

PREP BATCH REPORT

Prep Code: **PRP-3010**
 Prep Batch **162926** Prep Temp: **92 °C**

Technician: **Amanda E. McDaniels**
 Batch Units: **ML**

Prep Start Date: **1/14/2022 8:11:56 AM**
 Prep End Date: **1/14/2022 4:20:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162926	Temp cell C6		50	0	0	50	1		1/14/2022	1/14/2022
LCS4-162926			50	0	0	50	1		1/14/2022	1/14/2022
B22010507-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010507-001BMS4			50	0	0	50	1		1/14/2022	1/14/2022
B22010507-001BMSD4			50	0	0	50	1		1/14/2022	1/14/2022
B22010625-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010626-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010628-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010629-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010633-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010637-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010641-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010643-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010750-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010751-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010751-001BMS4			50	0	0	50	1		1/14/2022	1/14/2022
B22010751-001BMSD4			50	0	0	50	1		1/14/2022	1/14/2022
B22010753-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010754-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010755-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010756-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010757-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010758-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022
B22010759-001B	Ground Water		50	0	0	50	1		1/14/2022	1/14/2022

Number	Reagent Name	Exp Date	Spk ID	Spike Name	SampType	AmtAdd	Exp Date
14614	50mL DigiTubes J526127-2104	12/10/2022	ME211124 EL-M	EL-MSICV-2	LCS4/MS4	0.05 ml	11/24/2022
14626	Nitric Acid 69.0- 70.0% D0521	12/14/2026	ME211202 EL200	EL-200.2MS	LCS4/MS4	0.05 mL	12/2/2022
14721	Hydrochloric Acid E1421	1/4/2027	ME220106 AUDI	AUDIGSPK	LCS4/MS4	0.05 ml	10/25/2022

Energy Laboratories Inc

ANALYTICAL RUN Summary

25-Jan-22

Run ID ICPMS207-B_220114A

Run Start Date: 1/14/2022 11:54:19
 Analyst: Cindy Rohrer
 Ical: 0
 Column ID:
 Comments:

Instrument ID	Description
04F07114	Metals 5-50 uL Adjustable Pipette
340760037	Metals 100-1000 uL Adjustable Pipette
340760040	Metals 100-1000 uL Adjustable Pipette
440780018	Metals 1-5 mL Adjustable Pipette
440780025	Metals 1-5 mL Adjustable Pipette
841980007	1000-5000uL Pipette
841980009	1000-5000uL Pipette

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
ME210901 ICSA	ICSA					ICSA	9/1/2022
ME210901 ICSAB	ICSAB					ICSAB	9/1/2022
ME211206 ICV STANDARD	ICV for ICPMS Standards					ICV	4/30/2022
ME220112 0.025 PPB STAND	0.025 ppb Standard						11/18/2022
ME220112 0.05 PPB STANDA	0.5 ppb Standard						11/18/2022
ME220112 0.1 PPB STANDAR	0.1 ppb Standard						11/18/2022
ME220112 0.5 PPB STANDAR	0.5 ppb Standard						11/18/2022
ME220112 1 PPB STANDARD	1 ppb Standard						11/18/2022
ME220112 10 PPB STANDAR	10 ppb Standard					CCV	11/18/2022
ME220112 100 PPB STANDAR	100 ppb Standard					CAL8	11/18/2022
ME220112 50 PPB STANDAR	50 ppb Standard/CCV					CRI	11/18/2022
ME220112 7900 INTERNAL ST	Internal Standards 2 mg/L						2/8/2022
ME220112 SS1	SS1 ICPMS Spiking Solution					LFB/MS	12/8/2022
ME220112A 1000 PPB STAND	1000 PPB Standard					URL	11/18/2022
ME220114A Tune Solution	Tune Solution						12/7/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980119	Rinse	ICPMS-6020-W- SAMP			1/14/2022 11:54:	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980120	Rinse	ICPMS-6020-W- SAMP			1/14/2022 12:00:	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980121	Cal Blk	ICPMS-6020-W- SAMP				1/14/2022 12:06:	1	R373222		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.00027	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Sodium	B	mg/L	0	0		0	0	0	0.02171	0.02171	50	0%	0	0	0%	L
Tin	B	mg/L	0	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Vanadium	B	mg/L	0	0		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	B	mg/L	0	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980122	0.025 ppb STD	ICPMS-6020B-C Cal1				1/14/2022 12:13:	1	R373222		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980122	0.025 ppb STD	ICPMS-6020B-C	Ca11		1/14/2022 12:13:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001736	0.0001736		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00004448	0.00004448		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00004949	0.00004949		0.000025	0	0		0.001		198%	80	120	0%	S
Barium	A	mg/L	0.00002011	0.00002011		0.000025	0	0		0.0003		80%	80	120	0%	
Beryllium	A	mg/L	0.00002292	0.00002292		0.000025	0	0		0.001		92%	80	120	0%	
Boron	A	mg/L	-0.000131	-0.000131		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00001366	0.00001366		0.000025	0	0		0.001		55%	80	120	0%	S
Calcium	A	mg/L	0.009883	0.009883		0	0	0		1		0%			0%	
Cerium	A	mg/L	0.00001826	0.00001826		0.000025	0	0		0.001		73%	80	120	0%	S
Chromium	A	mg/L	-0.00004869	-0.00004869		0.000025	0	0		0.001		-195%	80	120	0%	S
Cobalt	A	mg/L	0.00002579	0.00002579		0.000025	0	0		0.001		103%	80	120	0%	
Copper	A	mg/L	0.000067	0.000067		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0009422	0.0009422		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.04836	0.04836		0.000025	0	0		0.001		193440%	80	120	0%	S
Lithium	A	mg/L	0.0001037	0.0001037		0.0003125	0	0		1		33%	80	120	0%	S
Magnesium	A	mg/L	0.007237	0.007237		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00003175	0.00003175		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	-2.151E-07	-2.151E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00003855	0.00003855		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00009926	0.00009926		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.003925	0.003925		0.00625	0	0		1		63%	80	120	0%	S
Selenium	A	mg/L	0.00002901	0.00002901		0.000025	0	0		0.005		116%	80	120	0%	
Silicon	A	mg/L	-0.0004381	-0.0004381		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001537	0.00001537		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.007403	0.007403		0.00625	0	0		1		118%	80	120	0%	
Strontium	A	mg/L	0.00002006	0.00002006		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.00002729	0.00002729		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001609	0.00001609		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.0001636	0.0001636		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.0000132	0.0000132		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00002762	0.00002762		0.000025	0	0		0.001		110%	80	120	0%	
Vanadium	A	mg/L	0.0003724	0.0003724		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.0007441	0.0007441		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0009422	0.0009422		0.000025	0	0		0.01	5	3769%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.00093753	-0.00093753		0.0000535	0	0		0.214	0.9	-1752%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980123	0.05 ppb STD	ICPMS-6020B-C	Cal2		1/14/2022 12:20:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00006465	0.00006465		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00005127	0.00005127		0.00005	0	0		0.001		103%	80	120	0%	
Arsenic	A	mg/L	0.0001004	0.0001004		0.00005	0	0		0.001		201%	80	120	0%	S
Barium	A	mg/L	0.00004141	0.00004141		0.00005	0	0		0.0003		83%	80	120	0%	
Beryllium	A	mg/L	0.00004468	0.00004468		0.00005	0	0		0.001		89%	80	120	0%	
Boron	A	mg/L	-0.0001318	-0.0001318		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00004502	0.00004502		0.00005	0	0		0.001		90%	80	120	0%	
Calcium	A	mg/L	0.01355	0.01355		0.0125	0	0		1		108%	80	120	0%	
Cerium	A	mg/L	-5.933E-07	-5.933E-07		0.00005	0	0		0.001		-1%	80	120	0%	S
Chromium	A	mg/L	-0.00001316	-0.00001316		0.00005	0	0		0.001		-26%	80	120	0%	S
Cobalt	A	mg/L	0.00005119	0.00005119		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00005355	0.00005355		0.00005	0	0		0.005		107%	80	120	0%	
Iron	A	mg/L	0.001407	0.001407		0.00125	0	0		0.01		113%	80	120	0%	
Lanthanum	A	mg/L	-0.002392	-0.002392		0.00005	0	0		0.001		-4784%	80	120	0%	S
Lead	A	mg/L	0.00004085	0.00004085		0.00005	0	0		0.001		82%	80	120	0%	
Lithium	A	mg/L	0.0003697	0.0003697		0.000625	0	0		1		59%	80	120	0%	S
Magnesium	A	mg/L	0.01475	0.01475		0.0125	0	0		1		118%	80	120	0%	
Manganese	A	mg/L	0.0000558	0.0000558		0.00005	0	0		0.001		112%	80	120	0%	
Mercury	A	mg/L	0.00002429	0.00002429		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0000529	0.0000529		0.00005	0	0		0.001		106%	80	120	0%	
Nickel	A	mg/L	0.00007069	0.00007069		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.01296	0.01296		0.0125	0	0		1		104%	80	120	0%	
Selenium	A	mg/L	0.0000532	0.0000532		0.00005	0	0		0.005		106%	80	120	0%	
Silicon	A	mg/L	-0.001918	-0.001918		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001975	0.00001975		0.00002	0	0		0.001		99%	80	120	0%	
Sodium	A	mg/L	0.0136	0.0136		0.0125	0	0		1		109%	80	120	0%	
Strontium	A	mg/L	0.00006495	0.00006495		0.00005	0	0		0.001		130%	80	120	0%	S
Thallium	A	mg/L	0.00005929	0.00005929		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003058	0.00003058		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.0002651	0.0002651		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00001163	0.00001163		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00004981	0.00004981		0.00005	0	0		0.001		100%	80	120	0%	
Vanadium	A	mg/L	0.0005032	0.0005032		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.0001326	0.0001326		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001407	0.001407		0.00005	0	0		0.01	5	2814%	80	120	0%	S

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14980123	0.05 ppb STD	ICPMS-6020B-C	Cal2		1/14/2022 12:20:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	-0.00410452	-0.00410452		0.00428	0	0		0.214	0.9	-96%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980124	0.10 ppb STD	ICPMS-6020B-C	Cal3		1/14/2022 12:26:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00009874	0.00009874		0.0001	0	0		0.01		99%	80	120	0%	
Antimony	A	mg/L	0.0001032	0.0001032		0.0001	0	0		0.001		103%	80	120	0%	
Arsenic	A	mg/L	0.000149	0.000149		0.0001	0	0		0.001		149%	80	120	0%	S
Barium	A	mg/L	0.0000987	0.0000987		0.0001	0	0		0.0003		99%	80	120	0%	
Beryllium	A	mg/L	0.0001598	0.0001598		0.0001	0	0		0.001		160%	80	120	0%	S
Boron	A	mg/L	-0.0001575	-0.0001575		0	0	0		0.1		0%				0%
Cadmium	A	mg/L	0.000105	0.000105		0.0001	0	0		0.001		105%	80	120	0%	
Calcium	A	mg/L	0.02857	0.02857		0.025	0	0		1		114%	80	120	0%	
Cerium	A	mg/L	0.000001744	0.000001744		0.0001	0	0		0.001		2%	80	120	0%	S
Chromium	A	mg/L	0.00007895	0.00007895		0.0001	0	0		0.001		79%	80	120	0%	S
Cobalt	A	mg/L	0.0001026	0.0001026		0.0001	0	0		0.001		103%	80	120	0%	
Copper	A	mg/L	0.000121	0.000121		0.0001	0	0		0.005		121%	80	120	0%	S
Iron	A	mg/L	0.002952	0.002952		0.0025	0	0		0.01		118%	80	120	0%	
Lanthanum	A	mg/L	0.0002431	0.0002431		0.0001	0	0		0.001		243%	80	120	0%	S
Lead	A	mg/L	0.0001094	0.0001094		0.0001	0	0		0.001		109%	80	120	0%	
Lithium	A	mg/L	0.0009968	0.0009968		0.00125	0	0		1		80%	80	120	0%	
Magnesium	A	mg/L	0.02948	0.02948		0.025	0	0		1		118%	80	120	0%	
Manganese	A	mg/L	0.00009911	0.00009911		0.0001	0	0		0.001		99%	80	120	0%	
Mercury	A	mg/L	0.00001448	0.00001448		0.000002	0	0		0.001		724%	80	120	0%	S
Molybdenum	A	mg/L	0.0001082	0.0001082		0.0001	0	0		0.001		108%	80	120	0%	
Nickel	A	mg/L	0.000124	0.000124		0.0001	0	0		0.005		124%	80	120	0%	S
Potassium	A	mg/L	0.02545	0.02545		0.025	0	0		1		102%	80	120	0%	
Selenium	A	mg/L	0.00009842	0.00009842		0.0001	0	0		0.005		98%	80	120	0%	
Silicon	A	mg/L	-0.00296	-0.00296		0.0004	0	0		0.1		-740%	80	120	0%	S
Silver	A	mg/L	0.00005173	0.00005173		0.00004	0	0		0.001		129%	80	120	0%	S
Sodium	A	mg/L	0.02833	0.02833		0.025	0	0		1		113%	80	120	0%	
Strontium	A	mg/L	0.0001153	0.0001153		0.0001	0	0		0.001		115%	80	120	0%	
Thallium	A	mg/L	0.0001079	0.0001079		0.0001	0	0		0.001		108%	80	120	0%	
Thorium	A	mg/L	0.00007359	0.00007359		0.0001	0	0		0.05		74%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980124	0.10 ppb STD	ICPMS-6020B-C	Cal3		1/14/2022 12:26:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.0003166	0.0003166		0.0001	0	0		0.001		317%	80	120	0%	S
Titanium	A	mg/L	0.00004445	0.00004445		0.0001	0	0		0.001		44%	80	120	0%	S
Uranium	A	mg/L	0.0001092	0.0001092		0.0001	0	0		0.001		109%	80	120	0%	S
Vanadium	A	mg/L	0.0005285	0.0005285		0.0001	0	0		0.005		529%	80	120	0%	S
Zinc	A	mg/L	0.0001516	0.0001516		0.0001	0	0		0.01		152%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.002952	0.002952		0.0001	0	0		0.01	5	2952%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0063344	-0.0063344		0.00856	0	0		0.214	0.9	-74%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980125	0.5 ppb STD	ICPMS-6020B-C	Cal4		1/14/2022 12:33:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000554	0.000554		0.0005	0	0		0.01		111%	80	120	0%	S
Antimony	A	mg/L	0.0005032	0.0005032		0.0005	0	0		0.001		101%	80	120	0%	S
Arsenic	A	mg/L	0.0006124	0.0006124		0.0005	0	0		0.001		122%	80	120	0%	S
Barium	A	mg/L	0.0005171	0.0005171		0.0005	0	0		0.0003		103%	80	120	0%	S
Beryllium	A	mg/L	0.0005231	0.0005231		0.0005	0	0		0.001		105%	80	120	0%	S
Boron	A	mg/L	0.0001826	0.0001826		0.0005	0	0		0.1		37%	80	120	0%	S
Cadmium	A	mg/L	0.0005346	0.0005346		0.0005	0	0		0.001		107%	80	120	0%	S
Calcium	A	mg/L	0.1328	0.1328		0.125	0	0		1		106%	80	120	0%	S
Cerium	A	mg/L	0.00001341	0.00001341		0.0005	0	0		0.001		3%	80	120	0%	S
Chromium	A	mg/L	0.0005394	0.0005394		0.0005	0	0		0.001		108%	80	120	0%	S
Cobalt	A	mg/L	0.0005832	0.0005832		0.0005	0	0		0.001		117%	80	120	0%	S
Copper	A	mg/L	0.0006159	0.0006159		0.0005	0	0		0.005		123%	80	120	0%	S
Iron	A	mg/L	0.01405	0.01405		0.0125	0	0		0.01		112%	80	120	0%	S
Lanthanum	A	mg/L	0.00275	0.00275		0.0005	0	0		0.001		550%	80	120	0%	S
Lead	A	mg/L	0.0005427	0.0005427		0.0005	0	0		0.001		109%	80	120	0%	S
Lithium	A	mg/L	0.006487	0.006487		0.00625	0	0		1		104%	80	120	0%	S
Magnesium	A	mg/L	0.1457	0.1457		0.125	0	0		1		117%	80	120	0%	S
Manganese	A	mg/L	0.0005638	0.0005638		0.0005	0	0		0.001		113%	80	120	0%	S
Mercury	A	mg/L	-4.133E-06	-4.133E-06		0.00001	0	0		0.001		-41%	80	120	0%	S
Molybdenum	A	mg/L	0.0004961	0.0004961		0.0005	0	0		0.001		99%	80	120	0%	S
Nickel	A	mg/L	0.0005709	0.0005709		0.0005	0	0		0.005		114%	80	120	0%	S
Potassium	A	mg/L	0.1312	0.1312		0.125	0	0		1		105%	80	120	0%	S
Selenium	A	mg/L	0.0005156	0.0005156		0.0005	0	0		0.005		103%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980125	0.5 ppb STD	ICPMS-6020B-C	CaI4		1/14/2022 12:33:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	-0.002597	-0.002597		0.002	0	0		0.1		-130%	80	120	0%	S
Silver	A	mg/L	0.0002144	0.0002144		0.0002	0	0		0.001		107%	80	120	0%	
Sodium	A	mg/L	0.1402	0.1402		0.125	0	0		1		112%	80	120	0%	
Strontium	A	mg/L	0.0005443	0.0005443		0.0005	0	0		0.001		109%	80	120	0%	
Thallium	A	mg/L	0.0005381	0.0005381		0.0005	0	0		0.001		108%	80	120	0%	
Thorium	A	mg/L	0.0004503	0.0004503		0.0005	0	0		0.05		90%	80	120	0%	
Tin	A	mg/L	0.0007415	0.0007415		0.0005	0	0		0.001		148%	80	120	0%	S
Titanium	A	mg/L	0.0006293	0.0006293		0.0005	0	0		0.001		126%	80	120	0%	S
Uranium	A	mg/L	0.0005039	0.0005039		0.0005	0	0		0.001		101%	80	120	0%	
Vanadium	A	mg/L	0.0011	0.0011		0.0005	0	0		0.005		220%	80	120	0%	S
Zinc	A	mg/L	0.0008051	0.0008051		0.0005	0	0		0.01		161%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.01405	0.01405		0.0005	0	0		0.01	5	2810%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.00555758	-0.00555758		0.0428	0	0		0.214	0.9	-13%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980126	1 ppb STD	ICPMS-6020B-C	CaI5		1/14/2022 12:40:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001142	0.001142		0.001	0	0		0.01		114%	80	120	0%	
Antimony	A	mg/L	0.001038	0.001038		0.001	0	0		0.001		104%	80	120	0%	
Arsenic	A	mg/L	0.001225	0.001225		0.001	0	0		0.001		123%	80	120	0%	S
Barium	A	mg/L	0.001075	0.001075		0.001	0	0		0.0003		107%	80	120	0%	
Beryllium	A	mg/L	0.001086	0.001086		0.001	0	0		0.001		109%	80	120	0%	
Boron	A	mg/L	0.0007521	0.0007521		0.001	0	0		0.1		75%	80	120	0%	S
Cadmium	A	mg/L	0.001049	0.001049		0.001	0	0		0.001		105%	80	120	0%	
Calcium	A	mg/L	0.2847	0.2847		0.25	0	0		1		114%	80	120	0%	
Cerium	A	mg/L	0.00001886	0.00001886		0.001	0	0		0.001		2%	80	120	0%	S
Chromium	A	mg/L	0.001159	0.001159		0.001	0	0		0.001		116%	80	120	0%	
Cobalt	A	mg/L	0.001192	0.001192		0.001	0	0		0.001		119%	80	120	0%	
Copper	A	mg/L	0.001281	0.001281		0.001	0	0		0.005		128%	80	120	0%	S
Iron	A	mg/L	0.03026	0.03026		0.025	0	0		0.01		121%	80	120	0%	S
Lanthanum	A	mg/L	0.04833	0.04833		0.001	0	0		0.001		4833%	80	120	0%	S
Lead	A	mg/L	0.001106	0.001106		0.001	0	0		0.001		111%	80	120	0%	
Lithium	A	mg/L	0.01391	0.01391		0.0125	0	0		1		111%	80	120	0%	
Magnesium	A	mg/L	0.2915	0.2915		0.25	0	0		1		117%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980126	1 ppb STD	ICPMS-6020B-C	Ca15		1/14/2022 12:40:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.00116	0.00116		0.001	0	0		0.001		116%	80	120	0%	
Mercury	A	mg/L	0.00001417	0.00001417		0.00002	0	0		0.001		71%	80	120	0%	S
Molybdenum	A	mg/L	0.001058	0.001058		0.001	0	0		0.001		106%	80	120	0%	
Nickel	A	mg/L	0.001242	0.001242		0.001	0	0		0.005		124%	80	120	0%	S
Potassium	A	mg/L	0.28	0.28		0.25	0	0		1		112%	80	120	0%	
Selenium	A	mg/L	0.001142	0.001142		0.001	0	0		0.005		114%	80	120	0%	
Silicon	A	mg/L	-0.00001658	-0.00001658		0.004	0	0		0.1		0%	80	120	0%	S
Silver	A	mg/L	0.000426	0.000426		0.0004	0	0		0.001		107%	80	120	0%	
Sodium	A	mg/L	0.292	0.292		0.25	0	0		1		117%	80	120	0%	
Strontium	A	mg/L	0.001155	0.001155		0.001	0	0		0.001		116%	80	120	0%	
Thallium	A	mg/L	0.001119	0.001119		0.001	0	0		0.001		112%	80	120	0%	
Thorium	A	mg/L	0.0009623	0.0009623		0.001	0	0		0.05		96%	80	120	0%	
Tin	A	mg/L	0.001375	0.001375		0.001	0	0		0.001		138%	80	120	0%	S
Titanium	A	mg/L	0.001101	0.001101		0.001	0	0		0.001		110%	80	120	0%	
Uranium	A	mg/L	0.001057	0.001057		0.001	0	0		0.001		106%	80	120	0%	
Vanadium	A	mg/L	0.002004	0.002004		0.001	0	0		0.005		200%	80	120	0%	S
