99.32	10.00	1	3.44	70	130	>+/-30%
Ag	107	115	HMI He	4.853	ppb	1.97	3070.35	5	97.06	70	130	
Cd	111	115	HMI He	1.132	ppb	15.07	93.33	1	113.15	70	130	
Sn	120	115	HMI He	9.360	ppb	12.87	2140.17	10	93.6	70	130	
Sb	121	115	HMI He	2.599	ppb	13.53	583.35	2	129.97	70	130	
Ba	137	115	HMI He	1.542	ppb	61.09	113.33	1	154.18	70	130	>+/-30%
W	182	165	HMI He	4.996	ppb	3.92	5671.14	1	499.55	70	130	>+/-30%
Pt	195	165	HMI He	0.035	ppb	198.10	43.33	1	3.5	70	130	>+/-30%
Tl	205	165	HMI He	1.038	ppb	11.96	2150.19	1	103.78	70	130	
Pb	208	165	HMI He	11.114	ppb	2.33	31797.08	1	1111.36	70	130	>+/-30%
Th	232	165	HMI He	2.127	ppb	3.44	6811.71	2	106.36	70	130	
U	238	165	HMI He	1.115	ppb	8.95	3717.19	1	111.51	70	130	
Li	7	45	No Gas	-81.550	ppb	-11.46	470683.98	50	-163.1	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	33372.88	2.44	87935.9366666667	37.95	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1885537.39	1.86	3514373.85333333	53.65	60	125	IS Failed
Sc (IS)	45	HMI He	93160.88	1.51	170210.703333333	54.73	60	125	IS Failed
Ge Internal Standard	72	HMI He	170039.74	0.34	291105.983333333	58.41	60	125	IS Failed
In Internal standard	115	HMI He	626689.18	1.53	1005086.61666667	62.35	60	125	
Ho-165	165	HMI He	4117385.31	0.93	6081416.03666667	67.7	60	125	
Sc IS)	45	No Gas	8959528.07	1.96	18444261.3266667	48.58	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-19-c
File Name	379SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:01:34 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	6.489	ppb	19.55	76.67	2000	
B	11	6	HMI H2	64.525	ppb	12.30	883.37	100	
Se	78	72	HMI H2	5.242	ppb	20.48	152.00	2000	
Na	23	45	HMI He	1798.131	ppb	3.93	25332.50	400000	
Mg	24	45	HMI He	225294.395	ppb	2.26	1435497.87	400000	
Al	27	45	HMI He	110239.344	ppb	1.51	182015.38	400000	
K	39	45	HMI He	28974.219	ppb	2.00	119728.58	400000	
Ca	44	45	HMI He	2755142.793	ppb	0.38	704388.11	400000	>LDR
V	51	72	HMI He	226.232	ppb	1.50	23593.73	2000	
Cr	52	72	HMI He	279.258	ppb	0.86	37883.75	5000	
Mn	55	72	HMI He	3154.128	ppb	1.60	169938.77	10000	
Fe	57	72	HMI He	117360.961	ppb	1.42	306432.45	400000	
Co	59	72	HMI He	48.130	ppb	3.24	12588.35	2000	
Ni	60	72	HMI He	141.309	ppb	4.20	10827.07	5000	
Cu	63	72	HMI He	6898.790	ppb	1.30	1458601.37	5000	
Zn	66	72	HMI He	1342.763	ppb	2.01	38672.69	5000	
As	75	72	HMI He	72.452	ppb	6.24	1709.90	2000	
Sr	88	45	HMI He	8320.412	ppb	1.08	588073.43	2000	
Zr	90	72	HMI He	18794.168	ppb	3.56	23874.64	1000	>LDR
Nb	93	72	HMI He	3.808	ppb	10.32	2000.16	200	
Mo	95	115	HMI He	12.722	ppb	4.82	1783.46	2000	
Pd	105	115	HMI He	0.317	ppb	37.77	70.00	100	
Ag	107	115	HMI He	2.875	ppb	10.64	1396.74	100	
Cd	111	115	HMI He	8.333	ppb	17.26	526.68	2000	
Sn	120	115	HMI He	10.861	ppb	7.33	1903.47	2000	
Sb	121	115	HMI He	57.640	ppb	4.44	9643.09	1000	
Ba	137	115	HMI He	1658.161	ppb	2.01	92207.37	5000	
W	182	165	HMI He	1.026	ppb	19.24	1133.39	100	
Pt	195	165	HMI He	0.110	ppb	44.22	83.33	100	
Tl	205	165	HMI He	1.763	ppb	10.53	2860.31	2000	
Pb	208	165	HMI He	87679.552	ppb	2.17	185913742.80	5000	>LDR
Th	232	165	HMI He	58.592	ppb	1.97	146028.63	2000	
U	238	165	HMI He	19.184	ppb	2.98	50183.97	2000	
Li	7	45	No Gas	-28.906	ppb	-27.75	410402.03	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	19925.24	3.00	87935.9366666667	22.66	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1220485.61	2.09	3514373.85333333	34.73	60	125	IS Failed
Sc (IS)	45	HMI He	75424.94	0.92	170210.703333333	44.31	60	125	IS Failed
Ge Internal Standard	72	HMI He	129515.14	0.74	291105.983333333	44.49	60	125	IS Failed
In Internal standard	115	HMI He	480836.12	0.16	1005086.61666667	47.84	60	125	IS Failed
Ho-165	165	HMI He	3241293.95	2.45	6081416.03666667	53.3	60	125	IS Failed
Sc IS)	45	No Gas	6631748.82	1.57	18444261.3266667	35.96	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	373_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:39:10 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-93.411	ppb	-8.75	4870.76	0.1	
Be	9	6	HMI H2	0.000	ppb	NaN	0.00	0.5	
B	11	6	HMI H2	0.895	ppb	83.20	53.33	0.1	>RL
Se	78	72	HMI H2	0.061	ppb	86.62	2.67	1	
Na	23	45	HMI He	19.583	ppb	9.55	1093.38	25	
Mg	24	45	HMI He	20.830	ppb	78.80	336.68	25	
Al	27	45	HMI He	-1.587	ppb	-170.55	13.33	15	
K	39	45	HMI He	76.921	ppb	59.30	4560.69	50	>RL
Ca	44	45	HMI He	0.857	ppb	5558.59	13.33	25	
V	51	72	HMI He	-0.323	ppb	-110.62	60.00	1	
Cr	52	72	HMI He	0.103	ppb	236.41	50.00	1	
Mn	55	72	HMI He	0.603	ppb	25.09	76.67	0.5	>RL
Fe	57	72	HMI He	22.278	ppb	26.91	116.67	25	
Co	59	72	HMI He	0.060	ppb	182.15	26.67	0.5	
Ni	60	72	HMI He	-0.371	ppb	-41.56	33.33	1	
Cu	63	72	HMI He	3.401	ppb	13.00	1256.73	1	>RL
Zn	66	72	HMI He	0.384	ppb	332.46	200.00	5	
As	75	72	HMI He	0.010	ppb	1293.41	4.57	1	
Sr	88	45	HMI He	0.110	ppb	57.77	13.33	1	
Zr	90	72	HMI He	0.271	ppb	5844.96	20.00	1	
Nb	93	72	HMI He	0.364	ppb	27.72	286.67	2	
Mo	95	115	HMI He	-0.046	ppb	0.00	0.00	0.5	
Pd	105	115	HMI He	0.046	ppb	115.36	13.33	1	
Ag	107	115	HMI He	0.025	ppb	126.99	20.00	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.186	ppb	12.24	76.67	1	
Sb	121	115	HMI He	0.300	ppb	48.89	83.33	1	
Ba	137	115	HMI He	0.197	ppb	39.47	16.67	0.5	
W	182	165	HMI He	0.042	ppb	88.54	386.68	1	
Pt	195	165	HMI He	0.016	ppb	45.56	26.67	1	
Tl	205	165	HMI He	0.016	ppb	3.07	50.00	0.1	
Pb	208	165	HMI He	16.654	ppb	1.50	45851.68	0.5	>RL
Th	232	165	HMI He	0.043	ppb	22.85	210.00	1	
U	238	165	HMI He	0.013	ppb	28.34	53.33	0.5	
Li	7	45	No Gas	-98.227	ppb	-5.18	445393.85	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	32558.01	3.72	87935.9366666667	37.02	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1857432.87	1.99	3514373.85333333	52.85	60	125	IS Failed
Sc (IS)	45	HMI He	93439.56	2.59	170210.703333333	54.9	60	125	IS Failed
Ge Internal Standard	72	HMI He	172027.69	0.95	291105.983333333	59.09	60	125	IS Failed
In Internal standard	115	HMI He	638216.05	1.12	1005086.61666667	63.5	60	125	
Ho-165	165	HMI He	4039681.43	1.96	6081416.03666667	66.43	60	125	
Sc IS)	45	No Gas	8981976.09	1.36	18444261.3266667	48.7	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	380_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:05:07 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	212.209	ppb	17.20	8058.65	500	42.44	90	110	>+\-10%
Be	9	6	HMI H2	62.537	ppb	1.57	831.70	50	125.07	90	110	>+\-10%
B	11	6	HMI H2	49.957	ppb	11.26	773.36	50	99.91	90	110	
Se	78	72	HMI H2	48.964	ppb	11.26	1776.11	50	97.93	90	110	
Na	23	45	HMI He	4347.076	ppb	0.46	63258.72	5000	86.94	90	110	>+\-10%
Mg	24	45	HMI He	4473.345	ppb	0.18	30007.01	5000	89.47	90	110	>+\-10%
Al	27	45	HMI He	4665.452	ppb	6.43	8078.71	5000	93.31	90	110	
K	39	45	HMI He	5247.567	ppb	4.60	25603.29	5000	104.95	90	110	
Ca	44	45	HMI He	4836.207	ppb	4.10	1306.74	5000	96.72	90	110	
V	51	72	HMI He	45.901	ppb	4.86	5467.63	50	91.8	90	110	
Cr	52	72	HMI He	46.818	ppb	5.06	7184.98	50	93.64	90	110	
Mn	55	72	HMI He	45.448	ppb	10.61	2790.28	50	90.9	90	110	
Fe	57	72	HMI He	4787.494	ppb	2.78	14129.57	5000	95.75	90	110	
Co	59	72	HMI He	47.707	ppb	1.95	14066.23	50	95.41	90	110	
Ni	60	72	HMI He	45.932	ppb	8.73	4007.21	50	91.86	90	110	
Cu	63	72	HMI He	53.372	ppb	1.02	12978.64	50	106.74	90	110	
Zn	66	72	HMI He	48.427	ppb	8.44	1723.45	50	96.85	90	110	
As	75	72	HMI He	49.267	ppb	2.11	1312.47	50	98.53	90	110	
Sr	88	45	HMI He	59.642	ppb	3.85	4420.66	50	119.28	90	110	>+\-10%
Zr	90	72	HMI He	23.261	ppb	30.23	50.00	50	46.52	90	110	>+\-10%
Nb	93	72	HMI He	102.543	ppb	0.69	59972.49	100	102.54	90	110	
Mo	95	115	HMI He	46.294	ppb	1.90	7241.74	50	92.59	90	110	
Pd	105	115	HMI He	49.215	ppb	6.82	12174.80	50	98.43	90	110	
Ag	107	115	HMI He	50.095	ppb	2.51	27170.29	50	100.19	90	110	
Cd	111	115	HMI He	52.997	ppb	5.79	3750.51	50	105.99	90	110	
Sn	120	115	HMI He	51.508	ppb	2.32	9996.65	50	103.02	90	110	
Sb	121	115	HMI He	50.624	ppb	7.85	9473.01	50	101.25	90	110	
Ba	137	115	HMI He	50.865	ppb	1.20	3167.03	50	101.73	90	110	
W	182	165	HMI He	49.095	ppb	1.61	45399.15	50	98.19	90	110	
Pt	195	165	HMI He	47.649	ppb	2.51	34700.84	50	95.3	90	110	
Tl	205	165	HMI He	51.406	ppb	1.55	91039.92	50	102.81	90	110	
Pb	208	165	HMI He	78.040	ppb	1.78	182881.75	50	156.08	90	110	>+\-10%
Th	232	165	HMI He	52.255	ppb	1.76	142674.94	50	104.51	90	110	
U	238	165	HMI He	51.165	ppb	1.78	146647.38	50	102.33	90	110	
Li	7	45	No Gas	195.078	ppb	7.78	751992.22	500	39.02	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	22404.99	2.28	87935.9366666667	25.48	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1521870.43	1.05	3514373.85333333	43.3	60	125	IS Failed
Sc (IS)	45	HMI He	79017.79	1.57	170210.703333333	46.42	60	125	IS Failed
Ge Internal Standard	72	HMI He	146035.61	0.67	291105.983333333	50.17	60	125	IS Failed
In Internal standard	115	HMI He	538042.72	1.39	1005086.61666667	53.53	60	125	IS Failed
Ho-165	165	HMI He	3550066.98	1.51	6081416.03666667	58.38	60	125	IS Failed
Sc IS)	45	No Gas	7401136.02	2.88	18444261.3266667	40.13	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-15-c
File Name	375SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:46:21 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	5.850	ppb	33.18	85.00	2000	
B	11	6	HMI H2	74.950	ppb	4.97	1256.73	100	
Se	78	72	HMI H2	4.875	ppb	9.00	169.33	2000	
Na	23	45	HMI He	1826.822	ppb	4.06	28627.81	400000	
Mg	24	45	HMI He	218572.041	ppb	1.64	1549922.08	400000	
Al	27	45	HMI He	110491.631	ppb	2.81	203005.23	400000	
K	39	45	HMI He	29218.609	ppb	3.30	134322.22	400000	
Ca	44	45	HMI He	2694600.090	ppb	0.81	766629.98	400000	>LDR
V	51	72	HMI He	241.876	ppb	3.16	28037.44	2000	
Cr	52	72	HMI He	340.835	ppb	2.20	51400.44	5000	
Mn	55	72	HMI He	3121.247	ppb	0.88	186971.02	10000	
Fe	57	72	HMI He	115323.225	ppb	2.70	334765.31	400000	
Co	59	72	HMI He	47.902	ppb	1.92	13926.07	2000	
Ni	60	72	HMI He	152.018	ppb	2.34	12941.92	5000	
Cu	63	72	HMI He	4450.197	ppb	1.36	1046202.05	5000	
Zn	66	72	HMI He	1176.743	ppb	0.86	37697.20	5000	
As	75	72	HMI He	69.772	ppb	6.99	1830.83	2000	
Sr	88	45	HMI He	7656.002	ppb	0.73	602203.88	2000	
Zr	90	72	HMI He	18310.298	ppb	1.67	25857.73	1000	>LDR
Nb	93	72	HMI He	4.551	ppb	9.31	2653.58	200	
Mo	95	115	HMI He	14.641	ppb	12.53	2266.87	2000	
Pd	105	115	HMI He	0.260	ppb	37.85	63.33	100	
Ag	107	115	HMI He	2.463	ppb	3.46	1323.40	100	
Cd	111	115	HMI He	9.820	ppb	14.26	686.69	2000	
Sn	120	115	HMI He	32.490	ppb	2.95	6241.34	2000	
Sb	121	115	HMI He	57.193	ppb	6.18	10580.38	1000	
Ba	137	115	HMI He	1593.484	ppb	2.09	97985.79	5000	
W	182	165	HMI He	0.792	ppb	7.16	1046.71	100	
Pt	195	165	HMI He	0.065	ppb	21.74	60.00	100	
Tl	205	165	HMI He	1.639	ppb	11.02	2963.67	2000	
Pb	208	165	HMI He	65089.748	ppb	2.69	153785789.06	5000	>LDR
Th	232	165	HMI He	59.854	ppb	3.37	166188.69	2000	
U	238	165	HMI He	18.370	ppb	2.40	53559.62	2000	
Li	7	45	No Gas	5.189	ppb	141.73	514265.28	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	24487.83	1.11	87935.9366666667	27.85	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1456023.01	3.89	3514373.85333333	41.43	60	125	IS Failed
Sc (IS)	45	HMI He	83938.63	1.00	170210.703333333	49.31	60	125	IS Failed
Ge Internal Standard	72	HMI He	143995.91	0.70	291105.983333333	49.47	60	125	IS Failed
In Internal standard	115	HMI He	531811.71	1.25	1005086.61666667	52.91	60	125	IS Failed
Ho-165	165	HMI He	3612178.07	2.84	6081416.03666667	59.4	60	125	IS Failed
Sc IS)	45	No Gas	7569959.29	2.11	18444261.3266667	41.04	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-16-c
File Name	376SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:50:07 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.593	ppb	35.10	103.33	2000	
B	11	6	HMI H2	105.187	ppb	2.49	1636.77	100	
Se	78	72	HMI H2	3.785	ppb	18.60	124.00	2000	
Na	23	45	HMI He	2156.087	ppb	4.57	32895.64	400000	
Mg	24	45	HMI He	276058.390	ppb	1.85	1913634.19	400000	
Al	27	45	HMI He	159772.400	ppb	0.81	286930.22	400000	
K	39	45	HMI He	41872.654	ppb	1.04	186557.33	400000	
Ca	44	45	HMI He	1771543.100	ppb	2.10	492499.26	400000	
V	51	72	HMI He	297.395	ppb	3.08	33247.15	2000	
Cr	52	72	HMI He	438.925	ppb	2.73	63863.80	5000	
Mn	55	72	HMI He	4363.223	ppb	1.40	252205.62	10000	
Fe	57	72	HMI He	169125.516	ppb	0.78	473790.37	400000	
Co	59	72	HMI He	64.170	ppb	0.70	18003.42	2000	
Ni	60	72	HMI He	169.426	ppb	2.39	13912.68	5000	
Cu	63	72	HMI He	1471.633	ppb	0.75	334028.76	5000	
Zn	66	72	HMI He	823.203	ppb	3.51	25490.19	5000	
As	75	72	HMI He	71.581	ppb	2.76	1813.18	2000	
Sr	88	45	HMI He	4683.813	ppb	0.72	360059.09	2000	
Zr	90	72	HMI He	26995.470	ppb	0.97	36782.63	1000	>LDR
Nb	93	72	HMI He	3.485	ppb	1.57	1966.82	200	
Mo	95	115	HMI He	12.536	ppb	13.91	1890.13	2000	
Pd	105	115	HMI He	0.336	ppb	32.74	80.00	100	
Ag	107	115	HMI He	1.015	ppb	19.99	533.35	100	
Cd	111	115	HMI He	7.850	ppb	26.26	533.35	2000	
Sn	120	115	HMI He	6.625	ppb	12.15	1260.08	2000	
Sb	121	115	HMI He	3.762	ppb	6.28	690.02	1000	
Ba	137	115	HMI He	1958.165	ppb	2.48	117151.66	5000	
W	182	165	HMI He	0.884	ppb	9.89	1106.73	100	
Pt	195	165	HMI He	0.044	ppb	95.98	43.33	100	
Tl	205	165	HMI He	2.377	ppb	6.74	4200.67	2000	
Pb	208	165	HMI He	10204.867	ppb	1.52	23579297.73	5000	
Th	232	165	HMI He	86.603	ppb	3.15	235139.98	2000	
U	238	165	HMI He	15.644	ppb	0.58	44605.83	2000	
Li	7	45	No Gas	46.715	ppb	13.03	543849.14	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	22862.25	1.55	87935.9366666667	26	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1373853.91	4.68	3514373.85333333	39.09	60	125	IS Failed
Sc (IS)	45	HMI He	82033.02	1.58	170210.703333333	48.19	60	125	IS Failed
Ge Internal Standard	72	HMI He	138959.23	0.84	291105.983333333	47.73	60	125	IS Failed
In Internal standard	115	HMI He	517348.78	0.81	1005086.61666667	51.47	60	125	IS Failed
Ho-165	165	HMI He	3531041.30	1.45	6081416.03666667	58.06	60	125	IS Failed
Sc IS)	45	No Gas	7221369.05	1.60	18444261.3266667	39.15	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-17-c
File Name	377SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:54:15 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.914	ppb	24.30	105.00	2000	
B	11	6	HMI H2	93.464	ppb	16.20	1426.75	100	
Se	78	72	HMI H2	4.106	ppb	26.94	128.00	2000	
Na	23	45	HMI He	1936.146	ppb	4.18	28470.94	400000	
Mg	24	45	HMI He	268940.194	ppb	2.53	1792431.76	400000	
Al	27	45	HMI He	152079.381	ppb	3.23	262547.67	400000	
K	39	45	HMI He	38307.724	ppb	2.51	164412.57	400000	
Ca	44	45	HMI He	1645242.855	ppb	3.44	439754.75	400000	
V	51	72	HMI He	262.432	ppb	3.42	29246.32	2000	
Cr	52	72	HMI He	294.228	ppb	2.22	42665.35	5000	
Mn	55	72	HMI He	4188.330	ppb	2.64	241231.51	10000	
Fe	57	72	HMI He	152052.724	ppb	0.80	424476.09	400000	
Co	59	72	HMI He	60.870	ppb	2.62	17015.70	2000	
Ni	60	72	HMI He	165.545	ppb	3.38	13545.78	5000	
Cu	63	72	HMI He	811.115	ppb	0.90	183566.49	5000	
Zn	66	72	HMI He	755.591	ppb	3.52	23323.63	5000	
As	75	72	HMI He	65.389	ppb	8.39	1649.76	2000	
Sr	88	45	HMI He	4389.252	ppb	2.25	324431.95	2000	
Zr	90	72	HMI He	24595.322	ppb	5.44	33408.55	1000	>LDR
Nb	93	72	HMI He	3.246	ppb	7.71	1826.80	200	
Mo	95	115	HMI He	9.589	ppb	11.92	1413.42	2000	
Pd	105	115	HMI He	0.415	ppb	62.61	96.67	100	
Ag	107	115	HMI He	0.845	ppb	11.73	433.34	100	
Cd	111	115	HMI He	6.832	ppb	19.50	453.35	2000	
Sn	120	115	HMI He	6.430	ppb	17.34	1193.40	2000	
Sb	121	115	HMI He	3.419	ppb	17.25	613.36	1000	
Ba	137	115	HMI He	1918.146	ppb	0.84	112050.76	5000	
W	182	165	HMI He	0.625	ppb	12.89	850.04	100	
Pt	195	165	HMI He	0.049	ppb	78.34	46.67	100	
Tl	205	165	HMI He	2.220	ppb	8.54	3820.55	2000	
Pb	208	165	HMI He	13641.620	ppb	3.18	30710430.38	5000	
Th	232	165	HMI He	83.765	ppb	2.59	221621.47	2000	
U	238	165	HMI He	14.797	ppb	3.23	41098.68	2000	
Li	7	45	No Gas	27.902	ppb	14.20	513265.27	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	22448.25	2.80	87935.9366666667	25.53	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1316313.65	3.20	3514373.85333333	37.46	60	125	IS Failed
Sc (IS)	45	HMI He	78907.71	2.93	170210.703333333	46.36	60	125	IS Failed
Ge Internal Standard	72	HMI He	138469.71	1.09	291105.983333333	47.57	60	125	IS Failed
In Internal standard	115	HMI He	505154.70	1.11	1005086.61666667	50.26	60	125	IS Failed
Ho-165	165	HMI He	3441797.71	2.75	6081416.03666667	56.6	60	125	IS Failed
Sc IS)	45	No Gas	7130848.06	1.09	18444261.3266667	38.66	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-18-c
File Name	378SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 9:57:55 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	7.176	ppb	35.81	90.00	2000	
B	11	6	HMI H2	86.008	ppb	14.80	1243.40	100	
Se	78	72	HMI H2	4.918	ppb	28.54	153.33	2000	
Na	23	45	HMI He	1847.141	ppb	2.88	26898.37	400000	
Mg	24	45	HMI He	253442.715	ppb	1.87	1670485.68	400000	
Al	27	45	HMI He	146513.096	ppb	2.67	250177.12	400000	
K	39	45	HMI He	39405.170	ppb	4.27	167102.37	400000	
Ca	44	45	HMI He	1637919.460	ppb	3.37	432991.09	400000	
V	51	72	HMI He	264.135	ppb	4.87	28635.09	2000	
Cr	52	72	HMI He	344.820	ppb	1.74	48638.69	5000	
Mn	55	72	HMI He	4029.036	ppb	1.94	225748.63	10000	
Fe	57	72	HMI He	152133.111	ppb	2.14	413146.35	400000	
Co	59	72	HMI He	61.030	ppb	6.86	16605.28	2000	
Ni	60	72	HMI He	162.010	ppb	1.90	12898.57	5000	
Cu	63	72	HMI He	1142.517	ppb	1.09	251443.93	5000	
Zn	66	72	HMI He	753.870	ppb	3.64	22649.45	5000	
As	75	72	HMI He	64.596	ppb	7.43	1587.01	2000	
Sr	88	45	HMI He	4460.099	ppb	5.70	325832.61	2000	
Zr	90	72	HMI He	23679.352	ppb	2.45	31274.15	1000	>LDR
Nb	93	72	HMI He	2.815	ppb	16.53	1543.43	200	
Mo	95	115	HMI He	11.578	ppb	12.60	1666.78	2000	
Pd	105	115	HMI He	0.206	ppb	24.69	46.67	100	
Ag	107	115	HMI He	0.824	ppb	21.44	413.35	100	
Cd	111	115	HMI He	7.810	ppb	15.21	506.68	2000	
Sn	120	115	HMI He	7.139	ppb	7.94	1293.41	2000	
Sb	121	115	HMI He	7.757	ppb	4.31	1343.41	1000	
Ba	137	115	HMI He	1828.543	ppb	1.09	104370.44	5000	
W	182	165	HMI He	0.681	ppb	12.99	890.04	100	
Pt	195	165	HMI He	0.017	ppb	94.76	23.33	100	
Tl	205	165	HMI He	2.261	ppb	7.13	3853.90	2000	
Pb	208	165	HMI He	18025.274	ppb	1.57	40184874.26	5000	
Th	232	165	HMI He	80.222	ppb	1.74	210172.93	2000	
U	238	165	HMI He	14.317	ppb	2.77	39377.13	2000	
Li	7	45	No Gas	18.337	ppb	66.24	486111.57	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	21190.02	1.56	87935.9366666667	24.1	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1298576.01	4.30	3514373.85333333	36.95	60	125	IS Failed
Sc (IS)	45	HMI He	78037.22	2.79	170210.703333333	45.85	60	125	IS Failed
Ge Internal Standard	72	HMI He	134705.72	1.16	291105.983333333	46.27	60	125	IS Failed
In Internal standard	115	HMI He	493558.61	0.13	1005086.61666667	49.11	60	125	IS Failed
Ho-165	165	HMI He	3407326.28	2.09	6081416.03666667	56.03	60	125	IS Failed
Sc IS)	45	No Gas	6919678.75	2.53	18444261.3266667	37.52	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-19-c
File Name	379SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:01:34 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	6.489	ppb	19.55	76.67	2000	
B	11	6	HMI H2	64.525	ppb	12.30	883.37	100	
Se	78	72	HMI H2	5.242	ppb	20.48	152.00	2000	
Na	23	45	HMI He	1798.131	ppb	3.93	25332.50	400000	
Mg	24	45	HMI He	225294.395	ppb	2.26	1435497.87	400000	
Al	27	45	HMI He	110239.344	ppb	1.51	182015.38	400000	
K	39	45	HMI He	28974.219	ppb	2.00	119728.58	400000	
Ca	44	45	HMI He	2755142.793	ppb	0.38	704388.11	400000	>LDR
V	51	72	HMI He	226.232	ppb	1.50	23593.73	2000	
Cr	52	72	HMI He	279.258	ppb	0.86	37883.75	5000	
Mn	55	72	HMI He	3154.128	ppb	1.60	169938.77	10000	
Fe	57	72	HMI He	117360.961	ppb	1.42	306432.45	400000	
Co	59	72	HMI He	48.130	ppb	3.24	12588.35	2000	
Ni	60	72	HMI He	141.309	ppb	4.20	10827.07	5000	
Cu	63	72	HMI He	6898.790	ppb	1.30	1458601.37	5000	
Zn	66	72	HMI He	1342.763	ppb	2.01	38672.69	5000	
As	75	72	HMI He	72.452	ppb	6.24	1709.90	2000	
Sr	88	45	HMI He	8320.412	ppb	1.08	588073.43	2000	
Zr	90	72	HMI He	18794.168	ppb	3.56	23874.64	1000	>LDR
Nb	93	72	HMI He	3.808	ppb	10.32	2000.16	200	
Mo	95	115	HMI He	12.722	ppb	4.82	1783.46	2000	
Pd	105	115	HMI He	0.317	ppb	37.77	70.00	100	
Ag	107	115	HMI He	2.875	ppb	10.64	1396.74	100	
Cd	111	115	HMI He	8.333	ppb	17.26	526.68	2000	
Sn	120	115	HMI He	10.861	ppb	7.33	1903.47	2000	
Sb	121	115	HMI He	57.640	ppb	4.44	9643.09	1000	
Ba	137	115	HMI He	1658.161	ppb	2.01	92207.37	5000	
W	182	165	HMI He	1.026	ppb	19.24	1133.39	100	
Pt	195	165	HMI He	0.110	ppb	44.22	83.33	100	
Tl	205	165	HMI He	1.763	ppb	10.53	2860.31	2000	
Pb	208	165	HMI He	87679.552	ppb	2.17	185913742.80	5000	>LDR
Th	232	165	HMI He	58.592	ppb	1.97	146028.63	2000	
U	238	165	HMI He	19.184	ppb	2.98	50183.97	2000	
Li	7	45	No Gas	-28.906	ppb	-27.75	410402.03	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	19925.24	3.00	87935.9366666667	22.66	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1220485.61	2.09	3514373.85333333	34.73	60	125	IS Failed
Sc (IS)	45	HMI He	75424.94	0.92	170210.703333333	44.31	60	125	IS Failed
Ge Internal Standard	72	HMI He	129515.14	0.74	291105.983333333	44.49	60	125	IS Failed
In Internal standard	115	HMI He	480836.12	0.16	1005086.61666667	47.84	60	125	IS Failed
Ho-165	165	HMI He	3241293.95	2.45	6081416.03666667	53.3	60	125	IS Failed
Sc IS)	45	No Gas	6631748.82	1.57	18444261.3266667	35.96	60	120	IS Failed

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4905896
File Name	380_CCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:05:07 AM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	212.209	ppb	17.20	8058.65	500	42.44	90	110	>+\-10%
Be	9	6	HMI H2	62.537	ppb	1.57	831.70	50	125.07	90	110	>+\-10%
B	11	6	HMI H2	49.957	ppb	11.26	773.36	50	99.91	90	110	
Se	78	72	HMI H2	48.964	ppb	11.26	1776.11	50	97.93	90	110	
Na	23	45	HMI He	4347.076	ppb	0.46	63258.72	5000	86.94	90	110	>+\-10%
Mg	24	45	HMI He	4473.345	ppb	0.18	30007.01	5000	89.47	90	110	>+\-10%
Al	27	45	HMI He	4665.452	ppb	6.43	8078.71	5000	93.31	90	110	
K	39	45	HMI He	5247.567	ppb	4.60	25603.29	5000	104.95	90	110	
Ca	44	45	HMI He	4836.207	ppb	4.10	1306.74	5000	96.72	90	110	
V	51	72	HMI He	45.901	ppb	4.86	5467.63	50	91.8	90	110	
Cr	52	72	HMI He	46.818	ppb	5.06	7184.98	50	93.64	90	110	
Mn	55	72	HMI He	45.448	ppb	10.61	2790.28	50	90.9	90	110	
Fe	57	72	HMI He	4787.494	ppb	2.78	14129.57	5000	95.75	90	110	
Co	59	72	HMI He	47.707	ppb	1.95	14066.23	50	95.41	90	110	
Ni	60	72	HMI He	45.932	ppb	8.73	4007.21	50	91.86	90	110	
Cu	63	72	HMI He	53.372	ppb	1.02	12978.64	50	106.74	90	110	
Zn	66	72	HMI He	48.427	ppb	8.44	1723.45	50	96.85	90	110	
As	75	72	HMI He	49.267	ppb	2.11	1312.47	50	98.53	90	110	
Sr	88	45	HMI He	59.642	ppb	3.85	4420.66	50	119.28	90	110	>+\-10%
Zr	90	72	HMI He	23.261	ppb	30.23	50.00	50	46.52	90	110	>+\-10%
Nb	93	72	HMI He	102.543	ppb	0.69	59972.49	100	102.54	90	110	
Mo	95	115	HMI He	46.294	ppb	1.90	7241.74	50	92.59	90	110	
Pd	105	115	HMI He	49.215	ppb	6.82	12174.80	50	98.43	90	110	
Ag	107	115	HMI He	50.095	ppb	2.51	27170.29	50	100.19	90	110	
Cd	111	115	HMI He	52.997	ppb	5.79	3750.51	50	105.99	90	110	
Sn	120	115	HMI He	51.508	ppb	2.32	9996.65	50	103.02	90	110	
Sb	121	115	HMI He	50.624	ppb	7.85	9473.01	50	101.25	90	110	
Ba	137	115	HMI He	50.865	ppb	1.20	3167.03	50	101.73	90	110	
W	182	165	HMI He	49.095	ppb	1.61	45399.15	50	98.19	90	110	
Pt	195	165	HMI He	47.649	ppb	2.51	34700.84	50	95.3	90	110	
Tl	205	165	HMI He	51.406	ppb	1.55	91039.92	50	102.81	90	110	
Pb	208	165	HMI He	78.040	ppb	1.78	182881.75	50	156.08	90	110	>+\-10%
Th	232	165	HMI He	52.255	ppb	1.76	142674.94	50	104.51	90	110	
U	238	165	HMI He	51.165	ppb	1.78	146647.38	50	102.33	90	110	
Li	7	45	No Gas	195.078	ppb	7.78	751992.22	500	39.02	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	22404.99	2.28	87935.9366666667	25.48	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1521870.43	1.05	3514373.85333333	43.3	60	125	IS Failed
Sc (IS)	45	HMI He	79017.79	1.57	170210.703333333	46.42	60	125	IS Failed
Ge Internal Standard	72	HMI He	146035.61	0.67	291105.983333333	50.17	60	125	IS Failed
In Internal standard	115	HMI He	538042.72	1.39	1005086.61666667	53.53	60	125	IS Failed
Ho-165	165	HMI He	3550066.98	1.51	6081416.03666667	58.38	60	125	IS Failed
Sc IS)	45	No Gas	7401136.02	2.88	18444261.3266667	40.13	60	120	IS Failed

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4905893
File Name	381_CCB.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:08:38 AM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	-119.919	ppb	-11.79	3553.76	0.1	
Be	9	6	HMI H2	0.605	ppb	90.75	8.33	0.5	>RL
B	11	6	HMI H2	3.199	ppb	44.69	73.33	0.1	>RL
Se	78	72	HMI H2	0.000	ppb	NaN	0.00	1	
Na	23	45	HMI He	24.524	ppb	21.93	956.70	25	
Mg	24	45	HMI He	25.464	ppb	34.28	303.34	25	>RL
Al	27	45	HMI He	16.128	ppb	150.54	40.00	15	>RL
K	39	45	HMI He	142.377	ppb	65.74	3967.20	50	>RL
Ca	44	45	HMI He	-27.595	ppb	-82.02	3.33	25	
V	51	72	HMI He	0.059	ppb	311.74	93.33	1	
Cr	52	72	HMI He	0.026	ppb	450.02	30.00	1	
Mn	55	72	HMI He	1.553	ppb	21.94	120.00	0.5	>RL
Fe	57	72	HMI He	80.073	ppb	26.16	263.34	25	>RL
Co	59	72	HMI He	-0.005	ppb	-367.41	3.33	0.5	
Ni	60	72	HMI He	-0.027	ppb	-912.23	56.67	1	
Cu	63	72	HMI He	2.415	ppb	6.43	813.36	1	>RL
Zn	66	72	HMI He	-1.278	ppb	-35.78	113.33	5	
As	75	72	HMI He	-0.111	ppb	-39.14	0.65	1	
Sr	88	45	HMI He	0.612	ppb	56.86	46.67	1	
Zr	90	72	HMI He	2.658	ppb	467.18	20.00	1	>RL
Nb	93	72	HMI He	0.444	ppb	11.90	283.34	2	
Mo	95	115	HMI He	0.083	ppb	205.12	20.00	0.5	
Pd	105	115	HMI He	0.013	ppb	173.21	3.33	1	
Ag	107	115	HMI He	0.000	ppb	-2642.58	3.33	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.164	ppb	55.37	60.00	1	
Sb	121	115	HMI He	0.318	ppb	59.93	73.33	1	
Ba	137	115	HMI He	-0.029	ppb	0.00	0.00	0.5	
W	182	165	HMI He	0.045	ppb	197.14	333.34	1	
Pt	195	165	HMI He	0.007	ppb	110.23	16.67	1	
Tl	205	165	HMI He	0.001	ppb	793.43	16.67	0.1	
Pb	208	165	HMI He	11.657	ppb	2.28	27857.64	0.5	>RL
Th	232	165	HMI He	0.027	ppb	23.94	136.67	1	
U	238	165	HMI He	0.012	ppb	33.81	43.33	0.5	
Li	7	45	No Gas	-132.013	ppb	-1.45	314463.78	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	23069.08	2.02	87935.9366666667	26.23	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1540571.89	2.64	3514373.85333333	43.84	60	125	IS Failed
Sc (IS)	45	HMI He	75937.05	0.91	170210.703333333	44.61	60	125	IS Failed
Ge Internal Standard	72	HMI He	142790.38	0.75	291105.983333333	49.05	60	125	IS Failed
In Internal standard	115	HMI He	536016.20	0.46	1005086.61666667	53.33	60	125	IS Failed
Ho-165	165	HMI He	3448532.01	1.57	6081416.03666667	56.71	60	125	IS Failed
Sc IS)	45	No Gas	7213171.81	1.00	18444261.3266667	39.11	60	120	IS Failed

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4905898
File Name	382LCCV.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:12:14 AM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.858	ppb	28.11	11.67	1	85.83	70	130	
Se	78	72	HMI H2	4.752	ppb	19.44	173.33	5	95.04	70	130	
Na	23	45	HMI He	82.180	ppb	6.72	1766.79	50	164.36	70	130	>+/-30%
Mg	24	45	HMI He	77.753	ppb	20.77	640.02	50	155.51	70	130	>+/-30%
Al	27	45	HMI He	30.422	ppb	61.60	63.33	30	101.41	70	130	
K	39	45	HMI He	375.448	ppb	23.46	4934.13	100	375.45	70	130	>+/-30%
Ca	44	45	HMI He	127.004	ppb	20.19	43.33	50	254.01	70	130	>+/-30%
V	51	72	HMI He	4.485	ppb	8.50	606.69	5	89.7	70	130	
Cr	52	72	HMI He	2.247	ppb	16.33	363.34	2	112.37	70	130	
Mn	55	72	HMI He	2.582	ppb	39.33	183.34	1	258.17	70	130	>+/-30%
Fe	57	72	HMI He	89.421	ppb	18.47	293.34	50	178.84	70	130	>+/-30%
Co	59	72	HMI He	0.827	ppb	28.54	243.34	1	82.7	70	130	
Ni	60	72	HMI He	1.823	ppb	13.26	213.34	2	91.13	70	130	
Cu	63	72	HMI He	3.573	ppb	7.13	1090.05	2	178.64	70	130	>+/-30%
Zn	66	72	HMI He	11.078	ppb	50.47	503.35	10	110.78	70	130	
As	75	72	HMI He	5.355	ppb	15.34	143.14	5	107.11	70	130	
Sr	88	45	HMI He	1.396	ppb	9.40	103.33	1	139.56	70	130	>+/-30%
Zr	90	72	HMI He	69.907	ppb	59.62	113.33	0.5	13981.37	70	130	>+/-30%
Nb	93	72	HMI He	0.389	ppb	10.02	253.33	2	19.43	70	130	>+/-30%
Mo	95	115	HMI He	1.962	ppb	13.66	313.34	2	98.12	70	130	
Pd	105	115	HMI He	0.000	ppb	NaN	0.00	1	0	70	130	>+/-30%
Ag	107	115	HMI He	4.948	ppb	7.97	2680.26	5	98.97	70	130	
Cd	111	115	HMI He	1.469	ppb	25.17	103.33	1	146.85	70	130	>+/-30%
Sn	120	115	HMI He	10.453	ppb	16.86	2040.16	10	104.53	70	130	
Sb	121	115	HMI He	2.068	ppb	10.48	400.01	2	103.4	70	130	
Ba	137	115	HMI He	0.715	ppb	65.00	46.67	1	71.54	70	130	
W	182	165	HMI He	4.922	ppb	15.41	4567.43	1	492.22	70	130	>+/-30%
Pt	195	165	HMI He	0.057	ppb	74.03	50.00	1	5.71	70	130	>+/-30%
Tl	205	165	HMI He	1.236	ppb	7.32	2096.84	1	123.56	70	130	
Pb	208	165	HMI He	8.754	ppb	12.04	20782.81	1	875.4	70	130	>+/-30%
Th	232	165	HMI He	2.246	ppb	10.49	5874.61	2	112.29	70	130	
U	238	165	HMI He	1.144	ppb	10.25	3117.05	1	114.36	70	130	
Li	7	45	No Gas	-126.113	ppb	-3.64	329112.21	50	-252.23	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	23025.76	3.22	87935.9366666667	26.18	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1531954.21	1.96	3514373.85333333	43.59	60	125	IS Failed
Sc (IS)	45	HMI He	76476.84	5.56	170210.703333333	44.93	60	125	IS Failed
Ge Internal Standard	72	HMI He	143926.78	4.50	291105.983333333	49.44	60	125	IS Failed
In Internal standard	115	HMI He	535795.24	3.09	1005086.61666667	53.31	60	125	IS Failed
Ho-165	165	HMI He	3378003.31	5.85	6081416.03666667	55.55	60	125	IS Failed
Sc IS)	45	No Gas	7373097.06	1.57	18444261.3266667	39.98	60	120	IS Failed

Sample Report

Sample Name	280-104412-a-54-c
File Name	383SMPL.d
Data Path Name	D:\DATA\122717.b
Acq Time	12/28/2017 10:15:53 AM
Sample Type	Sample
Total Dilution	1.0000
Comment	399901 SOIL 6020A DOD5
ISTD Ref FileName	359CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Fail

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	11.495	ppb	21.82	123.33	2000	
B	11	6	HMI H2	130.159	ppb	12.07	1590.09	100	
Se	78	72	HMI H2	4.921	ppb	11.94	137.33	2000	
Na	23	45	HMI He	2260.884	ppb	4.86	29225.53	400000	
Mg	24	45	HMI He	337335.987	ppb	1.39	1982846.93	400000	
Al	27	45	HMI He	208916.098	ppb	1.56	318158.73	400000	
K	39	45	HMI He	49979.975	ppb	1.88	188241.59	400000	
Ca	44	45	HMI He	1652458.180	ppb	1.78	389634.57	400000	
V	51	72	HMI He	342.905	ppb	1.85	34062.05	2000	
Cr	52	72	HMI He	325.951	ppb	1.39	42160.84	5000	
Mn	55	72	HMI He	5357.895	ppb	1.37	275223.94	10000	
Fe	57	72	HMI He	199699.947	ppb	1.57	497155.93	400000	
Co	59	72	HMI He	81.445	ppb	3.49	20312.91	2000	
Ni	60	72	HMI He	207.664	ppb	3.63	15140.51	5000	
Cu	63	72	HMI He	282.508	ppb	2.90	57150.16	5000	
Zn	66	72	HMI He	839.166	ppb	3.22	23086.56	5000	
As	75	72	HMI He	82.143	ppb	2.25	1849.13	2000	
Sr	88	45	HMI He	4222.494	ppb	2.05	275314.25	2000	
Zr	90	72	HMI He	33605.076	ppb	0.75	40692.05	1000	>LDR
Nb	93	72	HMI He	3.625	ppb	9.07	1816.81	200	
Mo	95	115	HMI He	9.882	ppb	9.04	1340.08	2000	
Pd	105	115	HMI He	0.296	ppb	23.61	63.33	100	
Ag	107	115	HMI He	0.818	ppb	12.42	386.68	100	
Cd	111	115	HMI He	8.762	ppb	38.95	536.69	2000	
Sn	120	115	HMI He	7.669	ppb	6.22	1306.73	2000	
Sb	121	115	HMI He	0.315	ppb	96.30	63.33	1000	
Ba	137	115	HMI He	2407.055	ppb	1.55	129418.18	5000	
W	182	165	HMI He	1.165	ppb	3.31	1230.07	100	
Pt	195	165	HMI He	0.076	ppb	0.97	60.00	100	
Tl	205	165	HMI He	3.000	ppb	3.41	4777.52	2000	
Pb	208	165	HMI He	1199.659	ppb	1.63	2500624.95	5000	
Th	232	165	HMI He	111.175	ppb	1.94	272172.70	2000	
U	238	165	HMI He	16.303	ppb	2.50	41904.46	2000	
Li	7	45	No Gas	49.216	ppb	16.29	486816.65	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	18002.98	2.62	87935.9366666667	20.47	60	125	IS Failed
Ge Internal Standard	72	HMI H2	1171902.09	0.32	3514373.85333333	33.35	60	125	IS Failed
Sc (IS)	45	HMI He	69576.07	1.70	170210.703333333	40.88	60	125	IS Failed
Ge Internal Standard	72	HMI He	123500.76	1.56	291105.983333333	42.42	60	125	IS Failed
In Internal standard	115	HMI He	464896.62	0.83	1005086.61666667	46.25	60	125	IS Failed
Ho-165	165	HMI He	3183710.41	0.80	6081416.03666667	52.35	60	125	IS Failed
Sc IS)	45	No Gas	6426829.46	1.94	18444261.3266667	34.84	60	120	IS Failed

TestAmerica *Denver*

ICPMS Data Review Checklist

LIMS Batch Number(s): 400124 400135-400136, 400139	Filename(s): 122717A B C D E	Instrument ID (circle one): 024 077 (078) Method (circle): (200.8) 6020 (6020A) 6020B QC Type (circle): (Standard) DOD Q4 (DoD Q5) QAPP_____ Other_____
Analyst/1st Reviewer/Date: LMTrelle 12/28/17		Circle: Total TR PD Dissolved
Matrix (circle): (Water) Solid Leachate		

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune					
1. Tune solution analyzed minimum of 4 times for 6020 or 5 times for 200.8	✓			✓	
2. Tune RSD <5%	✓			✓	
3. Resolution ≤ 0.9 AMU full width at 10% peak height Note: This also satisfies 200.8, 1.0 AMU at 5% peak height	✓			✓	
4. Mass calibration results within ± 0.1 amu of expected value	✓			✓	
B. Calibration/Instrument Run QC					
1. Instrument calibrated per lab SOP?	✓			✓	
2. For multi-point calibrations: r ≥ 0.995 – |x-intercept| ≤ RL	✓			✓	
3. High Level LDR Check Standard: required by DoD daily if samples analyzed > highest ICAL level -- 90-110% recovery	✓			✓	
4. ICB/CCB: run before samples, 10% frequency, & closing Result < ½ RL (routine), < LOD/2x MDL (DoD or special project)	✓			✓	
5. ICV/CCV: frequency initial, 10%, & closing; 90-110% recovery	✓			✓	
6. ICVL/CCVL: 70-130% recovery (6020A); Not applicable (other)	✓			✓	
7. ICSA/ICSAB: run before samples and every 12 hours ICSA detections for non-spiked <2*RL (<LOD or2x MDL for DoD or special projects) ICSAB for spiked elements 80-120%; *If no, list analytes:*	✓			✓	☐ Results outside limits due to contamination. ☐ Concentration of affected analyte in sample is less than RL ☐ Concentration of affected analyte in sample is more than 10x analyte signal in ICSA.
8. RL-level check standard: CRI : 50-150% (routine) 80-120% recovery (DoD);	✓			✓	
B. Client Sample and QC Sample Results					
1. Samples with target element concentrations > 90% linear range diluted and reanalyzed (200.8)	✓			✓	Comments:
2. Sample IS response: 30-120% of ICB IS (6020) 70-150% of ICB IS (6020A) 60-125% (200.8)	✓			✓	☐ High IS response. Sample(s) rerun at dilution. ☐ Low IS response. Sample(s) rerun at dilution.
C. Preparation/Matrix QC					
1. Method Blank: one per preparation batch result < ½ RL	✓			✓	☐ No analyte > RL in associated samples ☐ Sample results >10x blank ☐ Insufficient sample for reanalysis
2. LCS :one per preparation batch; 80-120% recovery or historical (routine) 85-115% recovery or historical (200.8); project limits (other)	✓			✓	☐ Insufficient sample for reanalysis ☐ LCS %R > QC limits & samples < RL
3. MS/MSD or MS/Dup frequency: a pair per batch (routine); a pair per 10 samples (200.8);	✓			✓	☐ Insufficient sample
4. MS/MSD recovery & RPD: 75-125% recovery or historical (routine); 70-130% recovery (200.8); 20% RPD;	✓			✓	☐ LCS acceptable – matrix effects ☐ Native analyte > 4x spike level ☐ Matrix effect and native analyte > 4x spike

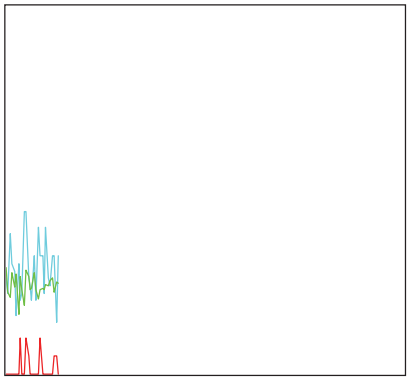
Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
C. Preparation/Matrix QC (continued)					
5. Serial dilution: one per prep batch (6020/6020A) Required if MS/MSD fail (DoD) -- run at 5x dilution of parent sample; ≤ 10% difference.	✓			✓	☐ Sample result < 50 x MDL
6. Post digestion spike: one per 6020/6020A batch Required if MS/MSD fail (DoD) 75-125% recovery	✓			✓	
D. Raw Data & TALS Data Entry					
1. TALS Sample List Tab	✓			✓	
a. LIMS Sample IDs / Containers are correct	✓			✓	
b. Method and matrix are correct	✓			✓	
c. Date and time are correct	✓			✓	
d. Dilutions are correct	✓			✓	
e. Correct suffix designated; e.g., DU, (where applicable)	✓			✓	
2. TALS Sample Results Tab	✓			✓	
a. All reported analytes are marked Primary or Secondary	✓			✓	
b. All unused data are marked Rejected or Accepted. Unused data are clearly identified with reason not used	✓			✓	
c. Out of control QC is clearly identified	✓			✓	
d. Any data that has a qualifier is reviewed with appropriate action taken (NCM if needed)	✓			✓	
e. The attached data file includes the filename, instrument, and analyst initials	✓			✓	
3. TALS Worksheet Tab is complete and correct	✓			✓	
4. TALS Reagent Tab is complete and correct	✓			✓	
5. TALS QC Links Tab is correct	✓			✓	
6. TALS Batch Information Screen documentation is complete	✓			✓	
7. TALS Status set to appropriate review level	✓			✓	
E. Final Report and NCMs (2nd level review only)					
1. Were all job/project requirements met?				✓	
2. Results for samples and QC correct on final report?				✓	
3. Are all necessary scanned documents in TALS?				✓	
4. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?				✓	
5. Raw Data PDF attached as document					

Comments: _____

2nd Reviewer: _____ Review Date: 12/29/17

Current Signal

[HMI He]



Mass	Range	Count	Avg. Count	RSD [%]
7	50	16	14.2	28.28
9	500	123	119.9	12.17
23	10000	5408	5088.9	2.94
51	500	187	160.9	12.07
70	500	125	121.8	13.23
75	20	5	3.3	65.14
78	20	0	0.3	203.81
115	10000	3054	2977.8	4.39
118	200	25	31.7	24.37
137	2000	446	452.8	6.08
140	50000	9748	9376.6	2.38
205	50000	10010	10467.0	3.42
238	50000	15904	16078.4	3.33
70/140	2	1.282 %	1.298 %	12.80
156/140	1	0.205 %	0.203 %	31.50
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.75	L/min	Makeup/Dilution Gas	0.28	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-32	V
Extract 2	-175.0	V	Cell Exit	-60	V
Omega Bias	-75	V	Deflect	-0.2	V
Omega Lens	8.0	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		OctP Bias	-18.0	V
He Flow	5.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	4.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-14.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

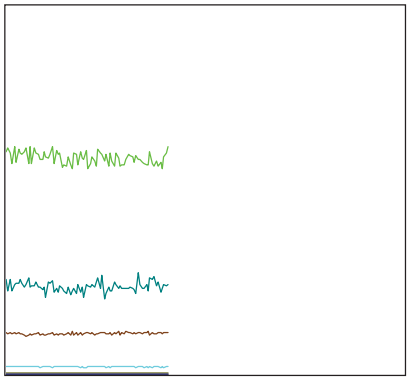
IF/BK Press	1.64E+2	Pa	Carrier Gas(BP)	4.36E+2	kPa

Current Signal

Analyzer Press	2.02E-4	Pa	Reflected Power	14	W
Forward Power	1549	W			

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
7	2000000	38909	39969.2	2.86
59	200	44554	44687.6	1.85
63	5000	3087	2936.7	2.88
70	10000000	1575	1578.8	3.92
75	50000	5632	5512.9	2.52
89	2000	70331	71672.1	1.58
115	20000000	64331	64950.6	1.96
118	2000	489	476.4	5.78
137	100	8094	7768.2	2.29
140	100	69016	68995.4	1.93
205	10000	39004	40431.9	2.08
6	20000000	7349	7264.1	3.28
70/140	1000	2.282 %	2.289 %	4.33
156/140	200	1.610 %	1.608 %	5.44
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	1.03	L/min	Makeup/Dilution Gas	0.10	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-24	V
Extract 2	-125.0	V	Cell Exit	-56	V
Omega Bias	-55	V	Deflect	15.4	V
Omega Lens	6.3	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	190	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-3.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

IF/BK Press	1.67E+2	Pa	Carrier Gas(BP)	6.00E+2	kPa
Analyzer Press	7.28E-5	Pa	Reflected Power	14	W

Current Signal

Forward Power	1550	W

Current Signal

[HMI H2]



Mass	Range	Count	Avg. Count	RSD [%]
7	1000	418	507.2	18.15
9	5000	2188	2316.6	8.56
59	20000	6266	6665.1	11.95
63	1000	254	261.4	8.83
70	2000	594	591.3	4.85
78	100	17	11.0	51.75
89	100000	35769	37749.3	8.67
115	100000	34943	36643.1	7.96
118	1000	243	255.5	9.14
137	20000	4478	4542.6	6.09
140	100000	36529	36765.8	6.13
205	100000	20379	21090.6	6.29
238	100000	24861	25765.1	7.28
70/140	5	1.626 %	1.612 %	6.20
156/140	2	1.594 %	1.540 %	2.74
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.60	V	S/C Temp	2	℃
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.75	L/min	Makeup/Dilution Gas	0.28	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-150.0	V	Cell Exit	-60	V
Omega Bias	-60	V	Deflect	0.6	V
Omega Lens	7.6	V	Plate Bias	-60	V

Cell Parameters

Use Gas	true		OctP Bias	-18.0	V
He Flow	0.0	mL/min	OctP RF	190	V
H2 Flow	4.0	mL/min	Energy Discrimination	3.0	V
3rd Gas Flow	0	%			

Qpole Parameters

Mass Gain	134	Axis Offset	0.05	
Mass Offset	126	QP Bias	-15.0	V
Axis Gain	1.0004			

Torch Axis Parameters

Torch H	0.2	mm	Torch V	0.2	mm

EM Parameters

Discriminator	4.5	mV	Pulse HV	1393	V
Analog HV	1731	V			

Meters

IF/BK Press	1.73E+2	Pa	Carrier Gas(BP)	4.33E+2	kPa

Current Signal

Analyzer Press	3.87E-4	Pa	Reflected Power	15	W
Forward Power	1551	W			

US EPA 200.8 Tune Check Sample Report

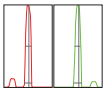
Batch Folder D:\DATA\122817.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1246	3.09	5.00	
9	6291	1.92	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	1261	1215	1198	1293	1262
9	6138	6246	6472	6285	6315

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	375	7.05	6.9 - 7.1		0.442	0.750	
9	1909	9.05	8.9 - 9.1		0.479	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V			
Extract 2	-150.0	V	Cell Entrance	-40	V			
Omega Bias	-60	V	Cell Exit	-60	V			
Deflect	0.6	V						

 # # Cell Parameters # #

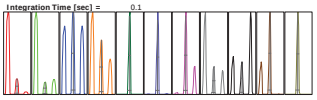
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	190	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2707	2.52	5.00	TRUE
25	399	5.39	5.00	FALSE
26	506	2.69	5.00	TRUE
59	12663	1.47	5.00	TRUE
103	25395	1.46	5.00	TRUE
115	5927	1.79	5.00	TRUE
205	13242	1.31	5.00	TRUE
206	4744	1.65	5.00	TRUE
207	3944	1.24	5.00	TRUE
208	9797	0.77	5.00	TRUE
238	20504	1.77	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2639	2634	2765	2719	2779
25	388	403	370	427	409
26	502	492	507	502	529
59	12346	12650	12777	12758	12785
103	24824	25225	25573	25739	25614
115	5834	5864	5917	5914	6106
205	13519	13305	13109	13131	13144
206	4812	4692	4644	4745	4829
207	3980	3958	3890	3996	3895
208	9847	9715	9742	9784	9899
238	21140	20407	20223	20383	20365

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	810	24.000	23.9 - 24.1		0.441	0.750	
25	119	25.000	24.9 - 25.1		0.441	0.750	
26	145	26.000	25.9 - 26.1		0.443	0.750	
59	3949	59.000	58.9 - 59.1		0.445	0.750	
103	9334	103.000	102.9 - 103.1		0.428	0.750	
115	2196	115.000	114.9 - 115.1		0.426	0.750	
205	5316	205.000	204.9 - 205.1		0.417	0.750	
206	1830	206.000	205.9 - 206.1		0.380	0.750	
207	1605	207.000	206.9 - 207.1		0.386	0.750	
208	4096	208.000	207.9 - 208.1		0.383	0.750	
238	7828	237.950	237.9 - 238.1		0.429	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V			
Extract 2	-175.0	V	Cell Entrance	-32	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	0.2	V						

 # # Cell Parameters # #

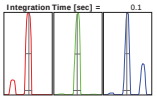
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	190	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	109060	1.15	5.00	TRUE
89	176465	0.66	5.00	TRUE
205	57172	1.23	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	107328	110486	109908	109227	108349
89	176512	178099	176144	176710	174861
205	56273	57836	56819	57004	57928

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	32839	7.050	6.9 - 7.1		0.439	0.750	
89	56654	89.000	88.9 - 89.1		0.440	0.750	
205	21498	205.000	204.9 - 205.1		0.435	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.4	V			
Extract 2	-125.0	V	Cell Entrance	-24	V			
Omega Bias	-55	V	Cell Exit	-56	V			
Deflect	15.6	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

US EPA 200.8 Tune Check Sample Report

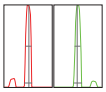
Batch Folder D:\DATA\122817.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1266	3.02	5.00	
9	6244	0.76	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	1331	1242	1266	1234	1260
9	6220	6228	6186	6302	6285

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	386	7.05	6.9 - 7.1		0.440	0.750	
9	1890	9.00	8.9 - 9.1		0.479	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V			
Extract 2	-150.0	V	Cell Entrance	-40	V			
Omega Bias	-60	V	Cell Exit	-60	V			
Deflect	0.6	V						