Zinc	A	mg/L	0.00143	0.00143		0.001	0	0		0.01		143%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.03026	0.03026		0.001	0	0		0.01	5	3026%	80	120	0%	S
Silicon as SiO2	C	mg/L	-3.5481E-05	-3.5481E-05		0.0856	0	0		0.214	0.9	0%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980127	10 ppb STD	ICPMS-6020B-C	Ca16		1/14/2022 12:46:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.01101	0.01101		0.01	0	0		0.01		110%	90	110	0%	
Antimony	A	mg/L	0.0103	0.0103		0.01	0	0		0.001		103%	90	110	0%	
Arsenic	A	mg/L	0.0112	0.0112		0.01	0	0		0.001		112%	90	110	0%	S
Barium	A	mg/L	0.01077	0.01077		0.01	0	0		0.0003		108%	90	110	0%	
Beryllium	A	mg/L	0.01093	0.01093		0.01	0	0		0.001		109%	90	110	0%	
Boron	A	mg/L	0.01071	0.01071		0.01	0	0		0.1		107%	90	110	0%	
Cadmium	A	mg/L	0.01057	0.01057		0.01	0	0		0.001		106%	90	110	0%	
Calcium	A	mg/L	2.661	2.661		2.5	0	0		1		106%	90	110	0%	
Cerium	A	mg/L	0.00001942	0.00001942		0.01	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.0113	0.0113		0.01	0	0		0.001		113%	90	110	0%	S
Cobalt	A	mg/L	0.01127	0.01127		0.01	0	0		0.001		113%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980127	10 ppb STD	ICPMS-6020B-C	Cal6		1/14/2022 12:46:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.01211	0.01211		0.01	0	0		0.005		121%	90	110	0%	S
Iron	A	mg/L	0.2857	0.2857		0.25	0	0		0.01		114%	90	110	0%	S
Lanthanum	A	mg/L	0.03419	0.03419		0.01	0	0		0.001		342%	90	110	0%	S
Lead	A	mg/L	0.01082	0.01082		0.01	0	0		0.001		108%	90	110	0%	S
Lithium	A	mg/L	0.1404	0.1404		0.125	0	0		1		112%	90	110	0%	S
Magnesium	A	mg/L	2.804	2.804		2.5	0	0		1		112%	90	110	0%	S
Manganese	A	mg/L	0.01136	0.01136		0.01	0	0		0.001		114%	90	110	0%	S
Mercury	A	mg/L	0.000001949	0.000001949		0.0002	0	0		0.001		1%	90	110	0%	S
Molybdenum	A	mg/L	0.01036	0.01036		0.01	0	0		0.001		104%	90	110	0%	S
Nickel	A	mg/L	0.01188	0.01188		0.01	0	0		0.005		119%	90	110	0%	S
Potassium	A	mg/L	2.723	2.723		2.5	0	0		1		109%	90	110	0%	S
Selenium	A	mg/L	0.01095	0.01095		0.01	0	0		0.005		109%	90	110	0%	S
Silicon	A	mg/L	0.03667	0.03667		0.04	0	0		0.1		92%	90	110	0%	S
Silver	A	mg/L	0.004258	0.004258		0.004	0	0		0.001		106%	90	110	0%	S
Sodium	A	mg/L	2.826	2.826		2.5	0	0		1		113%	90	110	0%	S
Strontium	A	mg/L	0.01117	0.01117		0.01	0	0		0.001		112%	90	110	0%	S
Thallium	A	mg/L	0.0107	0.0107		0.01	0	0		0.001		107%	90	110	0%	S
Thorium	A	mg/L	0.01021	0.01021		0.01	0	0		0.05		102%	90	110	0%	S
Tin	A	mg/L	0.01119	0.01119		0.01	0	0		0.001		112%	90	110	0%	S
Titanium	A	mg/L	0.01095	0.01095		0.01	0	0		0.001		109%	90	110	0%	S
Uranium	A	mg/L	0.01037	0.01037		0.01	0	0		0.001		104%	90	110	0%	S
Vanadium	A	mg/L	0.01248	0.01248		0.01	0	0		0.005		125%	90	110	0%	S
Zinc	A	mg/L	0.01238	0.01238		0.01	0	0		0.01		124%	90	110	0%	S
Iron, Ferrous	C	mg/L	0.2857	0.2857		0.01	0	0		0.01	5	2857%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.0784738	0.0784738		0.856	0	0		0.214	0.9	9%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980128	50 ppb STD	ICPMS-6020B-C	Cal7		1/14/2022 12:53:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05198	0.05198		0.05	0	0		0.01		104%	90	110	0%	S
Antimony	A	mg/L	0.05103	0.05103		0.05	0	0		0.001		102%	90	110	0%	S
Arsenic	A	mg/L	0.05292	0.05292		0.05	0	0		0.001		106%	90	110	0%	S
Barium	A	mg/L	0.05223	0.05223		0.05	0	0		0.0003		104%	90	110	0%	S
Beryllium	A	mg/L	0.0519	0.0519		0.05	0	0		0.001		104%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980128	50 ppb STD	ICPMS-6020B-C	Cal7		1/14/2022 12:53:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.05227	0.05227		0.05	0	0		0.1		105%	90	110	0%	
Cadmium	A	mg/L	0.05154	0.05154		0.05	0	0		0.001		103%	90	110	0%	
Calcium	A	mg/L	12.35	12.35		12.5	0	0		1		99%	90	110	0%	
Cerium	A	mg/L	0.252	0.252		0.05	0	0		0.001		504%	90	110	0%	S
Chromium	A	mg/L	0.05324	0.05324		0.05	0	0		0.001		106%	90	110	0%	
Cobalt	A	mg/L	0.05339	0.05339		0.05	0	0		0.001		107%	90	110	0%	
Copper	A	mg/L	0.05543	0.05543		0.05	0	0		0.005		111%	90	110	0%	S
Iron	A	mg/L	1.311	1.311		1.25	0	0		0.01		105%	90	110	0%	
Lanthanum	A	mg/L	0.04587	0.04587		0.05	0	0		0.001		92%	90	110	0%	
Lead	A	mg/L	0.05234	0.05234		0.05	0	0		0.001		105%	90	110	0%	
Lithium	A	mg/L	0.6339	0.6339		0.625	0	0		1		101%	90	110	0%	
Magnesium	A	mg/L	12.62	12.62		12.5	0	0		1		101%	90	110	0%	
Manganese	A	mg/L	0.05354	0.05354		0.05	0	0		0.001		107%	90	110	0%	
Mercury	A	mg/L	0.004984	0.004984		0.001	0	0		0.001		498%	90	110	0%	S
Molybdenum	A	mg/L	0.05154	0.05154		0.05	0	0		0.001		103%	90	110	0%	
Nickel	A	mg/L	0.05501	0.05501		0.05	0	0		0.005		110%	90	110	0%	
Potassium	A	mg/L	12.54	12.54		12.5	0	0		1		100%	90	110	0%	
Selenium	A	mg/L	0.05259	0.05259		0.05	0	0		0.005		105%	90	110	0%	
Silicon	A	mg/L	0.2078	0.2078		0.2	0	0		0.1		104%	90	110	0%	
Silver	A	mg/L	0.02047	0.02047		0.02	0	0		0.001		102%	90	110	0%	
Sodium	A	mg/L	12.78	12.78		12.5	0	0		1		102%	90	110	0%	
Strontium	A	mg/L	0.05331	0.05331		0.05	0	0		0.001		107%	90	110	0%	
Thallium	A	mg/L	0.05029	0.05029		0.05	0	0		0.001		101%	90	110	0%	
Thorium	A	mg/L	0.04968	0.04968		0.05	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.05332	0.05332		0.05	0	0		0.001		107%	90	110	0%	
Titanium	A	mg/L	0.05229	0.05229		0.05	0	0		0.001		105%	90	110	0%	
Uranium	A	mg/L	0.05031	0.05031		0.05	0	0		0.001		101%	90	110	0%	
Vanadium	A	mg/L	0.05279	0.05279		0.05	0	0		0.005		106%	90	110	0%	
Zinc	A	mg/L	0.0541	0.0541		0.05	0	0		0.01		108%	90	110	0%	
Iron, Ferrous	C	mg/L	1.311	1.311		0.05	0	0		0.01	5	2622%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.444692	0.444692		4.28	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980129	100 ppb STD	ICPMS-6020B-C	Cal8		1/14/2022 12:59:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.09667	0.09667		0.1	0	0		0.01		97%	90	110	0%	
Antimony	A	mg/L	0.09945	0.09945		0.1	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.101	0.101		0.1	0	0		0.001		101%	90	110	0%	
Barium	A	mg/L	0.1027	0.1027		0.1	0	0		0.0003		103%	90	110	0%	
Beryllium	A	mg/L	0.0992	0.0992		0.1	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.09886	0.09886		0.1	0	0		0.1		99%	90	110	0%	
Cadmium	A	mg/L	0.1012	0.1012		0.1	0	0		0.001		101%	90	110	0%	
Calcium	A	mg/L	23.62	23.62		25	0	0		1		94%	90	110	0%	
Cerium	A	mg/L	0.00002525	0.00002525		0.1	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.1006	0.1006		0.1	0	0		0.001		101%	90	110	0%	
Cobalt	A	mg/L	0.09728	0.09728		0.1	0	0		0.001		97%	90	110	0%	
Copper	A	mg/L	0.1048	0.1048		0.1	0	0		0.005		105%	90	110	0%	
Iron	A	mg/L	2.534	2.534		2.5	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.09915	0.09915		0.1	0	0		0.001		99%	90	110	0%	
Lead	A	mg/L	0.09875	0.09875		0.1	0	0		0.001		99%	90	110	0%	
Lithium	A	mg/L	1.206	1.206		1.25	0	0		1		96%	90	110	0%	
Magnesium	A	mg/L	24.2	24.2		25	0	0		1		97%	90	110	0%	
Manganese	A	mg/L	0.1027	0.1027		0.1	0	0		0.001		103%	90	110	0%	
Mercury	A	mg/L	0.00002801	0.00002801		0.002	0	0		0.001		1%	90	110	0%	S
Molybdenum	A	mg/L	0.09919	0.09919		0.1	0	0		0.001		99%	90	110	0%	
Nickel	A	mg/L	0.1039	0.1039		0.1	0	0		0.005		104%	90	110	0%	
Potassium	A	mg/L	24.46	24.46		25	0	0		1		98%	90	110	0%	
Selenium	A	mg/L	0.1001	0.1001		0.1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	0.3965	0.3965		0.4	0	0		0.1		99%	90	110	0%	
Silver	A	mg/L	0.03974	0.03974		0.04	0	0		0.001		99%	90	110	0%	
Sodium	A	mg/L	24.74	24.74		25	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	0.1	0.1		0.1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.09807	0.09807		0.1	0	0		0.001		98%	90	110	0%	
Thorium	A	mg/L	0.09731	0.09731		0.1	0	0		0.05		97%	90	110	0%	
Tin	A	mg/L	0.09822	0.09822		0.1	0	0		0.001		98%	90	110	0%	
Titanium	A	mg/L	0.09876	0.09876		0.1	0	0		0.001		99%	90	110	0%	
Uranium	A	mg/L	0.09638	0.09638		0.1	0	0		0.001		96%	90	110	0%	
Vanadium	A	mg/L	0.09927	0.09927		0.1	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.1038	0.1038		0.1	0	0		0.01		104%	90	110	0%	
Iron, Ferrous	C	mg/L	2.534	2.534		0.1	0	0		0.01	5	2534%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980129	100 ppb STD	ICPMS-6020B-C Cal8			1/14/2022 12:59:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	0.84851	0.84851		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980130	1000 ppb STD	ICPMS-6020B-C Cal10			1/14/2022 1:06:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1	1		1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.0001952	0.0001952		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.9997	0.9997		1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.9996	0.9996		1	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	1	1		1	0	0		0.1		100%	90	110	0%	
Cadmium	A	mg/L	0.9998	0.9998		1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	50.72	50.72		50	0	0		1		101%	90	110	0%	
Cerium	A	mg/L	0.0001178	0.0001178		0	0	0		0.001		0%			0%	
Chromium	A	mg/L	0.9998	0.9998		1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.9992	0.9992		1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	6.025	6.025		6	0	0		0.01		100%	90	110	0%	
Lanthanum	A	mg/L	0.2399	0.2399		0	0	0		0.001		0%			0%	
Lead	A	mg/L	1.025	1.025		1	0	0		0.001		102%	90	110	0%	
Lithium	A	mg/L	2.519	2.519		2.5	0	0		1		101%	90	110	0%	
Magnesium	A	mg/L	50.35	50.35		50	0	0		1		101%	90	110	0%	
Manganese	A	mg/L	0.9995	0.9995		1	0	0		0.001		100%	90		0%	
Mercury	A	mg/L	0.00001468	0.00001468		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00008085	0.00008085		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.9993	0.9993		1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	50.25	50.25		50	0	0		1		100%	90	110	0%	
Selenium	A	mg/L	0.9999	0.9999		1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	-0.003956	-0.003956		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.36	0.36		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	50.04	50.04		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	0.9998	0.9998		1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	1	1		1	0	0		0.05		100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980130	1000 ppb STD	ICPMS-6020B-C	Ca110		1/14/2022 1:06:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.0002533	0.0002533		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.005065	0.005065		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.9999	0.9999		1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.9994	0.9994		1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	6.025	6.025		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	-0.00846584	-0.00846584		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980131	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/14/2022 1:12:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002543	0		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00004948	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0004087	0.0004087		0	0	0	0.00019	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.0001113	0.0001113		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Beryllium	A	mg/L	0.00008357	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0001407	0.0001407		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.0001071	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001247	0.0001247		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0001976	0		0	0	0	0.00027	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0002081	0.0002081		0	0	0	0.000056	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001208	0.0001208		0	0	0	0.000095	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.00002708	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.000149	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0002606	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.006444	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0001497	0.0001497		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001362	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003348	0.0003348		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.000227	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.00006986	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000139	0.000139		0	0	0	0.000052	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	0.01216	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0009902	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980131	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/14/2022 1:12:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron, Ferrous	B	mg/L	0.0009902	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.006384	0.006384		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Potassium	B	mg/L	0.6865	0.6865		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Sodium	B	mg/L	0.02886	0.02886		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	0.005519	0.005519		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Vanadium	B	mg/L	-0.0006561	0		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	B	mg/L	0.0002758	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980132	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 1:19:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0008267	0		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002075	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001977	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-3.593E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00004876	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000009	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.00005869	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-7.646E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00003235	0		0	0	0	0.00027	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00002126	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-0.00001254	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.000003148	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00001909	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00005402	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.00786	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000005117	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.000002449	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004888	0.00004888		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002041	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001743	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000006156	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.002698	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0008154	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980132	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 1:19:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron, Ferrous	B	mg/L	0.0008154	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.0008248	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.05045	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Sodium	B	mg/L	-0.0005562	0		0	0	0	0.02171	0.02171	50	0%	0	0	0%	L
Tin	B	mg/L	0.001735	0.001735		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Vanadium	B	mg/L	-0.001724	0		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	B	mg/L	-0.00000845	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980133	QCS	ICPMS-6020-W-	ICV		1/14/2022 1:25:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2613	0.2613		0.25	0	0	0.00086	0.001	1	105%	90	110	0%	
Antimony	A	mg/L	0.04676	0.04676		0.05	0	0	0.00042	0.001	0.1	94%	90	110	0%	
Arsenic	A	mg/L	0.04938	0.04938		0.05	0	0	0.00019	0.001	1	99%	90	110	0%	
Barium	A	mg/L	0.04848	0.04848		0.05	0	0	0.000042	0.001	1	97%	90	110	0%	
Beryllium	A	mg/L	0.02493	0.02493		0.025	0	0	0.00012	0.001	1	100%	90	110	0%	
Boron	A	mg/L	0.05674	0.05674		0.05	0	0	0.00561	0.00561	1	113%	90	110	0%	S
Cadmium	A	mg/L	0.02456	0.02456		0.025	0	0	0.000025	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	2.492	2.492		2.5	0	0	0.02092	0.02092	50	100%	90	110	0%	
Cerium	A	mg/L	0.2522	0.2522		0.05	0	0	0.000012	0.001	0.1	504%	90	110	0%	S
Chromium	A	mg/L	0.05063	0.05063		0.05	0	0	0.00018	0.001	1	101%	90	110	0%	
Cobalt	A	mg/L	0.05115	0.05115		0.05	0	0	0.000042	0.001	1	102%	90	110	0%	
Copper	A	mg/L	0.05394	0.05394		0.05	0	0	0.00027	0.001	1	108%	90	110	0%	
Iron	A	mg/L	0.2536	0.2536		0.25	0	0	0.00119	0.00119	5	101%	90	110	0%	
Lanthanum	A	mg/L	974.3	974.3		0.05	0	0	0.000011	0.001	0.1	948600%	90	110	0%	S
Lead	A	mg/L	0.04906	0.04906		0.05	0	0	0.000056	0.001	1	98%	90	110	0%	
Magnesium	A	mg/L	2.645	2.645		2.5	0	0	0.00564	0.00564	50	106%	90	110	0%	
Manganese	A	mg/L	0.2584	0.2584		0.25	0	0	0.000095	0.001	1	103%	90	110	0%	
Mercury	A	mg/L	0.005349	0.005349		0.001	0	0	0.00016	0.001	0.002	535%	90	110	0%	S
Molybdenum	A	mg/L	0.0466	0.0466		0.05	0	0	0.00005	0.001	0.1	93%	90	110	0%	
Nickel	A	mg/L	0.05272	0.05272		0.05	0	0	0.00063	0.001	1	105%	90	110	0%	
Potassium	A	mg/L	2.558	2.558		2.5	0	0	0.08139	0.08139	50	102%	90	110	0%	
Selenium	A	mg/L	0.05034	0.05034		0.05	0	0	0.00033	0.001	1	101%	90	110	0%	
Silicon	A	mg/L	0.5032	0.5032		0.5	0	0	0.01223	0.1	0.4	101%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980133	QCS	ICPMS-6020-W- ICV			1/14/2022 1:25:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	0.02448	0.02448		0.025	0	0	0.00002	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	2.622	2.622		2.5	0	0	0.02171	0.02171	50	105%	90	110	0%	
Strontium	A	mg/L	0.05	0.05		0.05	0	0	0.00014	0.001	1	100%	90	110	0%	
Thallium	A	mg/L	0.04836	0.04836		0.05	0	0	0.000041	0.001	1	97%	90	110	0%	
Thorium	A	mg/L	0.04761	0.04761		0.05	0	0	0.00061	0.001	1	95%	90	110	0%	
Tin	A	mg/L	0.0481	0.0481		0.05	0	0	0.00132	0.00132	0.1	96%	90	110	0%	
Titanium	A	mg/L	0.04883	0.04883		0.05	0	0	0.000094	0.001	1	98%	90	110	0%	
Uranium	A	mg/L	0.05008	0.05008		0.05	0	0	0.000052	0.0003	1	100%	90	110	0%	
Vanadium	A	mg/L	0.04824	0.04824		0.05	0	0	0.0013	0.0013	1	96%	90	110	0%	
Zinc	A	mg/L	0.05115	0.05115		0.05	0	0	0.00273	0.00273	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2536	0.2536		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980134	CCV	ICPMS-6020-W- CCV			1/14/2022 1:32:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05248	0.05248		0.05	0	0	0.00086	0.001	1	105%	90	110	0%	
Antimony	A	mg/L	0.05053	0.05053		0.05	0	0	0.00042	0.001	0.1	101%	90	110	0%	
Arsenic	A	mg/L	0.053	0.053		0.05	0	0	0.00019	0.001	1	106%	90	110	0%	