 # # Cell Parameters # #

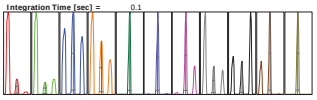
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	190	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2478	11.52	5.00	FALSE
25	369	6.89	5.00	FALSE
26	483	8.73	5.00	FALSE
59	12400	1.63	5.00	TRUE
103	25394	1.72	5.00	TRUE
115	5929	0.95	5.00	TRUE
205	13038	2.42	5.00	TRUE
206	4784	2.15	5.00	TRUE
207	3932	1.63	5.00	TRUE
208	9685	2.19	5.00	TRUE
238	20420	2.52	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	2646	2684	2675	2357	2029
25	390	381	382	366	326
26	514	496	507	489	410
59	12147	12477	12656	12475	12247
103	25184	25914	25438	25656	24778
115	5886	5996	5985	5876	5904
205	13290	13374	13110	12733	12685
206	4824	4876	4840	4764	4615
207	3912	4037	3865	3914	3932
208	9847	9892	9764	9504	9418
238	21130	20630	20480	20048	19813

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	752	24.000	23.9 - 24.1		0.440	0.750	
25	109	25.000	24.9 - 25.1		0.441	0.750	
26	138	26.000	25.9 - 26.1		0.443	0.750	
59	3847	59.000	58.9 - 59.1		0.444	0.750	
103	9414	103.000	102.9 - 103.1		0.428	0.750	
115	2190	115.000	114.9 - 115.1		0.427	0.750	
205	5268	205.000	204.9 - 205.1		0.417	0.750	
206	1855	206.000	205.9 - 206.1		0.382	0.750	
207	1630	207.000	206.9 - 207.1		0.385	0.750	
208	4082	208.000	207.9 - 208.1		0.383	0.750	
238	7925	237.950	237.9 - 238.1		0.428	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V			
Extract 2	-175.0	V	Cell Entrance	-32	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	0.2	V						

 # # Cell Parameters # #

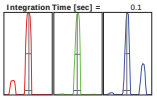
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	190	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	108479	1.53	5.00	TRUE
89	171326	0.91	5.00	TRUE
205	55986	0.98	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	107531	111263	108681	107854	107068
89	171447	173820	171013	170759	169589
205	55407	56273	56686	55453	56111

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	32845	7.050	6.9 - 7.1		0.438	0.750	
89	55025	89.000	88.9 - 89.1		0.440	0.750	
205	21159	205.000	204.9 - 205.1		0.434	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters

 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.4	V			
Extract 2	-125.0	V	Cell Entrance	-24	V			
Omega Bias	-55	V	Cell Exit	-56	V			
Deflect	15.6	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

US EPA 200.8 Tune Check Sample Report

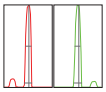
Batch Folder D:\DATA\122817.b
Report Comment
Instrument Name G3281A JP12422099

[HMI H2]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	1232	1.36	5.00	
9	6291	1.31	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	1247	1208	1238	1246	1223
9	6423	6286	6285	6263	6198

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	380	7.05	6.9 - 7.1		0.441	0.750	
9	1910	9.05	8.9 - 9.1		0.479	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 51.1 **Y Axis =** Linear

Tune Parameters
 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V			
Extract 2	-150.0	V	Cell Entrance	-40	V			
Omega Bias	-60	V	Cell Exit	-60	V			
Deflect	0.6	V						

 # # Cell Parameters # #

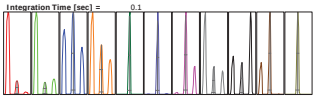
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	4.0	mL/min	OctP RF	190	V			
Energy Discrimination	3.0	V						

[HMI He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
24	2010	4.05	5.00	TRUE
25	292	2.66	5.00	TRUE
26	383	3.32	5.00	TRUE
59	12307	1.76	5.00	TRUE
103	25160	0.88	5.00	TRUE
115	5857	0.90	5.00	TRUE
205	13320	1.46	5.00	TRUE
206	4788	1.41	5.00	TRUE
207	3905	1.66	5.00	TRUE
208	9580	0.98	5.00	TRUE
238	20606	0.87	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
24	1888	1989	2008	2072	2095
25	282	295	301	297	286
26	367	388	373	396	394
59	12018	12196	12284	12486	12552
103	24855	25046	25440	25181	25275
115	5805	5830	5837	5869	5942
205	13522	13525	13229	13093	13230
206	4841	4833	4737	4696	4835
207	3860	3952	3989	3890	3832
208	9607	9706	9443	9566	9580
238	20630	20718	20312	20777	20594

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
24	598	24.000	23.9 - 24.1		0.441	0.750	
25	87	25.000	24.9 - 25.1		0.441	0.750	
26	110	26.000	25.9 - 26.1		0.444	0.750	
59	3821	59.000	58.9 - 59.1		0.445	0.750	
103	9266	103.000	102.9 - 103.1		0.430	0.750	
115	2169	115.000	114.9 - 115.1		0.427	0.750	
205	5326	205.000	204.9 - 205.1		0.419	0.750	
206	1838	206.000	205.9 - 206.1		0.383	0.750	
207	1567	207.000	206.9 - 207.1		0.389	0.750	
208	4046	208.000	207.9 - 208.1		0.384	0.750	
238	7947	237.950	237.9 - 238.1		0.430	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters
 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	0.75	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V			
Extract 2	-175.0	V	Cell Entrance	-32	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	0.2	V						

 # # Cell Parameters # #

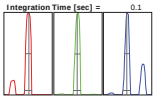
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	true		3rd Gas Flow	0	%			
He Flow	5.0	mL/min	OctP Bias	-18.0	V			
H2 Flow	0.0	mL/min	OctP RF	190	V			
Energy Discrimination	4.0	V						

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	108135	1.92	5.00	TRUE
89	175429	0.56	5.00	TRUE
205	57681	1.07	5.00	TRUE

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	105889	110669	109499	108426	106190
89	175068	176302	176609	174815	174352
205	56697	57926	58362	57616	57803

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	W-X% (Flag)
7	32651	7.050	6.9 - 7.1		0.439	0.750	
89	56308	89.000	88.9 - 89.1		0.440	0.750	
205	21547	205.000	204.9 - 205.1		0.445	0.750	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 92.4 **Y Axis =** Linear

Tune Parameters
 # # Plasma Paramters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.03	L/min			
RF Matching	1.60	V	Option Gas	0.0	%			
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	°C						

 # # Lenses Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.4	V			
Extract 2	-125.0	V	Cell Entrance	-24	V			
Omega Bias	-55	V	Cell Exit	-56	V			
Deflect	15.6	V						

 # # Cell Parameters # #

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
7	Li	Signal too low	☑
9	Be	0.101440	☑
23	Na	0.112796	☑
24	Mg	0.117198	☑
27	Al	0.119228	☑
39	K	0.120675	☑
45	Sc	0.122815	☑
51	V	0.122576	☑
55	Mn	0.128525	☑
56	Fe	0.119687	☑
59	Co	0.130829	☑
60	Ni	0.130806	☑
63	Cu	0.132826	☑
66	Zn	0.133351	☑
72	Ge	0.132860	☑
75	As	0.132467	☑
77	Se	Signal too low	☑
78	Se	Signal too low	☑
82	Se	Signal too low	☑
88	Sr	0.133916	☑
89	Y	0.132149	☑
95	Mo	0.132730	☑
100	Ru	0.133491	☑
101	Ru	0.135765	☑
102	Ru	0.134753	☑

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
104	Ru	0.134593	☑
105	Pd	0.136077	☑
106	Pd	0.135466	☑
111	Cd	0.136895	☑
114	Cd	0.137713	☑
115	In	0.138257	☑
118	Sn	0.136427	☑
121	Sb	0.137594	☑
137	Ba	0.135553	☑
175	Lu	0.140451	☑
193	Ir	0.139716	☑
205	Tl	0.140915	☑
208	Pb	0.141575	☑
209	Bi	0.141813	☑
232	Th	0.142279	☑
238	U	0.143100	☑

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
7	Li	Signal too low	☑
9	Be	0.101440	☑
23	Na	0.112796	☑
24	Mg	0.117198	☑
27	Al	0.119228	☑
39	K	0.120675	☑
45	Sc	0.122815	☑
51	V	0.122576	☑
55	Mn	0.128525	☑
56	Fe	0.119687	☑
59	Co	0.130829	☑
60	Ni	0.130806	☑
63	Cu	0.132826	☑
66	Zn	0.133351	☑
72	Ge	0.132860	☑
75	As	0.132467	☑
77	Se	Signal too low	☑
78	Se	Signal too low	☑
82	Se	Signal too low	☑
88	Sr	0.133916	☑
89	Y	0.132149	☑
95	Mo	0.132730	☑
100	Ru	0.133491	☑
101	Ru	0.135765	☑
102	Ru	0.134753	☑

Mass (Custom Setting)	Element Name	Current Value	Retain Mass for Startup
104	Ru	0.134593	☑
105	Pd	0.136077	☑
106	Pd	0.135466	☑
111	Cd	0.136895	☑
114	Cd	0.137713	☑
115	In	0.138257	☑
118	Sn	0.136427	☑
121	Sb	0.137594	☑
137	Ba	0.135553	☑
175	Lu	0.140451	☑
193	Ir	0.139716	☑
205	Tl	0.140915	☑
208	Pb	0.141575	☑
209	Bi	0.141813	☑
232	Th	0.142279	☑
238	U	0.143100	☑

Sample Report

Sample Name	RINSE-4884883
File Name	001SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:30:47 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4884883
File Name	002SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:34:12 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	PA
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4875024
File Name	003SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:37:38 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4875024
File Name	004SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:41:05 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	TUNE
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4896488
File Name	005SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:44:31 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4896488
File Name	006SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:47:57 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Sample Report

Sample Name	RINSE-4896488
File Name	007SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:51:24 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	IS
ISTD Ref FileName	---
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag

Calibration Blank Report

Sample Name	ICIS-4907385
File Name	008CALB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:54:50 PM
Sample Type	CalBlk
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	153492.09	ppb	0.42
Be	9	6	HMI H2	51.67	ppb	49.66
B	11	6	HMI H2	160.00	ppb	16.54
Se	78	72	HMI H2	102.67	ppb	17.57
Na	23	45	HMI He	24858.62	ppb	1.19
Mg	24	45	HMI He	290.01	ppb	15.80
Al	27	45	HMI He	96.67	ppb	23.89
K	39	45	HMI He	39797.89	ppb	2.45
Ca	44	45	HMI He	143.33	ppb	52.83
V	51	72	HMI He	3843.83	ppb	7.30
Cr	52	72	HMI He	396.68	ppb	22.87
Mn	55	72	HMI He	76.67	ppb	45.81
Fe	57	72	HMI He	113.33	ppb	13.48
Co	59	72	HMI He	6.67	ppb	86.60
Ni	60	72	HMI He	276.67	ppb	24.07
Cu	63	72	HMI He	2323.53	ppb	5.97
Zn	66	72	HMI He	1116.72	ppb	17.60
As	75	72	HMI He	42.48	ppb	30.73
Sr	88	45	HMI He	63.33	ppb	50.76
Zr	90	72	HMI He	133.33	ppb	37.00
Nb	93	72	HMI He	53.33	ppb	47.19
Mo	95	115	HMI He	73.33	ppb	56.77
Pd	105	115	HMI He	346.67	ppb	34.90
Ag	107	115	HMI He	16.67	ppb	91.65
Sn	120	115	HMI He	283.34	ppb	8.88
Sb	121	115	HMI He	23.33	ppb	137.77
Ba	137	115	HMI He	16.67	ppb	34.64
W	182	165	HMI He	1193.40	ppb	19.30
Pt	195	165	HMI He	150.00	ppb	37.12
Tl	205	165	HMI He	446.68	ppb	15.72
Pb	208	165	HMI He	6533.98	ppb	3.64
Th	232	165	HMI He	206.67	ppb	53.30
U	238	165	HMI He	66.67	ppb	17.32
Li	7	45	No Gas	12044235.52	ppb	0.90

Calibration Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD
Li-6 Internal Standard	6	HMI H2	1062943.79	1.19
Ge Internal Standard	72	HMI H2	20935857.45	1.14
Sc (IS)	45	HMI He	1372993.64	2.36
Ge Internal Standard	72	HMI He	1682864.38	1.58
In Internal standard	115	HMI He	4314093.05	0.66
Ho-165	165	HMI He	19709342.10	1.74
Sc IS)	45	No Gas	137813939.48	2.06

Calibration Standard Report

Sample Name	IC-4907386
File Name	009CALS.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 1:58:19 PM
Sample Type	CalStd
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	CPS	Units	CPS RSD
Li	7	45	HMI H2	586576.35	ppb	1.06
Be	9	6	HMI H2	56859.74	ppb	1.81
B	11	6	HMI H2	69455.42	ppb	2.76
Se	78	72	HMI H2	50945.57	ppb	2.99
Na	23	45	HMI He	3163712.70	ppb	0.59
Mg	24	45	HMI He	1379361.97	ppb	2.28
Al	27	45	HMI He	311664.37	ppb	1.15
K	39	45	HMI He	776522.42	ppb	1.56
Ca	44	45	HMI He	40954.11	ppb	0.43
V	51	72	HMI He	173929.76	ppb	0.41
Cr	52	72	HMI He	226257.21	ppb	2.71
Mn	55	72	HMI He	78539.68	ppb	2.88
Fe	57	72	HMI He	411760.59	ppb	2.08
Co	59	72	HMI He	410347.33	ppb	1.19
Ni	60	72	HMI He	117022.98	ppb	3.19
Cu	63	72	HMI He	323813.76	ppb	1.91
Zn	66	72	HMI He	43123.81	ppb	1.86
As	75	72	HMI He	30416.02	ppb	1.08
Sr	88	45	HMI He	74730.58	ppb	2.48
Zr	90	72	HMI He	1626.77	ppb	13.75
Nb	93	72	HMI He	1140796.00	ppb	0.58
Mo	95	115	HMI He	140239.88	ppb	0.92
Pd	105	115	HMI He	217271.45	ppb	0.71
Ag	107	115	HMI He	467214.25	ppb	2.98
Cd	111	115	HMI He	56113.65	ppb	1.91
Sn	120	115	HMI He	140688.23	ppb	2.10
Sb	121	115	HMI He	129782.14	ppb	0.99
Ba	137	115	HMI He	39651.24	ppb	1.39
W	182	165	HMI He	550537.22	ppb	1.49
Pt	195	165	HMI He	450862.89	ppb	1.33
Tl	205	165	HMI He	928109.97	ppb	1.75
Pb	208	165	HMI He	1217841.91	ppb	1.39
Th	232	165	HMI He	1310197.76	ppb	0.90
U	238	165	HMI He	1452134.00	ppb	2.03
Li	7	45	No Gas	45044064.73	ppb	1.86

Calibration Standard Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1019154.17	1.76	1062943.78666667	95.88	60	125	
Ge Internal Standard	72	HMI H2	20203644.57	2.26	20935857.45	96.5	60	125	
Sc (IS)	45	HMI He	1315144.59	2.05	1372993.64	95.79	60	125	
Ge Internal Standard	72	HMI He	1683725.41	1.04	1682864.37666667	100.05	60	125	
In Internal standard	115	HMI He	4123588.41	1.40	4314093.05	95.58	60	125	
Ho-165	165	HMI He	19856310.01	2.10	19709342.1	100.75	60	125	
Sc IS)	45	No Gas	130303064.87	0.69	137813939.48	94.55	60	120	

Initial Calibration Verification (ICV) Report

Sample Name	ICV-4907388
File Name	010_ICV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:01:43 PM
Sample Type	ICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	451.455	ppb	4.49	347373.10	40	1128.64	90	110	>+\-10%
Be	9	6	HMI H2	37.852	ppb	2.83	22570.00	40	94.63	90	110	
B	11	6	HMI H2	31.633	ppb	3.77	23132.74	40	79.08	90	110	>+\-10%
Se	78	72	HMI H2	39.069	ppb	1.01	19961.71	40	97.67	90	110	
Na	23	45	HMI He	4183.016	ppb	2.92	1347882.09	4000	104.58	90	110	
Mg	24	45	HMI He	3878.417	ppb	1.95	539321.81	4000	96.96	90	110	
Al	27	45	HMI He	7860.898	ppb	2.87	246930.48	4000	196.52	90	110	>+\-10%
K	39	45	HMI He	3902.817	ppb	0.22	328839.80	4000	97.57	90	110	
Ca	44	45	HMI He	3929.851	ppb	3.45	16304.94	4000	98.25	90	110	
V	51	72	HMI He	42.392	ppb	5.57	74826.21	40	105.98	90	110	
Cr	52	72	HMI He	40.869	ppb	4.13	91338.86	40	102.17	90	110	
Mn	55	72	HMI He	41.403	ppb	3.67	32095.00	40	103.51	90	110	
Fe	57	72	HMI He	8178.633	ppb	3.11	331974.52	4000	204.47	90	110	>+\-10%
Co	59	72	HMI He	41.005	ppb	2.95	165849.50	40	102.51	90	110	
Ni	60	72	HMI He	40.691	ppb	3.55	47118.04	40	101.73	90	110	
Cu	63	72	HMI He	42.952	ppb	3.99	138382.50	40	107.38	90	110	
Zn	66	72	HMI He	41.424	ppb	4.37	18253.74	40	103.56	90	110	
As	75	72	HMI He	39.434	ppb	4.65	11843.55	40	98.59	90	110	
Sr	88	45	HMI He	39.599	ppb	3.51	29858.28	40	99	90	110	
Zr	90	72	HMI He	13.598	ppb	75.64	333.34	40	33.99	90	110	>+\-10%
Nb	93	72	HMI He	79.265	ppb	1.81	445740.97	80	99.08	90	110	
Mo	95	115	HMI He	39.926	ppb	0.96	56597.33	40	99.82	90	110	
Pd	105	115	HMI He	40.154	ppb	2.09	88308.93	40	100.39	90	110	
Ag	107	115	HMI He	39.186	ppb	3.92	184841.90	40	97.97	90	110	
Cd	111	115	HMI He	38.994	ppb	4.46	22089.09	40	97.48	90	110	
Sn	120	115	HMI He	39.741	ppb	2.73	56619.60	40	99.35	90	110	
Sb	121	115	HMI He	40.430	ppb	3.97	52993.08	40	101.07	90	110	
Ba	137	115	HMI He	40.455	ppb	7.48	16195.43	40	101.14	90	110	
W	182	165	HMI He	80.627	ppb	3.69	430361.60	40	201.57	90	110	>+\-10%
Pt	195	165	HMI He	40.192	ppb	2.53	175775.36	40	100.48	90	110	
Tl	205	165	HMI He	41.138	ppb	2.28	370282.60	40	102.84	90	110	
Pb	208	165	HMI He	42.159	ppb	2.74	501380.73	40	105.4	90	110	
Th	232	165	HMI He	42.984	ppb	1.27	546151.22	40	107.46	90	110	
U	238	165	HMI He	40.759	ppb	1.73	573829.84	40	101.9	90	110	
Li	7	45	No Gas	451.586	ppb	2.94	27077160.05	40	1128.96	90	110	>+\-10%

Initial Calibration Verification (ICV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1067818.67	3.52	1062943.78666667	100.46	60	125	
Ge Internal Standard	72	HMI H2	20195400.41	1.37	20935857.45	96.46	60	125	
Sc (IS)	45	HMI He	1325227.15	0.20	1372993.64	96.52	60	125	
Ge Internal Standard	72	HMI He	1660151.62	2.66	1682864.37666667	98.65	60	125	
In Internal standard	115	HMI He	4165305.15	2.69	4314093.05	96.55	60	125	
Ho-165	165	HMI He	19248807.12	2.18	19709342.1	97.66	60	125	
Sc IS)	45	No Gas	132724596.41	1.91	137813939.48	96.31	60	120	

Initial Calibration Blank (ICB) Report

Sample Name	ICB-4907385
File Name	011_ICB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:05:53 PM
Sample Type	ICB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	11.551	ppb	59.22	157059.93	0.1	>RL
Be	9	6	HMI H2	-0.042	ppb	-76.69	26.67	0.5	
B	11	6	HMI H2	0.984	ppb	7.40	870.03	0.1	>RL
Se	78	72	HMI H2	0.070	ppb	80.55	138.67	1	
Na	23	45	HMI He	2.703	ppb	51.90	25763.22	25	
Mg	24	45	HMI He	0.313	ppb	263.87	336.67	25	
Al	27	45	HMI He	0.807	ppb	81.32	123.33	15	
K	39	45	HMI He	-6.884	ppb	-530.63	39283.33	50	
Ca	44	45	HMI He	-6.025	ppb	-55.92	116.67	25	
V	51	72	HMI He	0.613	ppb	12.98	5050.84	1	
Cr	52	72	HMI He	-0.019	ppb	-149.60	363.34	1	
Mn	55	72	HMI He	-0.019	ppb	-76.98	63.33	0.5	
Fe	57	72	HMI He	1.713	ppb	10.69	190.00	25	
Co	59	72	HMI He	0.007	ppb	85.33	36.67	0.5	
Ni	60	72	HMI He	0.039	ppb	140.61	333.34	1	
Cu	63	72	HMI He	0.055	ppb	81.72	2583.57	1	
Zn	66	72	HMI He	0.031	ppb	1225.97	1170.06	5	
As	75	72	HMI He	-0.001	ppb	-2644.98	43.79	1	
Sr	88	45	HMI He	-0.065	ppb	-22.93	13.33	1	
Zr	90	72	HMI He	-0.880	ppb	-377.46	123.33	1	
Nb	93	72	HMI He	0.445	ppb	8.54	2673.60	2	
Mo	95	115	HMI He	-0.002	ppb	-1156.48	70.00	0.5	
Pd	105	115	HMI He	-0.033	ppb	-27.69	270.01	1	
Ag	107	115	HMI He	0.008	ppb	37.55	56.67	1	
Cd	111	115	HMI He	0.012	ppb	86.60	6.67	0.5	
Sn	120	115	HMI He	0.052	ppb	161.67	356.68	1	
Sb	121	115	HMI He	0.299	ppb	6.19	426.68	1	
Ba	137	115	HMI He	-0.032	ppb	-44.72	3.33	0.5	
W	182	165	HMI He	0.061	ppb	45.30	1526.77	1	
Pt	195	165	HMI He	0.009	ppb	113.05	190.01	1	
Tl	205	165	HMI He	0.000	ppb	38636.42	446.68	0.1	
Pb	208	165	HMI He	-0.036	ppb	-78.62	6087.26	0.5	
Th	232	165	HMI He	0.028	ppb	36.81	566.69	1	
U	238	165	HMI He	0.004	ppb	121.70	116.67	0.5	
Li	7	45	No Gas	-0.475	ppb	-502.11	11979693.86	0.05	

Initial Calibration Blank (ICB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1061733.54	3.37	1062943.78666667	99.89	60	125	
Ge Internal Standard	72	HMI H2	20733521.84	1.82	20935857.45	99.03	60	125	
Sc (IS)	45	HMI He	1373938.53	1.89	1372993.64	100.07	60	125	
Ge Internal Standard	72	HMI He	1739183.05	1.28	1682864.37666667	103.35	60	125	
In Internal standard	115	HMI He	4290657.87	2.55	4314093.05	99.46	60	125	
Ho-165	165	HMI He	19675145.22	1.12	19709342.1	99.83	60	125	
Sc IS)	45	No Gas	137241026.18	1.02	137813939.48	99.58	60	120	

Low Level Initial Calibration Verification(LLICV) Report

Sample Name	ICVL-4907389
File Name	012LICV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:10:23 PM
Sample Type	LLICV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.855	ppb	12.43	556.68	1	85.51	70	130	
Se	78	72	HMI H2	4.942	ppb	1.83	2666.90	5	98.84	70	130	
Na	23	45	HMI He	42.326	ppb	6.25	39596.77	50	84.65	70	130	
Mg	24	45	HMI He	46.979	ppb	3.79	7208.31	50	93.96	70	130	
Al	27	45	HMI He	29.817	ppb	9.66	1090.06	30	99.39	70	130	
K	39	45	HMI He	85.415	ppb	2.42	47424.37	100	85.41	70	130	
Ca	44	45	HMI He	59.125	ppb	19.65	403.34	50	118.25	70	130	
V	51	72	HMI He	5.038	ppb	10.91	12671.69	5	100.75	70	130	
Cr	52	72	HMI He	2.033	ppb	8.60	5087.52	2	101.63	70	130	
Mn	55	72	HMI He	0.956	ppb	7.80	843.37	1	95.57	70	130	
Fe	57	72	HMI He	49.307	ppb	7.36	2190.18	50	98.61	70	130	
Co	59	72	HMI He	0.953	ppb	4.20	4000.54	1	95.34	70	130	
Ni	60	72	HMI He	2.007	ppb	16.08	2680.25	2	100.33	70	130	
Cu	63	72	HMI He	2.022	ppb	3.84	9012.62	2	101.12	70	130	
Zn	66	72	HMI He	10.713	ppb	8.68	5744.44	10	107.13	70	130	
As	75	72	HMI He	4.730	ppb	3.18	1510.53	5	94.6	70	130	
Sr	88	45	HMI He	0.914	ppb	12.73	793.37	1	91.4	70	130	
Zr	90	72	HMI He	8.398	ppb	29.83	263.34	0.5	1679.52	70	130	>+/-30%
Nb	93	72	HMI He	0.460	ppb	8.67	2740.27	2	23.02	70	130	>+/-30%
Mo	95	115	HMI He	1.871	ppb	9.50	2846.97	2	93.53	70	130	
Pd	105	115	HMI He	-0.028	ppb	-39.45	286.68	1	-2.77	70	130	>+/-30%
Ag	107	115	HMI He	4.793	ppb	0.93	23671.28	5	95.87	70	130	
Cd	111	115	HMI He	0.974	ppb	12.78	576.69	1	97.41	70	130	
Sn	120	115	HMI He	9.392	ppb	3.57	14209.94	10	93.92	70	130	
Sb	121	115	HMI He	2.010	ppb	5.35	2776.95	2	100.5	70	130	
Ba	137	115	HMI He	0.965	ppb	22.73	420.01	1	96.51	70	130	
W	182	165	HMI He	4.628	ppb	3.54	26877.79	1	462.81	70	130	>+/-30%
Pt	195	165	HMI He	0.026	ppb	47.28	270.01	1	2.58	70	130	>+/-30%
Tl	205	165	HMI He	0.980	ppb	6.89	9623.31	1	97.95	70	130	
Pb	208	165	HMI He	0.905	ppb	1.47	17711.16	1	90.47	70	130	
Th	232	165	HMI He	1.981	ppb	2.22	26410.96	2	99.06	70	130	
U	238	165	HMI He	1.008	ppb	2.88	14837.81	1	100.75	70	130	

QC ISTD Table

Low Level Initial Calibration Verification(LLICV) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1058894.24	2.43	1062943.78666667	99.62	60	125	
Ge Internal Standard	72	HMI H2	20621514.55	0.81	20935857.45	98.5	60	125	
Sc (IS)	45	HMI He	1403334.75	1.25	1372993.64	102.21	60	125	
Ge Internal Standard	72	HMI He	1719776.62	2.24	1682864.37666667	102.19	60	125	
In Internal standard	115	HMI He	4355235.62	1.99	4314093.05	100.95	60	125	
Ho-165	165	HMI He	20040712.08	0.64	19709342.1	101.68	60	125	
Sc IS)	45	No Gas	140132947.69	2.09	137813939.48	101.68	60	120	

CRI Report

Sample Name	CRI-4907390
File Name	013RLST.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:15:38 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.898	ppb	14.20	601.68	1	89.8	80	120	
Se	78	72	HMI H2	0.970	ppb	4.58	620.02	1	97	80	120	
Na	23	45	HMI He	88.118	ppb	7.85	54876.13	100	88.12	80	120	
Mg	24	45	HMI He	94.689	ppb	3.63	14219.50	100	94.69	80	120	
Al	27	45	HMI He	96.548	ppb	5.64	3307.04	100	96.55	80	120	
K	39	45	HMI He	124.489	ppb	32.17	50430.21	100	124.49	80	120	>+\-20%
Ca	44	45	HMI He	76.710	ppb	18.13	480.01	100	76.71	80	120	>+\-20%
V	51	72	HMI He	1.048	ppb	13.52	5937.81	1	104.77	80	120	
Cr	52	72	HMI He	1.041	ppb	5.62	2896.96	1	104.09	80	120	
Mn	55	72	HMI He	0.829	ppb	17.22	766.69	1	82.88	80	120	
Fe	57	72	HMI He	100.224	ppb	4.33	4470.66	100	100.22	80	120	
Co	59	72	HMI He	0.969	ppb	7.72	4200.60	1	96.9	80	120	
Ni	60	72	HMI He	0.981	ppb	8.76	1500.09	1	98.09	80	120	
Cu	63	72	HMI He	0.919	ppb	10.50	5567.67	1	91.91	80	120	
Zn	66	72	HMI He	1.015	ppb	30.88	1630.11	1	101.55	80	120	
As	75	72	HMI He	1.000	ppb	2.37	365.36	1	100.04	80	120	
Sr	88	45	HMI He	0.809	ppb	11.74	710.03	1	80.92	80	120	
Nb	93	72	HMI He	2.030	ppb	3.31	12268.21	2	101.5	80	120	
Mo	95	115	HMI He	0.937	ppb	19.56	1446.75	1	93.74	80	120	
Pd	105	115	HMI He	0.909	ppb	5.36	2416.88	1	90.95	80	120	
Ag	107	115	HMI He	0.963	ppb	1.42	4734.11	1	96.35	80	120	
Cd	111	115	HMI He	1.072	ppb	0.72	630.02	1	107.16	80	120	
Sn	120	115	HMI He	0.928	ppb	10.64	1646.78	1	92.84	80	120	
Sb	121	115	HMI He	0.985	ppb	12.93	1363.41	1	98.47	80	120	
Ba	137	115	HMI He	0.779	ppb	7.48	340.01	1	77.93	80	120	>+\-20%
W	182	165	HMI He	0.982	ppb	10.49	6569.89	1	98.15	80	120	
Pt	195	165	HMI He	0.966	ppb	2.78	4490.74	1	96.58	80	120	
Tl	205	165	HMI He	1.032	ppb	2.88	9983.47	1	103.19	80	120	
Pb	208	165	HMI He	0.897	ppb	4.28	17384.36	1	89.69	80	120	
Th	232	165	HMI He	0.915	ppb	6.87	12141.92	1	91.48	80	120	
U	238	165	HMI He	0.937	ppb	4.39	13619.89	1	93.7	80	120	
Li	7	45	No Gas	11.048	ppb	27.25	12358246.13	10	110.48	50	150	

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1097271.65	2.06	1062943.78666667	103.23	60	125	
Ge Internal Standard	72	HMI H2	21144696.40	0.23	20935857.45	101	60	125	
Sc (IS)	45	HMI He	1402372.28	2.05	1372993.64	102.14	60	125	
Ge Internal Standard	72	HMI He	1775655.02	0.06	1682864.37666667	105.51	60	125	
In Internal standard	115	HMI He	4320031.21	3.08	4314093.05	100.14	60	125	
Ho-165	165	HMI He	19782322.09	1.61	19709342.1	100.37	60	125	
Sc IS)	45	No Gas	136916531.19	0.86	137813939.48	99.35	60	120	

CRI Report

Sample Name	CRI-
File Name	014RLST.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:21:15 PM
Sample Type	CRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	-0.050	ppb	-26.72	21.67	1	-4.99	80	120	>+\-20%
Se	78	72	HMI H2	-0.013	ppb	-233.26	97.33	1	-1.29	80	120	>+\-20%
Na	23	45	HMI He	20.647	ppb	9.48	32374.65	100	20.65	80	120	>+\-20%
Mg	24	45	HMI He	1.269	ppb	28.82	483.35	100	1.27	80	120	>+\-20%
Al	27	45	HMI He	0.919	ppb	116.90	130.00	100	0.92	80	120	>+\-20%
K	39	45	HMI He	11.497	ppb	222.88	41635.88	100	11.5	80	120	>+\-20%
Ca	44	45	HMI He	12.624	ppb	106.91	200.00	100	12.62	80	120	>+\-20%
V	51	72	HMI He	-0.143	ppb	-123.34	3793.83	1	-14.32	80	120	>+\-20%
Cr	52	72	HMI He	-0.027	ppb	-69.16	353.34	1	-2.67	80	120	>+\-20%
Mn	55	72	HMI He	0.112	ppb	96.52	173.34	1	11.22	80	120	>+\-20%
Fe	57	72	HMI He	0.478	ppb	142.09	140.00	100	0.48	80	120	>+\-20%
Co	59	72	HMI He	0.006	ppb	115.88	33.33	1	0.61	80	120	>+\-20%
Ni	60	72	HMI He	0.039	ppb	164.00	340.01	1	3.92	80	120	>+\-20%
Cu	63	72	HMI He	0.269	ppb	20.99	3353.72	1	26.85	80	120	>+\-20%
Zn	66	72	HMI He	2.143	ppb	26.57	2123.50	1	214.26	80	120	>+\-20%
As	75	72	HMI He	-0.009	ppb	-496.03	41.83	1	-0.91	80	120	>+\-20%
Sr	88	45	HMI He	-0.036	ppb	-54.83	36.67	1	-3.55	80	120	>+\-20%
Nb	93	72	HMI He	0.040	ppb	40.66	296.67	2	2	80	120	>+\-20%
Mo	95	115	HMI He	-0.005	ppb	-204.41	66.67	1	-0.51	80	120	>+\-20%
Pd	105	115	HMI He	-0.079	ppb	-18.46	170.00	1	-7.9	80	120	>+\-20%
Ag	107	115	HMI He	0.003	ppb	253.77	33.33	1	0.33	80	120	>+\-20%
Cd	111	115	HMI He	0.017	ppb	100.90	10.00	1	1.69	80	120	>+\-20%
Sn	120	115	HMI He	0.230	ppb	42.86	630.03	1	22.96	80	120	>+\-20%
Sb	121	115	HMI He	0.036	ppb	65.32	73.33	1	3.62	80	120	>+\-20%
Ba	137	115	HMI He	1.134	ppb	14.46	493.35	1	113.45	80	120	
W	182	165	HMI He	0.039	ppb	69.24	1403.42	1	3.93	80	120	>+\-20%
Pt	195	165	HMI He	0.005	ppb	161.64	173.33	1	0.53	80	120	>+\-20%
Tl	205	165	HMI He	-0.020	ppb	-27.80	256.67	1	-2.04	80	120	>+\-20%
Pb	208	165	HMI He	0.001	ppb	2235.48	6520.67	1	0.13	80	120	>+\-20%
Th	232	165	HMI He	0.010	ppb	42.82	343.34	1	1.05	80	120	>+\-20%
U	238	165	HMI He	0.000	ppb	267.02	70.00	1	0.02	80	120	>+\-20%
Li	7	45	No Gas	-0.155	ppb	-4636.03	12141023.01	10	-1.55	50	150	>+\-20%

QC ISTD Table

CRI Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1051261.44	1.18	1062943.78666667	98.9	60	125	
Ge Internal Standard	72	HMI H2	21194542.65	3.79	20935857.45	101.24	60	125	
Sc (IS)	45	HMI He	1405084.76	1.55	1372993.64	102.34	60	125	
Ge Internal Standard	72	HMI He	1771147.10	1.17	1682864.37666667	105.25	60	125	
In Internal standard	115	HMI He	4371407.20	1.38	4314093.05	101.33	60	125	
Ho-165	165	HMI He	19625438.14	2.74	19709342.1	99.57	60	125	
Sc IS)	45	No Gas	138962111.09	0.57	137813939.48	100.83	60	120	

CRI Report

Sample Name	CRI4907391
File Name	015_CRI.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:29:35 PM
Sample Type	AFCRI
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.059	ppb	120.89	88.33	0.2	29.6	80	120	AFCRI Main CR1 Failed
Mg	24	45	HMI H2	21.786	ppb	0.57	108059.49	20	108.93	80	120	
Se	78	72	HMI H2	0.190	ppb	33.46	202.67	0.2	95.02	80	120	
(Se)	82	72	HMI H2	-0.804	ppb	-37.24	420.01	0.2	-402.16	80	120	AFCRI Main CR1 Failed
Na	23	45	HMI He	21.793	ppb	6.68	33182.79	20	108.96	80	120	
Mg	24	45	HMI He	20.919	ppb	9.58	3423.72	20	104.59	80	120	
Al	27	45	HMI He	23.626	ppb	16.34	896.70	20	118.13	80	120	
K	39	45	HMI He	53.024	ppb	70.55	45502.74	20	265.12	80	120	AFCRI Main CR1 Failed
Ca	44	45	HMI He	11.105	ppb	62.56	196.67	20	55.52	80	120	AFCRI Main CR1 Failed
V	51	72	HMI He	0.109	ppb	170.42	4307.29	0.2	54.6	80	120	AFCRI Main CR1 Failed
Cr	52	72	HMI He	0.200	ppb	32.96	903.37	0.2	100	80	120	
(Cr)	53	72	HMI He	0.285	ppb	305.66	1813.46	0.2	142.32	80	120	AFCRI Main CR1 Failed
Mn	55	72	HMI He	0.245	ppb	10.43	286.68	0.2	122.47	80	120	AFCRI Main CR1 Failed
Fe	57	72	HMI He	21.033	ppb	14.46	1046.72	20	105.17	80	120	
Co	59	72	HMI He	0.224	ppb	17.77	990.04	0.2	112.01	80	120	
Ni	60	72	HMI He	0.418	ppb	17.14	816.70	0.2	209.02	80	120	AFCRI Main CR1 Failed
Cu	63	72	HMI He	0.317	ppb	5.28	3567.10	0.2	158.34	80	120	AFCRI Main CR1 Failed
Zn	66	72	HMI He	1.580	ppb	32.14	1900.13	0.2	789.79	80	120	AFCRI Main CR1 Failed
As	75	72	HMI He	0.214	ppb	28.93	114.38	0.2	106.77	80	120	
Sr	88	45	HMI He	0.199	ppb	31.70	226.67	0.2	99.62	80	120	
Nb	93	72	HMI He	0.401	ppb	10.56	2496.89	0.4	100.13	80	120	
Mo	95	115	HMI He	0.354	ppb	14.40	606.69	0.2	177.11	80	120	AFCRI Main CR1 Failed
Pd	105	115	HMI He	0.075	ppb	29.14	530.02	0.2	37.58	80	120	AFCRI Main CR1 Failed
Ag	107	115	HMI He	0.208	ppb	9.40	1056.72	0.2	103.86	80	120	
Cd	111	115	HMI He	0.145	ppb	58.91	86.67	0.2	72.29	80	120	AFCRI Main CR1 Failed
(Cd)	114	115	HMI He	0.222	ppb	4.20	343.34	0.2	110.87	80	120	
Sn	120	115	HMI He	0.186	ppb	17.30	570.02	0.2	93.02	80	120	
Sb	121	115	HMI He	0.259	ppb	20.77	383.34	0.2	129.45	80	120	AFCRI Main CR1 Failed
Ba	137	115	HMI He	0.290	ppb	1.06	140.00	0.2	144.82	80	120	AFCRI Main CR1 Failed
W	182	165	HMI He	0.202	ppb	10.18	2386.89	0.2	101.03	80	120	
Pt	195	165	HMI He	0.189	ppb	13.70	1036.72	0.2	94.73	80	120	
Tl	205	165	HMI He	0.159	ppb	5.27	1990.16	0.2	79.75	80	120	AFCRI Main CR1 Failed
(Pb)	206	165	HMI He	-0.049	ppb	-54.69	1623.45	0.2	-24.27	80	120	AFCRI Main CR1 Failed
(Pb)	207	165	HMI He	0.117	ppb	24.08	1796.80	0.2	58.34	80	120	AFCRI Main CR1 Failed
Pb	208	165	HMI He	0.061	ppb	43.63	7554.21	0.2	30.64	80	120	AFCRI Main CR1 Failed

CRI Report

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Th	232	165	HMI He	0.184	ppb	5.42	2706.96	0.2	92.21	80	120	
U	238	165	HMI He	0.182	ppb	8.94	2796.96	0.2	91.07	80	120	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1084084.03	3.24	1062943.78666667	101.99	60	125	
Ge Internal Standard	72	HMI H2	20911597.87	0.47	20935857.45	99.88	60	125	
Sc (IS)	45	HMI He	1423441.42	0.95	1372993.64	103.67	60	125	
Ge Internal Standard	72	HMI He	1796586.48	2.16	1682864.37666667	106.76	60	125	
In Internal standard	115	HMI He	4416555.83	0.93	4314093.05	102.38	60	125	
Ho-165	165	HMI He	20471528.31	0.91	19709342.1	103.87	60	125	
Sc IS)	45	No Gas	141682120.94	0.99	137813939.48	102.81	60	120	

Interference Check Solution A (ICS-A) Report

Sample Name	ICSA-4905066
File Name	016ICSA.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:33:02 PM
Sample Type	ICSA
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	6.358	ppb	190.59	147625.19			100	
Be	9	6	HMI H2	-0.064	ppb	-8.62	13.33			100	
B	11	6	HMI H2	0.261	ppb	27.74	340.01			100	
Se	78	72	HMI H2	0.023	ppb	351.44	105.33			100	
V	51	72	HMI He	-0.251	ppb	-22.84	3223.70			100	
Cr	52	72	HMI He	1.324	ppb	7.88	3193.68			100	>RL or LOD
Mn	55	72	HMI He	0.312	ppb	14.08	303.34			100	
Co	59	72	HMI He	0.003	ppb	126.83	20.00			100	
Ni	60	72	HMI He	0.155	ppb	121.07	433.35			100	
Cu	63	72	HMI He	0.487	ppb	9.73	3663.79			100	
Zn	66	72	HMI He	1.045	ppb	29.41	1466.76			100	>RL or LOD
As	75	72	HMI He	0.088	ppb	15.55	65.36			100	
Sr	88	45	HMI He	0.582	ppb	15.82	473.34			100	
Nb	93	72	HMI He	0.045	ppb	19.97	290.01			100	
Mo	95	115	HMI He	1969.227	ppb	1.24	2633626.55			100	
Pd	105	115	HMI He	-0.098	ppb	-5.53	113.33			100	
Ag	107	115	HMI He	0.025	ppb	53.11	126.67			100	
Cd	111	115	HMI He	0.255	ppb	37.02	136.67			100	
Sn	120	115	HMI He	0.051	ppb	96.94	326.68			100	
Sb	121	115	HMI He	0.056	ppb	15.57	90.00			100	
Ba	137	115	HMI He	0.145	ppb	53.81	70.00			100	
W	182	165	HMI He	0.229	ppb	9.15	2320.21			100	
Pt	195	165	HMI He	-0.001	ppb	-764.06	136.67			100	
Tl	205	165	HMI He	-0.019	ppb	-53.73	260.01			100	
Pb	208	165	HMI He	0.228	ppb	19.32	8814.51			100	
Th	232	165	HMI He	0.018	ppb	41.19	416.68			100	
U	238	165	HMI He	0.012	ppb	20.39	230.01			100	
Li	7	45	No Gas	-7.511	ppb	-118.15	11030283.59			100	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1036426.68	2.90	1062943.78666667	97.51	60	125	
Ge Internal Standard	72	HMI H2	19271514.83	0.87	20935857.45	92.05	60	125	

Interference Check Solution A (ICS-A) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc (IS)	45	HMI He	1256465.05	0.76	1372993.64	91.51	60	125	
Ge Internal Standard	72	HMI He	1585783.28	3.06	1682864.37666667	94.23	60	125	
In Internal standard	115	HMI He	3934051.98	0.88	4314093.05	91.19	60	125	
Ho-165	165	HMI He	18713602.98	0.61	19709342.1	94.95	60	125	
Sc IS)	45	No Gas	129037379.10	1.47	137813939.48	93.63	60	120	

Interference Check Solution AB (ICS-AB) Report

Sample Name	ICSAB-4905067
File Name	017ICSB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:36:26 PM
Sample Type	ICSB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	913.870	ppb	8.11	527974.20	100	80	120	
Be	9	6	HMI H2	89.959	ppb	0.49	50321.02	100	80	120	
B	11	6	HMI H2	67.161	ppb	5.94	45868.95	100	80	120	>+\-20%
Se	78	72	HMI H2	96.033	ppb	1.54	46715.51	100	80	120	
V	51	72	HMI He	97.540	ppb	2.65	160152.89	100	80	120	
Cr	52	72	HMI He	97.623	ppb	1.64	208386.75	100	80	120	
Mn	55	72	HMI He	95.945	ppb	0.18	71113.95	100	80	120	
Co	59	72	HMI He	94.944	ppb	1.19	367609.02	100	80	120	
Ni	60	72	HMI He	95.065	ppb	2.51	104999.11	100	80	120	
Cu	63	72	HMI He	96.488	ppb	0.77	294906.09	100	80	120	
Zn	66	72	HMI He	93.570	ppb	2.55	38141.60	100	80	120	
As	75	72	HMI He	97.665	ppb	1.00	28029.40	100	80	120	
Sr	88	45	HMI He	95.820	ppb	5.63	67843.65	100	80	120	
Zr	90	72	HMI He	8.612	ppb	38.71	246.67	100	80	120	>+\-20%
Nb	93	72	HMI He	153.081	ppb	2.28	823881.62	100	80	120	>+\-20%
Mo	95	115	HMI He	2047.281	ppb	2.34	2738392.85	100	80	120	>+\-20%
Pd	105	115	HMI He	90.951	ppb	0.69	188595.48	100	80	120	
Ag	107	115	HMI He	92.892	ppb	2.47	414094.01	100	80	120	
Cd	111	115	HMI He	97.528	ppb	2.14	52223.56	100	80	120	
Sn	120	115	HMI He	90.945	ppb	0.20	122107.58	100	80	120	
Sb	121	115	HMI He	98.676	ppb	1.87	122201.70	100	80	120	
Ba	137	115	HMI He	99.192	ppb	2.66	37525.89	100	80	120	
W	182	165	HMI He	95.940	ppb	1.09	500765.48	100	80	120	
Pt	195	165	HMI He	92.419	ppb	1.96	395099.36	100	80	120	
Tl	205	165	HMI He	94.047	ppb	1.53	827294.43	100	80	120	
Pb	208	165	HMI He	95.131	ppb	2.81	1098332.66	100	80	120	
Th	232	165	HMI He	97.821	ppb	2.30	1214770.07	100	80	120	
U	238	165	HMI He	95.857	ppb	3.80	1319065.45	100	80	120	
Li	7	45	No Gas	880.214	ppb	1.20	39928440.00	100	80	120	

QC ISTD Table

Interference Check Solution AB (ICS-AB) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1002593.06	5.24	1062943.78666667	94.32	60	125	
Ge Internal Standard	72	HMI H2	19283650.87	0.19	20935857.45	92.11	60	125	
Sc (IS)	45	HMI He	1247585.14	3.65	1372993.64	90.87	60	125	
Ge Internal Standard	72	HMI He	1588516.58	0.51	1682864.37666667	94.39	60	125	
In Internal standard	115	HMI He	3934182.89	0.45	4314093.05	91.19	60	125	
Ho-165	165	HMI He	18821911.52	2.15	19709342.1	95.5	60	125	
Sc IS)	45	No Gas	126872751.72	1.20	137813939.48	92.06	60	120	

Sample Report

Sample Name	RINSE
File Name	018SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:39:50 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.019	ppb	-90.49	40.00	2000	
B	11	6	HMI H2	0.928	ppb	12.68	833.37	100	
Se	78	72	HMI H2	0.215	ppb	31.11	218.67	2000	
Na	23	45	HMI He	66.790	ppb	9.87	46714.99	400000	
Mg	24	45	HMI He	27.321	ppb	14.71	4220.60	400000	
Al	27	45	HMI He	25.836	ppb	4.87	936.71	400000	
K	39	45	HMI He	44.591	ppb	65.88	43206.61	400000	
Ca	44	45	HMI He	17.526	ppb	114.19	216.67	400000	
V	51	72	HMI He	0.067	ppb	274.47	4127.25	2000	
Cr	52	72	HMI He	0.026	ppb	159.11	473.35	5000	
Mn	55	72	HMI He	0.094	ppb	16.47	156.67	10000	
Fe	57	72	HMI He	33.399	ppb	17.69	1550.10	400000	
Co	59	72	HMI He	0.024	ppb	8.67	110.00	2000	
Ni	60	72	HMI He	0.045	ppb	123.98	343.34	5000	
Cu	63	72	HMI He	0.209	ppb	14.90	3123.68	5000	
Zn	66	72	HMI He	0.122	ppb	118.18	1220.06	5000	
As	75	72	HMI He	0.027	ppb	197.64	52.94	2000	
Sr	88	45	HMI He	0.000	ppb	-10394.87	63.33	2000	
Zr	90	72	HMI He	-2.263	ppb	-100.47	103.33	1000	
Nb	93	72	HMI He	0.509	ppb	2.31	3080.34	200	
Mo	95	115	HMI He	1.236	ppb	20.58	1850.13	2000	
Pd	105	115	HMI He	-0.033	ppb	-186.95	266.67	100	
Ag	107	115	HMI He	0.030	ppb	31.89	160.00	100	
Cd	111	115	HMI He	0.017	ppb	99.38	10.00	2000	
Sn	120	115	HMI He	0.054	ppb	33.74	356.68	2000	
Sb	121	115	HMI He	0.026	ppb	105.37	56.67	1000	
Ba	137	115	HMI He	0.058	ppb	2.21	40.00	5000	
W	182	165	HMI He	0.066	ppb	66.21	1520.10	100	
Pt	195	165	HMI He	0.022	ppb	77.05	243.34	100	
Tl	205	165	HMI He	0.028	ppb	16.76	690.02	2000	
Pb	208	165	HMI He	-0.051	ppb	-64.07	5787.20	5000	
Th	232	165	HMI He	0.037	ppb	7.53	673.36	2000	
U	238	165	HMI He	0.032	ppb	8.27	516.68	2000	
Li	7	45	No Gas	-3.897	ppb	-43.77	11961526.98	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1065370.34	1.44	1062943.78666667	100.23	60	125	
Ge Internal Standard	72	HMI H2	21198067.02	1.30	20935857.45	101.25	60	125	
Sc (IS)	45	HMI He	1371570.11	0.46	1372993.64	99.9	60	125	
Ge Internal Standard	72	HMI He	1754922.47	1.17	1682864.37666667	104.28	60	125	
In Internal standard	115	HMI He	4236377.93	1.30	4314093.05	98.2	60	125	
Ho-165	165	HMI He	19235884.83	1.19	19709342.1	97.6	60	125	
Sc IS)	45	No Gas	138445087.78	1.36	137813939.48	100.46	60	120	

Linear Range Sample (LRS) Report

Sample Name	LRA-4861752
File Name	019_LR.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:43:16 PM
Sample Type	LR
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	2023.590	ppb	4.32	1133980.32	2000	101.18	90	110	
Se	78	72	HMI H2	1981.796	ppb	1.79	994418.20	2000	99.09	90	110	
(Se)	82	72	HMI H2	1837.302	ppb	2.59	411402.45	2000	91.87	90	110	
V	51	72	HMI He	2033.070	ppb	1.50	3304663.26	2000	101.65	90	110	
Cr	52	72	HMI He	5085.249	ppb	0.28	10963632.14	5000	101.7	90	110	
(Cr)	53	72	HMI He	5155.149	ppb	0.94	1395180.29	5000	103.1	90	110	
Mn	55	72	HMI He	10321.665	ppb	2.38	7732103.87	10000	103.22	90	110	
Co	59	72	HMI He	2083.070	ppb	0.99	8159501.97	2000	104.15	90	110	
Ni	60	72	HMI He	5066.913	ppb	1.08	5648246.11	5000	101.34	90	110	
Cu	63	72	HMI He	5137.957	ppb	0.99	15771978.86	5000	102.76	90	110	
Zn	66	72	HMI He	5225.757	ppb	3.15	2096801.70	5000	104.52	90	110	
As	75	72	HMI He	1931.450	ppb	0.83	560077.88	2000	96.57	90	110	
Sr	88	45	HMI He	0.140	ppb	31.15	160.00	2000	0.01	90	110	LRS Main CR1 Failed
Mo	95	115	HMI He	2028.881	ppb	3.41	2829295.42	2000	101.44	90	110	
Cd	111	115	HMI He	1988.734	ppb	1.35	1110568.26	2000	99.44	90	110	
(Cd)	114	115	HMI He	2055.630	ppb	1.33	2869360.74	2000	102.78	90	110	
Sn	120	115	HMI He	1977.080	ppb	1.27	2762803.81	2000	98.85	90	110	
Sb	121	115	HMI He	989.315	ppb	2.78	1277427.07	1000	98.93	90	110	
Ba	137	115	HMI He	4971.619	ppb	1.16	1961006.27	5000	99.43	90	110	
Tl	205	165	HMI He	1041.257	ppb	2.59	9281574.41	1000	104.13	90	110	
(Pb)	206	165	HMI He	5132.732	ppb	2.46	14443772.69	5000	102.65	90	110	
(Pb)	207	165	HMI He	5221.056	ppb	1.95	13371374.10	5000	104.42	90	110	
Pb	208	165	HMI He	5175.669	ppb	1.28	60253346.34	5000	103.51	90	110	
Th	232	165	HMI He	1057.150	ppb	2.66	13309933.99	1000	105.72	90	110	
U	238	165	HMI He	2035.666	ppb	3.19	28409496.43	2000	101.78	90	110	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1006720.61	6.62	1062943.78666667	94.71	60	125	
Ge Internal Standard	72	HMI H2	19936375.00	2.84	20935857.45	95.23	60	125	
Sc (IS)	45	HMI He	1274126.67	1.14	1372993.64	92.8	60	125	
Ge Internal Standard	72	HMI He	1607157.51	0.18	1682864.37666667	95.5	60	125	
In Internal standard	115	HMI He	4103617.98	2.00	4314093.05	95.12	60	125	
Ho-165	165	HMI He	19077714.63	0.70	19709342.1	96.8	60	125	

Linear Range Sample (LRS) Report

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Sc IS)	45	No Gas	130040209.88	2.56	137813939.48	94.36	60	120	

Sample Report

Sample Name	RINSE
File Name	020SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:46:38 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.842	ppb	14.65	555.01	2000	
B	11	6	HMI H2	0.278	ppb	30.39	363.34	100	
Se	78	72	HMI H2	1.050	ppb	6.69	616.02	2000	
Na	23	45	HMI He	3.465	ppb	34.32	23613.36	400000	
Mg	24	45	HMI He	0.079	ppb	412.32	273.34	400000	
Al	27	45	HMI He	1.437	ppb	152.10	130.00	400000	
K	39	45	HMI He	18.434	ppb	85.69	37449.00	400000	
Ca	44	45	HMI He	-16.259	ppb	-85.66	66.67	400000	
V	51	72	HMI He	-0.254	ppb	-49.39	3330.38	2000	
Cr	52	72	HMI He	0.855	ppb	12.09	2263.52	5000	
Mn	55	72	HMI He	1.649	ppb	12.31	1333.41	10000	
Fe	57	72	HMI He	0.490	ppb	103.80	130.00	400000	
Co	59	72	HMI He	0.332	ppb	21.20	1330.07	2000	
Ni	60	72	HMI He	0.810	ppb	11.36	1190.07	5000	
Cu	63	72	HMI He	0.971	ppb	21.49	5297.59	5000	
Zn	66	72	HMI He	1.329	ppb	7.62	1633.44	5000	
As	75	72	HMI He	0.289	ppb	20.99	126.80	2000	
Sr	88	45	HMI He	-0.035	ppb	-60.16	33.33	2000	
Zr	90	72	HMI He	1.018	ppb	548.51	143.33	1000	
Nb	93	72	HMI He	0.066	ppb	10.53	416.68	200	
Mo	95	115	HMI He	1.030	ppb	12.08	1476.76	2000	
Pd	105	115	HMI He	-0.075	ppb	-32.09	166.67	100	
Ag	107	115	HMI He	0.002	ppb	194.09	23.33	100	
Cd	111	115	HMI He	0.424	ppb	28.49	230.00	2000	
Sn	120	115	HMI He	0.709	ppb	29.36	1226.73	2000	
Sb	121	115	HMI He	3.402	ppb	10.89	4327.32	1000	
Ba	137	115	HMI He	0.721	ppb	63.22	290.01	5000	
W	182	165	HMI He	0.003	ppb	576.53	1166.73	100	
Pt	195	165	HMI He	0.009	ppb	108.30	183.33	100	
Tl	205	165	HMI He	0.253	ppb	2.22	2676.95	2000	
Pb	208	165	HMI He	0.784	ppb	10.49	15373.36	5000	
Th	232	165	HMI He	0.295	ppb	9.35	3890.59	2000	
U	238	165	HMI He	0.320	ppb	18.73	4504.12	2000	
Li	7	45	No Gas	1.801	ppb	281.37	11654781.37	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1073119.12	3.99	1062943.78666667	100.96	60	125	
Ge Internal Standard	72	HMI H2	19644183.56	1.82	20935857.45	93.83	60	125	
Sc (IS)	45	HMI He	1246942.51	1.43	1372993.64	90.82	60	125	
Ge Internal Standard	72	HMI He	1640270.46	2.00	1682864.37666667	97.47	60	125	
In Internal standard	115	HMI He	4026643.64	5.06	4314093.05	93.34	60	125	
Ho-165	165	HMI He	18982035.05	1.32	19709342.1	96.31	60	125	
Sc IS)	45	No Gas	132636339.75	0.62	137813939.48	96.24	60	120	

Sample Report

Sample Name	RINSE
File Name	021SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:50:04 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.061	ppb	53.64	86.67	2000	
B	11	6	HMI H2	0.120	ppb	124.97	243.34	100	
Se	78	72	HMI H2	0.168	ppb	67.77	182.67	2000	
Na	23	45	HMI He	-4.272	ppb	-66.79	22511.90	400000	
Mg	24	45	HMI He	1.149	ppb	57.88	436.68	400000	
Al	27	45	HMI He	0.326	ppb	344.27	103.33	400000	
K	39	45	HMI He	-16.456	ppb	-69.29	36984.73	400000	
Ca	44	45	HMI He	4.121	ppb	65.56	153.33	400000	
V	51	72	HMI He	-0.486	ppb	-38.61	2963.63	2000	
Cr	52	72	HMI He	0.040	ppb	64.52	476.68	5000	
Mn	55	72	HMI He	0.084	ppb	66.61	140.00	10000	
Fe	57	72	HMI He	1.286	ppb	95.73	163.33	400000	
Co	59	72	HMI He	0.022	ppb	36.80	93.33	2000	
Ni	60	72	HMI He	0.019	ppb	67.15	293.34	5000	
Cu	63	72	HMI He	0.013	ppb	613.11	2323.53	5000	
Zn	66	72	HMI He	0.935	ppb	3.77	1483.43	5000	
As	75	72	HMI He	0.040	ppb	149.11	53.60	2000	
Sr	88	45	HMI He	-0.050	ppb	-40.23	23.33	2000	
Zr	90	72	HMI He	0.428	ppb	409.65	136.67	1000	
Nb	93	72	HMI He	0.060	ppb	34.68	386.68	200	
Mo	95	115	HMI He	0.215	ppb	25.96	363.34	2000	
Pd	105	115	HMI He	-0.077	ppb	-12.23	160.00	100	
Ag	107	115	HMI He	0.000	ppb	-290.44	13.33	100	
Cd	111	115	HMI He	0.042	ppb	88.42	23.33	2000	
Sn	120	115	HMI He	0.135	ppb	51.77	450.01	2000	
Sb	121	115	HMI He	0.896	ppb	17.07	1160.06	1000	
Ba	137	115	HMI He	0.053	ppb	108.87	36.67	5000	
W	182	165	HMI He	-0.006	ppb	-592.15	1130.06	100	
Pt	195	165	HMI He	-0.001	ppb	-820.38	143.33	100	
Tl	205	165	HMI He	0.034	ppb	25.34	740.03	2000	
Pb	208	165	HMI He	-0.050	ppb	-28.48	5767.17	5000	
Th	232	165	HMI He	0.069	ppb	5.85	1070.05	2000	
U	238	165	HMI He	0.021	ppb	39.10	353.35	2000	
Li	7	45	No Gas	13.595	ppb	15.01	11854645.32	40000	