Barium	A	mg/L	0.05141	0.05141		0.05	0	0	0.000042	0.001	1	103%	90	110	0%	
Beryllium	A	mg/L	0.05165	0.05165		0.05	0	0	0.00012	0.001	1	103%	90	110	0%	
Boron	A	mg/L	0.05582	0.05582		0.05	0	0	0.00561	0.00561	1	112%	90	110	0%	S
Cadmium	A	mg/L	0.05104	0.05104		0.05	0	0	0.000025	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	12.36	12.36		12.5	0	0	0.02092	0.02092	50	99%	90	110	0%	
Cerium	A	mg/L	0.2523	0.2523		0.05	0	0	0.000012	0.001	0.1	505%	90	110	0%	S
Chromium	A	mg/L	0.05461	0.05461		0.05	0	0	0.00018	0.001	1	109%	90	110	0%	
Cobalt	A	mg/L	0.05293	0.05293		0.05	0	0	0.000042	0.001	1	106%	90	110	0%	
Copper	A	mg/L	0.05596	0.05596		0.05	0	0	0.00027	0.001	1	112%	90	110	0%	S
Iron	A	mg/L	1.321	1.321		1.3	0	0	0.00119	0.00119	5	102%	90	110	0%	
Lanthanum	A	mg/L	0.04986	0.04986		0.05	0	0	0.000011	0.001	0.1	100%	90	110	0%	
Lead	A	mg/L	0.0515	0.0515		0.05	0	0	0.000056	0.001	1	103%	90	110	0%	
Magnesium	A	mg/L	12.7	12.7		12.5	0	0	0.00564	0.00564	50	102%	90	110	0%	
Manganese	A	mg/L	0.05464	0.05464		0.05	0	0	0.000095	0.001	1	109%	90	110	0%	
Mercury	A	mg/L	0.005216	0.005216		0.001	0	0	0.00016	0.001	0.002	522%	90	110	0%	S
Molybdenum	A	mg/L	0.05118	0.05118		0.05	0	0	0.00005	0.001	0.1	102%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980134	CCV	ICPMS-6020-W-	CCV		1/14/2022 1:32:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nickel	A	mg/L	0.05455	0.05455		0.05	0	0	0.00063	0.001	1	109%	90	110	0%	
Potassium	A	mg/L	12.86	12.86		12.5	0	0	0.08139	0.08139	50	103%	90	110	0%	
Selenium	A	mg/L	0.05236	0.05236		0.05	0	0	0.00033	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.2035	0.2035		0.2	0	0	0.01223	0.1	0.4	102%	90	110	0%	
Silver	A	mg/L	0.01999	0.01999		0.02	0	0	0.00002	0.001	0.04	100%	90	110	0%	
Sodium	A	mg/L	12.89	12.89		12.5	0	0	0.02171	0.02171	50	103%	90	110	0%	
Strontium	A	mg/L	0.05283	0.05283		0.05	0	0	0.00014	0.001	1	106%	90	110	0%	
Thallium	A	mg/L	0.05068	0.05068		0.05	0	0	0.000041	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.04987	0.04987		0.05	0	0	0.00061	0.001	1	100%	90	110	0%	
Tin	A	mg/L	0.0516	0.0516		0.05	0	0	0.00132	0.00132	0.1	103%	90	110	0%	
Titanium	A	mg/L	0.05168	0.05168		0.05	0	0	0.000094	0.001	1	103%	90	110	0%	
Uranium	A	mg/L	0.04995	0.04995		0.05	0	0	0.000052	0.0003	1	100%	90	110	0%	
Vanadium	A	mg/L	0.05226	0.05226		0.05	0	0	0.0013	0.0013	1	105%	90	110	0%	
Zinc	A	mg/L	0.05444	0.05444		0.05	0	0	0.00273	0.00273	1	109%	90	110	0%	
Iron, Ferrous	C	mg/L	1.321	1.321		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980135	CCB	ICPMS-6020-W-	CCB		1/14/2022 1:39:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0003943	0.0003943		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.00008242	0.00008242		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0001133	0.0001133		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	-8.544E-06	-8.544E-06		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00006514	-0.00006514		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.002984	0.002984		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	-9.959E-07	-9.959E-07		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	0.0004157	0.0004157		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	0.000007056	0.000007056		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.00002888	-0.00002888		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	-7.861E-06	-7.861E-06		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	0.0000181	0.0000181		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	0.0001292	0.0001292		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	-0.008875	-0.008875		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001046	0.00001046		0	0	0	0.000056	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980135	CCB	ICPMS-6020-W-	CCB		1/14/2022 1:39:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Magnesium	A	mg/L	-0.0001857	-0.0001857		0	0	0	0.00564	0.00564	50	0%			0%	
Manganese	A	mg/L	-0.00001478	-0.00001478		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.00004553	0.00004553		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00002407	0.00002407		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.00001446	-0.00001446		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	0.0484	0.0484		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	0.00003647	0.00003647		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	-0.008179	-0.008179		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000005169	0.000005169		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.001095	-0.001095		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	9.587E-08	9.587E-08		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001127	0.0001127		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00002197	0.00002197		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	9.328E-07	9.328E-07		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001725	-0.0001725		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000002667	0.000002667		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-0.0004333	-0.0004333		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	0.00001823	0.00001823		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0001292	0.0001292		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980136	LRB	ICPMS-6020-W-	MBLK		1/14/2022 1:45:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001154	0		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00003962	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0002529	0.0002529		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.000009558	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00006373	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0.002117	0		0	0	0	0.00561	0.00561	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002003	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0.005003	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	
Cerium	A	mg/L	0.000005959	0		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00004404	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-5.879E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980136	LRB	ICPMS-6020-W- MBLK			1/14/2022 1:45:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.00004277	0		0	0	0	0.00027	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.0001813	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Lanthanum	A	mg/L	-0.006431	0		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000003095	0		0	0	0	0.000056	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.0006923	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	
Manganese	A	mg/L	-3.747E-06	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0.00001795	0		0	0	0	0.00016	0.001	0.002	0%	0	0	0%	
Molybdenum	A	mg/L	0.00000815	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-5.646E-06	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0.05235	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	
Selenium	A	mg/L	0.00002993	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.007735	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-0.00006426	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0.006699	0		0	0	0	0.02171	0.02171	50	0%	0	0	0%	
Strontium	A	mg/L	0.000007322	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003465	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001344	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.00002688	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001047	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.257E-07	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0003602	0		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	0.0004401	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0001813	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980137	LFB	ICPMS-6020-W- LFB			1/14/2022 1:51:4	1.03	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04802	0.0494606		0.05	0	0	0.0008858	0.001	1	99%	85	115	0%	
Antimony	A	mg/L	0.04312	0.0444136		0.05	0	0	0.0004326	0.001	0.1	89%	85	115	0%	
Arsenic	A	mg/L	0.04953	0.0510159		0.05	0	0	0.0001957	0.001	1	102%	85	115	0%	
Barium	A	mg/L	0.04766	0.0490898		0.05	0	0	4.326E-05	0.001	1	98%	85	115	0%	
Beryllium	A	mg/L	0.04857	0.0500271		0.05	0	0	0.0001236	0.001	1	100%	85	115	0%	
Boron	A	mg/L	0.05137	0.0529111		0.05	0	0	0.0057783	0.0057783	1	106%	85	115	0%	
Cadmium	A	mg/L	0.04795	0.0493885		0.05	0	0	2.575E-05	0.001	1	99%	85	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980137	LFB	ICPMS-6020-W-	LFB		1/14/2022 1:51:4	1.03	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Calcium	A	mg/L	46.71	48.1113		50	0	0	0.0215476	0.0215476	50	96%	85	115	0%	
Cerium	A	mg/L	0.2487	0.256161		0.05	0	0	1.236E-05	0.001	0.1	512%	85	115	0%	S
Chromium	A	mg/L	0.04925	0.0507275		0.05	0	0	0.0001854	0.001	1	101%	85	115	0%	
Cobalt	A	mg/L	0.04654	0.0479362		0.05	0	0	4.326E-05	0.001	1	96%	85	115	0%	
Copper	A	mg/L	0.05088	0.0524064		0.05	0	0	0.0002781	0.001	1	105%	85	115	0%	
Iron	A	mg/L	4.852	4.99756		5.05	0	0	0.0012257	0.0012257	5	99%	85	115	0%	
Lanthanum	A	mg/L	0.1249	0.128647		0.05	0	0	1.133E-05	0.001	0.1	257%	85	115	0%	S
Lead	A	mg/L	0.04955	0.0510365		0.05	0	0	5.768E-05	0.001	1	102%	88	115	0%	
Magnesium	A	mg/L	49.38	50.8614		50	0	0	0.0058092	0.0058092	50	102%	85	115	0%	
Manganese	A	mg/L	0.04908	0.0505524		0.05	0	0	9.785E-05	0.001	1	101%	85	115	0%	
Mercury	A	mg/L	0.005305	0.00546415		0.001	0	0	0.0001648	0.001	0.002	546%	85	115	0%	S
Molybdenum	A	mg/L	0.04749	0.0489147		0.05	0	0	0.0000515	0.001	0.1	98%	85	115	0%	
Nickel	A	mg/L	0.04943	0.0509129		0.05	0	0	0.0006489	0.001	1	102%	85	115	0%	
Potassium	A	mg/L	48.73	50.1919		50	0	0	0.0838317	0.0838317	50	100%	85	115	0%	
Selenium	A	mg/L	0.04795	0.0493885		0.05	0	0	0.0003399	0.001	1	99%	85	115	0%	
Silicon	A	mg/L	0.1896	0.195288		0.2	0	0	0.0125969	0.1	0.4	98%	85	115	0%	
Silver	A	mg/L	0.0192	0.019776		0.02	0	0	0.0000206	0.001	0.04	99%	85	115	0%	
Sodium	A	mg/L	49.07	50.5421		50	0	0	0.0223613	0.0223613	50	101%	85	115	0%	
Strontium	A	mg/L	0.04858	0.0500374		0.05	0	0	0.0001442	0.001	1	100%	85	115	0%	
Thallium	A	mg/L	0.04772	0.0491516		0.05	0	0	4.223E-05	0.001	1	98%	85	115	0%	
Thorium	A	mg/L	0.04841	0.0498623		0.05	0	0	0.0006283	0.001	1	100%	85	115	0%	
Tin	A	mg/L	0.04794	0.0493782		0.05	0	0	0.0013596	0.0013596	0.1	99%	85	115	0%	
Titanium	A	mg/L	0.04966	0.0511498		0.05	0	0	9.682E-05	0.001	1	102%	85	115	0%	
Uranium	A	mg/L	0.04763	0.0490589		0.05	0	0	5.356E-05	0.0003	1	98%	85	115	0%	
Vanadium	A	mg/L	0.05089	0.0524167		0.05	0	0	0.001339	0.001339	1	105%	85	115	0%	
Zinc	A	mg/L	0.04946	0.0509438		0.05	0	0	0.0028119	0.0028119	1	102%	85	115	0%	
Iron, Ferrous	C	mg/L	4.852	4.99756		0	0	0	0.0012257	0.0012257	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980138	ICSA	ICPMS-6020-W-	ICSA		1/14/2022 1:57:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	39.41	39.41		40	0	0	0.00086	0.001	1	99%	80	120	0%	
Antimony	A	mg/L	0.0006332	0.0006332		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-0.0004162	-0.0004162		0	0	0	0.00019	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980138	ICSA	ICPMS-6020-W-	ICSA		1/14/2022 1:57:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.00006017	0.00006017		0	0	0	0.000042	0.001	1	0%				0%
Beryllium	A	mg/L	0.0001112	0.0001112		0	0	0	0.00012	0.001	1	0%				0%
Boron	A	mg/L	0.001999	0.001999		0	0	0	0.00561	0.00561	1	0%				0%
Cadmium	A	mg/L	0.00005605	0.00005605		0	0	0	0.000025	0.001	1	0%				0%
Calcium	A	mg/L	119	119		120	0	0	0.02092	0.02092	50	99%	80	120		0%
Cerium	A	mg/L	0.0000134	0.0000134		0	0	0	0.000012	0.001	0.1	0%				0%
Chromium	A	mg/L	0.0007944	0.0007944		0	0	0	0.00018	0.001	1	0%				0%
Cobalt	A	mg/L	0.0002937	0.0002937		0	0	0	0.000042	0.001	1	0%				0%
Copper	A	mg/L	0.00006765	0.00006765		0	0	0	0.00027	0.001	1	0%				0%
Iron	A	mg/L	102.4	102.4		100	0	0	0.00119	0.00119	5	102%	80	120		0%
Lanthanum	A	mg/L	0.1872	0.1872		0	0	0	0.000011	0.001	0.1	0%				0%
Lead	A	mg/L	0.00002703	0.00002703		0	0	0	0.000056	0.001	1	0%				0%
Magnesium	A	mg/L	41.93	41.93		50	0	0	0.00564	0.00564	50	84%				0%
Manganese	A	mg/L	0.0002005	0.0002005		0	0	0	0.000095	0.001	1	0%				0%
Mercury	A	mg/L	0.00003336	0.00003336		0	0	0	0.00016	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.7686	0.7686		0.8	0	0	0.00005	0.001	0.1	96%	80	120		0%
Nickel	A	mg/L	0.0001811	0.0001811		0	0	0	0.00063	0.001	1	0%				0%
Potassium	A	mg/L	40	40		50	0	0	0.08139	0.08139	50	80%				0%
Selenium	A	mg/L	0.00009825	0.00009825		0	0	0	0.00033	0.001	1	0%				0%
Silicon	A	mg/L	-0.007559	-0.007559		0	0	0	0.01223	0.1	0.4	0%				0%
Silver	A	mg/L	0.000005374	0.000005374		0	0	0	0.00002	0.001	0.04	0%				0%
Sodium	A	mg/L	101.7	101.7		100	0	0	0.02171	0.02171	50	102%				0%
Strontium	A	mg/L	0.00123	0.00123		0	0	0	0.00014	0.001	1	0%				0%
Thallium	A	mg/L	0.00004863	0.00004863		0	0	0	0.000041	0.001	1	0%				0%
Thorium	A	mg/L	0.00004002	0.00004002		0	0	0	0.00061	0.001	1	0%				0%
Tin	A	mg/L	0.0000841	0.0000841		0	0	0	0.00132	0.00132	0.1	0%				0%
Titanium	A	mg/L	0.7948	0.7948		0.8	0	0	0.000094	0.001	1	99%				0%
Uranium	A	mg/L	0.000004103	0.000004103		0	0	0	0.000052	0.0003	1	0%				0%
Vanadium	A	mg/L	-0.006754	-0.006754		0	0	0	0.0013	0.0013	1	0%				0%
Zinc	A	mg/L	0.0005825	0.0005825		0	0	0	0.00273	0.00273	1	0%				0%
Iron, Ferrous	C	mg/L	102.4	102.4		0	0	0	0.00119	0.00119	5	0%				0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980139	ICSAB	ICPMS-6020-W- ICSAB			1/14/2022 2:04:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	38.82	38.82		40	0	0	0.00086	0.001	1	97%	80	120	0%	
Antimony	A	mg/L	0.0001777	0.0001777		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.009416	0.009416		0.01	0	0	0.00019	0.001	1	94%	80	120	0%	
Barium	A	mg/L	0.00007891	0.00007891		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00007843	-0.00007843		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.001403	0.001403		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.009714	0.009714		0.01	0	0	0.000025	0.001	1	97%	80	120	0%	
Calcium	A	mg/L	116.4	116.4		120	0	0	0.02092	0.02092	50	97%	80	120	0%	
Cerium	A	mg/L	0.00001813	0.00001813		0	0	0	0.000012	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0206	0.0206		0.02	0	0	0.00018	0.001	1	103%	80	120	0%	
Cobalt	A	mg/L	0.02035	0.02035		0.02	0	0	0.000042	0.001	1	102%	80	120	0%	
Copper	A	mg/L	0.02141	0.02141		0.02	0	0	0.00027	0.001	1	107%	80	120	0%	
Iron	A	mg/L	100.8	100.8		100	0	0	0.00119	0.00119	5	101%	80	120	0%	
Lanthanum	A	mg/L	0.2117	0.2117		0	0	0	0.000011	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001619	0.00001619		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	42.37	42.37		40	0	0	0.00564	0.00564	50	106%	80	120	0%	
Manganese	A	mg/L	0.01993	0.01993		0.02	0	0	0.000095	0.001	1	100%	80	120	0%	
Mercury	A	mg/L	0.00001715	0.00001715		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.7514	0.7514		0.8	0	0	0.00005	0.001	0.1	94%	80	120	0%	
Nickel	A	mg/L	0.02078	0.02078		0.02	0	0	0.00063	0.001	1	104%	80	120	0%	
Potassium	A	mg/L	38.21	38.21		40	0	0	0.08139	0.08139	50	96%	80	120	0%	
Selenium	A	mg/L	0.01007	0.01007		0.01	0	0	0.00033	0.001	1	101%	80	120	0%	
Silicon	A	mg/L	-0.008525	-0.008525		0	0	0	0.01223	0.1	0.4	0%			0%	
Silver	A	mg/L	0.004788	0.004788		0.005	0	0	0.00002	0.001	0.04	96%	80	120	0%	
Sodium	A	mg/L	104.9	104.9		100	0	0	0.02171	0.02171	50	105%	80	120	0%	
Strontium	A	mg/L	0.001186	0.001186		0	0	0	0.00014	0.001	1	0%			0%	
Thallium	A	mg/L	0.00001602	0.00001602		0	0	0	0.000041	0.001	1	0%			0%	
Thorium	A	mg/L	0.00002324	0.00002324		0	0	0	0.00061	0.001	1	0%			0%	
Tin	A	mg/L	0.000007856	0.000007856		0	0	0	0.00132	0.00132	0.1	0%			0%	
Titanium	A	mg/L	0.7948	0.7948		0.8	0	0	0.000094	0.001	1	99%	80	120	0%	
Uranium	A	mg/L	0.000001013	0.000001013		0	0	0	0.000052	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.01259	0.01259		0.02	0	0	0.0013	0.0013	1	63%	80	120	0%	S
Zinc	A	mg/L	0.01037	0.01037		0.01	0	0	0.00273	0.00273	1	104%	80	120	0%	
Iron, Ferrous	C	mg/L	100.8	100.8		0	0	0	0.00119	0.00119	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980140	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 2:10:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001599	0.001599		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00005358	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0005534	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-4.902E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007756	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-2.738E-06	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001462	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-0.00001299	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-7.925E-06	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-0.00002361	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001569	0.0001569		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0000213	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	-9.739E-06	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01106	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-3.253E-06	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	-3.019E-06	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000007431	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001182	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001314	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.436E-07	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.002593	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.001571	0.001571		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.001571	0.001571		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.001525	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.03535	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Sodium	B	mg/L	0.02539	0.02539		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	0.001669	0.001669		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Zinc	B	mg/L	0.00001575	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980141	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 2:16:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980141	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 2:16:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001023	0.001023		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002954	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0005214	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-5.591E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008132	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-1.019E-06	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001163	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-8.869E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-7.339E-06	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-0.00002664	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00004179	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00002103	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	-0.00001108	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01135	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-2.878E-06	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	-3.468E-06	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000004435	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000004524	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001872	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	5.855E-08	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.002458	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0005679	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0005679	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.0008656	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.02806	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Sodium	B	mg/L	0.01568	0		0	0	0	0.02171	0.02171	50	0%	0	0	0%	L