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1050650.02	1.48	1062943.78666667	98.84	60	125	
Ge Internal Standard	72	HMI H2	19938233.34	1.11	20935857.45	95.23	60	125	
Sc (IS)	45	HMI He	1317435.69	0.38	1372993.64	95.95	60	125	
Ge Internal Standard	72	HMI He	1652196.64	0.42	1682864.37666667	98.18	60	125	
In Internal standard	115	HMI He	4045955.95	2.54	4314093.05	93.78	60	125	
Ho-165	165	HMI He	19145906.71	1.20	19709342.1	97.14	60	125	
Sc IS)	45	No Gas	130393923.20	1.68	137813939.48	94.62	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4907387
File Name	022_CCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:53:29 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	503.828	ppb	9.58	369989.64	500	100.77	90	110	
Be	9	6	HMI H2	47.104	ppb	3.03	27403.96	50	94.21	90	110	
B	11	6	HMI H2	43.354	ppb	3.83	30868.41	50	86.71	90	110	>+\-10%
Se	78	72	HMI H2	49.536	ppb	1.50	24980.72	50	99.07	90	110	
Na	23	45	HMI He	4979.562	ppb	3.84	1595518.32	5000	99.59	90	110	
Mg	24	45	HMI He	4775.382	ppb	3.61	662160.20	5000	95.51	90	110	
Al	27	45	HMI He	4720.966	ppb	6.54	147857.68	5000	94.42	90	110	
K	39	45	HMI He	4823.311	ppb	4.52	396229.10	5000	96.47	90	110	
Ca	44	45	HMI He	4783.128	ppb	5.79	19755.34	5000	95.66	90	110	
V	51	72	HMI He	48.385	ppb	9.76	85877.50	50	96.77	90	110	
Cr	52	72	HMI He	48.620	ppb	3.99	109979.12	50	97.24	90	110	
Mn	55	72	HMI He	48.402	ppb	5.01	37977.56	50	96.8	90	110	
Fe	57	72	HMI He	4909.419	ppb	5.51	201730.42	5000	98.19	90	110	
Co	59	72	HMI He	48.691	ppb	7.38	199254.63	50	97.38	90	110	
Ni	60	72	HMI He	48.769	ppb	8.51	57059.56	50	97.54	90	110	
Cu	63	72	HMI He	48.294	ppb	5.28	157249.69	50	96.59	90	110	
Zn	66	72	HMI He	48.860	ppb	7.51	21587.88	50	97.72	90	110	
As	75	72	HMI He	48.329	ppb	6.00	14686.41	50	96.66	90	110	
Sr	88	45	HMI He	48.768	ppb	4.13	36655.61	50	97.54	90	110	
Zr	90	72	HMI He	42.194	ppb	19.20	763.36	50	84.39	90	110	>+\-10%
Nb	93	72	HMI He	94.725	ppb	4.55	539250.57	100	94.72	90	110	
Mo	95	115	HMI He	47.749	ppb	4.64	66840.41	50	95.5	90	110	
Pd	105	115	HMI He	48.740	ppb	3.66	105816.32	50	97.48	90	110	
Ag	107	115	HMI He	49.538	ppb	5.70	230862.68	50	99.08	90	110	
Cd	111	115	HMI He	47.692	ppb	5.25	26696.31	50	95.38	90	110	
Sn	120	115	HMI He	48.042	ppb	2.99	67575.86	50	96.08	90	110	
Sb	121	115	HMI He	48.034	ppb	3.41	62203.65	50	96.07	90	110	
Ba	137	115	HMI He	49.714	ppb	7.29	19662.74	50	99.43	90	110	
W	182	165	HMI He	48.423	ppb	5.37	266910.92	50	96.85	90	110	
Pt	195	165	HMI He	47.759	ppb	6.71	215163.34	50	95.52	90	110	
Tl	205	165	HMI He	48.471	ppb	5.18	449562.45	50	96.94	90	110	
Pb	208	165	HMI He	49.125	ppb	6.76	600793.94	50	98.25	90	110	
Th	232	165	HMI He	49.129	ppb	8.77	642590.05	50	98.26	90	110	
U	238	165	HMI He	47.246	ppb	7.81	684989.40	50	94.49	90	110	
Li	7	45	No Gas	487.552	ppb	1.54	28179712.70	500	97.51	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1042418.96	4.81	1062943.78666667	98.07	60	125	
Ge Internal Standard	72	HMI H2	19953306.67	1.59	20935857.45	95.31	60	125	
Sc (IS)	45	HMI He	1322381.13	2.42	1372993.64	96.31	60	125	
Ge Internal Standard	72	HMI He	1681684.30	3.29	1682864.37666667	99.93	60	125	
In Internal standard	115	HMI He	4114179.86	1.94	4314093.05	95.37	60	125	
Ho-165	165	HMI He	19854155.42	3.39	19709342.1	100.73	60	125	
Sc IS)	45	No Gas	132116181.44	2.30	137813939.48	95.87	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4907385
File Name	023_CCB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 2:58:04 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	18.612	ppb	27.20	156608.03	0.1	>RL
Be	9	6	HMI H2	-0.019	ppb	-162.22	40.00	0.5	
B	11	6	HMI H2	0.696	ppb	24.17	656.69	0.1	>RL
Se	78	72	HMI H2	0.015	ppb	90.11	106.67	1	
Na	23	45	HMI He	-15.423	ppb	-2.45	19217.78	25	
Mg	24	45	HMI He	0.538	ppb	56.58	356.68	25	
Al	27	45	HMI He	-1.514	ppb	-58.43	46.67	15	
K	39	45	HMI He	27.117	ppb	42.80	40649.81	50	
Ca	44	45	HMI He	-20.410	ppb	-36.53	53.33	25	
V	51	72	HMI He	0.038	ppb	786.57	3887.18	1	
Cr	52	72	HMI He	-0.037	ppb	-98.53	310.01	1	
Mn	55	72	HMI He	0.086	ppb	73.54	143.33	0.5	
Fe	57	72	HMI He	-0.312	ppb	-272.73	100.00	25	
Co	59	72	HMI He	0.008	ppb	60.91	40.00	0.5	
Ni	60	72	HMI He	0.028	ppb	197.00	306.68	1	
Cu	63	72	HMI He	-0.199	ppb	-22.74	1673.44	1	
Zn	66	72	HMI He	0.056	ppb	478.50	1133.39	5	
As	75	72	HMI He	0.022	ppb	271.37	49.02	1	
Sr	88	45	HMI He	-0.025	ppb	-199.19	43.33	1	
Zr	90	72	HMI He	-2.854	ppb	-82.05	90.00	1	
Nb	93	72	HMI He	0.283	ppb	9.81	1653.45	2	
Mo	95	115	HMI He	0.055	ppb	63.49	150.00	0.5	
Pd	105	115	HMI He	-0.067	ppb	-29.38	190.00	1	
Ag	107	115	HMI He	0.003	ppb	126.55	30.00	1	
Cd	111	115	HMI He	0.029	ppb	173.21	16.67	0.5	
Sn	120	115	HMI He	0.074	ppb	100.12	380.01	1	
Sb	121	115	HMI He	0.424	ppb	23.02	583.35	1	
Ba	137	115	HMI He	0.010	ppb	6.68	20.00	0.5	
W	182	165	HMI He	0.056	ppb	33.86	1496.76	1	
Pt	195	165	HMI He	0.006	ppb	164.76	176.67	1	
Tl	205	165	HMI He	-0.004	ppb	-353.17	410.01	0.1	
Pb	208	165	HMI He	-0.178	ppb	-9.84	4393.67	0.5	
Th	232	165	HMI He	0.025	ppb	14.30	533.35	1	
U	238	165	HMI He	0.005	ppb	10.21	133.33	0.5	
Li	7	45	No Gas	-0.190	ppb	-3125.28	11786549.38	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1058332.17	5.03	1062943.78666667	99.57	60	125	
Ge Internal Standard	72	HMI H2	20211165.41	2.15	20935857.45	96.54	60	125	
Sc (IS)	45	HMI He	1332180.14	1.80	1372993.64	97.03	60	125	
Ge Internal Standard	72	HMI He	1671779.87	1.38	1682864.37666667	99.34	60	125	
In Internal standard	115	HMI He	4189017.71	1.29	4314093.05	97.1	60	125	
Ho-165	165	HMI He	19668419.81	0.84	19709342.1	99.79	60	125	
Sc IS)	45	No Gas	134921822.96	1.26	137813939.48	97.9	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4907389
File Name	024LCCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:01:29 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.823	ppb	11.81	545.01	1	82.26	70	130	
Se	78	72	HMI H2	4.692	ppb	1.00	2534.88	5	93.85	70	130	
Na	23	45	HMI He	34.259	ppb	13.82	35711.43	50	68.52	70	130	>+/-30%
Mg	24	45	HMI He	49.839	ppb	6.67	7381.72	50	99.68	70	130	
Al	27	45	HMI He	27.963	ppb	14.39	993.37	30	93.21	70	130	
K	39	45	HMI He	98.930	ppb	32.05	46923.19	100	98.93	70	130	
Ca	44	45	HMI He	43.322	ppb	8.74	323.34	50	86.64	70	130	
V	51	72	HMI He	5.053	ppb	7.19	12464.86	5	101.06	70	130	
Cr	52	72	HMI He	2.010	ppb	4.95	4944.15	2	100.5	70	130	
Mn	55	72	HMI He	1.069	ppb	20.01	920.04	1	106.91	70	130	
Fe	57	72	HMI He	53.220	ppb	17.77	2303.54	50	106.44	70	130	
Co	59	72	HMI He	1.048	ppb	13.24	4313.97	1	104.85	70	130	
Ni	60	72	HMI He	2.090	ppb	8.12	2723.60	2	104.49	70	130	
Cu	63	72	HMI He	2.010	ppb	8.29	8815.80	2	100.5	70	130	
Zn	66	72	HMI He	10.273	ppb	10.01	5450.99	10	102.73	70	130	
As	75	72	HMI He	4.808	ppb	7.00	1505.30	5	96.17	70	130	
Sr	88	45	HMI He	0.954	ppb	14.38	796.70	1	95.39	70	130	
Zr	90	72	HMI He	5.393	ppb	56.16	213.33	0.5	1078.63	70	130	>+/-30%
Nb	93	72	HMI He	0.386	ppb	7.33	2256.86	2	19.29	70	130	>+/-30%
Mo	95	115	HMI He	1.828	ppb	9.56	2666.93	2	91.41	70	130	
Pd	105	115	HMI He	-0.109	ppb	-15.20	96.67	1	-10.9	70	130	>+/-30%
Ag	107	115	HMI He	4.889	ppb	3.57	23163.89	5	97.78	70	130	
Cd	111	115	HMI He	1.055	ppb	9.80	600.02	1	105.54	70	130	
Sn	120	115	HMI He	9.423	ppb	6.48	13682.85	10	94.23	70	130	
Sb	121	115	HMI He	2.402	ppb	3.58	3183.73	2	120.11	70	130	
Ba	137	115	HMI He	0.848	ppb	16.31	356.68	1	84.81	70	130	
W	182	165	HMI He	4.846	ppb	5.11	27462.17	1	484.59	70	130	>+/-30%
Pt	195	165	HMI He	0.032	ppb	48.42	293.34	1	3.25	70	130	>+/-30%
Tl	205	165	HMI He	1.047	ppb	5.93	10030.20	1	104.72	70	130	
Pb	208	165	HMI He	0.847	ppb	7.24	16623.99	1	84.69	70	130	
Th	232	165	HMI He	1.964	ppb	4.49	25592.92	2	98.18	70	130	
U	238	165	HMI He	1.019	ppb	5.33	14664.32	1	101.87	70	130	
Li	7	45	No Gas	19.107	ppb	32.52	12483850.29	50	38.21	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1075210.27	4.36	1062943.78666667	101.15	60	125	
Ge Internal Standard	72	HMI H2	20603538.09	1.16	20935857.45	98.41	60	125	
Sc (IS)	45	HMI He	1360088.23	4.53	1372993.64	99.06	60	125	
Ge Internal Standard	72	HMI He	1687884.95	2.68	1682864.37666667	100.3	60	125	
In Internal standard	115	HMI He	4179409.23	2.15	4314093.05	96.88	60	125	
Ho-165	165	HMI He	19599499.18	1.21	19709342.1	99.44	60	125	
Sc IS)	45	No Gas	135184299.61	1.13	137813939.48	98.09	60	120	

Sample Report

Sample Name	280-104890-b-2-a
File Name	025SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:04:55 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399863 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.044	ppb	-16.54	25.00	2000	
B	11	6	HMI H2	3.173	ppb	8.06	2373.53	100	
Se	78	72	HMI H2	0.015	ppb	387.66	108.00	2000	
Na	23	45	HMI He	1123.144	ppb	2.91	367702.09	400000	
Mg	24	45	HMI He	146.244	ppb	0.20	19968.80	400000	
Al	27	45	HMI He	110.452	ppb	5.15	3450.39	400000	
K	39	45	HMI He	785.363	ppb	1.45	93873.79	400000	
Ca	44	45	HMI He	3506.479	ppb	4.35	14112.84	400000	
V	51	72	HMI He	1.417	ppb	8.07	6151.23	2000	
Cr	52	72	HMI He	0.822	ppb	17.88	2213.51	5000	
Mn	55	72	HMI He	11.370	ppb	7.20	8842.54	10000	
Fe	57	72	HMI He	230.824	ppb	2.41	9449.54	400000	
Co	59	72	HMI He	0.187	ppb	13.56	760.03	2000	
Ni	60	72	HMI He	5.396	ppb	3.58	6464.70	5000	
Cu	63	72	HMI He	5.453	ppb	4.25	19515.15	5000	
Zn	66	72	HMI He	118.732	ppb	1.02	50120.45	5000	
As	75	72	HMI He	0.230	ppb	16.13	110.46	2000	
Sr	88	45	HMI He	13.500	ppb	6.87	9899.84	2000	
Zr	90	72	HMI He	18.807	ppb	7.89	406.68	1000	
Nb	93	72	HMI He	0.056	ppb	26.35	366.68	200	
Mo	95	115	HMI He	0.226	ppb	39.06	390.01	2000	
Pd	105	115	HMI He	-0.095	ppb	-17.90	126.67	100	
Ag	107	115	HMI He	0.008	ppb	63.93	53.33	100	
Cd	111	115	HMI He	0.047	ppb	55.62	26.67	2000	
Sn	120	115	HMI He	0.175	ppb	17.90	516.68	2000	
Sb	121	115	HMI He	0.629	ppb	21.05	840.04	1000	
Ba	137	115	HMI He	8.654	ppb	10.16	3450.44	5000	
W	182	165	HMI He	0.049	ppb	12.47	1420.08	100	
Pt	195	165	HMI He	0.080	ppb	18.02	493.35	100	
Tl	205	165	HMI He	-0.005	ppb	-140.56	390.01	2000	
Pb	208	165	HMI He	2.092	ppb	6.15	30809.79	5000	
Th	232	165	HMI He	0.021	ppb	34.42	473.35	2000	
U	238	165	HMI He	0.034	ppb	8.16	536.69	2000	
Li	7	45	No Gas	-1.249	ppb	-689.81	11377397.95	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1029516.27	3.49	1062943.78666667	96.86	60	125	
Ge Internal Standard	72	HMI H2	20491825.39	1.09	20935857.45	97.88	60	125	
Sc (IS)	45	HMI He	1284285.56	1.27	1372993.64	93.54	60	125	
Ge Internal Standard	72	HMI He	1654606.30	0.34	1682864.37666667	98.32	60	125	
In Internal standard	115	HMI He	4134643.40	2.57	4314093.05	95.84	60	125	
Ho-165	165	HMI He	19162191.08	0.34	19709342.1	97.22	60	125	
Sc IS)	45	No Gas	130715164.85	3.14	137813939.48	94.85	60	120	

Blank Report

Sample Name	mb 280-398947/1-b
File Name	026_BLK.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:08:21 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	13.369	ppb	44.03	156857.14	0.1	>DL
Be	9	6	HMI H2	-0.054	ppb	-15.12	20.00	0.5	
Se	78	72	HMI H2	-0.004	ppb	-1337.83	100.00	1	
Na	23	45	HMI He	9.548	ppb	19.20	26784.74	25	
Mg	24	45	HMI He	1.332	ppb	29.14	460.01	25	
Al	27	45	HMI He	4.195	ppb	7.17	223.34	15	
K	39	45	HMI He	18.298	ppb	106.15	39427.08	50	
Ca	44	45	HMI He	-14.569	ppb	-42.72	76.67	25	
V	51	72	HMI He	0.206	ppb	35.90	4107.23	1	
Cr	52	72	HMI He	0.016	ppb	20.30	423.34	1	
Mn	55	72	HMI He	0.232	ppb	26.01	253.34	0.5	
Fe	57	72	HMI He	10.176	ppb	34.45	520.02	25	
Co	59	72	HMI He	0.005	ppb	124.32	26.67	0.5	
Ni	60	72	HMI He	0.454	ppb	13.40	790.03	1	
Cu	63	72	HMI He	0.097	ppb	39.54	2580.24	1	
Zn	66	72	HMI He	1.523	ppb	29.93	1720.12	5	
As	75	72	HMI He	0.029	ppb	217.39	50.33	1	
Sr	88	45	HMI He	-0.028	ppb	-4.36	40.00	1	
Zr	90	72	HMI He	-2.047	ppb	-122.25	100.00	1	
Nb	93	72	HMI He	0.040	ppb	16.44	273.34	2	
Mo	95	115	HMI He	0.049	ppb	98.60	140.00	0.5	
Pd	105	115	HMI He	-0.091	ppb	-18.40	133.33	1	
Ag	107	115	HMI He	0.004	ppb	120.56	36.67	1	
Cd	111	115	HMI He	0.000	ppb	NaN	0.00	0.5	
Sn	120	115	HMI He	0.102	ppb	40.08	416.68	1	
Sb	121	115	HMI He	0.133	ppb	37.05	196.67	1	
Ba	137	115	HMI He	0.027	ppb	56.55	26.67	0.5	
W	182	165	HMI He	0.040	ppb	115.37	1360.09	1	
Pt	195	165	HMI He	0.001	ppb	1710.90	146.67	1	
Tl	205	165	HMI He	-0.020	ppb	-38.52	250.01	0.1	
Pb	208	165	HMI He	-0.141	ppb	-18.29	4663.70	0.5	
Th	232	165	HMI He	0.012	ppb	9.78	350.01	1	
U	238	165	HMI He	0.003	ppb	11.73	106.67	0.5	
Li	7	45	No Gas	1.744	ppb	237.62	11794212.51	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1078647.00	0.58	1062943.78666667	101.48	60	125	
Ge Internal Standard	72	HMI H2	20771437.46	3.09	20935857.45	99.21	60	125	
Sc (IS)	45	HMI He	1313814.02	2.30	1372993.64	95.69	60	125	
Ge Internal Standard	72	HMI He	1647245.13	0.78	1682864.37666667	97.88	60	125	
In Internal standard	115	HMI He	4143266.04	1.50	4314093.05	96.04	60	125	
Ho-165	165	HMI He	18999481.30	0.86	19709342.1	96.4	60	125	
Sc IS)	45	No Gas	134252246.33	1.12	137813939.48	97.42	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-398947/2-b
File Name	027_LCS.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:11:46 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	29.727	ppb	4.33	18601.87	40	74.32	80	120	>+/-20%
Se	78	72	HMI H2	31.923	ppb	2.87	16657.97	40	79.81	80	120	>+/-20%
Na	23	45	HMI He	3.243	ppb	90.74	25339.39	40	8.11	80	120	>+/-20%
Mg	24	45	HMI He	1.898	ppb	37.80	550.01	40	4.74	80	120	>+/-20%
Al	27	45	HMI He	330.145	ppb	3.71	10590.10	40	825.36	80	120	>+/-20%
K	39	45	HMI He	25.368	ppb	134.60	40813.72	40	63.42	80	120	>+/-20%
Ca	44	45	HMI He	216.559	ppb	19.26	1043.39	40	541.4	80	120	>+/-20%
V	51	72	HMI He	33.589	ppb	3.56	60909.27	40	83.97	80	120	
Cr	52	72	HMI He	34.468	ppb	2.89	78172.20	40	86.17	80	120	
Mn	55	72	HMI He	32.803	ppb	3.44	25790.51	40	82.01	80	120	
Fe	57	72	HMI He	329.545	ppb	1.91	13675.92	40	823.86	80	120	>+/-20%
Co	59	72	HMI He	34.020	ppb	2.54	139488.12	40	85.05	80	120	
Ni	60	72	HMI He	35.372	ppb	1.22	41566.24	40	88.43	80	120	
Cu	63	72	HMI He	34.144	ppb	3.01	111988.99	40	85.36	80	120	
Zn	66	72	HMI He	33.257	ppb	3.65	15080.48	40	83.14	80	120	
As	75	72	HMI He	32.961	ppb	4.18	10041.68	40	82.4	80	120	
Sr	88	45	HMI He	31.611	ppb	5.59	24138.41	40	79.03	80	120	>+/-20%
Nb	93	72	HMI He	0.040	ppb	34.93	280.01	40	0.1	80	120	>+/-20%
Mo	95	115	HMI He	33.413	ppb	0.65	47758.46	40	83.53	80	120	
Pd	105	115	HMI He	-0.123	ppb	-14.06	66.67	40	-0.31	80	120	>+/-20%
Ag	107	115	HMI He	32.936	ppb	1.77	156688.27	40	82.34	80	120	
Cd	111	115	HMI He	32.902	ppb	2.87	18801.53	40	82.25	80	120	
Sn	120	115	HMI He	32.380	ppb	4.74	46562.93	40	80.95	80	120	
Sb	121	115	HMI He	31.533	ppb	0.71	41689.24	40	78.83	80	120	>+/-20%
Ba	137	115	HMI He	32.416	ppb	5.89	13095.74	40	81.04	80	120	
W	182	165	HMI He	34.367	ppb	1.56	185182.97	40	85.92	80	120	
Pt	195	165	HMI He	-0.004	ppb	-108.62	130.00	40	-0.01	80	120	>+/-20%
Tl	205	165	HMI He	33.984	ppb	3.56	307555.29	40	84.96	80	120	
Pb	208	165	HMI He	34.733	ppb	4.21	416240.75	40	86.83	80	120	
Th	232	165	HMI He	33.314	ppb	3.97	425331.04	40	83.29	80	120	
U	238	165	HMI He	32.657	ppb	3.22	462146.52	40	81.64	80	120	
Li	7	45	No Gas	22.630	ppb	23.63	12763393.19	400	5.66	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1120169.76	3.12	1062943.78666667	105.38	60	125	
Ge Internal Standard	72	HMI H2	20607903.09	2.27	20935857.45	98.43	60	125	
Sc (IS)	45	HMI He	1342237.40	1.75	1372993.64	97.76	60	125	
Ge Internal Standard	72	HMI He	1682702.46	2.70	1682864.37666667	99.99	60	125	
In Internal standard	115	HMI He	4198328.95	0.75	4314093.05	97.32	60	125	
Ho-165	165	HMI He	19354589.82	3.17	19709342.1	98.2	60	125	
Sc IS)	45	No Gas	136880366.19	0.92	137813939.48	99.32	60	120	

Sample Report

Sample Name	280-104731-b-1-e
File Name	028SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:15:11 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	0.016	ppb	13.68	61.67	2000	
B	11	6	HMI H2	2.035	ppb	4.64	1656.77	100	
Se	78	72	HMI H2	0.434	ppb	23.17	325.34	2000	
Na	23	45	HMI He	3118.059	ppb	1.22	993769.07	400000	
Mg	24	45	HMI He	25326.739	ppb	1.24	3461311.17	400000	
Al	27	45	HMI He	15.698	ppb	4.58	576.69	400000	
K	39	45	HMI He	500.997	ppb	3.01	74433.01	400000	
Ca	44	45	HMI He	29648.297	ppb	1.39	120056.37	400000	
V	51	72	HMI He	0.065	ppb	127.02	3887.18	2000	
Cr	52	72	HMI He	0.457	ppb	3.63	1403.41	5000	
Mn	55	72	HMI He	171.203	ppb	2.28	131987.06	10000	
Fe	57	72	HMI He	308.676	ppb	1.99	12591.64	400000	
Co	59	72	HMI He	1.882	ppb	6.60	7591.86	2000	
Ni	60	72	HMI He	4.623	ppb	4.66	5574.37	5000	
Cu	63	72	HMI He	13.835	ppb	1.28	45961.46	5000	
Zn	66	72	HMI He	1319.773	ppb	1.20	545524.20	5000	
As	75	72	HMI He	0.428	ppb	20.82	169.28	2000	
Sr	88	45	HMI He	162.986	ppb	2.94	120615.50	2000	
Zr	90	72	HMI He	26.543	ppb	9.78	520.01	1000	
Nb	93	72	HMI He	0.034	ppb	62.32	243.34	200	
Mo	95	115	HMI He	3.168	ppb	11.21	4487.38	2000	
Pd	105	115	HMI He	-0.088	ppb	-7.16	140.00	100	
Ag	107	115	HMI He	0.007	ppb	47.86	50.00	100	
Cd	111	115	HMI He	4.158	ppb	13.53	2320.21	2000	
Sn	120	115	HMI He	0.057	ppb	95.14	350.01	2000	
Sb	121	115	HMI He	1.455	ppb	3.85	1903.48	1000	
Ba	137	115	HMI He	33.135	ppb	6.86	13095.73	5000	
W	182	165	HMI He	0.205	ppb	3.77	2273.54	100	
Pt	195	165	HMI He	-0.004	ppb	-176.46	130.00	100	
Tl	205	165	HMI He	0.006	ppb	116.78	493.35	2000	
Pb	208	165	HMI He	0.240	ppb	21.00	9257.94	5000	
Th	232	165	HMI He	0.065	ppb	13.28	1033.39	2000	
U	238	165	HMI He	15.087	ppb	2.72	213918.95	2000	
Li	7	45	No Gas	-1.138	ppb	-571.66	11561485.34	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1079168.73	3.48	1062943.78666667	101.53	60	125	
Ge Internal Standard	72	HMI H2	20585766.64	1.67	20935857.45	98.33	60	125	
Sc (IS)	45	HMI He	1303083.45	1.86	1372993.64	94.91	60	125	
Ge Internal Standard	72	HMI He	1653371.54	1.45	1682864.37666667	98.25	60	125	
In Internal standard	115	HMI He	4109094.57	2.58	4314093.05	95.25	60	125	
Ho-165	165	HMI He	19389700.86	3.37	19709342.1	98.38	60	125	
Sc IS)	45	No Gas	132742621.41	1.85	137813939.48	96.32	60	120	

Sample Report

Sample Name	280-104731-b-1-f ms
File Name	029SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:18:34 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	31.103	ppb	5.22	18511.77	2000	
B	11	6	HMI H2	24.882	ppb	8.81	18163.30	100	
Se	78	72	HMI H2	32.667	ppb	1.85	16838.21	2000	
Na	23	45	HMI He	3117.902	ppb	1.47	1011090.72	400000	
Mg	24	45	HMI He	25415.555	ppb	1.36	3534135.36	400000	
Al	27	45	HMI He	329.989	ppb	3.00	10456.74	400000	
K	39	45	HMI He	494.775	ppb	6.96	75250.17	400000	
Ca	44	45	HMI He	30003.006	ppb	1.56	123625.54	400000	
V	51	72	HMI He	33.382	ppb	2.22	59838.43	2000	
Cr	52	72	HMI He	32.779	ppb	2.84	73450.28	5000	
Mn	55	72	HMI He	202.383	ppb	4.10	156810.07	10000	
Fe	57	72	HMI He	635.143	ppb	3.18	25914.04	400000	
Co	59	72	HMI He	34.534	ppb	0.61	139896.58	2000	
Ni	60	72	HMI He	38.182	ppb	0.67	44290.30	5000	
Cu	63	72	HMI He	46.403	ppb	2.46	149544.73	5000	
Zn	66	72	HMI He	1373.988	ppb	1.58	570838.45	5000	
As	75	72	HMI He	32.251	ppb	0.51	9713.38	2000	
Sr	88	45	HMI He	195.154	ppb	3.87	146910.23	2000	
Zr	90	72	HMI He	5040.929	ppb	1.29	74443.13	1000	>LDR
Nb	93	72	HMI He	0.034	ppb	15.92	246.67	200	
Mo	95	115	HMI He	37.393	ppb	2.03	51700.83	2000	
Pd	105	115	HMI He	-0.087	ppb	-14.67	140.00	100	
Ag	107	115	HMI He	33.061	ppb	4.04	152124.18	100	
Cd	111	115	HMI He	38.054	ppb	2.87	21044.24	2000	
Sn	120	115	HMI He	31.621	ppb	1.23	43998.85	2000	
Sb	121	115	HMI He	34.572	ppb	2.55	44232.76	1000	
Ba	137	115	HMI He	67.418	ppb	1.77	26335.95	5000	
W	182	165	HMI He	34.689	ppb	1.57	188441.73	100	
Pt	195	165	HMI He	0.015	ppb	23.07	216.68	100	
Tl	205	165	HMI He	32.943	ppb	3.42	300626.39	2000	
Pb	208	165	HMI He	33.655	ppb	4.61	406936.92	5000	
Th	232	165	HMI He	33.278	ppb	4.86	428400.51	2000	
U	238	165	HMI He	47.930	ppb	4.34	683733.01	2000	
Li	7	45	No Gas	27.937	ppb	11.53	12095150.83	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1066303.79	4.53	1062943.78666667	100.32	60	125	
Ge Internal Standard	72	HMI H2	20357387.07	1.52	20935857.45	97.24	60	125	
Sc (IS)	45	HMI He	1325886.38	1.99	1372993.64	96.57	60	125	
Ge Internal Standard	72	HMI He	1662072.52	1.77	1682864.37666667	98.76	60	125	
In Internal standard	115	HMI He	4061629.71	1.92	4314093.05	94.15	60	125	
Ho-165	165	HMI He	19514992.11	2.62	19709342.1	99.01	60	125	
Sc IS)	45	No Gas	127822660.00	0.24	137813939.48	92.75	60	120	