Tin	B	mg/L	0.001696	0.001696		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Zinc	B	mg/L	0.00003071	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980142	CCV	ICPMS-6020-W-	CCV		1/14/2022 2:22:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980142	CCV	ICPMS-6020-W-	CCV		1/14/2022 2:22:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05083	0.05083		0.05	0	0	0.00086	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.0499	0.0499		0.05	0	0	0.00042	0.001	0.1	100%	90	110	0%	
Arsenic	A	mg/L	0.05138	0.05138		0.05	0	0	0.00019	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.04996	0.04996		0.05	0	0	0.000042	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.05058	0.05058		0.05	0	0	0.00012	0.001	1	101%	90	110	0%	
Boron	A	mg/L	0.05335	0.05335		0.05	0	0	0.00561	0.00561	1	107%	90	110	0%	
Cadmium	A	mg/L	0.05047	0.05047		0.05	0	0	0.000025	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	12.13	12.13		12.5	0	0	0.02092	0.02092	50	97%	90	110	0%	
Cerium	A	mg/L	0.2574	0.2574		0.05	0	0	0.000012	0.001	0.1	515%	90	110	0%	S
Chromium	A	mg/L	0.05235	0.05235		0.05	0	0	0.00018	0.001	1	105%	90	110	0%	
Cobalt	A	mg/L	0.05262	0.05262		0.05	0	0	0.000042	0.001	1	105%	90	110	0%	
Copper	A	mg/L	0.05645	0.05645		0.05	0	0	0.00027	0.001	1	113%	90	110	0%	S
Iron	A	mg/L	1.289	1.289		1.3	0	0	0.00119	0.00119	5	99%	90	110	0%	
Lanthanum	A	mg/L	0.01795	0.01795		0.05	0	0	0.000011	0.001	0.1	36%	90	110	0%	S
Lead	A	mg/L	0.05164	0.05164		0.05	0	0	0.000056	0.001	1	103%	90	110	0%	
Magnesium	A	mg/L	12.82	12.82		12.5	0	0	0.00564	0.00564	50	103%	90	110	0%	
Manganese	A	mg/L	0.05229	0.05229		0.05	0	0	0.000095	0.001	1	105%	90	110	0%	
Mercury	A	mg/L	0.005319	0.005319		0.001	0	0	0.00016	0.001	0.002	532%	90	110	0%	S
Molybdenum	A	mg/L	0.04957	0.04957		0.05	0	0	0.00005	0.001	0.1	99%	90	110	0%	
Nickel	A	mg/L	0.05452	0.05452		0.05	0	0	0.00063	0.001	1	109%	90	110	0%	
Potassium	A	mg/L	12.32	12.32		12.5	0	0	0.08139	0.08139	50	99%	90	110	0%	
Selenium	A	mg/L	0.05233	0.05233		0.05	0	0	0.00033	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.1934	0.1934		0.2	0	0	0.01223	0.1	0.4	97%	90	110	0%	
Silver	A	mg/L	0.01975	0.01975		0.02	0	0	0.00002	0.001	0.04	99%	90	110	0%	
Sodium	A	mg/L	12.88	12.88		12.5	0	0	0.02171	0.02171	50	103%	90	110	0%	
Strontium	A	mg/L	0.05086	0.05086		0.05	0	0	0.00014	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.05184	0.05184		0.05	0	0	0.000041	0.001	1	104%	90	110	0%	
Thorium	A	mg/L	0.05003	0.05003		0.05	0	0	0.00061	0.001	1	100%	90	110	0%	
Tin	A	mg/L	0.05105	0.05105		0.05	0	0	0.00132	0.00132	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.0507	0.0507		0.05	0	0	0.000094	0.001	1	101%	90	110	0%	
Uranium	A	mg/L	0.04964	0.04964		0.05	0	0	0.000052	0.0003	1	99%	90	110	0%	
Vanadium	A	mg/L	0.04695	0.04695		0.05	0	0	0.0013	0.0013	1	94%	90	110	0%	
Zinc	A	mg/L	0.0538	0.0538		0.05	0	0	0.00273	0.00273	1	108%	90	110	0%	
Iron, Ferrous	C	mg/L	1.289	1.289		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980143	CCB	ICPMS-6020-W-	CCB		1/14/2022 2:29:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.00005245	-0.00005245		0	0	0	0.00086	0.001	1	0%				0%
Antimony	A	mg/L	0.00005666	0.00005666		0	0	0	0.00042	0.001	0.1	0%				0%
Arsenic	A	mg/L	-0.0004258	-0.0004258		0	0	0	0.00019	0.001	1	0%				0%
Barium	A	mg/L	-4.756E-06	-4.756E-06		0	0	0	0.000042	0.001	1	0%				0%
Beryllium	A	mg/L	-0.00007535	-0.00007535		0	0	0	0.00012	0.001	1	0%				0%
Boron	A	mg/L	0.0006254	0.0006254		0	0	0	0.00561	0.00561	1	0%				0%
Cadmium	A	mg/L	0.000002096	0.000002096		0	0	0	0.000025	0.001	1	0%				0%
Calcium	A	mg/L	0.002085	0.002085		0	0	0	0.02092	0.02092	50	0%				0%
Cerium	A	mg/L	0.000005633	0.000005633		0	0	0	0.000012	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	0.00002362	0.00002362		0	0	0	0.00018	0.001	1	0%				0%
Cobalt	A	mg/L	-4.151E-06	-4.151E-06		0	0	0	0.000042	0.001	1	0%				0%
Copper	A	mg/L	-5.754E-06	-5.754E-06		0	0	0	0.00027	0.001	1	0%				0%
Iron	A	mg/L	0.0003675	0.0003675		0	0	0	0.00119	0.00119	5	0%				0%
Lanthanum	A	mg/L	-0.004835	-0.004835		0	0	0	0.000011	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	-1.311E-06	-1.311E-06		0	0	0	0.000056	0.001	1	0%				0%
Magnesium	A	mg/L	-0.0006076	-0.0006076		0	0	0	0.00564	0.00564	50	0%				0%
Manganese	A	mg/L	-8.342E-06	-8.342E-06		0	0	0	0.000095	0.001	1	0%				0%
Mercury	A	mg/L	0.00001334	0.00001334		0	0	0	0.00016	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.00003607	0.00003607		0	0	0	0.00005	0.001	0.1	0%				0%
Nickel	A	mg/L	0.00002304	0.00002304		0	0	0	0.00063	0.001	1	0%				0%
Potassium	A	mg/L	0.03296	0.03296		0	0	0	0.08139	0.08139	50	0%				0%
Selenium	A	mg/L	-7.207E-07	-7.207E-07		0	0	0	0.00033	0.001	1	0%				0%
Silicon	A	mg/L	-0.01131	-0.01131		0	0	0	0.01223	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.00000402	0.00000402		0	0	0	0.00002	0.001	0.04	0%				0%
Sodium	A	mg/L	0.01489	0.01489		0	0	0	0.02171	0.02171	50	0%				0%
Strontium	A	mg/L	0.000000107	0.000000107		0	0	0	0.00014	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.00009859	0.00009859		0	0	0	0.000041	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00001591	0.00001591		0	0	0	0.00061	0.001	1	0%	0	0		0%
Tin	A	mg/L	-0.00001869	-0.00001869		0	0	0	0.00132	0.00132	0.1	0%	0	0		0%
Titanium	A	mg/L	-0.0001961	-0.0001961		0	0	0	0.000094	0.001	1	0%	0	0		0%
Uranium	A	mg/L	0.00000173	0.00000173		0	0	0	0.000052	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	-0.005042	-0.005042		0	0	0	0.0013	0.0013	1	0%	0	0		0%
Zinc	A	mg/L	-0.0000199	-0.0000199		0	0	0	0.00273	0.00273	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	0.0003675	0.0003675		0	0	0	0.00119	0.00119	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980144	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 2:35:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000974	0.000974		0	0	0	0.00086	0.001	1	0%	0	0	0%	J
Antimony	A	mg/L	0.00001998	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0004757	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-7.699E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008098	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	8.093E-07	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.00002479	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-0.00001053	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-8.708E-06	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-0.00001854	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.000009736	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	-0.00002005	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.012	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.698E-06	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	-1.489E-06	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001965	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000007303	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.000237	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.465E-07	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.002818	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0003042	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0003042	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.001381	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.01843	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Tin	B	mg/L	0.001727	0.001727		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980145	B22010212-001	ICPMS-6020-W-	SAMP		1/14/2022 2:41:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001896	0.001896		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0000727	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008619	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.0007333	0.0007333		0	0	0	0.00018	0.001	1	0%	0	0	0%	J
Cobalt	A	mg/L	0.00003325	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980145	B22010212-001	ICPMS-6020-W-	SAMP		1/14/2022 2:41:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00006059	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.001585	0.001585		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Thallium	A	mg/L	0.00002787	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000002844	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001293	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0008937	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.004021	0.004021		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00003967	0.00003967		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	15.64	15.64		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.0006463	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0006463	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	18.15	18.15		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.006775	0.006775		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	4.978	4.978		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0002029	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006226	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	39.43	39.43		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Strontium	B	mg/L	0.1694	0.1694		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.0000341	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980146	B22010212-001	ICPMS-6020-W-	SD		1/14/2022 2:47:5	5	R373222		0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001481	0.007405		0	0	0.001896	0.0043	0.0043	1	0%				N
Antimony	A	mg/L	0.00002397	0		0	0	0	0.0021	0.0021	0.1	0%				
Arsenic	A	mg/L	-0.0002077	0		0	0	0	0.00095	0.001	1	0%				
Barium	A	mg/L	0.001003	0.005015		0	0	0.004021	0.00021	0.001	1	0%			22%	R
Beryllium	A	mg/L	-0.00007635	0		0	0	0	0.0006	0.001	1	0%				
Boron	A	mg/L	0.009992	0.04996		0	0	0.04278	0.02805	0.02805	1	0%				N
Cadmium	A	mg/L	0.00003737	0.00018685		0	0	3.967E-05	0.000125	0.001	1	0%				N
Calcium	A	mg/L	3.17	15.85		0	0	15.64	0.1046	0.1046	50	0%			1%	
Cerium	A	mg/L	0.00002529	0.00012645		0	0	1.627E-05	0.00006	0.001	0.1	0%				N
Chromium	A	mg/L	0.0002489	0.0012445		0	0	0.0007333	0.0009	0.001	1	0%				N
Cobalt	A	mg/L	6.729E-07	0		0	0	0	0.00021	0.001	1	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980146	B22010212-001	ICPMS-6020-W- SD			1/14/2022 2:47:5	5	R373222			0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.0003958	0.001979		0	0	0.001153	0.00135	0.00135	1	0%				N
Iron	A	mg/L	0.001313	0.006565		0	0	0	0.00595	0.00595	5	0%				N
Lanthanum	A	mg/L	0.027	0.135		0	0	0.009896	0.000055	0.001	0.1	0%			173%	R
Lead	A	mg/L	0.0000568	0.000284		0	0	0	0.00028	0.001	1	0%				N
Magnesium	A	mg/L	3.687	18.435		0	0	18.15	0.0282	0.0282	50	0%			2%	
Manganese	A	mg/L	0.001414	0.00707		0	0	0.006775	0.000475	0.001	1	0%			4%	
Mercury	A	mg/L	0.00001441	0		0	0	0	0.0008	0.001	0.002	0%				
Molybdenum	A	mg/L	0.0003416	0.001708		0	0	0.001585	0.00025	0.001	0.1	0%				N
Nickel	A	mg/L	0.0003967	0		0	0	0.001312	0.00315	0.00315	1	0%				
Potassium	A	mg/L	0.9537	4.7685		0	0	4.978	0.40695	0.40695	50	0%			4%	
Selenium	A	mg/L	0.00004325	0		0	0	0	0.00165	0.00165	1	0%				
Silicon	A	mg/L	5.335	26.675		0	0	26.54	0.06115	0.1	0.4	0%			1%	
Silver	A	mg/L	-0.00006384	0		0	0	0	0.0001	0.001	0.04	0%				
Sodium	A	mg/L	8.321	41.605		0	0	39.43	0.10855	0.10855	50	0%			5%	
Strontium	A	mg/L	0.03367	0.16835		0	0	0.1694	0.0007	0.001	1	0%			1%	
Thallium	A	mg/L	0.00000192	0		0	0	0	0.000205	0.001	1	0%				
Thorium	A	mg/L	0.000008411	0		0	0	0	0.00305	0.00305	1	0%				
Tin	A	mg/L	0.00003435	0		0	0	0	0.0066	0.0066	0.1	0%				
Titanium	A	mg/L	0.0001008	0.000504		0	0	0.001062	0.00047	0.001	1	0%				N
Uranium	A	mg/L	0.00000376	0		0	0	0	0.00026	0.0003	1	0%				
Vanadium	A	mg/L	-0.0002897	0		0	0	0	0.0065	0.0065	1	0%				
Zinc	A	mg/L	0.001675	0		0	0	0.002951	0.01365	0.01365	1	0%				
Iron, Ferrous	C	mg/L	0.001313	0.006565		0	0	0	0.00595	0.00595	5	0%				N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980147	B22010212-001	ICPMS-6020-W- MS			1/14/2022 2:54:0	1.03	R373222			1E+07	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04562	0.0469886		0.05	0.001896	0	0.0008858	0.001	1	90%	75	125	0%	
Antimony	A	mg/L	0.03908	0.0402524		0.05	0	0	0.0004326	0.001	0.1	81%	75	125	0%	
Arsenic	A	mg/L	0.0475	0.048925		0.05	0	0	0.0001957	0.001	1	98%	75	125	0%	
Barium	A	mg/L	0.05112	0.0526536		0.05	0.004021	0	4.326E-05	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04481	0.0461543		0.05	0	0	0.0001236	0.001	1	92%	75	125	0%	
Boron	A	mg/L	0.09125	0.0939875		0.05	0.04278	0	0.0057783	0.0057783	1	102%	75	125	0%	
Cadmium	A	mg/L	0.04642	0.0478126		0.05	3.967E-05	0	2.575E-05	0.001	1	96%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980147	B22010212-001	ICPMS-6020-W- MS			1/14/2022 2:54:0	1.03	R373222		1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Calcium	A	mg/L	57.73	59.4619		50	15.64	0	0.0215476	0.0215476	50	88%	75	125	0%	E
Cerium	A	mg/L	0.2481	0.255543		0.05	1.627E-05	0	1.236E-05	0.001	0.1	511%	75	125	0%	SE
Chromium	A	mg/L	0.04906	0.0505318		0.05	0.0007333	0	0.0001854	0.001	1	100%	75	125	0%	
Cobalt	A	mg/L	0.04596	0.0473388		0.05	0	0	4.326E-05	0.001	1	95%	75	125	0%	
Copper	A	mg/L	0.05163	0.0531789		0.05	0.001153	0	0.0002781	0.001	1	104%	75	125	0%	
Iron	A	mg/L	4.628	4.76684		5.05	0	0	0.0012257	0.0012257	5	94%	75	125	0%	
Lanthanum	A	mg/L	0.1908	0.196524		0.05	0.009896	0	1.133E-05	0.001	0.1	373%	75	125	0%	SE
Lead	A	mg/L	0.04818	0.0496254		0.05	0	0	5.768E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	64.63	66.5689		50	18.15	0	0.0058092	0.0058092	50	97%	75	125	0%	E
Manganese	A	mg/L	0.05292	0.0545076		0.05	0.006775	0	9.785E-05	0.001	1	95%	75	125	0%	
Mercury	A	mg/L	0.005172	0.00532716		0.001	0	0	0.0001648	0.001	0.002	533%	75	125	0%	SE
Molybdenum	A	mg/L	0.04693	0.0483379		0.05	0.001585	0	0.0000515	0.001	0.1	94%	75	125	0%	
Nickel	A	mg/L	0.05019	0.0516957		0.05	0.001312	0	0.0006489	0.001	1	101%	75	125	0%	
Potassium	A	mg/L	48.58	50.0374		50	4.978	0	0.0838317	0.0838317	50	90%	75	125	0%	
Selenium	A	mg/L	0.04669	0.0480907		0.05	0	0	0.0003399	0.001	1	96%	75	125	0%	
Silicon	A	mg/L	25.67	26.4401		0.2	26.54	0	0.0125969	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.01868	0.0192404		0.02	0	0	0.0000206	0.001	0.04	96%	75	125	0%	
Sodium	A	mg/L	85.01	87.5603		50	39.43	0	0.0223613	0.0223613	50	96%	75	125	0%	E
Strontium	A	mg/L	0.2064	0.212592		0.05	0.1694	0	0.0001442	0.001	1	86%	75	125	0%	
Thallium	A	mg/L	0.04655	0.0479465		0.05	0	0	4.223E-05	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.04664	0.0480392		0.05	0	0	0.0006283	0.001	1	96%	75	125	0%	
Tin	A	mg/L	0.04614	0.0475242		0.05	0	0	0.0013596	0.0013596	0.1	95%	75	125	0%	
Titanium	A	mg/L	0.05074	0.0522622		0.05	0.001062	0	9.682E-05	0.001	1	102%	75	125	0%	
Uranium	A	mg/L	0.04687	0.0482761		0.05	0	0	5.356E-05	0.0003	1	97%	75	125	0%	
Vanadium	A	mg/L	0.05411	0.0557333		0.05	0	0	0.001339	0.001339	1	111%	75	125	0%	
Zinc	A	mg/L	0.04999	0.0514897		0.05	0.002951	0	0.0028119	0.0028119	1	97%	75	125	0%	
Iron, Ferrous	C	mg/L	4.628	4.76684		0	0	0	0.0012257	0.0012257	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980148	B22010212-001	ICPMS-6020-W- MSD			1/14/2022 3:00:2	1.03	R373222		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04615	0.0475345		0.05	0.001896	0.0469886	0.0008858	0.001	1	91%	75	125	1%	
Antimony	A	mg/L	0.04028	0.0414884		0.05	0	0.0402524	0.0004326	0.001	0.1	83%	75	125	3%	
Arsenic	A	mg/L	0.04771	0.0491413		0.05	0	0.048925	0.0001957	0.001	1	98%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980148	B22010212-001	ICPMS-6020-W- MSD			1/14/2022 3:00:2	1.03	R373222		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.05116	0.0526948		0.05	0.004021	0.0526536	4.326E-05	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04482	0.0461646		0.05	0	0.0461543	0.0001236	0.001	1	92%	75	125	0%	
Boron	A	mg/L	0.09147	0.0942141		0.05	0.04278	0.0939875	0.0057783	0.0057783	1	103%	75	125	0%	
Cadmium	A	mg/L	0.04677	0.0481731		0.05	3.967E-05	0.0478126	2.575E-05	0.001	1	96%	75	125	1%	
Calcium	A	mg/L	63.51	65.4153		50	15.64	59.4619	0.0215476	0.0215476	50	100%	75	125	10%	E
Cerium	A	mg/L	0.2476	0.255028		0.05	1.627E-05	0.255543	1.236E-05	0.001	0.1	510%	75	125	0%	SE
Chromium	A	mg/L	0.04809	0.0495327		0.05	0.0007333	0.0505318	0.0001854	0.001	1	98%	75	125	2%	
Cobalt	A	mg/L	0.0461	0.047483		0.05	0	0.0473388	4.326E-05	0.001	1	95%	75	125	0%	
Copper	A	mg/L	0.05119	0.0527257		0.05	0.001153	0.0531789	0.0002781	0.001	1	103%	75	125	1%	
Iron	A	mg/L	5.062	5.21386		5.05	0	4.76684	0.0012257	0.0012257	5	103%	75	125	9%	E
Lanthanum	A	mg/L	0.5499	0.566397		0.05	0.009896	0.196524	1.133E-05	0.001	0.1	1113%	75	125	97%	SRE
Lead	A	mg/L	0.04884	0.0503052		0.05	0	0.0496254	5.768E-05	0.001	1	101%	88	115	1%	
Magnesium	A	mg/L	63.95	65.8685		50	18.15	66.5689	0.0058092	0.0058092	50	95%	75	125	1%	E
Manganese	A	mg/L	0.05306	0.0546518		0.05	0.006775	0.0545076	9.785E-05	0.001	1	96%	75	125	0%	
Mercury	A	mg/L	0.005311	0.00547033		0.001	0	0.0053272	0.0001648	0.001	0.002	547%	75	125	3%	SE
Molybdenum	A	mg/L	0.04638	0.0477714		0.05	0.001585	0.0483379	0.0000515	0.001	0.1	92%	75	125	1%	
Nickel	A	mg/L	0.04964	0.0511292		0.05	0.001312	0.0516957	0.0006489	0.001	1	100%	75	125	1%	
Potassium	A	mg/L	49.2	50.676		50	4.978	50.0374	0.0838317	0.0838317	50	91%	75	125	1%	
Selenium	A	mg/L	0.05066	0.0521798		0.05	0	0.0480907	0.0003399	0.001	1	104%	75	125	8%	
Silicon	A	mg/L	27.75	28.5825		0.2	26.54	26.4401	0.0125969	0.1	0.4		75	125	8%	AE
Silver	A	mg/L	0.01859	0.0191477		0.02	0	0.0192404	0.0000206	0.001	0.04	96%	75	125	0%	
Sodium	A	mg/L	84.88	87.4264		50	39.43	87.5603	0.0223613	0.0223613	50	96%	75	125	0%	E
Strontium	A	mg/L	0.2067	0.212901		0.05	0.1694	0.212592	0.0001442	0.001	1	87%	75	125	0%	
Thallium	A	mg/L	0.04693	0.0483379		0.05	0	0.0479465	4.223E-05	0.001	1	97%	75	125	1%	
Thorium	A	mg/L	0.04642	0.0478126		0.05	0	0.0480392	0.0006283	0.001	1	96%	75	125	0%	
Tin	A	mg/L	0.04581	0.0471843		0.05	0	0.0475242	0.0013596	0.0013596	0.1	94%	75	125	1%	
Titanium	A	mg/L	0.04982	0.0513146		0.05	0.001062	0.0522622	9.682E-05	0.001	1	101%	75	125	2%	
Uranium	A	mg/L	0.04709	0.0485027		0.05	0	0.0482761	5.356E-05	0.0003	1	97%	75	125	0%	
Vanadium	A	mg/L	0.05366	0.0552698		0.05	0	0.0557333	0.001339	0.001339	1	111%	75	125	1%	
Zinc	A	mg/L	0.04969	0.0511807		0.05	0.002951	0.0514897	0.0028119	0.0028119	1	96%	75	125	1%	
Iron, Ferrous	C	mg/L	5.062	5.21386		0	0	4.76684	0.0012257	0.0012257	5	0%	0	0	9%	E

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980149	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 3:06:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0009151	0.0009151		0	0	0	0.00086	0.001	1	0%	0	0	0%	J
Antimony	A	mg/L	0.0008078	0.0008078		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.00000488	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-7.522E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008654	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000006256	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-2.928E-06	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-6.039E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-2.524E-07	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-2.543E-06	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00004669	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00002768	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01043	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000001501	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.000002017	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005052	0.00005052		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00001865	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0001573	0.0001573		0	0	0	0.000094	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.000002708	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.006433	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0003565	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0003565	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.003508	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.03171	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Tin	B	mg/L	0.001768	0.001768		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980150	B22010213-003	ICPMS-6020-W-	SAMP		1/14/2022 3:12:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001315	0.001315		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0002479	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008736	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001151	0.0001151		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00016	0.00016		0	0	0	0.000056	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980150	B22010213-003	ICPMS-6020-W-	SAMP		1/14/2022 3:12:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Molybdenum	A	mg/L	0.0002402	0.0002402		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Thallium	A	mg/L	0.00002272	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000005861	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0007836	0.0007836		0	0	0	0.000094	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.00002909	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0009418	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.01127	0.01127		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00005305	0.00005305		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	21.39	21.39		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Chromium	B	mg/L	0.0004534	0.0004534		0	0	0	0.00018	0.001	1	0%	0	0	0%	J
Iron	B	mg/L	0.0104	0.0104		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0104	0.0104		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	21.46	21.46		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.06204	0.06204		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	2.368	2.368		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0005207	0.0005207		0	0	0	0.00033	0.001	1	0%	0	0	0%	J
Silver	B	mg/L	-0.00006348	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1626	0.1626		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.00012	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980151	B22010214-001	ICPMS-6020-W-	SAMP		1/14/2022 3:19:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001502	0.001502		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0001247	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009223	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.002877	0.002877		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-7.453E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0001365	0.0001365		0	0	0	0.000056	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.001039	0.001039		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Thallium	A	mg/L	0.000008008	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000007818	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000006454	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0009318	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980151	B22010214-001	ICPMS-6020-W-	SAMP		1/14/2022 3:19:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	B	mg/L	0.001848	0.001848		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000356	0.0000356		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	7.355	7.355		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.0009848	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0009848	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	8.46	8.46		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.000463	0.000463		0	0	0	0.000095	0.001	1	0%	0	0	0%	J
Potassium	B	mg/L	1.701	1.701		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0001279	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006364	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	35.19	35.19		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Strontium	B	mg/L	0.05686	0.05686		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.000115	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980152	B22010219-001	ICPMS-6020-W-	SAMP		1/14/2022 3:25:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002654	0.002654		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.000346	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009217	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0004274	0.0004274		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.000003357	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.01223	0.01223		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Thallium	A	mg/L	0.000003161	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000001851	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0007607	0.0007607		0	0	0	0.000094	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.00007705	0.00007705		0	0	0	0.000052	0.0003	1	0%	0	0	0%	J
Arsenic	B	mg/L	-0.0003298	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.004231	0.004231		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00003142	0.00003142		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	27.51	27.51		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Chromium	B	mg/L	-0.0001088	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Iron	B	mg/L	0.00475	0.00475		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.00475	0.00475		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980152	B22010219-001	ICPMS-6020-W-	SAMP		1/14/2022 3:25:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Magnesium	B	mg/L	31.55	31.55		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.2486	0.2486		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	2.939	2.939		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.00005342	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006479	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.221	0.221		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.0000332	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980153	B22010366-001	ICPMS-6020-W-	SAMP		1/14/2022 3:31:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.004713	0.004713		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0002075	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.0000939	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0004998	0.0004998		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001123	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0003934	0.0003934		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Strontium	A	mg/L	0.06872	0.06872		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-8.791E-06	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000002805	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001365	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0001244	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.00358	0.00358		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000259	0.0000259		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	9.76	9.76		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Chromium	B	mg/L	-0.00019	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Iron	B	mg/L	0.3541	0.3541		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.3541	0.3541		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	10.1	10.1		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.499	0.499		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	1.959	1.959		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	-0.00003495	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006457	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	39.24	39.24		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980153	B22010366-001	ICPMS-6020-W-	SAMP		1/14/2022 3:31:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	B	mg/L	-0.00008196	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980154	B22010369-001	ICPMS-6020-W-	SAMP		1/14/2022 3:37:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001535	0.001535		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0001195	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009156	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.003575	0.003575		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-7.246E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-0.00001142	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0005415	0.0005415		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Strontium	A	mg/L	0.05002	0.05002		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-0.00000111	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000000992	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001361	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.000781	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.004899	0.004899		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000285	0.0000285		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	5.069	5.069		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.0003	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0003	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	8.624	8.624		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.000006518	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	3.148	3.148		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0003051	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006508	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Tin	B	mg/L	-0.0001145	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980155	B22010403-001	ICPMS-6020-W-	SAMP		1/14/2022 3:43:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980155	B22010403-001	ICPMS-6020-W- SAMP			1/14/2022 3:43:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001814	0.001814		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0000376	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009392	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.001645	0.001645		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00002939	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-0.00000212	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0008882	0.0008882		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Strontium	A	mg/L	0.06889	0.06889		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-4.808E-06	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	7.371E-07	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001652	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0009348	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003781	0.003781		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002446	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Calcium	B	mg/L	9.929	9.929		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.003134	0.003134		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.003134	0.003134		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	12.3	12.3		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.0005809	0.0005809		0	0	0	0.000095	0.001	1	0%	0	0	0%	J
Potassium	B	mg/L	1.792	1.792		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0003103	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00005916	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Tin	B	mg/L	-0.0001164	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980156	CCV	ICPMS-6020-W- CCV			1/14/2022 3:50:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05084	0.05084		0.05	0	0	0.00086	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.05169	0.05169		0.05	0	0	0.00042	0.001	0.1	103%	90	110	0%	
Arsenic	A	mg/L	0.05434	0.05434		0.05	0	0	0.00019	0.001	1	109%	90	110	0%	
Barium	A	mg/L	0.05285	0.05285		0.05	0	0	0.000042	0.001	1	106%	90	110	0%	
Beryllium	A	mg/L	0.05455	0.05455		0.05	0	0	0.00012	0.001	1	109%	90	110	0%	
Boron	A	mg/L	0.06184	0.06184		0.05	0	0	0.00561	0.00561	1	124%	90	110	0%	S
Cadmium	A	mg/L	0.05208	0.05208		0.05	0	0	0.000025	0.001	1	104%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980156	CCV	ICPMS-6020-W-	CCV		1/14/2022 3:50:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Calcium	A	mg/L	11.49	11.49		12.5	0	0	0.02092	0.02092	50	92%	90	110	0%	
Cerium	A	mg/L	0.2672	0.2672		0.05	0	0	0.000012	0.001	0.1	534%	90	110	0%	S
Chromium	A	mg/L	0.05508	0.05508		0.05	0	0	0.00018	0.001	1	110%	90	110	0%	
Cobalt	A	mg/L	0.0516	0.0516		0.05	0	0	0.000042	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05948	0.05948		0.05	0	0	0.00027	0.001	1	119%	90	110	0%	S
Iron	A	mg/L	1.272	1.272		1.3	0	0	0.00119	0.00119	5	98%	90	110	0%	
Lanthanum	A	mg/L	0.03182	0.03182		0.05	0	0	0.000011	0.001	0.1	64%	90	110	0%	S
Lead	A	mg/L	0.05219	0.05219		0.05	0	0	0.000056	0.001	1	104%	90	110	0%	
Magnesium	A	mg/L	13.17	13.17		12.5	0	0	0.00564	0.00564	50	105%	90	110	0%	
Manganese	A	mg/L	0.05277	0.05277		0.05	0	0	0.000095	0.001	1	106%	90	110	0%	
Mercury	A	mg/L	0.005354	0.005354		0.001	0	0	0.00016	0.001	0.002	535%	90	110	0%	S
Molybdenum	A	mg/L	0.0498	0.0498		0.05	0	0	0.00005	0.001	0.1	100%	90	110	0%	
Nickel	A	mg/L	0.05728	0.05728		0.05	0	0	0.00063	0.001	1	115%	90	110	0%	S
Potassium	A	mg/L	11.76	11.76		12.5	0	0	0.08139	0.08139	50	94%	90	110	0%	
Selenium	A	mg/L	0.05314	0.05314		0.05	0	0	0.00033	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.1985	0.1985		0.2	0	0	0.01223	0.1	0.4	99%	90	110	0%	
Silver	A	mg/L	0.02	0.02		0.02	0	0	0.00002	0.001	0.04	100%	90	110	0%	
Sodium	A	mg/L	13.39	13.39		12.5	0	0	0.02171	0.02171	50	107%	90	110	0%	
Strontium	A	mg/L	0.05178	0.05178		0.05	0	0	0.00014	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.04945	0.04945		0.05	0	0	0.000041	0.001	1	99%	90	110	0%	
Thorium	A	mg/L	0.05019	0.05019		0.05	0	0	0.00061	0.001	1	100%	90	110	0%	
Tin	A	mg/L	0.05162	0.05162		0.05	0	0	0.00132	0.00132	0.1	103%	90	110	0%	
Titanium	A	mg/L	0.05048	0.05048		0.05	0	0	0.000094	0.001	1	101%	90	110	0%	
Uranium	A	mg/L	0.04874	0.04874		0.05	0	0	0.000052	0.0003	1	97%	90	110	0%	
Vanadium	A	mg/L	0.05566	0.05566		0.05	0	0	0.0013	0.0013	1	111%	90	110	0%	S
Zinc	A	mg/L	0.05713	0.05713		0.05	0	0	0.00273	0.00273	1	114%	90	110	0%	S
Iron, Ferrous	C	mg/L	1.272	1.272		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980157	CCB	ICPMS-6020-W-	CCB		1/14/2022 3:56:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0001979	-0.0001979		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.0001067	0.0001067		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0001636	0.0001636		0	0	0	0.00019	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980157	CCB	ICPMS-6020-W-	CCB		1/14/2022 3:56:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	-4.527E-06	-4.527E-06		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00008168	-0.00008168		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.005563	0.005563		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	8.946E-07	8.946E-07		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	-0.00191	-0.00191		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	5.294E-07	5.294E-07		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00006743	0.00006743		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	-8.548E-07	-8.548E-07		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	-0.00001368	-0.00001368		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	0.0003483	0.0003483		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	-0.002107	-0.002107		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	-4.046E-06	-4.046E-06		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	-0.0001582	-0.0001582		0	0	0	0.00564	0.00564	50	0%			0%	