Sample Report

Sample Name	280-104731-b-1-g msd
File Name	030SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:22:00 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	31.506	ppb	4.28	18581.89	2000	
B	11	6	HMI H2	24.788	ppb	8.00	17916.33	100	
Se	78	72	HMI H2	33.714	ppb	3.91	17158.53	2000	
Na	23	45	HMI He	3247.477	ppb	2.47	1016733.06	400000	
Mg	24	45	HMI He	26799.447	ppb	2.26	3601313.69	400000	
Al	27	45	HMI He	349.143	ppb	3.96	10693.53	400000	
K	39	45	HMI He	525.028	ppb	4.62	74941.89	400000	
Ca	44	45	HMI He	31619.291	ppb	2.96	125882.15	400000	
V	51	72	HMI He	34.311	ppb	3.68	61320.96	2000	
Cr	52	72	HMI He	33.767	ppb	2.27	75579.62	5000	
Mn	55	72	HMI He	209.764	ppb	4.07	162332.80	10000	
Fe	57	72	HMI He	637.801	ppb	1.34	26000.84	400000	
Co	59	72	HMI He	35.469	ppb	3.27	143494.25	2000	
Ni	60	72	HMI He	38.085	ppb	3.26	44116.36	5000	
Cu	63	72	HMI He	47.478	ppb	4.15	152773.21	5000	
Zn	66	72	HMI He	1397.415	ppb	1.39	580002.67	5000	
As	75	72	HMI He	33.411	ppb	2.69	10046.92	2000	
Sr	88	45	HMI He	201.405	ppb	3.53	146538.83	2000	
Zr	90	72	HMI He	4921.068	ppb	3.48	72564.44	1000	
Nb	93	72	HMI He	0.043	ppb	27.78	296.68	200	
Mo	95	115	HMI He	35.820	ppb	3.00	49530.47	2000	
Pd	105	115	HMI He	-0.117	ppb	-16.60	76.67	100	
Ag	107	115	HMI He	33.634	ppb	2.19	154786.61	100	
Cd	111	115	HMI He	37.598	ppb	0.64	20790.61	2000	
Sn	120	115	HMI He	32.978	ppb	2.85	45870.72	2000	
Sb	121	115	HMI He	34.373	ppb	4.26	43938.67	1000	
Ba	137	115	HMI He	71.356	ppb	2.77	27875.33	5000	
W	182	165	HMI He	34.419	ppb	3.46	185521.08	100	
Pt	195	165	HMI He	0.005	ppb	110.67	170.00	100	
Tl	205	165	HMI He	34.288	ppb	3.37	310510.89	2000	
Pb	208	165	HMI He	34.564	ppb	1.91	414645.81	5000	
Th	232	165	HMI He	34.027	ppb	2.69	434818.44	2000	
U	238	165	HMI He	48.575	ppb	1.50	687837.58	2000	
Li	7	45	No Gas	32.220	ppb	45.00	12642453.93	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1056868.77	7.12	1062943.78666667	99.43	60	125	
Ge Internal Standard	72	HMI H2	20116398.74	3.28	20935857.45	96.09	60	125	
Sc (IS)	45	HMI He	1281462.58	2.07	1372993.64	93.33	60	125	
Ge Internal Standard	72	HMI He	1660356.06	1.91	1682864.37666667	98.66	60	125	
In Internal standard	115	HMI He	4063058.47	3.27	4314093.05	94.18	60	125	
Ho-165	165	HMI He	19358447.95	0.83	19709342.1	98.22	60	125	
Sc IS)	45	No Gas	132188428.10	3.80	137813939.48	95.92	60	120	

Sample Report

Sample Name	280-104731-a-2-b
File Name	031SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:25:23 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.032	ppb	-95.24	31.67	2000	
B	11	6	HMI H2	2.421	ppb	4.44	1870.12	100	
Se	78	72	HMI H2	0.372	ppb	17.46	293.33	2000	
Na	23	45	HMI He	2369.778	ppb	3.34	768497.77	400000	
Mg	24	45	HMI He	21668.276	ppb	2.58	2990815.47	400000	
Al	27	45	HMI He	11.991	ppb	7.01	466.68	400000	
K	39	45	HMI He	617.500	ppb	4.24	83800.26	400000	
Ca	44	45	HMI He	30379.869	ppb	2.13	124267.17	400000	
V	51	72	HMI He	0.051	ppb	539.11	3913.86	2000	
Cr	52	72	HMI He	0.053	ppb	68.44	513.35	5000	
Mn	55	72	HMI He	122.876	ppb	1.20	95915.53	10000	
Fe	57	72	HMI He	153.033	ppb	2.03	6374.65	400000	
Co	59	72	HMI He	1.081	ppb	4.15	4417.32	2000	
Ni	60	72	HMI He	3.057	ppb	0.97	3823.83	5000	
Cu	63	72	HMI He	6.300	ppb	3.00	22442.36	5000	
Zn	66	72	HMI He	793.567	ppb	2.16	332395.97	5000	
As	75	72	HMI He	0.217	ppb	4.51	107.84	2000	
Sr	88	45	HMI He	164.933	ppb	1.26	123345.73	2000	
Zr	90	72	HMI He	18.747	ppb	19.91	410.01	1000	
Nb	93	72	HMI He	0.033	ppb	41.23	240.00	200	
Mo	95	115	HMI He	2.025	ppb	4.18	2930.31	2000	
Pd	105	115	HMI He	-0.098	ppb	-12.85	120.00	100	
Ag	107	115	HMI He	0.012	ppb	28.02	73.33	100	
Cd	111	115	HMI He	2.946	ppb	20.23	1666.79	2000	
Sn	120	115	HMI He	0.093	ppb	131.62	403.34	2000	
Sb	121	115	HMI He	0.967	ppb	6.25	1286.74	1000	
Ba	137	115	HMI He	37.140	ppb	3.95	14840.61	5000	
W	182	165	HMI He	0.180	ppb	22.00	2183.53	100	
Pt	195	165	HMI He	0.001	ppb	586.61	156.67	100	
Tl	205	165	HMI He	-0.007	ppb	-91.77	380.01	2000	
Pb	208	165	HMI He	0.162	ppb	22.86	8504.43	5000	
Th	232	165	HMI He	0.047	ppb	28.52	826.70	2000	
U	238	165	HMI He	11.102	ppb	3.38	160446.02	2000	
Li	7	45	No Gas	3.984	ppb	230.79	11442893.99	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1040904.13	6.57	1062943.78666667	97.93	60	125	
Ge Internal Standard	72	HMI H2	20572066.84	0.25	20935857.45	98.26	60	125	
Sc (IS)	45	HMI He	1316696.66	3.07	1372993.64	95.9	60	125	
Ge Internal Standard	72	HMI He	1673405.17	1.55	1682864.37666667	99.44	60	125	
In Internal standard	115	HMI He	4153644.06	1.27	4314093.05	96.28	60	125	
Ho-165	165	HMI He	19758197.09	2.25	19709342.1	100.25	60	125	
Sc IS)	45	No Gas	129443474.92	2.38	137813939.48	93.93	60	120	

Sample Report

Sample Name	280-104865-a-1-c
File Name	032SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:28:46 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399880 200.8
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.075	ppb	-13.80	6.67	2000	
B	11	6	HMI H2	15.082	ppb	6.53	10756.83	100	
Se	78	72	HMI H2	0.100	ppb	45.56	152.00	2000	
Na	23	45	HMI He	59035.523	ppb	1.87	18291326.55	400000	
Mg	24	45	HMI He	11396.714	ppb	2.41	1548890.19	400000	
Al	27	45	HMI He	6.350	ppb	52.64	286.67	400000	
K	39	45	HMI He	2422.396	ppb	3.65	213776.74	400000	
Ca	44	45	HMI He	36414.768	ppb	2.89	146595.10	400000	
V	51	72	HMI He	0.066	ppb	174.07	3927.19	2000	
Cr	52	72	HMI He	0.167	ppb	17.93	766.70	5000	
Mn	55	72	HMI He	16.787	ppb	2.91	13145.50	10000	
Fe	57	72	HMI He	34.819	ppb	7.62	1533.43	400000	
Co	59	72	HMI He	0.255	ppb	5.52	1043.38	2000	
Ni	60	72	HMI He	0.830	ppb	13.92	1236.73	5000	
Cu	63	72	HMI He	1.153	ppb	2.97	5984.51	5000	
Zn	66	72	HMI He	18.624	ppb	8.64	8865.87	5000	
As	75	72	HMI He	0.146	ppb	22.21	86.27	2000	
Sr	88	45	HMI He	628.557	ppb	3.29	462403.54	2000	
Zr	90	72	HMI He	32.557	ppb	22.10	613.36	1000	
Nb	93	72	HMI He	0.016	ppb	109.11	143.33	200	
Mo	95	115	HMI He	2.067	ppb	4.22	2996.99	2000	
Pd	105	115	HMI He	-0.106	ppb	-17.68	103.33	100	
Ag	107	115	HMI He	0.009	ppb	38.39	56.67	100	
Cd	111	115	HMI He	0.030	ppb	91.87	16.67	2000	
Sn	120	115	HMI He	0.131	ppb	31.92	460.01	2000	
Sb	121	115	HMI He	0.059	ppb	38.86	100.00	1000	
Ba	137	115	HMI He	48.746	ppb	3.13	19532.60	5000	
W	182	165	HMI He	0.297	ppb	14.44	2770.30	100	
Pt	195	165	HMI He	-0.001	ppb	-1968.43	143.33	100	
Tl	205	165	HMI He	-0.023	ppb	-30.14	230.00	2000	
Pb	208	165	HMI He	-0.114	ppb	-44.87	5087.11	5000	
Th	232	165	HMI He	0.027	ppb	30.23	546.69	2000	
U	238	165	HMI He	3.118	ppb	4.90	44268.21	2000	
Li	7	45	No Gas	76.038	ppb	11.60	14016183.75	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1035707.09	6.07	1062943.78666667	97.44	60	125	
Ge Internal Standard	72	HMI H2	20496794.97	1.07	20935857.45	97.9	60	125	
Sc (IS)	45	HMI He	1296169.32	2.62	1372993.64	94.4	60	125	
Ge Internal Standard	72	HMI He	1669957.28	1.10	1682864.37666667	99.23	60	125	
In Internal standard	115	HMI He	4164553.98	0.69	4314093.05	96.53	60	125	
Ho-165	165	HMI He	19393620.65	1.60	19709342.1	98.4	60	125	
Sc IS)	45	No Gas	130972166.50	1.98	137813939.48	95.04	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4907387
File Name	033_CCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:32:09 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	479.207	ppb	6.01	369491.54	500	95.84	90	110	
Be	9	6	HMI H2	46.816	ppb	1.62	27392.11	50	93.63	90	110	
B	11	6	HMI H2	43.336	ppb	3.30	31025.22	50	86.67	90	110	>+\-10%
Se	78	72	HMI H2	48.544	ppb	0.76	25023.41	50	97.09	90	110	
Na	23	45	HMI He	5119.110	ppb	1.73	1654078.59	5000	102.38	90	110	
Mg	24	45	HMI He	4911.768	ppb	1.33	687131.68	5000	98.24	90	110	
Al	27	45	HMI He	4975.888	ppb	1.23	157318.70	5000	99.52	90	110	
K	39	45	HMI He	5056.924	ppb	1.57	417257.54	5000	101.14	90	110	
Ca	44	45	HMI He	4926.342	ppb	1.79	20529.56	5000	98.53	90	110	
V	51	72	HMI He	50.977	ppb	3.59	88895.92	50	101.95	90	110	
Cr	52	72	HMI He	50.753	ppb	2.21	112942.55	50	101.51	90	110	
Mn	55	72	HMI He	49.798	ppb	1.61	38448.65	50	99.6	90	110	
Fe	57	72	HMI He	5099.410	ppb	3.71	206185.58	5000	101.99	90	110	
Co	59	72	HMI He	51.251	ppb	2.16	206476.64	50	102.5	90	110	
Ni	60	72	HMI He	50.588	ppb	1.38	58273.77	50	101.18	90	110	
Cu	63	72	HMI He	52.143	ppb	0.69	166900.06	50	104.29	90	110	
Zn	66	72	HMI He	50.078	ppb	3.20	21758.04	50	100.16	90	110	
As	75	72	HMI He	51.214	ppb	1.15	15318.36	50	102.43	90	110	
Sr	88	45	HMI He	49.264	ppb	0.47	37360.56	50	98.53	90	110	
Zr	90	72	HMI He	64.303	ppb	16.47	1073.38	50	128.61	90	110	>+\-10%
Nb	93	72	HMI He	101.585	ppb	1.70	568943.59	100	101.58	90	110	
Mo	95	115	HMI He	49.212	ppb	2.06	69970.36	50	98.42	90	110	
Pd	105	115	HMI He	50.729	ppb	2.99	111850.34	50	101.46	90	110	
Ag	107	115	HMI He	50.464	ppb	1.88	238928.19	50	100.93	90	110	
Cd	111	115	HMI He	49.129	ppb	2.38	27941.61	50	98.26	90	110	
Sn	120	115	HMI He	49.848	ppb	4.06	71181.64	50	99.7	90	110	
Sb	121	115	HMI He	49.240	ppb	2.62	64770.60	50	98.48	90	110	
Ba	137	115	HMI He	51.730	ppb	2.06	20797.59	50	103.46	90	110	
W	182	165	HMI He	49.424	ppb	0.86	270559.36	50	98.85	90	110	
Pt	195	165	HMI He	49.569	ppb	1.58	221848.67	50	99.14	90	110	
Tl	205	165	HMI He	50.445	ppb	2.47	464586.27	50	100.89	90	110	
Pb	208	165	HMI He	50.148	ppb	0.97	609180.75	50	100.3	90	110	
Th	232	165	HMI He	49.853	ppb	0.48	648158.18	50	99.71	90	110	
U	238	165	HMI He	49.065	ppb	4.18	706738.99	50	98.13	90	110	
Li	7	45	No Gas	496.596	ppb	0.78	28653427.46	500	99.32	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1048160.99	5.44	1062943.78666667	98.61	60	125	
Ge Internal Standard	72	HMI H2	20394462.48	1.77	20935857.45	97.41	60	125	
Sc (IS)	45	HMI He	1333435.25	1.06	1372993.64	97.12	60	125	
Ge Internal Standard	72	HMI He	1653191.67	1.20	1682864.37666667	98.24	60	125	
In Internal standard	115	HMI He	4179608.31	2.68	4314093.05	96.88	60	125	
Ho-165	165	HMI He	19696744.39	1.20	19709342.1	99.94	60	125	
Sc IS)	45	No Gas	132864096.40	0.17	137813939.48	96.41	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4907385
File Name	034_CCB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:35:36 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	21.547	ppb	18.82	158683.64	0.1	>RL
Be	9	6	HMI H2	-0.038	ppb	-54.71	30.00	0.5	
B	11	6	HMI H2	0.999	ppb	10.32	906.70	0.1	>RL
Se	78	72	HMI H2	-0.007	ppb	-1448.99	96.00	1	
Na	23	45	HMI He	-0.498	ppb	-673.41	24124.12	25	
Mg	24	45	HMI He	0.855	ppb	22.05	403.34	25	
Al	27	45	HMI He	0.169	ppb	388.60	100.00	15	
K	39	45	HMI He	26.125	ppb	82.79	40837.20	50	
Ca	44	45	HMI He	-6.890	ppb	-124.01	110.00	25	
V	51	72	HMI He	0.780	ppb	36.92	5230.89	1	
Cr	52	72	HMI He	-0.046	ppb	-45.43	296.68	1	
Mn	55	72	HMI He	0.041	ppb	113.03	110.00	0.5	
Fe	57	72	HMI He	0.297	ppb	298.32	126.67	25	
Co	59	72	HMI He	0.006	ppb	40.93	30.00	0.5	
Ni	60	72	HMI He	0.078	ppb	123.80	373.34	1	
Cu	63	72	HMI He	-0.155	ppb	-31.67	1846.80	1	
Zn	66	72	HMI He	0.193	ppb	131.78	1213.39	5	
As	75	72	HMI He	0.006	ppb	360.32	45.10	1	
Sr	88	45	HMI He	-0.007	ppb	-549.90	56.67	1	
Zr	90	72	HMI He	0.998	ppb	290.01	150.00	1	
Nb	93	72	HMI He	0.388	ppb	10.66	2290.19	2	
Mo	95	115	HMI He	0.012	ppb	249.51	86.67	0.5	
Pd	105	115	HMI He	-0.087	ppb	-12.98	143.33	1	
Ag	107	115	HMI He	0.012	ppb	104.05	73.33	1	
Cd	111	115	HMI He	0.030	ppb	123.40	16.67	0.5	
Sn	120	115	HMI He	0.022	ppb	53.38	303.34	1	
Sb	121	115	HMI He	0.328	ppb	19.26	450.01	1	
Ba	137	115	HMI He	0.020	ppb	310.21	23.33	0.5	
W	182	165	HMI He	0.064	ppb	11.98	1530.10	1	
Pt	195	165	HMI He	-0.001	ppb	-679.58	143.33	1	
Tl	205	165	HMI He	-0.017	ppb	-35.15	286.68	0.1	
Pb	208	165	HMI He	-0.230	ppb	-6.29	3746.90	0.5	
Th	232	165	HMI He	0.028	ppb	24.19	570.02	1	
U	238	165	HMI He	0.005	ppb	49.74	143.33	0.5	
Li	7	45	No Gas	7.217	ppb	73.81	11942249.17	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1092745.35	2.66	1062943.78666667	102.8	60	125	
Ge Internal Standard	72	HMI H2	20297762.69	0.41	20935857.45	96.95	60	125	
Sc (IS)	45	HMI He	1340500.91	1.22	1372993.64	97.63	60	125	
Ge Internal Standard	72	HMI He	1703647.06	1.81	1682864.37666667	101.23	60	125	
In Internal standard	115	HMI He	4147950.95	3.02	4314093.05	96.15	60	125	
Ho-165	165	HMI He	19542246.06	2.10	19709342.1	99.15	60	125	
Sc IS)	45	No Gas	133787588.02	1.15	137813939.48	97.08	60	120	

Blank Report

Sample Name	mb 280-399737/1-a
File Name	035_BLK.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:39:02 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	13.138	ppb	136.93	159847.72	0.1	>DL
Be	9	6	HMI H2	-0.051	ppb	-52.13	21.67	0.5	
Se	78	72	HMI H2	-0.038	ppb	-39.37	81.33	1	
Na	23	45	HMI He	27.164	ppb	4.93	35110.12	25	>DL
Mg	24	45	HMI He	4.022	ppb	15.20	903.37	25	
Al	27	45	HMI He	26.264	ppb	27.65	990.04	15	>DL
K	39	45	HMI He	11.731	ppb	238.21	42334.19	50	
Ca	44	45	HMI He	14.833	ppb	148.97	213.34	25	
V	51	72	HMI He	-0.509	ppb	-16.14	3060.32	1	
Cr	52	72	HMI He	0.007	ppb	270.04	423.34	1	
Mn	55	72	HMI He	0.068	ppb	92.51	133.33	0.5	
Fe	57	72	HMI He	1.116	ppb	118.07	163.33	25	
Co	59	72	HMI He	0.006	ppb	43.12	33.33	0.5	
Ni	60	72	HMI He	0.049	ppb	27.29	343.34	1	
Cu	63	72	HMI He	0.090	ppb	70.66	2680.27	1	
Zn	66	72	HMI He	3.122	ppb	6.94	2493.55	5	
As	75	72	HMI He	-0.048	ppb	-53.77	28.76	1	
Sr	88	45	HMI He	0.001	ppb	12134.17	66.67	1	
Zr	90	72	HMI He	4.155	ppb	63.70	200.00	1	>DL
Nb	93	72	HMI He	0.200	ppb	11.22	1226.73	2	
Mo	95	115	HMI He	-0.001	ppb	-3219.80	73.33	0.5	
Pd	105	115	HMI He	-0.102	ppb	-11.83	116.67	1	
Ag	107	115	HMI He	0.003	ppb	214.20	33.33	1	
Cd	111	115	HMI He	0.011	ppb	173.21	6.67	0.5	
Sn	120	115	HMI He	0.095	ppb	65.68	430.01	1	
Sb	121	115	HMI He	0.121	ppb	13.98	190.00	1	
Ba	137	115	HMI He	0.079	ppb	32.51	50.00	0.5	
W	182	165	HMI He	0.042	ppb	88.94	1446.76	1	
Pt	195	165	HMI He	0.000	ppb	3560.38	153.33	1	
Tl	205	165	HMI He	-0.025	ppb	-9.21	216.67	0.1	
Pb	208	165	HMI He	-0.129	ppb	-22.73	5063.74	0.5	
Th	232	165	HMI He	0.028	ppb	18.19	576.69	1	
U	238	165	HMI He	0.002	ppb	76.19	90.00	0.5	
Li	7	45	No Gas	13.135	ppb	16.92	12586454.76	0.05	>DL

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1091078.47	4.06	1062943.78666667	102.65	60	125	
Ge Internal Standard	72	HMI H2	20654357.05	2.26	20935857.45	98.66	60	125	
Sc (IS)	45	HMI He	1427496.83	0.50	1372993.64	103.97	60	125	
Ge Internal Standard	72	HMI He	1727504.01	0.55	1682864.37666667	102.65	60	125	
In Internal standard	115	HMI He	4382122.59	2.37	4314093.05	101.58	60	125	
Ho-165	165	HMI He	20021855.00	1.34	19709342.1	101.59	60	125	
Sc IS)	45	No Gas	138627102.77	1.93	137813939.48	100.59	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	lcs 280-399737/2-a
File Name	036_LCS.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:42:29 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	39.157	ppb	1.09	25025.16	40	97.89	80	120	
Se	78	72	HMI H2	39.784	ppb	3.85	21752.01	40	99.46	80	120	
Na	23	45	HMI He	29.021	ppb	9.04	35931.88	40	72.55	80	120	>+/-20%
Mg	24	45	HMI He	4.407	ppb	1.39	966.71	40	11.02	80	120	>+/-20%
Al	27	45	HMI He	440.344	ppb	6.35	15063.61	40	1100.86	80	120	>+/-20%
K	39	45	HMI He	-1.392	ppb	-794.90	41528.90	40	-3.48	80	120	>+/-20%
Ca	44	45	HMI He	336.325	ppb	9.92	1650.11	40	840.81	80	120	>+/-20%
V	51	72	HMI He	42.313	ppb	1.88	81561.66	40	105.78	80	120	
Cr	52	72	HMI He	43.008	ppb	2.13	104932.98	40	107.52	80	120	
Mn	55	72	HMI He	42.721	ppb	2.13	36143.36	40	106.8	80	120	
Fe	57	72	HMI He	424.873	ppb	3.15	18931.06	40	1062.18	80	120	>+/-20%
Co	59	72	HMI He	42.759	ppb	2.24	188731.54	40	106.9	80	120	
Ni	60	72	HMI He	43.541	ppb	3.10	54992.72	40	108.85	80	120	
Cu	63	72	HMI He	43.673	ppb	3.68	153513.56	40	109.18	80	120	
Zn	66	72	HMI He	44.263	ppb	2.02	21207.36	40	110.66	80	120	
As	75	72	HMI He	40.858	ppb	4.71	13389.20	40	102.14	80	120	
Sr	88	45	HMI He	42.332	ppb	3.17	34554.13	40	105.83	80	120	
Nb	93	72	HMI He	0.120	ppb	15.76	793.36	40	0.3	80	120	>+/-20%
Mo	95	115	HMI He	42.944	ppb	5.30	64761.69	40	107.36	80	120	
Pd	105	115	HMI He	-0.120	ppb	-16.87	76.67	40	-0.3	80	120	>+/-20%
Ag	107	115	HMI He	42.396	ppb	3.13	212978.62	40	105.99	80	120	
Cd	111	115	HMI He	41.920	ppb	5.66	25280.56	40	104.8	80	120	
Sn	120	115	HMI He	42.747	ppb	3.02	64830.76	40	106.87	80	120	
Sb	121	115	HMI He	40.656	ppb	4.75	56732.81	40	101.64	80	120	
Ba	137	115	HMI He	42.160	ppb	2.26	17987.27	40	105.4	80	120	
W	182	165	HMI He	42.226	ppb	1.05	237704.50	40	105.57	80	120	
Pt	195	165	HMI He	-0.007	ppb	-120.25	120.00	40	-0.02	80	120	>+/-20%
Tl	205	165	HMI He	43.005	ppb	1.16	407136.29	40	107.51	80	120	
Pb	208	165	HMI He	44.234	ppb	1.98	552923.05	40	110.58	80	120	
Th	232	165	HMI He	43.148	ppb	2.08	576420.15	40	107.87	80	120	
U	238	165	HMI He	41.375	ppb	1.17	612601.48	40	103.44	80	120	
Li	7	45	No Gas	47.626	ppb	15.37	14176727.07	400	11.91	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1143939.84	1.14	1062943.78666667	107.62	60	125	
Ge Internal Standard	72	HMI H2	21624506.37	2.23	20935857.45	103.29	60	125	
Sc (IS)	45	HMI He	1435566.53	2.57	1372993.64	104.56	60	125	
Ge Internal Standard	72	HMI He	1811587.18	2.57	1682864.37666667	107.65	60	125	
In Internal standard	115	HMI He	4436055.77	3.32	4314093.05	102.83	60	125	
Ho-165	165	HMI He	20240098.94	1.04	19709342.1	102.69	60	125	
Sc IS)	45	No Gas	142223847.58	2.44	137813939.48	103.2	60	120	

Sample Report

Sample Name	280-104844-a-2-d
File Name	037SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:45:53 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.020	ppb	-153.42	40.00	2000	
B	11	6	HMI H2	8.440	ppb	5.43	6211.24	100	
Se	78	72	HMI H2	2.946	ppb	9.64	1648.09	2000	
Na	23	45	HMI He	20038.980	ppb	0.80	6590753.82	400000	
Mg	24	45	HMI He	17688.835	ppb	1.09	2545492.29	400000	
Al	27	45	HMI He	6.541	ppb	36.65	310.01	400000	
K	39	45	HMI He	8004.231	ppb	1.13	656370.85	400000	
Ca	44	45	HMI He	60889.081	ppb	1.51	259481.58	400000	
V	51	72	HMI He	22.703	ppb	3.36	43754.94	2000	
Cr	52	72	HMI He	3.826	ppb	3.21	9312.73	5000	
Mn	55	72	HMI He	0.871	ppb	5.87	783.37	10000	
Fe	57	72	HMI He	27.656	ppb	13.12	1290.07	400000	
Co	59	72	HMI He	0.120	ppb	26.94	513.35	2000	
Ni	60	72	HMI He	18.153	ppb	4.28	22128.53	5000	
Cu	63	72	HMI He	0.415	ppb	6.54	3770.49	5000	
Zn	66	72	HMI He	1.425	ppb	28.81	1770.12	5000	
As	75	72	HMI He	8.010	ppb	3.81	2550.86	2000	
Sr	88	45	HMI He	299.282	ppb	0.37	233215.86	2000	
Zr	90	72	HMI He	29.221	ppb	15.57	586.69	1000	
Nb	93	72	HMI He	0.071	ppb	5.53	473.34	200	
Mo	95	115	HMI He	1.998	ppb	8.48	3017.00	2000	
Pd	105	115	HMI He	-0.100	ppb	-15.79	120.00	100	
Ag	107	115	HMI He	0.023	ppb	23.54	130.00	100	
Cd	111	115	HMI He	0.034	ppb	86.17	20.00	2000	
Sn	120	115	HMI He	0.067	ppb	84.65	383.35	2000	
Sb	121	115	HMI He	0.721	ppb	10.16	1006.71	1000	
Ba	137	115	HMI He	41.955	ppb	3.65	17493.40	5000	
W	182	165	HMI He	0.470	ppb	9.16	3840.55	100	
Pt	195	165	HMI He	0.001	ppb	1239.79	156.67	100	
Tl	205	165	HMI He	-0.013	ppb	-97.03	333.34	2000	
Pb	208	165	HMI He	-0.171	ppb	-13.65	4573.67	5000	
Th	232	165	HMI He	0.062	ppb	7.40	1033.39	2000	
U	238	165	HMI He	2.378	ppb	2.22	35032.85	2000	
Li	7	45	No Gas	2.182	ppb	73.19	12360814.25	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1055229.52	5.44	1062943.78666667	99.27	60	125	
Ge Internal Standard	72	HMI H2	20834291.62	1.68	20935857.45	99.51	60	125	
Sc (IS)	45	HMI He	1372002.70	0.79	1372993.64	99.93	60	125	
Ge Internal Standard	72	HMI He	1734922.10	0.30	1682864.37666667	103.09	60	125	
In Internal standard	115	HMI He	4333982.06	1.08	4314093.05	100.46	60	125	
Ho-165	165	HMI He	20114684.78	3.70	19709342.1	102.06	60	125	
Sc IS)	45	No Gas	140504184.34	1.56	137813939.48	101.95	60	120	