Manganese	A	mg/L	0.000002909	0.000002909		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.0000397	0.0000397		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00003251	0.00003251		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	0.00001399	0.00001399		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	-0.002234	-0.002234		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	0.00003618	0.00003618		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	-0.009598	-0.009598		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	9.709E-07	9.709E-07		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.03404	0.03404		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	0.000008378	0.000008378		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001645	0.0001645		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00002156	0.00002156		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.00007279	0.00007279		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001944	-0.0001944		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000002018	0.000002018		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.002185	0.002185		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	0.000007244	0.000007244		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0003483	0.0003483		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980158	B22010406-001	ICPMS-6020-W-	SAMP		1/14/2022 4:02:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002057	0.002057		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.001046	0.001046		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008909	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.002129	0.002129		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001176	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001307	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0001225	0.0001225		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Strontium	A	mg/L	0.08616	0.08616		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00007269	0.00007269		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.000005787	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001048	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.000884	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003501	0.003501		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002626	0.00002626		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	13.21	13.21		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.003452	0.003452		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.003452	0.003452		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	15.36	15.36		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.001986	0.001986		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	1.725	1.725		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.0001431	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006276	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	33.66	33.66		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.00002453	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980159	B22010409-001	ICPMS-6020-W-	SAMP		1/14/2022 4:08:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.004996	0.004996		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.000465	0.000465		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	J
Beryllium	A	mg/L	-0.00009262	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.000015	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.004413	0.004413		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Thallium	A	mg/L	0.00002254	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980159	B22010409-001	ICPMS-6020-W-	SAMP		1/14/2022 4:08:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thorium	A	mg/L	-2.903E-07	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002772	0.0002772		0	0	0	0.000052	0.0003	1	0%	0	0	0%	J
Arsenic	B	mg/L	0.0004091	0.0004091		0	0	0	0.00019	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.022	0.022		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00003229	0.00003229		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	12.58	12.58		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Chromium	B	mg/L	0.001658	0.001658		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.00000323	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Iron	B	mg/L	0.006266	0.006266		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.006266	0.006266		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	9.457	9.457		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.003244	0.003244		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	2.953	2.953		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.00005438	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006297	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	44.69	44.69		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Strontium	B	mg/L	0.1175	0.1175		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.00003395	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980160	B22010410-001	ICPMS-6020-W-	SAMP		1/14/2022 4:15:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003273	0.003273		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002039	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009273	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.000003129	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0007961	0.0007961		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Thallium	A	mg/L	0.00002548	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	6.458E-07	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00003366	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.0004868	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.005797	0.005797		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002513	0.00002513		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	16.7	16.7		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980160	B22010410-001	ICPMS-6020-W-	SAMP		1/14/2022 4:15:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	B	mg/L	0.001551	0.001551		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.000001542	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Iron	B	mg/L	0.0003262	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0003262	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	16	16		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Manganese	B	mg/L	0.00006699	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	2.358	2.358		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.00003063	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00005804	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	38.3	38.3		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Strontium	B	mg/L	0.1144	0.1144		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.00009662	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980161	B22010411-001	ICPMS-6020-W-	SAMP		1/14/2022 4:21:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001497	0.001497		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00004649	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Barium	A	mg/L	0.002022	0.002022		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009219	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00005264	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.01395	0.01395		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Thallium	A	mg/L	0.000009348	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000002665	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0002453	0.0002453		0	0	0	0.000094	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.000004863	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Arsenic	B	mg/L	-0.000802	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00005373	0.00005373		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Calcium	B	mg/L	12.69	12.69		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Chromium	B	mg/L	-0.0001358	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.00001582	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Iron	B	mg/L	0.03614	0.03614		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.03614	0.03614		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	13.53	13.53		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980161	B22010411-001	ICPMS-6020-W- SAMP			1/14/2022 4:21:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	B	mg/L	0.04783	0.04783		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Potassium	B	mg/L	3.701	3.701		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Selenium	B	mg/L	0.00003702	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.00006363	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Sodium	B	mg/L	45.32	45.32		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Strontium	B	mg/L	0.08108	0.08108		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Tin	B	mg/L	-0.00009139	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980162	B22010411-001	ICPMS-6020-W- SD			1/14/2022 4:27:3	5	R373222		0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002284	0.01142		0	0	0.001497	0.0043	0.0043	1	0%				N
Antimony	A	mg/L	0.00002777	0		0	0	0	0.0021	0.0021	0.1	0%				
Arsenic	A	mg/L	-0.00005744	0		0	0	0	0.00095	0.001	1	0%				
Barium	A	mg/L	0.0008374	0.004187		0	0	0.002022	0.00021	0.001	1	0%				N
Beryllium	A	mg/L	-0.00008967	0		0	0	0	0.0006	0.001	1	0%				
Boron	A	mg/L	0.01755	0.08775		0	0	0.0731	0.02805	0.02805	1	0%				N
Cadmium	A	mg/L	0.0000216	0		0	0	5.373E-05	0.000125	0.001	1	0%				
Calcium	A	mg/L	2.411	12.055		0	0	12.69	0.1046	0.1046	50	0%			5%	
Cerium	A	mg/L	0.00002228	0.0001114		0	0	1.622E-05	0.00006	0.001	0.1	0%				N
Chromium	A	mg/L	0.0001438	0		0	0	0	0.0009	0.001	1	0%				
Cobalt	A	mg/L	-2.006E-06	0		0	0	0	0.00021	0.001	1	0%				
Copper	A	mg/L	0.0003091	0.0015455		0	0	0.0005077	0.00135	0.00135	1	0%				N
Iron	A	mg/L	0.008189	0.040945		0	0	0.03614	0.00595	0.00595	5	0%				N
Lanthanum	A	mg/L	0.03526	0.1763		0	0	0.008116	0.000055	0.001	0.1	0%			182%	R
Lead	A	mg/L	0.0000342	0		0	0	0	0.00028	0.001	1	0%				
Magnesium	A	mg/L	2.65	13.25		0	0	13.53	0.0282	0.0282	50	0%				2%
Manganese	A	mg/L	0.009374	0.04687		0	0	0.04783	0.000475	0.001	1	0%				2%
Mercury	A	mg/L	0.00001436	0		0	0	0	0.0008	0.001	0.002	0%				
Molybdenum	A	mg/L	0.002852	0.01426		0	0	0.01395	0.00025	0.001	0.1	0%				2%
Nickel	A	mg/L	0.0001717	0		0	0	0	0.00315	0.00315	1	0%				
Potassium	A	mg/L	0.6747	3.3735		0	0	3.701	0.40695	0.40695	50	0%				N
Selenium	A	mg/L	0.00001524	0		0	0	0	0.00165	0.00165	1	0%				
Silicon	A	mg/L	1.514	7.57		0	0	7.806	0.06115	0.1	0.4	0%				3%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980162	B22010411-001	ICPMS-6020-W- SD			1/14/2022 4:27:3	5	R373222			0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	-0.00006598	0		0	0	0	0.0001	0.001	0.04	0%				
Sodium	A	mg/L	9.123	45.615		0	0	45.32	0.10855	0.10855	50	0%				1%
Strontium	A	mg/L	0.01601	0.08005		0	0	0.08108	0.0007	0.001	1	0%				1%
Thallium	A	mg/L	-2.554E-06	0		0	0	0	0.000205	0.001	1	0%				
Thorium	A	mg/L	8.864E-07	0		0	0	0	0.00305	0.00305	1	0%				
Tin	A	mg/L	0.00004658	0		0	0	0	0.0066	0.0066	0.1	0%				
Titanium	A	mg/L	-0.0001334	0		0	0	0.0002453	0.00047	0.001	1	0%				
Uranium	A	mg/L	0.000001	0		0	0	0	0.00026	0.0003	1	0%				
Vanadium	A	mg/L	0.0002911	0		0	0	0	0.0065	0.0065	1	0%				
Zinc	A	mg/L	0.0015	0		0	0	0	0.01365	0.01365	1	0%				
Iron, Ferrous	C	mg/L	0.008189	0.040945		0	0	0.03614	0.00595	0.00595	5	0%				N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980163	B22010411-001	ICPMS-6020-W- MS			1/14/2022 4:33:4	1.03	R373222			1E+07	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04655	0.0479465		0.05	0.001497	0	0.0008858	0.001	1	93%	75	125	0%	
Antimony	A	mg/L	0.03942	0.0406026		0.05	0	0	0.0004326	0.001	0.1	81%	75	125	0%	
Arsenic	A	mg/L	0.04911	0.0505833		0.05	0	0	0.0001957	0.001	1	101%	75	125	0%	
Barium	A	mg/L	0.049	0.05047		0.05	0.002022	0	4.326E-05	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04754	0.0489662		0.05	0	0	0.0001236	0.001	1	98%	75	125	0%	
Boron	A	mg/L	0.1241	0.127823		0.05	0.0731	0	0.0057783	0.0057783	1	109%	75	125	0%	
Cadmium	A	mg/L	0.04647	0.0478641		0.05	5.373E-05	0	2.575E-05	0.001	1	96%	75	125	0%	
Calcium	A	mg/L	55.69	57.3607		50	12.69	0	0.0215476	0.0215476	50	89%	75	125	0%	E
Cerium	A	mg/L	0.257	0.26471		0.05	1.622E-05	0	1.236E-05	0.001	0.1	529%	75	125	0%	SE
Chromium	A	mg/L	0.04908	0.0505524		0.05	0	0	0.0001854	0.001	1	101%	75	125	0%	
Cobalt	A	mg/L	0.04513	0.0464839		0.05	0	0	4.326E-05	0.001	1	93%	75	125	0%	
Copper	A	mg/L	0.05271	0.0542913		0.05	0.0005077	0	0.0002781	0.001	1	108%	75	125	0%	
Iron	A	mg/L	4.81	4.9543		5.05	0.03614	0	0.0012257	0.0012257	5	97%	75	125	0%	
Lanthanum	A	mg/L	0.09752	0.1004456		0.05	0.008116	0	1.133E-05	0.001	0.1	185%	75	125	0%	S
Lead	A	mg/L	0.04825	0.0496975		0.05	0	0	5.768E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	61.76	63.6128		50	13.53	0	0.0058092	0.0058092	50	100%	75	125	0%	E
Manganese	A	mg/L	0.09386	0.0966758		0.05	0.04783	0	9.785E-05	0.001	1	98%	75	125	0%	
Mercury	A	mg/L	0.005281	0.00543943		0.001	0	0	0.0001648	0.001	0.002	544%	75	125	0%	SE
Molybdenum	A	mg/L	0.05885	0.0606155		0.05	0.01395	0	0.0000515	0.001	0.1	93%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980163	B22010411-001	ICPMS-6020-W- MS			1/14/2022 4:33:4	1.03	R373222		1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nickel	A	mg/L	0.05066	0.0521798		0.05	0	0	0.0006489	0.001	1	104%	75	125	0%	
Potassium	A	mg/L	47.97	49.4091		50	3.701	0	0.0838317	0.0838317	50	91%	75	125	0%	
Selenium	A	mg/L	0.04763	0.0490589		0.05	0	0	0.0003399	0.001	1	98%	75	125	0%	
Silicon	A	mg/L	7.753	7.98559		0.2	7.806	0	0.0125969	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.01862	0.0191786		0.02	0	0	0.0000206	0.001	0.04	96%	75	125	0%	
Sodium	A	mg/L	90.93	93.6579		50	45.32	0	0.0223613	0.0223613	50	97%	75	125	0%	E
Strontium	A	mg/L	0.1275	0.131325		0.05	0.08108	0	0.0001442	0.001	1	100%	75	125	0%	
Thallium	A	mg/L	0.04592	0.0472976		0.05	0	0	4.223E-05	0.001	1	95%	75	125	0%	
Thorium	A	mg/L	0.04714	0.0485542		0.05	0	0	0.0006283	0.001	1	97%	75	125	0%	
Tin	A	mg/L	0.04558	0.0469474		0.05	0	0	0.0013596	0.0013596	0.1	94%	75	125	0%	
Titanium	A	mg/L	0.04875	0.0502125		0.05	0.0002453	0	9.682E-05	0.001	1	100%	75	125	0%	
Uranium	A	mg/L	0.04645	0.0478435		0.05	0	0	5.356E-05	0.0003	1	96%	75	125	0%	
Vanadium	A	mg/L	0.04895	0.0504185		0.05	0	0	0.001339	0.001339	1	101%	75	125	0%	
Zinc	A	mg/L	0.05149	0.0530347		0.05	0	0	0.0028119	0.0028119	1	106%	75	125	0%	
Iron, Ferrous	C	mg/L	4.81	4.9543		0	0.03614	0	0.0012257	0.0012257	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980164	B22010411-001	ICPMS-6020-W- MSD			1/14/2022 4:40:0	1.03	R373222		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04684	0.0482452		0.05	0.001497	0.0479465	0.0008858	0.001	1	93%	75	125	1%	
Antimony	A	mg/L	0.04145	0.0426935		0.05	0	0.0406026	0.0004326	0.001	0.1	85%	75	125	5%	
Arsenic	A	mg/L	0.04908	0.0505524		0.05	0	0.0505833	0.0001957	0.001	1	101%	75	125	0%	
Barium	A	mg/L	0.04976	0.0512528		0.05	0.002022	0.05047	4.326E-05	0.001	1	98%	75	125	2%	
Beryllium	A	mg/L	0.04639	0.0477817		0.05	0	0.0489662	0.0001236	0.001	1	96%	75	125	2%	
Boron	A	mg/L	0.1205	0.124115		0.05	0.0731	0.127823	0.0057783	0.0057783	1	102%	75	125	3%	
Cadmium	A	mg/L	0.04741	0.0488323		0.05	5.373E-05	0.0478641	2.575E-05	0.001	1	98%	75	125	2%	
Calcium	A	mg/L	57.34	59.0602		50	12.69	57.3607	0.0215476	0.0215476	50	93%	75	125	3%	E
Cerium	A	mg/L	0.2568	0.264504		0.05	1.622E-05	0.26471	1.236E-05	0.001	0.1	529%	75	125	0%	SE
Chromium	A	mg/L	0.04839	0.0498417		0.05	0	0.0505524	0.0001854	0.001	1	100%	75	125	1%	
Cobalt	A	mg/L	0.04577	0.0471431		0.05	0	0.0464839	4.326E-05	0.001	1	94%	75	125	1%	
Copper	A	mg/L	0.05182	0.0533746		0.05	0.0005077	0.0542913	0.0002781	0.001	1	106%	75	125	2%	
Iron	A	mg/L	4.898	5.04494		5.05	0.03614	4.9543	0.0012257	0.0012257	5	99%	75	125	2%	
Lanthanum	A	mg/L	0.6595	0.679285		0.05	0.008116	0.1004456	1.133E-05	0.001	0.1	1342%	75	125	148%	SRE
Lead	A	mg/L	0.04901	0.0504803		0.05	0	0.0496975	5.768E-05	0.001	1	101%	88	115	2%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980164	B22010411-001	ICPMS-6020-W- MSD			1/14/2022 4:40:0	1.03	R373222		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Magnesium	A	mg/L	62.78	64.6634		50	13.53	63.6128	0.0058092	0.0058092	50	102%	75	125	2%	E
Manganese	A	mg/L	0.09353	0.0963359		0.05	0.04783	0.0966758	9.785E-05	0.001	1	97%	75	125	0%	
Mercury	A	mg/L	0.005599	0.00576697		0.001	0	0.0054394	0.0001648	0.001	0.002	577%	75	125	6%	SE
Molybdenum	A	mg/L	0.06075	0.0625725		0.05	0.01395	0.0606155	0.0000515	0.001	0.1	97%	75	125	3%	
Nickel	A	mg/L	0.04922	0.0506966		0.05	0	0.0521798	0.0006489	0.001	1	101%	75	125	3%	
Potassium	A	mg/L	48.54	49.9962		50	3.701	49.4091	0.0838317	0.0838317	50	93%	75	125	1%	
Selenium	A	mg/L	0.04907	0.0505421		0.05	0	0.0490589	0.0003399	0.001	1	101%	75	125	3%	
Silicon	A	mg/L	7.648	7.87744		0.2	7.806	7.98559	0.0125969	0.1	0.4		75	125	1%	AE
Silver	A	mg/L	0.0189	0.019467		0.02	0	0.0191786	0.0000206	0.001	0.04	97%	75	125	1%	
Sodium	A	mg/L	90.27	92.9781		50	45.32	93.6579	0.0223613	0.0223613	50	95%	75	125	1%	E
Strontium	A	mg/L	0.127	0.13081		0.05	0.08108	0.131325	0.0001442	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.04758	0.0490074		0.05	0	0.0472976	4.223E-05	0.001	1	98%	75	125	4%	
Thorium	A	mg/L	0.04888	0.0503464		0.05	0	0.0485542	0.0006283	0.001	1	101%	75	125	4%	
Tin	A	mg/L	0.04664	0.0480392		0.05	0	0.0469474	0.0013596	0.0013596	0.1	96%	75	125	2%	
Titanium	A	mg/L	0.04986	0.0513558		0.05	0.0002453	0.0502125	9.682E-05	0.001	1	102%	75	125	2%	
Uranium	A	mg/L	0.04739	0.0488117		0.05	0	0.0478435	5.356E-05	0.0003	1	98%	75	125	2%	
Vanadium	A	mg/L	0.04807	0.0495121		0.05	0	0.0504185	0.001339	0.001339	1	99%	75	125	2%	
Zinc	A	mg/L	0.05137	0.0529111		0.05	0	0.0530347	0.0028119	0.0028119	1	106%	75	125	0%	
Iron, Ferrous	C	mg/L	4.898	5.04494		0	0.03614	4.9543	0.0012257	0.0012257	5	0%	0	0	2%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980165	Rinse	ICPMS-6020-W- SAMP			1/14/2022 4:46:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00111	0.00111		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0006114	0.0006114		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.0001262	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-5.504E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007646	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-7.412E-06	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-7.409E-07	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-0.00001509	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	-4.955E-07	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.000003791	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001124	0.0001124		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980165	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 4:46:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Selenium	A	mg/L	0.00002727	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01178	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	6.857E-08	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00001076	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00008475	0.00008475		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002168	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.0001203	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000003238	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.000166	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.0002331	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0002331	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.003877	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	0.02131	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Tin	B	mg/L	0.001763	0.001763		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980166	MB-162926	ICPMS-6020-W-	MBLK		1/14/2022 4:52:3	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00363	0		0	0	0	0.0038747	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.0004963	0.0004963		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.001005	0.001005		0	0	0	0.0003412	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00006722	0		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007755	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	
Boron	A	mg/L	0.003969	0		0	0	0	0.0203802	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000002478	0		0	0	0	1.821E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.01642	0		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	
Cerium	A	mg/L	0.00001641	0		0	0	0	2.738E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0004197	0		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00006517	0		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0004795	0		0	0	0	0.0008747	0.00198	1	0%	0	0	0%	
Iron	A	mg/L	0.001335	0		0	0	0	0.007424	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	0.01971	0.01971		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00005673	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.00221	0		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980166	MB-162926	ICPMS-6020-W- MBLK				1/14/2022 4:52:3	1	162926	1/14/2022 8:	0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.0001914	0		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00005245	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00007897	0		0	0	0	0.0002288	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	0.00399	0		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00006004	0		0	0	0	0.0001357	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.01082	0		0	0	0	0.0422089	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-0.0000653	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0.06247	0		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00004169	0		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001069	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00005843	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	0.0004615	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00009125	0		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000001111	0		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.009442	0.009442		0	0	0	0.0039127	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.000288	0		0	0	0	0.0011617	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.023146144	0		0	0	0	0.0902933	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.023146144	0		0	0	0	0.0902933	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980167	LCS4-162926	ICPMS-6020-W- LCS4				1/14/2022 4:58:4	1	162926	1/14/2022 8:	0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4778	0.4778		0.5	0	0	0.0038747	0.0031975	1	96%	80	120	0%	
Antimony	A	mg/L	0.1012	0.1012		0.1	0	0	0.0002799	0.001	0.1	101%	80	120	0%	
Arsenic	A	mg/L	0.1014	0.1014		0.1	0	0	0.0003412	0.001	1	101%	80	120	0%	
Barium	A	mg/L	0.0945	0.0945		0.1	0	0	0.0002682	0.001	1	94%	80	120	0%	
Beryllium	A	mg/L	0.05091	0.05091		0.05	0	0	0.0001071	0.01	1	102%	80	120	0%	
Boron	A	mg/L	0.1134	0.1134		0.1	0	0	0.0203802	0.01467	1	113%	80	120	0%	
Cadmium	A	mg/L	0.05457	0.05457		0.05	0	0	1.821E-05	0.005	1	109%	80	120	0%	
Calcium	A	mg/L	4.444	4.444		5	0	0	0.0372936	0.1103481	50	89%	80	120	0%	
Cerium	A	mg/L	0.5644	0.5644		0.1	0	0	2.738E-05	0.001	0.1	564%	80	120	0%	S
Chromium	A	mg/L	0.1036	0.1036		0.1	0	0	0.0015375	0.0015375	1	104%	80	120	0%	
Cobalt	A	mg/L	0.09125	0.09125		0.1	0	0	9.541E-05	0.001	1	91%	80	120	0%	
Copper	A	mg/L	0.1154	0.1154		0.1	0	0	0.0008747	0.00198	1	115%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980167	LCS4-162926	ICPMS-6020-W- LCS4			1/14/2022 4:58:4	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron	A	mg/L	0.4826	0.4826		0.5	0	0	0.007424	0.00513	5	97%	80	120	0%	
Lanthanum	A	mg/L	2139	2139		0.1	0	0	0.000055	0.001	0.1	139000%	80	120	0%	S
Lead	A	mg/L	0.1008	0.1008		0.1	0	0	7.716E-05	0.001	1	101%	88	115	0%	
Magnesium	A	mg/L	5.514	5.514		5	0	0	0.0104254	0.0081522	50	110%	80	120	0%	
Manganese	A	mg/L	0.4953	0.4953		0.5	0	0	0.0005399	0.001	1	99%	80	120	0%	
Molybdenum	A	mg/L	0.09258	0.09258		0.1	0	0	0.0001763	0.001	0.1	93%	80	120	0%	
Nickel	A	mg/L	0.1109	0.1109		0.1	0	0	0.0002288	0.0024200	1	111%	80	120	0%	
Potassium	A	mg/L	4.361	4.361		5	0	0	0.0765619	0.0261205	50	87%	80	120	0%	
Selenium	A	mg/L	0.09893	0.09893		0.1	0	0	0.0001357	0.001	1	99%	80	120	0%	
Silicon	A	mg/L	0.9491	0.9491		1	0	0	0.0422089	0.0053212	0.4	95%	80	120	0%	
Silver	A	mg/L	0.009493	0.009493		0.01	0	0	4.281E-05	0.001	0.04	95%	80	120	0%	
Sodium	A	mg/L	5.645	5.645		5	0	0	0.1019461	0.7330269	50	113%	80	120	0%	
Strontium	A	mg/L	0.09914	0.09914		0.1	0	0	0.0002433	0.001	1	99%	80	120	0%	
Thallium	A	mg/L	0.09828	0.09828		0.1	0	0	0.0001114	0.001	1	98%	80	120	0%	
Thorium	A	mg/L	0.09715	0.09715		0.1	0	0	0.0003796	0.00415	1	97%	80	120	0%	
Tin	A	mg/L	0.1018	0.1018		0.1	0	0	0.0018932	0.0011175	0.1	102%	80	120	0%	
Titanium	A	mg/L	0.087	0.087		0.1	0	0	0.0005733	0.001	1	87%	80	120	0%	
Uranium	A	mg/L	0.09624	0.09624		0.1	0	0	1.699E-05	0.0003	1	96%	80	120	0%	
Vanadium	A	mg/L	0.1071	0.1071		0.1	0	0	0.0039127	0.0021085	1	107%	80	120	0%	
Zinc	A	mg/L	0.1063	0.1063		0.1	0	0	0.0011617	0.0065544	1	106%	80	120	0%	
Silica	C	mg/L	2.03031472	2.03031472		0	0	0	0.0902933	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.03031472	2.03031472		2.14	0	0	0.0902933	0.0113831	5	95%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980168	Rinse	ICPMS-6020-W- SAMP			1/14/2022 5:04:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00101	0.00101		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0001565	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.000076	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-3.607E-07	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008614	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-0.0000114	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0.00003898	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-8.161E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980168	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 5:04:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.000003177	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.000004201	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001886	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00002084	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01221	0		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000002289	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.000004882	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00029	0.00029		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002625	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-0.0002481	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000001991	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	-0.002154	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	0.000235	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.000235	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	0.002235	0		0	0	0	0.00564	0.00564	50	0%	0	0	0%	L
Potassium	B	mg/L	-0.02564	0		0	0	0	0.08139	0.08139	50	0%	0	0	0%	L
Tin	B	mg/L	0.001821	0.001821		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980169	B22010507-001	ICPMS-6020-W-	SAMP		1/14/2022 5:11:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003249	0.003249		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00009797	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.000906	0.000906		0	0	0	0.00019	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.01005	0.01005		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008622	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00005122	0.00005122		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.0001502	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00008509	0.00008509		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001161	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.004351	0.004351		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00338	0.00338		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0003701	0.0003701		0	0	0	0.00033	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006197	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980169	B22010507-001	ICPMS-6020-W-	SAMP		1/14/2022 5:11:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	0.289	0.289		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001113	0.0001113		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.000002288	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000196	0.000196		0	0	0	0.000052	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	38.47	38.47		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.01737	0.01737		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.01737	0.01737		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	37.86	37.86		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Potassium	B	mg/L	2.799	2.799		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Tin	B	mg/L	-0.0000982	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980170	CCV	ICPMS-6020-W-	CCV		1/14/2022 5:17:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04924	0.04924		0.05	0	0	0.00086	0.001	1	98%	90	110	0%	
Antimony	A	mg/L	0.05119	0.05119		0.05	0	0	0.00042	0.001	0.1	102%	90	110	0%	
Arsenic	A	mg/L	0.05257	0.05257		0.05	0	0	0.00019	0.001	1	105%	90	110	0%	
Barium	A	mg/L	0.05058	0.05058		0.05	0	0	0.000042	0.001	1	101%	90	110	0%	
Beryllium	A	mg/L	0.05248	0.05248		0.05	0	0	0.00012	0.001	1	105%	90	110	0%	
Boron	A	mg/L	0.05836	0.05836		0.05	0	0	0.00561	0.00561	1	117%	90	110	0%	S
Cadmium	A	mg/L	0.05155	0.05155		0.05	0	0	0.000025	0.001	1	103%	90	110	0%	
Calcium	A	mg/L	11.33	11.33		12.5	0	0	0.02092	0.02092	50	91%	90	110	0%	
Cerium	A	mg/L	0.2716	0.2716		0.05	0	0	0.000012	0.001	0.1	543%	90	110	0%	S
Chromium	A	mg/L	0.05237	0.05237		0.05	0	0	0.00018	0.001	1	105%	90	110	0%	
Cobalt	A	mg/L	0.04986	0.04986		0.05	0	0	0.000042	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05814	0.05814		0.05	0	0	0.00027	0.001	1	116%	90	110	0%	S
Iron	A	mg/L	1.283	1.283		1.3	0	0	0.00119	0.00119	5	99%	90	110	0%	
Lanthanum	A	mg/L	0.03534	0.03534		0.05	0	0	0.000011	0.001	0.1	71%	90	110	0%	S
Lead	A	mg/L	0.05149	0.05149		0.05	0	0	0.000056	0.001	1	103%	90	110	0%	
Magnesium	A	mg/L	13.25	13.25		12.5	0	0	0.00564	0.00564	50	106%	90	110	0%	
Manganese	A	mg/L	0.05116	0.05116		0.05	0	0	0.000095	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.005351	0.005351		0.001	0	0	0.00016	0.001	0.002	535%	90	110	0%	S
Molybdenum	A	mg/L	0.04861	0.04861		0.05	0	0	0.00005	0.001	0.1	97%	90	110	0%	
Nickel	A	mg/L	0.05669	0.05669		0.05	0	0	0.00063	0.001	1	113%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980170	CCV	ICPMS-6020-W-	CCV		1/14/2022 5:17:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	A	mg/L	11.45	11.45		12.5	0	0	0.08139	0.08139	50	92%	90	110	0%	
Selenium	A	mg/L	0.05222	0.05222		0.05	0	0	0.00033	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.1925	0.1925		0.2	0	0	0.01223	0.1	0.4	96%	90	110	0%	
Silver	A	mg/L	0.01979	0.01979		0.02	0	0	0.00002	0.001	0.04	99%	90	110	0%	
Sodium	A	mg/L	13.47	13.47		12.5	0	0	0.02171	0.02171	50	108%	90	110	0%	
Strontium	A	mg/L	0.05147	0.05147		0.05	0	0	0.00014	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.04989	0.04989		0.05	0	0	0.000041	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05075	0.05075		0.05	0	0	0.00061	0.001	1	101%	90	110	0%	
Tin	A	mg/L	0.05042	0.05042		0.05	0	0	0.00132	0.00132	0.1	101%	90	110	0%	
Titanium	A	mg/L	0.04875	0.04875		0.05	0	0	0.000094	0.001	1	97%	90	110	0%	
Uranium	A	mg/L	0.04863	0.04863		0.05	0	0	0.000052	0.0003	1	97%	90	110	0%	
Vanadium	A	mg/L	0.05325	0.05325		0.05	0	0	0.0013	0.0013	1	106%	90	110	0%	
Zinc	A	mg/L	0.05617	0.05617		0.05	0	0	0.00273	0.00273	1	112%	90	110	0%	S
Iron, Ferrous	C	mg/L	1.283	1.283		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980171	CCB	ICPMS-6020-W-	CCB		1/14/2022 5:23:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.000268	-0.000268		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.00008909	0.00008909		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-0.00004951	-0.00004951		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	-8.889E-06	-8.889E-06		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00007693	-0.00007693		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.001724	0.001724		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.000002519	0.000002519		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	-0.00272	-0.00272		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	0.000009391	0.000009391		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00002485	0.00002485		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	-0.00001086	-0.00001086		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	-4.093E-06	-4.093E-06		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	0.0002871	0.0002871		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	-0.006783	-0.006783		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	-2.099E-06	-2.099E-06		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	0.0005585	0.0005585		0	0	0	0.00564	0.00564	50	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980171	CCB	ICPMS-6020-W-	CCB		1/14/2022 5:23:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	-7.246E-07	-7.246E-07		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.00005344	0.00005344		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00001606	0.00001606		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	0.00005748	0.00005748		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	-0.01376	-0.01376		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	-0.00000648	-0.00000648		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	-0.01332	-0.01332		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-1.502E-06	-1.502E-06		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.02914	0.02914		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	0.000004533	0.000004533		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002619	0.0002619		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001994	0.00001994		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	2.556E-07	2.556E-07		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0002362	-0.0002362		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00006773	0.00006773		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0005694	0.0005694		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	-0.00002507	-0.00002507		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0002871	0.0002871		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980172	B22010507-001	ICPMS-6020-W-	SAMP		1/14/2022 5:29:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0001492	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Barium	A	mg/L	0.01094	0.01094		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007344	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0002027	0.0002027		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00007634	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.005286	0.005286		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.003662	0.003662		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0004628	0.0004628		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00004636	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2908	0.2908		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001642	0.0001642		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.003927	0.003927		0	0	0	0.0005733	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980172	B22010507-001	ICPMS-6020-W-	SAMP		1/14/2022 5:29:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.0002045	0.0002045		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	J