Sample Report

Sample Name	280-104844-a-2-dsd@5
File Name	Sample.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 3:49:18 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.067	ppb	-18.36	11.67	2000	
B	11	6	HMI H2	1.936	ppb	11.48	1550.09	100	
Se	78	72	HMI H2	0.532	ppb	30.37	385.34	2000	
Na	23	45	HMI He	4144.182	ppb	3.29	1355132.06	400000	
Mg	24	45	HMI He	3493.958	ppb	0.90	493171.03	400000	
Al	27	45	HMI He	0.692	ppb	169.28	116.67	400000	
K	39	45	HMI He	1631.105	ppb	2.61	162174.23	400000	
Ca	44	45	HMI He	12151.297	ppb	1.19	50884.97	400000	
V	51	72	HMI He	4.457	ppb	8.39	11697.64	2000	
Cr	52	72	HMI He	0.824	ppb	2.53	2310.19	5000	
Mn	55	72	HMI He	0.151	ppb	14.02	200.00	10000	
Fe	57	72	HMI He	4.674	ppb	18.49	313.34	400000	
Co	59	72	HMI He	0.023	ppb	73.15	103.33	2000	
Ni	60	72	HMI He	3.657	ppb	2.11	4654.04	5000	
Cu	63	72	HMI He	-0.058	ppb	-39.33	2186.84	5000	
Zn	66	72	HMI He	0.360	ppb	2.87	1300.08	5000	
As	75	72	HMI He	1.676	ppb	3.34	564.72	2000	
Sr	88	45	HMI He	60.507	ppb	3.93	46256.98	2000	
Zr	90	72	HMI He	1.557	ppb	106.05	160.00	1000	
Nb	93	72	HMI He	0.033	ppb	8.72	250.01	200	
Mo	95	115	HMI He	0.435	ppb	5.46	706.69	2000	
Pd	105	115	HMI He	-0.113	ppb	-13.76	90.00	100	
Ag	107	115	HMI He	0.012	ppb	77.76	76.67	100	
Cd	111	115	HMI He	0.006	ppb	173.21	3.33	2000	
Sn	120	115	HMI He	-0.056	ppb	-38.22	200.00	2000	
Sb	121	115	HMI He	0.223	ppb	8.68	323.34	1000	
Ba	137	115	HMI He	8.292	ppb	2.26	3433.76	5000	
W	182	165	HMI He	0.079	ppb	34.74	1643.45	100	
Pt	195	165	HMI He	0.014	ppb	4.70	213.34	100	
Tl	205	165	HMI He	-0.028	ppb	-13.45	190.00	2000	
Pb	208	165	HMI He	-0.119	ppb	-5.04	5153.77	5000	
Th	232	165	HMI He	0.003	ppb	141.26	253.34	2000	
U	238	165	HMI He	0.476	ppb	6.33	6998.46	2000	
Li	7	45	No Gas	11.954	ppb	41.16	12339555.08	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1058315.57	3.71	1062943.78666667	99.56	60	125	
Ge Internal Standard	72	HMI H2	21059426.40	0.31	20935857.45	100.59	60	125	
Sc (IS)	45	HMI He	1345244.32	2.00	1372993.64	97.98	60	125	
Ge Internal Standard	72	HMI He	1723322.75	1.59	1682864.37666667	102.4	60	125	
In Internal standard	115	HMI He	4287465.09	1.55	4314093.05	99.38	60	125	
Ho-165	165	HMI He	19886229.59	1.64	19709342.1	100.9	60	125	
Sc IS)	45	No Gas	136364211.22	0.88	137813939.48	98.95	60	120	

Sample Report

Sample Name	280-104844-A-2-E MS
File Name	038SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:02:13 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	40.728	ppb	2.85	23271.06	2000	
B	11	6	HMI H2	36.628	ppb	5.92	25622.88	100	
Se	78	72	HMI H2	41.548	ppb	2.95	20942.92	2000	
Na	23	45	HMI He	20112.545	ppb	1.01	6345792.79	400000	
Mg	24	45	HMI He	18135.975	ppb	1.48	2503746.56	400000	
Al	27	45	HMI He	406.005	ppb	0.56	12754.96	400000	
K	39	45	HMI He	8141.634	ppb	1.44	639798.97	400000	
Ca	44	45	HMI He	60462.411	ppb	0.43	247187.16	400000	
V	51	72	HMI He	65.471	ppb	1.59	114009.61	2000	
Cr	52	72	HMI He	45.171	ppb	0.62	101344.55	5000	
Mn	55	72	HMI He	42.456	ppb	0.86	33046.81	10000	
Fe	57	72	HMI He	445.964	ppb	4.87	18280.46	400000	
Co	59	72	HMI He	40.567	ppb	2.16	164715.08	2000	
Ni	60	72	HMI He	58.367	ppb	1.60	67723.10	5000	
Cu	63	72	HMI He	42.150	ppb	3.09	136389.59	5000	
Zn	66	72	HMI He	40.610	ppb	2.00	17990.15	5000	
As	75	72	HMI He	48.085	ppb	1.49	14496.04	2000	
Sr	88	45	HMI He	345.563	ppb	2.33	258347.70	2000	
Zr	90	72	HMI He	6483.821	ppb	1.63	95926.86	1000	>LDR
Nb	93	72	HMI He	0.047	ppb	9.12	316.68	200	
Mo	95	115	HMI He	43.274	ppb	5.20	60401.54	2000	
Pd	105	115	HMI He	-0.094	ppb	-13.37	126.67	100	
Ag	107	115	HMI He	40.203	ppb	3.11	186758.51	100	
Cd	111	115	HMI He	40.735	ppb	3.45	22729.91	2000	
Sn	120	115	HMI He	41.797	ppb	4.24	58613.53	2000	
Sb	121	115	HMI He	40.538	ppb	3.70	52324.42	1000	
Ba	137	115	HMI He	85.171	ppb	6.58	33580.29	5000	
W	182	165	HMI He	41.025	ppb	3.24	219497.38	100	
Pt	195	165	HMI He	-0.012	ppb	-29.11	93.33	100	
Tl	205	165	HMI He	40.173	ppb	2.04	361687.95	2000	
Pb	208	165	HMI He	40.408	ppb	2.19	480708.48	5000	
Th	232	165	HMI He	41.268	ppb	4.12	523971.77	2000	
U	238	165	HMI He	42.700	ppb	2.36	600893.08	2000	
Li	7	45	No Gas	55.270	ppb	12.62	14140005.83	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1023086.67	2.69	1062943.78666667	96.25	60	125	
Ge Internal Standard	72	HMI H2	19932526.46	0.81	20935857.45	95.21	60	125	
Sc (IS)	45	HMI He	1316185.01	1.27	1372993.64	95.86	60	125	
Ge Internal Standard	72	HMI He	1666018.65	0.76	1682864.37666667	99	60	125	
In Internal standard	115	HMI He	4101418.40	2.48	4314093.05	95.07	60	125	
Ho-165	165	HMI He	19244499.41	2.62	19709342.1	97.64	60	125	
Sc IS)	45	No Gas	139074631.08	1.40	137813939.48	100.91	60	120	

Sample Report

Sample Name	280-104844-A-2-F MSD
File Name	039SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:05:37 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	41.561	ppb	4.25	22998.97	2000	
B	11	6	HMI H2	38.056	ppb	1.26	25809.93	100	
Se	78	72	HMI H2	41.970	ppb	3.17	20924.29	2000	
Na	23	45	HMI He	19190.234	ppb	3.07	5989700.47	400000	
Mg	24	45	HMI He	17078.145	ppb	2.20	2332119.15	400000	
Al	27	45	HMI He	419.811	ppb	2.39	13041.86	400000	
K	39	45	HMI He	7848.877	ppb	2.05	611579.58	400000	
Ca	44	45	HMI He	57936.758	ppb	2.44	234308.11	400000	
V	51	72	HMI He	64.007	ppb	0.49	111724.83	2000	
Cr	52	72	HMI He	43.939	ppb	0.69	98751.75	5000	
Mn	55	72	HMI He	41.882	ppb	2.78	32656.12	10000	
Fe	57	72	HMI He	417.686	ppb	2.37	17152.51	400000	
Co	59	72	HMI He	39.771	ppb	0.96	161758.08	2000	
Ni	60	72	HMI He	56.033	ppb	1.76	65129.46	5000	
Cu	63	72	HMI He	40.011	ppb	2.63	129800.01	5000	
Zn	66	72	HMI He	40.748	ppb	0.67	18076.92	5000	
As	75	72	HMI He	47.814	ppb	1.91	14437.80	2000	
Sr	88	45	HMI He	325.217	ppb	1.29	240503.03	2000	
Zr	90	72	HMI He	6433.374	ppb	1.15	95350.22	1000	>LDR
Nb	93	72	HMI He	0.035	ppb	30.53	250.01	200	
Mo	95	115	HMI He	43.609	ppb	2.79	60240.84	2000	
Pd	105	115	HMI He	-0.086	ppb	-25.81	143.33	100	
Ag	107	115	HMI He	39.574	ppb	1.24	182061.01	100	
Cd	111	115	HMI He	39.697	ppb	4.19	21925.52	2000	
Sn	120	115	HMI He	40.903	ppb	3.63	56803.18	2000	
Sb	121	115	HMI He	40.584	ppb	2.15	51872.80	1000	
Ba	137	115	HMI He	82.771	ppb	2.47	32310.87	5000	
W	182	165	HMI He	41.350	ppb	1.13	213819.50	100	
Pt	195	165	HMI He	-0.003	ppb	-159.30	126.67	100	
Tl	205	165	HMI He	41.052	ppb	3.19	356866.27	2000	
Pb	208	165	HMI He	40.757	ppb	1.67	468452.08	5000	
Th	232	165	HMI He	41.403	ppb	1.55	508018.94	2000	
U	238	165	HMI He	42.808	ppb	1.14	582226.22	2000	
Li	7	45	No Gas	47.478	ppb	14.08	13358613.05	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	991297.76	2.53	1062943.78666667	93.26	60	125	
Ge Internal Standard	72	HMI H2	19718909.59	1.57	20935857.45	94.19	60	125	
Sc (IS)	45	HMI He	1302270.58	1.93	1372993.64	94.85	60	125	
Ge Internal Standard	72	HMI He	1668809.50	0.94	1682864.37666667	99.16	60	125	
In Internal standard	115	HMI He	4060377.40	2.32	4314093.05	94.12	60	125	
Ho-165	165	HMI He	18590451.11	1.75	19709342.1	94.32	60	125	
Sc IS)	45	No Gas	134055973.01	2.14	137813939.48	97.27	60	120	

Sample Report

Sample Name	280-104844-a-2-d pds
File Name	040SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:09:01 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	399737 6020B
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	204.087	ppb	6.06	112361.45	2000	
B	11	6	HMI H2	8.061	ppb	3.46	5570.99	100	
Se	78	72	HMI H2	204.675	ppb	2.84	99664.76	2000	
Na	23	45	HMI He	20222.273	ppb	3.23	6110634.94	400000	
Mg	24	45	HMI He	17782.336	ppb	4.24	2350851.99	400000	
Al	27	45	HMI He	2108.141	ppb	4.11	63048.18	400000	
K	39	45	HMI He	8342.831	ppb	2.73	627155.70	400000	
Ca	44	45	HMI He	60780.689	ppb	3.01	238008.12	400000	
V	51	72	HMI He	236.909	ppb	1.40	394117.77	2000	
Cr	52	72	HMI He	217.128	ppb	4.33	475219.77	5000	
Mn	55	72	HMI He	211.431	ppb	0.88	160849.24	10000	
Fe	57	72	HMI He	2069.884	ppb	3.13	82634.09	400000	
Co	59	72	HMI He	201.882	ppb	1.53	802597.50	2000	
Ni	60	72	HMI He	223.139	ppb	3.44	252628.14	5000	
Cu	63	72	HMI He	207.907	ppb	3.48	649650.66	5000	
Zn	66	72	HMI He	211.378	ppb	1.12	87122.40	5000	
As	75	72	HMI He	213.150	ppb	2.38	62756.11	2000	
Sr	88	45	HMI He	301.567	ppb	3.92	215884.24	2000	
Zr	90	72	HMI He	32782.687	ppb	3.14	474254.93	1000	>LDR
Nb	93	72	HMI He	0.437	ppb	16.21	2460.22	200	
Mo	95	115	HMI He	213.824	ppb	2.05	284839.18	2000	
Pd	105	115	HMI He	-0.095	ppb	-9.82	120.00	100	
Ag	107	115	HMI He	49.480	ppb	2.81	219656.56	100	
Cd	111	115	HMI He	210.789	ppb	2.51	112399.68	2000	
Sn	120	115	HMI He	211.402	ppb	1.86	282307.54	2000	
Sb	121	115	HMI He	220.412	ppb	2.76	271788.78	1000	
Ba	137	115	HMI He	258.915	ppb	1.79	97523.38	5000	
W	182	165	HMI He	213.408	ppb	0.98	1074524.71	100	
Pt	195	165	HMI He	0.031	ppb	17.86	266.68	100	
Tl	205	165	HMI He	212.737	ppb	3.90	1806663.51	2000	
Pb	208	165	HMI He	213.355	ppb	2.14	2372266.57	5000	
Th	232	165	HMI He	0.322	ppb	1.46	4050.62	2000	
U	238	165	HMI He	211.158	ppb	1.54	2807777.30	2000	
Li	7	45	No Gas	-12.140	ppb	-39.24	10877015.37	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	989405.47	5.64	1062943.78666667	93.08	60	125	
Ge Internal Standard	72	HMI H2	19324590.87	0.39	20935857.45	92.3	60	125	
Sc (IS)	45	HMI He	1261433.62	3.15	1372993.64	91.87	60	125	
Ge Internal Standard	72	HMI He	1631551.06	2.75	1682864.37666667	96.95	60	125	
In Internal standard	115	HMI He	3918008.22	0.81	4314093.05	90.82	60	125	
Ho-165	165	HMI He	18180350.72	1.66	19709342.1	92.24	60	125	
Sc IS)	45	No Gas	129040744.94	2.67	137813939.48	93.63	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4907387
File Name	041_CCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:12:24 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	502.420	ppb	7.54	350131.09	500	100.48	90	110	
Be	9	6	HMI H2	47.745	ppb	2.13	27477.32	50	95.49	90	110	
B	11	6	HMI H2	42.999	ppb	3.32	30267.33	50	86	90	110	>+\-10%
Se	78	72	HMI H2	51.376	ppb	2.34	24709.58	50	102.75	90	110	
Na	23	45	HMI He	5370.503	ppb	4.79	1650950.33	5000	107.41	90	110	
Mg	24	45	HMI He	5018.132	ppb	1.34	668360.76	5000	100.36	90	110	
Al	27	45	HMI He	5128.542	ppb	1.27	154352.05	5000	102.57	90	110	
K	39	45	HMI He	5176.796	ppb	0.37	405806.02	5000	103.54	90	110	
Ca	44	45	HMI He	5176.494	ppb	5.13	20529.59	5000	103.53	90	110	
V	51	72	HMI He	50.325	ppb	3.80	87240.67	50	100.65	90	110	
Cr	52	72	HMI He	51.513	ppb	5.09	113805.84	50	103.03	90	110	
Mn	55	72	HMI He	49.771	ppb	2.79	38164.62	50	99.54	90	110	
Fe	57	72	HMI He	5055.944	ppb	0.47	203157.31	5000	101.12	90	110	
Co	59	72	HMI He	49.974	ppb	2.78	199994.51	50	99.95	90	110	
Ni	60	72	HMI He	49.741	ppb	1.39	56942.66	50	99.48	90	110	
Cu	63	72	HMI He	50.698	ppb	0.92	161278.05	50	101.4	90	110	
Zn	66	72	HMI He	50.750	ppb	2.49	21884.84	50	101.5	90	110	
As	75	72	HMI He	51.810	ppb	2.33	15390.32	50	103.62	90	110	
Sr	88	45	HMI He	51.985	ppb	0.29	37530.84	50	103.97	90	110	
Zr	90	72	HMI He	59.174	ppb	19.25	990.05	50	118.35	90	110	>+\-10%
Nb	93	72	HMI He	100.028	ppb	2.15	556508.60	100	100.03	90	110	
Mo	95	115	HMI He	50.505	ppb	2.79	67881.25	50	101.01	90	110	
Pd	105	115	HMI He	51.708	ppb	3.35	107773.04	50	103.42	90	110	
Ag	107	115	HMI He	51.091	ppb	1.34	228718.89	50	102.18	90	110	
Cd	111	115	HMI He	51.190	ppb	3.75	27514.21	50	102.38	90	110	
Sn	120	115	HMI He	50.599	ppb	4.20	68305.37	50	101.2	90	110	
Sb	121	115	HMI He	50.984	ppb	4.16	63395.49	50	101.97	90	110	
Ba	137	115	HMI He	53.394	ppb	1.30	20293.54	50	106.79	90	110	
W	182	165	HMI He	50.158	ppb	0.25	260059.83	50	100.32	90	110	
Pt	195	165	HMI He	48.565	ppb	2.78	205867.68	50	97.13	90	110	
Tl	205	165	HMI He	50.323	ppb	0.72	439058.10	50	100.65	90	110	
Pb	208	165	HMI He	51.045	ppb	1.67	587207.82	50	102.09	90	110	
Th	232	165	HMI He	49.797	ppb	1.83	613208.56	50	99.59	90	110	
U	238	165	HMI He	48.912	ppb	1.38	667501.73	50	97.82	90	110	
Li	7	45	No Gas	495.090	ppb	0.62	28507340.60	500	99.02	90	110	

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1030328.08	5.16	1062943.78666667	96.93	60	125	
Ge Internal Standard	72	HMI H2	19035009.84	1.30	20935857.45	90.92	60	125	
Sc (IS)	45	HMI He	1269445.46	0.50	1372993.64	92.46	60	125	
Ge Internal Standard	72	HMI He	1642470.20	2.07	1682864.37666667	97.6	60	125	
In Internal standard	115	HMI He	3951363.30	2.36	4314093.05	91.59	60	125	
Ho-165	165	HMI He	18657000.90	1.37	19709342.1	94.66	60	125	
Sc IS)	45	No Gas	132421234.76	1.70	137813939.48	96.09	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4907385
File Name	042_CCB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:15:49 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	21.979	ppb	65.16	148535.33	0.1	>RL
Be	9	6	HMI H2	-0.047	ppb	-22.53	21.67	0.5	
B	11	6	HMI H2	1.119	ppb	24.91	896.70	0.1	>RL
Se	78	72	HMI H2	-0.006	ppb	-745.63	92.00	1	
Na	23	45	HMI He	-4.158	ppb	-74.17	21707.47	25	
Mg	24	45	HMI He	0.711	ppb	116.73	363.34	25	
Al	27	45	HMI He	0.455	ppb	88.17	103.33	15	
K	39	45	HMI He	78.263	ppb	22.90	42367.49	50	>RL
Ca	44	45	HMI He	-7.235	ppb	-114.77	103.33	25	
V	51	72	HMI He	0.821	ppb	26.08	4984.14	1	
Cr	52	72	HMI He	0.015	ppb	305.44	410.01	1	
Mn	55	72	HMI He	-0.003	ppb	-789.56	70.00	0.5	
Fe	57	72	HMI He	1.525	ppb	90.16	166.67	25	
Co	59	72	HMI He	0.020	ppb	25.42	83.33	0.5	
Ni	60	72	HMI He	0.030	ppb	20.61	296.68	1	
Cu	63	72	HMI He	-0.157	ppb	-14.58	1726.78	1	
Zn	66	72	HMI He	0.294	ppb	113.54	1180.06	5	
As	75	72	HMI He	0.066	ppb	31.11	59.48	1	
Sr	88	45	HMI He	-0.003	ppb	-1021.85	56.67	1	
Zr	90	72	HMI He	-2.577	ppb	-68.85	90.00	1	
Nb	93	72	HMI He	0.416	ppb	13.70	2300.20	2	
Mo	95	115	HMI He	0.038	ppb	74.22	120.00	0.5	
Pd	105	115	HMI He	-0.070	ppb	-48.96	173.34	1	
Ag	107	115	HMI He	0.006	ppb	17.87	43.33	1	
Cd	111	115	HMI He	0.031	ppb	33.47	16.67	0.5	
Sn	120	115	HMI He	0.045	ppb	83.68	323.34	1	
Sb	121	115	HMI He	0.269	ppb	5.31	360.01	1	
Ba	137	115	HMI He	0.056	ppb	119.66	36.67	0.5	
W	182	165	HMI He	0.059	ppb	17.37	1386.75	1	
Pt	195	165	HMI He	0.016	ppb	117.64	203.34	1	
Tl	205	165	HMI He	0.001	ppb	935.09	420.02	0.1	
Pb	208	165	HMI He	-0.236	ppb	-5.48	3383.55	0.5	
Th	232	165	HMI He	0.027	ppb	5.95	516.69	1	
U	238	165	HMI He	0.018	ppb	25.50	293.34	0.5	
Li	7	45	No Gas	3.748	ppb	317.98	11677025.85	0.05	>RL

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	984270.57	2.19	1062943.78666667	92.6	60	125	
Ge Internal Standard	72	HMI H2	19392695.03	0.91	20935857.45	92.63	60	125	
Sc (IS)	45	HMI He	1269379.76	3.24	1372993.64	92.45	60	125	
Ge Internal Standard	72	HMI He	1599458.21	2.05	1682864.37666667	95.04	60	125	
In Internal standard	115	HMI He	3998952.00	1.95	4314093.05	92.7	60	125	
Ho-165	165	HMI He	18038203.23	2.81	19709342.1	91.52	60	125	
Sc IS)	45	No Gas	132140436.44	1.28	137813939.48	95.88	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4907389
File Name	043LCCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:19:13 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.978	ppb	5.16	590.01	1	97.78	70	130	
Se	78	72	HMI H2	4.949	ppb	2.54	2470.87	5	98.99	70	130	
Na	23	45	HMI He	40.078	ppb	4.93	35865.06	50	80.16	70	130	
Mg	24	45	HMI He	51.031	ppb	3.53	7208.34	50	102.06	70	130	
Al	27	45	HMI He	27.197	ppb	11.70	926.71	30	90.66	70	130	
K	39	45	HMI He	180.960	ppb	12.58	50734.19	100	180.96	70	130	>+/-30%
Ca	44	45	HMI He	31.258	ppb	54.76	260.00	50	62.52	70	130	>+/-30%
V	51	72	HMI He	5.690	ppb	0.25	12848.55	5	113.79	70	130	
Cr	52	72	HMI He	2.034	ppb	3.37	4740.74	2	101.69	70	130	
Mn	55	72	HMI He	0.968	ppb	12.30	793.36	1	96.8	70	130	
Fe	57	72	HMI He	53.741	ppb	11.56	2210.18	50	107.48	70	130	
Co	59	72	HMI He	0.998	ppb	3.43	3897.18	1	99.83	70	130	
Ni	60	72	HMI He	2.234	ppb	5.19	2740.27	2	111.7	70	130	
Cu	63	72	HMI He	2.064	ppb	6.23	8508.97	2	103.21	70	130	
Zn	66	72	HMI He	10.115	ppb	8.01	5097.52	10	101.15	70	130	
As	75	72	HMI He	4.966	ppb	4.21	1473.93	5	99.33	70	130	
Sr	88	45	HMI He	0.951	ppb	2.55	760.03	1	95.14	70	130	
Zr	90	72	HMI He	7.295	ppb	56.96	230.00	0.5	1458.91	70	130	>+/-30%
Nb	93	72	HMI He	0.361	ppb	8.58	2006.82	2	18.07	70	130	>+/-30%
Mo	95	115	HMI He	1.922	ppb	19.12	2610.25	2	96.1	70	130	
Pd	105	115	HMI He	-0.115	ppb	-29.97	76.67	1	-11.53	70	130	>+/-30%
Ag	107	115	HMI He	4.923	ppb	2.98	21721.79	5	98.47	70	130	
Cd	111	115	HMI He	1.106	ppb	35.03	586.69	1	110.65	70	130	
Sn	120	115	HMI He	10.306	ppb	5.40	13909.72	10	103.06	70	130	
Sb	121	115	HMI He	2.225	ppb	9.32	2746.94	2	111.26	70	130	
Ba	137	115	HMI He	1.172	ppb	12.39	453.34	1	117.24	70	130	
W	182	165	HMI He	4.812	ppb	4.81	25131.40	1	481.19	70	130	>+/-30%
Pt	195	165	HMI He	0.027	ppb	32.51	250.01	1	2.75	70	130	>+/-30%
Tl	205	165	HMI He	1.041	ppb	2.89	9189.68	1	104.09	70	130	
Pb	208	165	HMI He	0.845	ppb	2.48	15296.63	1	84.45	70	130	
Th	232	165	HMI He	1.960	ppb	2.73	23542.71	2	98	70	130	
U	238	165	HMI He	1.037	ppb	5.90	13753.43	1	103.69	70	130	
Li	7	45	No Gas	11.603	ppb	48.87	12329827.38	50	23.21	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	993021.60	3.26	1062943.78666667	93.42	60	125	
Ge Internal Standard	72	HMI H2	19082186.50	1.10	20935857.45	91.15	60	125	
Sc (IS)	45	HMI He	1295680.15	0.38	1372993.64	94.37	60	125	
Ge Internal Standard	72	HMI He	1599343.47	1.56	1682864.37666667	95.04	60	125	
In Internal standard	115	HMI He	3891370.04	0.66	4314093.05	90.2	60	125	
Ho-165	165	HMI He	18057773.22	1.08	19709342.1	91.62	60	125	
Sc IS)	45	No Gas	136387251.22	2.28	137813939.48	98.96	60	120	

Sample Report

Sample Name	280-104320-v-9-d
File Name	044SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:22:39 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.051	ppb	-28.32	20.00	2000	
B	11	6	HMI H2	51.591	ppb	4.24	34916.27	100	
Se	78	72	HMI H2	-0.042	ppb	-43.33	73.33	2000	
Na	23	45	HMI He	12316.712	ppb	2.05	3614871.95	400000	
Mg	24	45	HMI He	30963.412	ppb	2.82	3966176.35	400000	
Al	27	45	HMI He	57.297	ppb	7.46	1743.45	400000	
K	39	45	HMI He	2455.707	ppb	2.20	203846.06	400000	
Ca	44	45	HMI He	93976.333	ppb	2.05	356514.63	400000	
V	51	72	HMI He	-0.736	ppb	-4.17	2450.22	2000	
Cr	52	72	HMI He	0.282	ppb	16.18	973.38	5000	
Mn	55	72	HMI He	279.975	ppb	1.19	207454.09	10000	
Fe	57	72	HMI He	652.625	ppb	4.51	25456.75	400000	
Co	59	72	HMI He	2.005	ppb	3.06	7771.93	2000	
Ni	60	72	HMI He	12.383	ppb	6.38	13909.57	5000	
Cu	63	72	HMI He	-0.087	ppb	-72.36	1926.81	5000	
Zn	66	72	HMI He	1.657	ppb	19.46	1713.45	5000	
As	75	72	HMI He	50.407	ppb	1.42	14490.80	2000	
Sr	88	45	HMI He	289.360	ppb	1.69	200750.41	2000	
Zr	90	72	HMI He	13.531	ppb	27.19	316.68	1000	
Nb	93	72	HMI He	0.046	ppb	14.95	300.01	200	
Mo	95	115	HMI He	2.619	ppb	3.25	3473.76	2000	
Pd	105	115	HMI He	-0.108	ppb	-9.35	90.00	100	
Ag	107	115	HMI He	0.010	ppb	43.61	60.00	100	
Cd	111	115	HMI He	0.032	ppb	124.59	16.67	2000	
Sn	120	115	HMI He	0.204	ppb	46.16	516.68	2000	
Sb	121	115	HMI He	2.323	ppb	1.89	2820.29	1000	
Ba	137	115	HMI He	59.619	ppb	3.40	21955.75	5000	
W	182	165	HMI He	0.175	ppb	38.46	1940.15	100	
Pt	195	165	HMI He	0.005	ppb	145.36	156.67	100	
Tl	205	165	HMI He	-0.029	ppb	-10.56	163.33	2000	
Pb	208	165	HMI He	-0.068	ppb	-37.86	5167.12	5000	
Th	232	165	HMI He	0.054	ppb	25.30	826.70	2000	
U	238	165	HMI He	3.608	ppb	3.56	46997.23	2000	
Li	7	45	No Gas	6.207	ppb	98.70	12064195.20	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	991692.25	4.46	1062943.78666667	93.3	60	125	
Ge Internal Standard	72	HMI H2	19143462.13	2.05	20935857.45	91.44	60	125	
Sc (IS)	45	HMI He	1221745.33	1.92	1372993.64	88.98	60	125	
Ge Internal Standard	72	HMI He	1589220.80	1.79	1682864.37666667	94.44	60	125	
In Internal standard	115	HMI He	3828790.21	0.50	4314093.05	88.75	60	125	
Ho-165	165	HMI He	17802544.28	3.86	19709342.1	90.33	60	125	
Sc IS)	45	No Gas	135565996.26	2.03	137813939.48	98.37	60	120	

Sample Report

Sample Name	280-104320-v-9-e ms
File Name	045SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:26:01 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	40.953	ppb	5.00	22823.66	2000	
B	11	6	HMI H2	81.405	ppb	4.83	55404.11	100	
Se	78	72	HMI H2	39.934	ppb	3.56	19745.47	2000	
Na	23	45	HMI He	11519.700	ppb	1.22	3613770.26	400000	
Mg	24	45	HMI He	29441.487	ppb	1.72	4029621.28	400000	
Al	27	45	HMI He	490.049	ppb	1.53	15247.10	400000	
K	39	45	HMI He	2309.852	ppb	1.62	207092.57	400000	
Ca	44	45	HMI He	91731.573	ppb	1.77	371756.40	400000	
V	51	72	HMI He	41.426	ppb	3.47	73567.49	2000	
Cr	52	72	HMI He	42.092	ppb	2.22	94554.41	5000	
Mn	55	72	HMI He	315.620	ppb	1.85	245316.22	10000	
Fe	57	72	HMI He	1066.135	ppb	2.88	43557.99	400000	
Co	59	72	HMI He	41.467	ppb	2.71	168454.70	2000	
Ni	60	72	HMI He	51.775	ppb	2.48	60133.98	5000	
Cu	63	72	HMI He	39.895	ppb	1.71	129309.57	5000	
Zn	66	72	HMI He	41.702	ppb	0.70	18460.69	5000	
As	75	72	HMI He	90.277	ppb	0.80	27197.91	2000	
Sr	88	45	HMI He	320.335	ppb	0.15	237442.66	2000	
Zr	90	72	HMI He	6315.197	ppb	4.72	93465.89	1000	>LDR
Nb	93	72	HMI He	0.047	ppb	14.78	316.68	200	
Mo	95	115	HMI He	44.377	ppb	5.68	60896.64	2000	
Pd	105	115	HMI He	-0.125	ppb	-17.80	60.00	100	
Ag	107	115	HMI He	41.256	ppb	4.63	188533.15	100	
Cd	111	115	HMI He	41.771	ppb	3.18	22940.31	2000	
Sn	120	115	HMI He	40.276	ppb	3.45	55602.15	2000	
Sb	121	115	HMI He	43.017	ppb	4.46	54625.34	1000	
Ba	137	115	HMI He	100.473	ppb	6.67	38942.60	5000	
W	182	165	HMI He	41.281	ppb	2.09	210403.64	100	
Pt	195	165	HMI He	0.005	ppb	174.56	160.00	100	
Tl	205	165	HMI He	41.846	ppb	2.61	358571.43	2000	
Pb	208	165	HMI He	42.331	ppb	1.52	479280.83	5000	
Th	232	165	HMI He	42.599	ppb	4.49	515041.14	2000	
U	238	165	HMI He	45.006	ppb	3.12	603091.96	2000	
Li	7	45	No Gas	30.702	ppb	28.80	12690381.21	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	999465.43	5.65	1062943.78666667	94.03	60	125	
Ge Internal Standard	72	HMI H2	19546806.27	1.55	20935857.45	93.37	60	125	
Sc (IS)	45	HMI He	1305061.76	1.05	1372993.64	95.05	60	125	
Ge Internal Standard	72	HMI He	1667482.28	2.55	1682864.37666667	99.09	60	125	
In Internal standard	115	HMI He	4038317.27	4.50	4314093.05	93.61	60	125	
Ho-165	165	HMI He	18323228.63	1.48	19709342.1	92.97	60	125	
Sc IS)	45	No Gas	133140126.39	1.92	137813939.48	96.61	60	120	

Sample Report

Sample Name	280-104320-g-21-b
File Name	046SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:29:25 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.053	ppb	-13.49	18.33	2000	
B	11	6	HMI H2	24.406	ppb	2.85	16271.37	100	
Se	78	72	HMI H2	-0.021	ppb	-58.74	82.67	2000	
Na	23	45	HMI He	11677.302	ppb	5.01	3465591.62	400000	
Mg	24	45	HMI He	31913.870	ppb	3.03	4134707.80	400000	
Al	27	45	HMI He	7.269	ppb	34.71	300.01	400000	
K	39	45	HMI He	2096.632	ppb	4.98	181178.01	400000	
Ca	44	45	HMI He	83971.842	ppb	4.15	322015.48	400000	
V	51	72	HMI He	-0.992	ppb	-9.62	2046.82	2000	
Cr	52	72	HMI He	0.134	ppb	26.98	660.02	5000	
Mn	55	72	HMI He	238.290	ppb	4.39	177288.87	10000	
Fe	57	72	HMI He	1780.179	ppb	5.45	69537.42	400000	
Co	59	72	HMI He	0.334	ppb	15.40	1303.41	2000	
Ni	60	72	HMI He	0.167	ppb	24.41	446.68	5000	
Cu	63	72	HMI He	-0.149	ppb	-33.14	1746.79	5000	
Zn	66	72	HMI He	0.990	ppb	62.55	1450.08	5000	
As	75	72	HMI He	11.145	ppb	2.89	3250.01	2000	
Sr	88	45	HMI He	144.585	ppb	4.23	101422.84	2000	
Zr	90	72	HMI He	28.588	ppb	16.20	530.01	1000	
Nb	93	72	HMI He	0.028	ppb	7.26	203.34	200	
Mo	95	115	HMI He	0.814	ppb	14.61	1150.06	2000	
Pd	105	115	HMI He	-0.132	ppb	-5.94	43.33	100	
Ag	107	115	HMI He	0.017	ppb	27.22	90.00	100	
Cd	111	115	HMI He	0.031	ppb	124.19	16.67	2000	
Sn	120	115	HMI He	0.105	ppb	44.20	396.68	2000	
Sb	121	115	HMI He	0.265	ppb	4.67	346.68	1000	
Ba	137	115	HMI He	48.160	ppb	4.19	18107.51	5000	
W	182	165	HMI He	0.088	ppb	45.21	1516.76	100	
Pt	195	165	HMI He	0.011	ppb	147.07	180.00	100	
Tl	205	165	HMI He	-0.019	ppb	-34.58	246.68	2000	
Pb	208	165	HMI He	-0.069	ppb	-52.11	5173.76	5000	
Th	232	165	HMI He	0.042	ppb	33.13	676.69	2000	
U	238	165	HMI He	0.871	ppb	3.07	11444.71	2000	
Li	7	45	No Gas	-24.324	ppb	-21.58	10050861.35	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	972234.58	6.24	1062943.78666667	91.47	60	125	
Ge Internal Standard	72	HMI H2	18879954.01	1.25	20935857.45	90.18	60	125	
Sc (IS)	45	HMI He	1236478.09	5.13	1372993.64	90.06	60	125	
Ge Internal Standard	72	HMI He	1597287.46	3.80	1682864.37666667	94.91	60	125	
In Internal standard	115	HMI He	3909727.47	1.66	4314093.05	90.63	60	125	
Ho-165	165	HMI He	17861733.44	1.92	19709342.1	90.63	60	125	
Sc IS)	45	No Gas	123887093.54	0.29	137813939.48	89.89	60	120	

Sample Report

Sample Name	280-104320-a-24-b
File Name	047SMPL.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:32:49 PM
Sample Type	Sample
Total Dilution	1.0000
Comment	397837 6020A DOD5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Pass
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	LDR	QC Flag
Be	9	6	HMI H2	-0.069	ppb	-26.89	10.00	2000	
B	11	6	HMI H2	284.455	ppb	6.94	199896.41	100	
Se	78	72	HMI H2	0.415	ppb	20.64	305.34	2000	
Na	23	45	HMI He	11526.696	ppb	0.75	3660433.74	400000	
Mg	24	45	HMI He	12397.996	ppb	3.14	1717915.63	400000	
Al	27	45	HMI He	12.036	ppb	23.87	470.01	400000	
K	39	45	HMI He	5165.421	ppb	0.79	421430.15	400000	
Ca	44	45	HMI He	31196.460	ppb	3.78	128093.01	400000	
V	51	72	HMI He	-1.077	ppb	-8.96	2020.15	2000	
Cr	52	72	HMI He	0.141	ppb	13.45	716.69	5000	
Mn	55	72	HMI He	0.656	ppb	28.31	593.36	10000	
Fe	57	72	HMI He	24.394	ppb	3.52	1120.05	400000	
Co	59	72	HMI He	0.023	ppb	55.94	100.00	2000	
Ni	60	72	HMI He	0.907	ppb	20.11	1340.07	5000	
Cu	63	72	HMI He	0.195	ppb	24.88	2956.97	5000	
Zn	66	72	HMI He	5.545	ppb	2.22	3457.07	5000	
As	75	72	HMI He	0.004	ppb	775.27	43.79	2000	
Sr	88	45	HMI He	529.064	ppb	3.44	396834.33	2000	
Zr	90	72	HMI He	11.798	ppb	15.51	310.01	1000	
Nb	93	72	HMI He	0.023	ppb	49.91	183.34	200	
Mo	95	115	HMI He	0.021	ppb	167.78	100.00	2000	
Pd	105	115	HMI He	-0.115	ppb	-20.11	83.33	100	
Ag	107	115	HMI He	0.003	ppb	72.05	30.00	100	
Cd	111	115	HMI He	0.018	ppb	99.12	10.00	2000	
Sn	120	115	HMI He	0.139	ppb	50.87	466.68	2000	
Sb	121	115	HMI He	0.096	ppb	39.10	146.67	1000	
Ba	137	115	HMI He	251.754	ppb	3.88	99807.51	5000	
W	182	165	HMI He	0.062	ppb	4.08	1443.43	100	
Pt	195	165	HMI He	0.016	ppb	75.14	210.00	100	
Tl	205	165	HMI He	-0.026	ppb	-16.30	193.33	2000	
Pb	208	165	HMI He	-0.125	ppb	-16.95	4740.36	5000	
Th	232	165	HMI He	0.016	ppb	27.45	396.68	2000	
U	238	165	HMI He	0.076	ppb	15.10	1093.39	2000	
Li	7	45	No Gas	-34.365	ppb	-8.92	10186549.78	40000	

Sample Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1034944.53	6.54	1062943.78666667	97.37	60	125	
Ge Internal Standard	72	HMI H2	19894198.34	2.28	20935857.45	95.02	60	125	
Sc (IS)	45	HMI He	1321015.66	0.87	1372993.64	96.21	60	125	
Ge Internal Standard	72	HMI He	1687696.75	1.24	1682864.37666667	100.29	60	125	
In Internal standard	115	HMI He	4124883.36	1.38	4314093.05	95.61	60	125	
Ho-165	165	HMI He	18565287.78	1.33	19709342.1	94.2	60	125	
Sc IS)	45	No Gas	129703291.57	1.14	137813939.48	94.11	60	120	

Continuing Calibration Verification (CCV) Report

Sample Name	CCV-4907387
File Name	048_CCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:36:13 PM
Sample Type	CCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Li	7	45	HMI H2	481.343	ppb	5.47	354075.85	500	96.27	90	110	
Be	9	6	HMI H2	52.137	ppb	8.38	28415.44	50	104.27	90	110	
B	11	6	HMI H2	51.498	ppb	10.48	34325.22	50	103	90	110	
Se	78	72	HMI H2	49.999	ppb	2.80	24689.52	50	100	90	110	
Na	23	45	HMI He	5104.835	ppb	3.16	1639871.74	5000	102.1	90	110	
Mg	24	45	HMI He	4875.238	ppb	2.00	678080.57	5000	97.5	90	110	
Al	27	45	HMI He	4915.580	ppb	3.33	154469.92	5000	98.31	90	110	
K	39	45	HMI He	5107.322	ppb	1.32	418651.65	5000	102.15	90	110	
Ca	44	45	HMI He	4999.375	ppb	7.10	20699.80	5000	99.99	90	110	
V	51	72	HMI He	51.943	ppb	2.81	89019.80	50	103.89	90	110	
Cr	52	72	HMI He	51.524	ppb	0.91	112774.16	50	103.05	90	110	
Mn	55	72	HMI He	50.501	ppb	2.36	38361.70	50	101	90	110	
Fe	57	72	HMI He	5090.714	ppb	2.10	202475.50	5000	101.81	90	110	
Co	59	72	HMI He	50.319	ppb	1.84	199391.39	50	100.64	90	110	
Ni	60	72	HMI He	51.439	ppb	0.47	58277.13	50	102.88	90	110	
Cu	63	72	HMI He	50.705	ppb	3.49	159634.78	50	101.41	90	110	
Zn	66	72	HMI He	52.716	ppb	0.32	22469.17	50	105.43	90	110	
As	75	72	HMI He	53.178	ppb	2.64	15636.30	50	106.36	90	110	
Sr	88	45	HMI He	50.812	ppb	3.16	38306.12	50	101.62	90	110	
Zr	90	72	HMI He	57.433	ppb	23.09	956.71	50	114.87	90	110	>+\-10%
Nb	93	72	HMI He	101.105	ppb	2.06	556939.62	100	101.1	90	110	
Mo	95	115	HMI He	51.014	ppb	1.51	69578.54	50	102.03	90	110	
Pd	105	115	HMI He	50.427	ppb	1.08	106678.51	50	100.85	90	110	
Ag	107	115	HMI He	50.936	ppb	1.72	231341.69	50	101.87	90	110	
Cd	111	115	HMI He	50.041	ppb	3.86	27293.97	50	100.08	90	110	
Sn	120	115	HMI He	51.219	ppb	2.62	70170.41	50	102.44	90	110	
Sb	121	115	HMI He	50.695	ppb	0.89	63987.47	50	101.39	90	110	
Ba	137	115	HMI He	52.562	ppb	4.31	20263.55	50	105.12	90	110	
W	182	165	HMI He	50.188	ppb	3.21	257813.86	50	100.38	90	110	
Pt	195	165	HMI He	49.308	ppb	2.13	207156.85	50	98.62	90	110	
Tl	205	165	HMI He	51.005	ppb	2.41	440970.74	50	102.01	90	110	
Pb	208	165	HMI He	51.731	ppb	2.21	589673.87	50	103.46	90	110	
Th	232	165	HMI He	52.381	ppb	0.85	639333.42	50	104.76	90	110	
U	238	165	HMI He	49.634	ppb	2.72	671253.62	50	99.27	90	110	
Li	7	45	No Gas	364.101	ppb	6.20	22461363.62	500	72.82	90	110	>+\-10%

Continuing Calibration Verification (CCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	979683.12	6.88	1062943.78666667	92.17	60	125	
Ge Internal Standard	72	HMI H2	19543753.35	1.57	20935857.45	93.35	60	125	
Sc (IS)	45	HMI He	1325914.05	1.74	1372993.64	96.57	60	125	
Ge Internal Standard	72	HMI He	1626071.99	1.96	1682864.37666667	96.63	60	125	
In Internal standard	115	HMI He	4008634.47	1.44	4314093.05	92.92	60	125	
Ho-165	165	HMI He	18493098.00	2.23	19709342.1	93.83	60	125	
Sc IS)	45	No Gas	123796524.38	0.83	137813939.48	89.83	60	120	

Continuing Calibration Blank (CCB) Report

Sample Name	CCB-4907385
File Name	049_CCB.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:39:37 PM
Sample Type	CCB
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	7.432	ppb	61.01	146750.05	0.1	>RL
Be	9	6	HMI H2	-0.027	ppb	-45.52	36.67	0.5	
B	11	6	HMI H2	2.996	ppb	6.53	2393.53	0.1	>RL
Se	78	72	HMI H2	-0.061	ppb	-84.19	66.67	1	
Na	23	45	HMI He	-10.833	ppb	-30.14	19855.26	25	
Mg	24	45	HMI He	0.846	ppb	49.06	383.34	25	
Al	27	45	HMI He	-0.453	ppb	-88.04	76.67	15	
K	39	45	HMI He	74.268	ppb	21.92	42440.98	50	>RL
Ca	44	45	HMI He	-13.210	ppb	-39.36	80.00	25	
V	51	72	HMI He	0.553	ppb	11.47	4720.74	1	
Cr	52	72	HMI He	-0.045	ppb	-4.43	290.01	1	
Mn	55	72	HMI He	-0.007	ppb	-198.95	70.00	0.5	
Fe	57	72	HMI He	0.441	ppb	183.82	130.00	25	
Co	59	72	HMI He	0.009	ppb	112.70	43.33	0.5	
Ni	60	72	HMI He	0.032	ppb	209.27	310.01	1	
Cu	63	72	HMI He	-0.233	ppb	-9.08	1553.43	1	
Zn	66	72	HMI He	-0.029	ppb	-1291.39	1093.39	5	
As	75	72	HMI He	0.006	ppb	279.83	43.79	1	
Sr	88	45	HMI He	-0.045	ppb	-36.07	26.67	1	
Zr	90	72	HMI He	-2.093	ppb	-91.56	100.00	1	
Nb	93	72	HMI He	0.360	ppb	9.22	2076.82	2	
Mo	95	115	HMI He	0.020	ppb	94.33	96.67	0.5	
Pd	105	115	HMI He	-0.116	ppb	-13.49	76.67	1	
Ag	107	115	HMI He	0.006	ppb	119.30	43.33	1	
Cd	111	115	HMI He	0.006	ppb	173.21	3.33	0.5	
Sn	120	115	HMI He	0.034	ppb	145.13	313.34	1	
Sb	121	115	HMI He	0.281	ppb	26.79	376.68	1	
Ba	137	115	HMI He	0.003	ppb	512.51	16.67	0.5	
W	182	165	HMI He	0.018	ppb	207.82	1220.07	1	
Pt	195	165	HMI He	0.001	ppb	684.87	146.67	1	
Tl	205	165	HMI He	-0.021	ppb	-31.50	236.67	0.1	
Pb	208	165	HMI He	-0.224	ppb	-7.73	3623.56	0.5	
Th	232	165	HMI He	0.024	ppb	16.66	493.35	1	
U	238	165	HMI He	0.006	ppb	60.02	146.67	0.5	
Li	7	45	No Gas	-50.583	ppb	-3.45	9316965.45	0.05	

Continuing Calibration Blank (CCB) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1093012.77	0.62	1062943.78666667	102.83	60	125	
Ge Internal Standard	72	HMI H2	19680343.98	1.81	20935857.45	94	60	125	
Sc (IS)	45	HMI He	1280008.76	2.02	1372993.64	93.23	60	125	
Ge Internal Standard	72	HMI He	1660161.57	1.92	1682864.37666667	98.65	60	125	
In Internal standard	115	HMI He	4037762.05	3.06	4314093.05	93.59	60	125	
Ho-165	165	HMI He	18608812.36	2.01	19709342.1	94.42	60	125	
Sc IS)	45	No Gas	125323844.30	2.47	137813939.48	90.94	60	120	

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	CCVL-4907389
File Name	050LCCV.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:43:01 PM
Sample Type	LLCCV
Total Dilution	1.0000
Comment	---
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	0.885	ppb	5.47	543.34	1	88.54	70	130	
Se	78	72	HMI H2	4.769	ppb	3.81	2382.85	5	95.38	70	130	
Na	23	45	HMI He	37.967	ppb	6.06	35056.79	50	75.93	70	130	
Mg	24	45	HMI He	49.037	ppb	3.26	6908.20	50	98.07	70	130	
Al	27	45	HMI He	30.677	ppb	24.80	1030.05	30	102.26	70	130	
K	39	45	HMI He	190.920	ppb	6.61	51245.89	100	190.92	70	130	>+/-30%
Ca	44	45	HMI He	52.157	ppb	66.64	343.34	50	104.31	70	130	
V	51	72	HMI He	5.375	ppb	3.47	12454.89	5	107.5	70	130	
Cr	52	72	HMI He	1.960	ppb	5.50	4620.70	2	97.99	70	130	
Mn	55	72	HMI He	1.144	ppb	5.73	933.37	1	114.37	70	130	
Fe	57	72	HMI He	50.329	ppb	7.60	2093.50	50	100.66	70	130	
Co	59	72	HMI He	1.074	ppb	3.91	4230.60	1	107.42	70	130	
Ni	60	72	HMI He	1.972	ppb	1.55	2473.55	2	98.61	70	130	
Cu	63	72	HMI He	1.855	ppb	7.48	7952.01	2	92.76	70	130	
Zn	66	72	HMI He	10.613	ppb	2.36	5347.62	10	106.13	70	130	
As	75	72	HMI He	4.850	ppb	0.94	1453.01	5	97	70	130	
Sr	88	45	HMI He	0.868	ppb	21.11	696.69	1	86.84	70	130	
Zr	90	72	HMI He	6.271	ppb	65.18	216.67	0.5	1254.2	70	130	>+/-30%
Nb	93	72	HMI He	0.360	ppb	13.46	2016.82	2	18	70	130	>+/-30%
Mo	95	115	HMI He	1.928	ppb	7.41	2693.61	2	96.39	70	130	
Pd	105	115	HMI He	-0.112	ppb	-24.19	86.67	1	-11.16	70	130	>+/-30%
Ag	107	115	HMI He	4.942	ppb	0.15	22452.84	5	98.84	70	130	
Cd	111	115	HMI He	1.052	ppb	9.41	573.35	1	105.18	70	130	
Sn	120	115	HMI He	9.692	ppb	2.83	13486.01	10	96.92	70	130	
Sb	121	115	HMI He	2.201	ppb	5.24	2796.96	2	110.04	70	130	
Ba	137	115	HMI He	0.800	ppb	15.92	323.34	1	80.02	70	130	
W	182	165	HMI He	4.926	ppb	1.30	25739.10	1	492.58	70	130	>+/-30%
Pt	195	165	HMI He	0.039	ppb	23.29	296.68	1	3.89	70	130	>+/-30%
Tl	205	165	HMI He	1.036	ppb	4.38	9156.29	1	103.55	70	130	
Pb	208	165	HMI He	0.853	ppb	3.22	15413.36	1	85.3	70	130	
Th	232	165	HMI He	2.084	ppb	4.07	25048.62	2	104.2	70	130	
U	238	165	HMI He	0.992	ppb	3.82	13182.81	1	99.24	70	130	
Li	7	45	No Gas	-40.671	ppb	-6.57	9853607.50	50	-81.34	70	130	>+/-30%

Low Level Continuing Calibration Verification(LLCCV) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1002887.69	2.07	1062943.78666667	94.35	60	125	
Ge Internal Standard	72	HMI H2	19067586.71	0.89	20935857.45	91.08	60	125	
Sc (IS)	45	HMI He	1290113.03	0.91	1372993.64	93.96	60	125	
Ge Internal Standard	72	HMI He	1614158.31	1.86	1682864.37666667	95.92	60	125	
In Internal standard	115	HMI He	4006806.92	1.11	4314093.05	92.88	60	125	
Ho-165	165	HMI He	18081929.26	2.17	19709342.1	91.74	60	125	
Sc IS)	45	No Gas	128129011.65	0.57	137813939.48	92.97	60	120	

Blank Report

Sample Name	MB 280-399621/1-A
File Name	051_BLK.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:46:30 PM
Sample Type	Blank
Total Dilution	1.0000
Comment	399621 6020a dod5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	Limit	QC Flag
Li	7	45	HMI H2	9.227	ppb	197.78	149910.03	0.1	>DL
Be	9	6	HMI H2	-0.057	ppb	-38.86	16.67	0.5	
Se	78	72	HMI H2	-0.129	ppb	-27.32	32.00	1	
Na	23	45	HMI He	-0.907	ppb	-256.08	23319.78	25	
Mg	24	45	HMI He	3.209	ppb	10.10	713.36	25	
Al	27	45	HMI He	2.773	ppb	73.28	176.67	15	
K	39	45	HMI He	71.539	ppb	17.95	43046.06	50	>DL
Ca	44	45	HMI He	25.037	ppb	63.48	236.67	25	>DL
V	51	72	HMI He	-0.621	ppb	-29.31	2726.93	1	
Cr	52	72	HMI He	0.048	ppb	71.57	493.35	1	
Mn	55	72	HMI He	0.229	ppb	11.51	250.00	0.5	
Fe	57	72	HMI He	4.454	ppb	70.94	290.01	25	
Co	59	72	HMI He	0.003	ppb	203.99	16.67	0.5	
Ni	60	72	HMI He	0.087	ppb	87.28	370.01	1	
Cu	63	72	HMI He	1.423	ppb	4.41	6741.48	1	>DL
Zn	66	72	HMI He	2.064	ppb	24.54	1940.14	5	
As	75	72	HMI He	-0.010	ppb	-306.91	38.56	1	
Sr	88	45	HMI He	0.078	ppb	119.36	116.67	1	
Zr	90	72	HMI He	2.295	ppb	76.60	163.33	1	>DL
Nb	93	72	HMI He	0.042	ppb	27.80	283.34	2	
Mo	95	115	HMI He	-0.001	ppb	-2921.50	66.67	0.5	
Pd	105	115	HMI He	-0.131	ppb	-16.86	46.67	1	
Ag	107	115	HMI He	0.013	ppb	61.05	73.33	1	
Cd	111	115	HMI He	0.043	ppb	88.81	23.33	0.5	
Sn	120	115	HMI He	0.145	ppb	43.34	456.68	1	
Sb	121	115	HMI He	0.063	ppb	55.91	100.00	1	
Ba	137	115	HMI He	0.266	ppb	48.29	116.67	0.5	
W	182	165	HMI He	0.072	ppb	51.82	1470.10	1	
Pt	195	165	HMI He	0.001	ppb	686.61	143.33	1	
Tl	205	165	HMI He	-0.028	ppb	-9.88	176.67	0.1	
Pb	208	165	HMI He	0.039	ppb	66.75	6493.99	0.5	
Th	232	165	HMI He	0.025	ppb	33.98	490.01	1	
U	238	165	HMI He	0.002	ppb	98.10	90.00	0.5	
Li	7	45	No Gas	-39.060	ppb	-5.33	9611613.88	0.05	

Blank Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1004338.35	3.07	1062943.78666667	94.49	60	125	
Ge Internal Standard	72	HMI H2	19327701.91	1.40	20935857.45	92.32	60	125	
Sc (IS)	45	HMI He	1303959.53	2.82	1372993.64	94.97	60	125	
Ge Internal Standard	72	HMI He	1645053.20	0.29	1682864.37666667	97.75	60	125	
In Internal standard	115	HMI He	3965541.50	2.04	4314093.05	91.92	60	125	
Ho-165	165	HMI He	18266270.71	2.83	19709342.1	92.68	60	125	
Sc IS)	45	No Gas	124313108.52	0.93	137813939.48	90.2	60	120	

Laboratory Control Sample (LCS) Report

Sample Name	LCS 280-399621/2-A
File Name	052_LCS.d
Data Path Name	D:\DATA\122817.b
Acq Time	12/28/2017 4:49:58 PM
Sample Type	LCS
Total Dilution	1.0000
Comment	399621 6020a dod5
ISTD Ref FileName	008CALB.d
Sample QC Pass/Fial	Fail
ISTD QC Pass/Fail	Pass

QC Analyte Table

Name	Mass	ISTD	Tune Mode	Conc.	Units	Conc. RSD	CPS	ExpValue	% Rec	%QC Low	%QC High	QC Flag
Be	9	6	HMI H2	37.864	ppb	3.07	21475.29	40	94.66	80	120	
Se	78	72	HMI H2	37.810	ppb	1.98	18718.92	40	94.53	80	120	
Na	23	45	HMI He	-15.605	ppb	-16.75	19241.17	40	-39.01	80	120	>+/-20%
Mg	24	45	HMI He	2.353	ppb	25.27	613.35	40	5.88	80	120	>+/-20%
Al	27	45	HMI He	394.846	ppb	3.69	12618.27	40	987.11	80	120	>+/-20%
K	39	45	HMI He	60.629	ppb	17.21	43360.13	40	151.57	80	120	>+/-20%
Ca	44	45	HMI He	216.971	ppb	1.89	1040.05	40	542.43	80	120	>+/-20%
V	51	72	HMI He	38.679	ppb	1.27	68488.79	40	96.7	80	120	
Cr	52	72	HMI He	40.945	ppb	1.26	91346.60	40	102.36	80	120	
Mn	55	72	HMI He	40.937	ppb	3.87	31664.23	40	102.34	80	120	
Fe	57	72	HMI He	418.044	ppb	1.89	17035.67	40	1045.11	80	120	>+/-20%
Co	59	72	HMI He	39.971	ppb	1.80	161302.98	40	99.93	80	120	
Ni	60	72	HMI He	40.478	ppb	1.45	46760.27	40	101.19	80	120	
Cu	63	72	HMI He	39.527	ppb	1.41	127273.39	40	98.82	80	120	
Zn	66	72	HMI He	39.662	ppb	1.87	17486.28	40	99.15	80	120	
As	75	72	HMI He	39.206	ppb	1.89	11753.95	40	98.01	80	120	
Sr	88	45	HMI He	39.095	ppb	3.52	29774.69	40	97.74	80	120	
Nb	93	72	HMI He	0.057	ppb	37.21	373.34	40	0.14	80	120	>+/-20%
Mo	95	115	HMI He	40.585	ppb	2.21	55737.77	40	101.46	80	120	
Pd	105	115	HMI He	-0.112	ppb	-2.98	86.67	40	-0.28	80	120	>+/-20%
Ag	107	115	HMI He	40.015	ppb	0.89	182970.44	40	100.04	80	120	
Cd	111	115	HMI He	39.866	ppb	7.29	21875.49	40	99.66	80	120	
Sn	120	115	HMI He	39.643	ppb	2.09	54739.31	40	99.11	80	120	
Sb	121	115	HMI He	40.038	ppb	1.17	50873.06	40	100.1	80	120	
Ba	137	115	HMI He	40.870	ppb	0.69	15868.30	40	102.18	80	120	
W	182	165	HMI He	44.351	ppb	1.74	223719.00	40	110.88	80	120	
Pt	195	165	HMI He	0.017	ppb	46.28	210.00	40	0.04	80	120	>+/-20%
Tl	205	165	HMI He	41.725	ppb	2.20	353986.27	40	104.31	80	120	
Pb	208	165	HMI He	41.913	ppb	2.76	469809.79	40	104.78	80	120	
Th	232	165	HMI He	40.988	ppb	1.98	490774.95	40	102.47	80	120	
U	238	165	HMI He	39.657	ppb	2.98	526104.44	40	99.14	80	120	
Li	7	45	No Gas	-8.548	ppb	-91.28	10864425.89	400	-2.14	80	120	>+/-20%

Laboratory Control Sample (LCS) Report

QC ISTD Table

Name	Mass	Tune Mode	CPS	CPS RSD	Ref CPS	% Rec	%QC Low	%QC High	QC Flag
Li-6 Internal Standard	6	HMI H2	1015488.56	2.16	1062943.78666667	95.54	60	125	
Ge Internal Standard	72	HMI H2	19566420.02	0.88	20935857.45	93.46	60	125	
Sc (IS)	45	HMI He	1338266.29	1.17	1372993.64	97.47	60	125	
Ge Internal Standard	72	HMI He	1655891.02	0.98	1682864.37666667	98.4	60	125	
In Internal standard	115	HMI He	4035379.42	2.47	4314093.05	93.54	60	125	
Ho-165	165	HMI He	18143598.85	2.48	19709342.1	92.06	60	125	
Sc IS)	45	No Gas	127535122.51	1.44	137813939.48	92.54	60	120	