Aluminum	B	mg/L	0.03868	0.03868		0	0	0	0.0038747	0.0031975	1	0%	0	0	0%	D
Calcium	B	mg/L	37.7	37.7		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	D
Chromium	B	mg/L	0.001322	0		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	LU
Iron	B	mg/L	0.1411	0.1411		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	40.7	40.7		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Potassium	B	mg/L	2.711	2.711		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00007124	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0005153	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980173	B22010507-001	ICPMS-6020-W-	SD		1/14/2022 5:36:0	5	162926	1/14/2022 8:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009973	0.049865		0	0	0.03868	0.0193736	0.0159875	1	0%	0	0		N
Antimony	A	mg/L	0.00004101	0		0	0	0	0.0013997	0.0049	0.1	0%	0	0		
Arsenic	A	mg/L	0.0005601	0.0028005		0	0	0.00285	0.0017061	0.0013383	1	0%	0	0		N
Barium	A	mg/L	0.002154	0.01077		0	0	0.01094	0.0013411	0.0012039	1	0%	0	0		N
Beryllium	A	mg/L	-0.00008521	0		0	0	0	0.0005353	0.01	1	0%	0	0		
Boron	A	mg/L	0.02022	0		0	0	0.09844	0.1019008	0.07335	1	0%	0	0		
Cadmium	A	mg/L	0.000006435	0		0	0	0	9.105E-05	0.005	1	0%	0	0		
Calcium	A	mg/L	6.94	34.7		0	0	37.7	0.1864681	0.5517403	50	0%	0	0	8%	
Cerium	A	mg/L	0.0000501	0.0002505		0	0	0.0002793	0.0001369	0.001	0.1	0%	0	0		N
Chromium	A	mg/L	0.0002792	0		0	0	0	0.0076875	0.0076875	1	0%	0	0		
Cobalt	A	mg/L	0.00003462	0		0	0	0.0002027	0.0004771	0.001	1	0%	0	0		
Copper	A	mg/L	0.0003749	0		0	0	0.001383	0.0043735	0.0099	1	0%	0	0		
Iron	A	mg/L	0.02675	0.13375		0	0	0.1411	0.0371198	0.02565	5	0%	0	0		N
Lanthanum	A	mg/L	0.08441	0.42205		0	0	0.4452	0.000275	0.001	0.1	0%	0	0	5%	
Lead	A	mg/L	0.00001974	0		0	0	0	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	8.18	40.9		0	0	40.7	0.0521269	0.0407608	50	0%	0	0	0%	
Manganese	A	mg/L	0.00103	0.00515		0	0	0.005286	0.0026994	0.0010695	1	0%	0	0		N
Molybdenum	A	mg/L	0.0006931	0.0034655		0	0	0.003662	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.0002169	0		0	0	0.0007891	0.0011441	0.0121000	1	0%	0	0		
Potassium	A	mg/L	0.5033	2.5165		0	0	2.711	0.3828097	0.1306027	50	0%	0	0		N
Selenium	A	mg/L	0.00008093	0		0	0	0.0004628	0.0006787	0.0029274	1	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980173	B22010507-001	ICPMS-6020-W-	SD		1/14/2022 5:36:0	5	162926	1/14/2022 8:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	4.218	21.09		0	0	23.5	0.2110446	0.026606	0.4	0%	0	0	11%	R
Silver	A	mg/L	-0.00006099	0		0	0	0	0.0002141	0.001	0.04	0%	0	0		
Sodium	A	mg/L	20.82	104.1		0	0	102.8	0.5097304	3.6651346	50	0%	0	0	1%	
Strontium	A	mg/L	0.05676	0.2838		0	0	0.2908	0.0012164	0.001	1	0%	0	0	2%	
Thallium	A	mg/L	0.00008352	0		0	0	0.0001642	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	0.00001135	0		0	0	0	0.0018981	0.02075	1	0%	0	0		
Tin	A	mg/L	0.0001035	0		0	0	0	0.0094659	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.0006427	0.0032135		0	0	0.003927	0.0028666	0.001	1	0%	0	0		N
Uranium	A	mg/L	0.00003874	0.0001937		0	0	0.0002045	8.495E-05	0.0004224	1	0%	0	0		N
Vanadium	A	mg/L	0.005045	0.025225		0	0	0.02171	0.0195637	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.001299	0.006495		0	0	0.003808	0.0058087	0.0327721	1	0%	0	0		N
Silica	C	mg/L	9.0231456	45.115728		0	0	0	0.4514666	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	9.0231456	45.115728		0	0	0	0.4514666	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980174	B22010507-001	ICPMS-6020-W-	PDS1		1/14/2022 5:42:2	1.03	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.08252	0.0849956		0.0515	0.03868	0	0.003991	0.0032934	1	90%	75	125	0%	
Antimony	A	mg/L	0.04467	0.0460101		0.0515	0	0	0.0002883	0.0010094	0.1	89%	75	125	0%	
Arsenic	A	mg/L	0.05137	0.0529111		0.0515	0.00285	0	0.0003514	0.001	1	97%	75	125	0%	
Barium	A	mg/L	0.05888	0.0606464		0.0515	0.01094	0	0.0002763	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04752	0.0489456		0.0515	0	0	0.0001103	0.01	1	95%	75	125	0%	
Boron	A	mg/L	0.1488	0.153264		0.0515	0.09844	0	0.0209916	0.0151101	1	106%	75	125	0%	
Cadmium	A	mg/L	0.0515	0.053045		0.0515	0	0	1.876E-05	0.005	1	103%	75	125	0%	
Calcium	A	mg/L	76.13	78.4139		51.5	37.7	0	0.0384124	0.1136585	50	79%	75	125	0%	
Cerium	A	mg/L	0.2621	0.269963		0.0515	0.0002793	0	2.820E-05	0.001	0.1	524%	75	125	0%	S
Chromium	A	mg/L	0.04788	0.0493164		0.0515	0	0	0.0015836	0.0015836	1	96%	75	125	0%	
Cobalt	A	mg/L	0.0412	0.042436		0.0515	0.0002027	0	9.827E-05	0.001	1	82%	75	125	0%	
Copper	A	mg/L	0.05301	0.0546003		0.0515	0.001383	0	0.0009009	0.0020394	1	103%	75	125	0%	
Iron	A	mg/L	4.631	4.76993		5.15	0.1411	0	0.0076467	0.0052839	5	90%	75	125	0%	
Lanthanum	A	mg/L	0.6324	0.651372		0.0515	0.4452	0	5.665E-05	0.001	0.1		75	125	0%	A
Lead	A	mg/L	0.0487	0.050161		0.0515	0	0	7.947E-05	0.001	1	97%	80	120	0%	
Magnesium	A	mg/L	87.72	90.3516		51.5	40.7	0	0.0107381	0.0083967	50	96%	75	125	0%	
Manganese	A	mg/L	0.05072	0.0522416		0.0515	0.005286	0	0.0005561	0.001	1	91%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980174	B22010507-001	ICPMS-6020-W-	PDS1		1/14/2022 5:42:2	1.03	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Molybdenum	A	mg/L	0.04842	0.0498726		0.0515	0.003662	0	0.0001816	0.001	0.1	90%	75	125	0%	
Nickel	A	mg/L	0.05042	0.0519326		0.0515	0.0007891	0	0.0002357	0.0024926	1	99%	75	125	0%	
Potassium	A	mg/L	44.73	46.0719		51.5	2.711	0	0.0788588	0.0269042	50	84%	75	125	0%	
Selenium	A	mg/L	0.04681	0.0482143		0.0515	0.0004628	0	0.0001398	0.001	1	93%	75	125	0%	
Silicon	A	mg/L	22.72	23.4016		0.206	23.5	0	0.0434752	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.01878	0.0193434		0.0206	0	0	4.409E-05	0.001	0.04	94%	75	125	0%	
Sodium	A	mg/L	147.3	151.719		51.5	102.8	0	0.1050045	0.7550177	50	95%	75	125	0%	
Strontium	A	mg/L	0.3238	0.333514		0.0515	0.2908	0	0.0002506	0.001	1		75	125	0%	A
Thallium	A	mg/L	0.04883	0.0502949		0.0515	0.0001642	0	0.0001147	0.001	1	97%	75	125	0%	
Thorium	A	mg/L	0.04845	0.0499035		0.0515	0	0	0.000391	0.0042745	1	97%	75	125	0%	
Tin	A	mg/L	0.04796	0.0493988		0.0515	0	0	0.00195	0.001151	0.1	96%	75	125	0%	
Titanium	A	mg/L	0.04706	0.0484718		0.0515	0.003927	0	0.0005905	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.04744	0.0488632		0.0515	0.0002045	0	1.75E-05	0.0003	1	94%	75	125	0%	
Vanadium	A	mg/L	0.07258	0.0747574		0.0515	0.02171	0	0.0040301	0.0021717	1	103%	75	125	0%	
Zinc	A	mg/L	0.05216	0.0537248		0.0515	0.003808	0	0.0011966	0.0067511	1	97%	75	125	0%	
Silica	C	mg/L	48.602624	50.06070272		0	0	0	0.0930021	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	48.602624	50.06070272		0.0515	0	0	0.0930021	0.0117246	5	97205%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980175	B22010507-001	ICPMS-6020-W-	MS4		1/14/2022 5:48:3	1	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5122	0.5122		0.5	0.03868	0	0.0038747	0.0031975	1	95%	75	125	0%	
Antimony	A	mg/L	0.1043	0.1043		0.1	0	0	0.0002799	0.001	0.1	104%	75	125	0%	
Arsenic	A	mg/L	0.1035	0.1035		0.1	0.00285	0	0.0003412	0.001	1	101%	75	125	0%	
Barium	A	mg/L	0.1075	0.1075		0.1	0.01094	0	0.0002682	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04978	0.04978		0.05	0	0	0.0001071	0.01	1	100%	75	125	0%	
Boron	A	mg/L	0.2035	0.2035		0.1	0.09844	0	0.0203802	0.01467	1	105%	75	125	0%	
Cadmium	A	mg/L	0.05384	0.05384		0.05	0	0	1.821E-05	0.005	1	108%	75	125	0%	
Calcium	A	mg/L	41.66	41.66		5	37.7	0	0.0372936	0.1103481	50		75	125	0%	A
Cerium	A	mg/L	0.5499	0.5499		0.1	0.0002793	0	2.738E-05	0.001	0.1	550%	75	125	0%	S
Chromium	A	mg/L	0.1034	0.1034		0.1	0	0	0.0015375	0.0015375	1	103%	75	125	0%	
Cobalt	A	mg/L	0.09122	0.09122		0.1	0.0002027	0	9.541E-05	0.001	1	91%	75	125	0%	
Copper	A	mg/L	0.1111	0.1111		0.1	0.001383	0	0.0008747	0.00198	1	110%	75	125	0%	
Iron	A	mg/L	0.6294	0.6294		0.5	0.1411	0	0.007424	0.00513	5	98%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980175	B22010507-001	ICPMS-6020-W- MS4			1/14/2022 5:48:3	1	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lanthanum	A	mg/L	2090	2090		0.1	0.4452	0	0.000055	0.001	0.1		75	125	0%	A
Lead	A	mg/L	0.1018	0.1018		0.1	0	0	7.716E-05	0.001	1	102%	88	115	0%	
Magnesium	A	mg/L	43.74	43.74		5	40.7	0	0.0104254	0.0081522	50		75	125	0%	A
Manganese	A	mg/L	0.4899	0.4899		0.5	0.005286	0	0.0005399	0.001	1	97%	75	125	0%	
Molybdenum	A	mg/L	0.09823	0.09823		0.1	0.003662	0	0.0001763	0.001	0.1	95%	75	125	0%	
Nickel	A	mg/L	0.1057	0.1057		0.1	0.0007891	0	0.0002288	0.0024200	1	105%	75	125	0%	
Potassium	A	mg/L	7.302	7.302		5	2.711	0	0.0765619	0.0261205	50	92%	75	125	0%	
Selenium	A	mg/L	0.1007	0.1007		0.1	0.0004628	0	0.0001357	0.001	1	100%	75	125	0%	
Silicon	A	mg/L	22.27	22.27		1	23.5	0	0.0422089	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009416	0.009416		0.01	0	0	4.281E-05	0.001	0.04	94%	75	125	0%	
Sodium	A	mg/L	103.6	103.6		5	102.8	0	0.1019461	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.3885	0.3885		0.1	0.2908	0	0.0002433	0.001	1	98%	75	125	0%	
Thallium	A	mg/L	0.09843	0.09843		0.1	0.0001642	0	0.0001114	0.001	1	98%	75	125	0%	
Thorium	A	mg/L	0.09935	0.09935		0.1	0	0	0.0003796	0.00415	1	99%	75	125	0%	
Tin	A	mg/L	0.1015	0.1015		0.1	0	0	0.0018932	0.0011175	0.1	101%	75	125	0%	
Titanium	A	mg/L	0.09143	0.09143		0.1	0.003927	0	0.0005733	0.001	1	88%	75	125	0%	
Uranium	A	mg/L	0.1003	0.1003		0.1	0.0002045	0	1.699E-05	0.0003	1	100%	75	125	0%	
Vanadium	A	mg/L	0.1211	0.1211		0.1	0.02171	0	0.0039127	0.0021085	1	99%	75	125	0%	
Zinc	A	mg/L	0.1071	0.1071		0.1	0.003808	0	0.0011617	0.0065544	1	103%	75	125	0%	
Silica	C	mg/L	47.639984	47.639984		0	0	0	0.0902933	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	47.639984	47.639984		2.14	0	0	0.0902933	0.0113831	5	2226%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980176	B22010507-001	ICPMS-6020-W- MSD4			1/14/2022 5:54:5	1	162926	1/14/2022 8:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5158	0.5158		0.5	0.03868	0.5122	0.0038747	0.0031975	1	95%	75	125	1%	
Antimony	A	mg/L	0.1033	0.1033		0.1	0	0.1043	0.0002799	0.001	0.1	103%	75	125	1%	
Arsenic	A	mg/L	0.1031	0.1031		0.1	0.00285	0.1035	0.0003412	0.001	1	100%	75	125	0%	
Barium	A	mg/L	0.1055	0.1055		0.1	0.01094	0.1075	0.0002682	0.001	1	95%	75	125	2%	
Beryllium	A	mg/L	0.04996	0.04996		0.05	0	0.04978	0.0001071	0.01	1	100%	75	125	0%	
Boron	A	mg/L	0.2089	0.2089		0.1	0.09844	0.2035	0.0203802	0.01467	1	110%	75	125	3%	
Cadmium	A	mg/L	0.05318	0.05318		0.05	0	0.05384	1.821E-05	0.005	1	106%	75	125	1%	
Calcium	A	mg/L	41.16	41.16		5	37.7	41.66	0.0372936	0.1103481	50		75	125	1%	A
Cerium	A	mg/L	0.5428	0.5428		0.1	0.0002793	0.5499	2.738E-05	0.001	0.1	543%	75	125	1%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980176	B22010507-001	ICPMS-6020-W-MSD4			1/14/2022 5:54:5	1	162926	1/14/2022 8:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.1018	0.1018		0.1	0	0.1034	0.0015375	0.0015375	1	102%	75	125	2%	
Cobalt	A	mg/L	0.08929	0.08929		0.1	0.0002027	0.09122	9.541E-05	0.001	1	89%	75	125	2%	
Copper	A	mg/L	0.1102	0.1102		0.1	0.001383	0.1111	0.0008747	0.00198	1	109%	75	125	1%	
Iron	A	mg/L	0.6194	0.6194		0.5	0.1411	0.6294	0.007424	0.00513	5	96%	75	125	2%	
Lanthanum	A	mg/L	2111	2111		0.1	0.4452	2090	0.000055	0.001	0.1		75	125	1%	A
Lead	A	mg/L	0.1047	0.1047		0.1	0	0.1018	7.716E-05	0.001	1	105%	88	115	3%	
Magnesium	A	mg/L	45.03	45.03		5	40.7	43.74	0.0104254	0.0081522	50		75	125	3%	A
Manganese	A	mg/L	0.4861	0.4861		0.5	0.005286	0.4899	0.0005399	0.001	1	96%	75	125	1%	
Molybdenum	A	mg/L	0.09701	0.09701		0.1	0.003662	0.09823	0.0001763	0.001	0.1	93%	75	125	1%	
Nickel	A	mg/L	0.1046	0.1046		0.1	0.0007891	0.1057	0.0002288	0.0024200	1	104%	75	125	1%	
Potassium	A	mg/L	7.222	7.222		5	2.711	7.302	0.0765619	0.0261205	50	90%	75	125	1%	
Selenium	A	mg/L	0.1002	0.1002		0.1	0.0004628	0.1007	0.0001357	0.001	1	100%	75	125	0%	
Silicon	A	mg/L	24.14	24.14		1	23.5	22.27	0.0422089	0.0053212	0.4		75	125	8%	A
Silver	A	mg/L	0.009259	0.009259		0.01	0	0.009416	4.281E-05	0.001	0.04	93%	75	125	2%	
Sodium	A	mg/L	106.2	106.2		5	102.8	103.6	0.1019461	0.7330269	50		75	125	2%	A
Strontium	A	mg/L	0.3896	0.3896		0.1	0.2908	0.3885	0.0002433	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.1003	0.1003		0.1	0.0001642	0.09843	0.0001114	0.001	1	100%	75	125	2%	
Thorium	A	mg/L	0.1011	0.1011		0.1	0	0.09935	0.0003796	0.00415	1	101%	75	125	2%	
Tin	A	mg/L	0.1048	0.1048		0.1	0	0.1015	0.0018932	0.0011175	0.1	105%	75	125	3%	
Titanium	A	mg/L	0.08969	0.08969		0.1	0.003927	0.09143	0.0005733	0.001	1	86%	75	125	2%	
Uranium	A	mg/L	0.0996	0.0996		0.1	0.0002045	0.1003	1.699E-05	0.0003	1	99%	75	125	1%	
Vanadium	A	mg/L	0.1212	0.1212		0.1	0.02171	0.1211	0.0039127	0.0021085	1	99%	75	125	0%	
Zinc	A	mg/L	0.1059	0.1059		0.1	0.003808	0.1071	0.0011617	0.0065544	1	102%	75	125	1%	
Silica	C	mg/L	51.640288	51.640288		0	0	47.639984	0.0902933	0.0113831	5	0%	0	0	8%	
Silicon as SiO2	C	mg/L	51.640288	51.640288		2.14	0	47.639984	0.0902933	0.0113831	5	2413%	75	125	8%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980177	Rinse	ICPMS-6020-W-SAMP			1/14/2022 6:01:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003639	0.003639		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0001947	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.00004298	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002215	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00006762	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980177	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 6:01:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	0.00001009	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	-0.001056	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	-0.0002055	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-0.000014	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.00002892	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.000004867	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Magnesium	A	mg/L	0.005065	0		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	L
Manganese	A	mg/L	0.000007461	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001809	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Potassium	A	mg/L	-0.01534	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	0.00001249	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.02013	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-4.187E-06	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0.03764	0.03764		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	D
Strontium	A	mg/L	-1.927E-06	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0005568	0.0005568		0	0	0	0.0001262	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002986	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.001722	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	-0.0002577	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000002761	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Lithium	B	mg/L	0.0004505	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	0.00002892	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980178	B22010625-001	ICPMS-6020-W-	SAMP		1/14/2022 6:07:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001368	0.001368		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0003964	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.002952	0.002952		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02491	0.02491		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009459	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000483	0.0000483		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.001711	0.001711		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0000327	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980178	B22010625-001	ICPMS-6020-W-	SAMP		1/14/2022 6:07:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00003847	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0004741	0.0004741		0	0	0	0.000095	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.01037	0.01037		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.000711	0.000711		0	0	0	0.00033	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006375	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.2715	0.2715		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002316	0.0002316		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002154	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Calcium	B	mg/L	22.91	22.91		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.0003194	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0003194	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	26.39	26.39		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Potassium	B	mg/L	7.548	7.548		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Tin	B	mg/L	0.0002181	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980179	B22010625-001	ICPMS-6020-W-	SAMP		1/14/2022 6:13:3	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0004928	0.0004928		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	J
Barium	A	mg/L	0.02678	0.02678		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.0000885	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0001183	0.0001183		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.000041	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0008918	0.0008918		0	0	0	0.0005399	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.01186	0.01186		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0008585	0.0008585		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006136	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2695	0.2695		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001895	0.0001895		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.001509	0.001509		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Calcium	B	mg/L	22.35	22.35		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	D
Chromium	B	mg/L	0.002391	0.002391		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.003262	0		0	0	0	0.007424	0.00513	5	0%	0	0	0%	LU
Magnesium	B	mg/L	27.03	27.03		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980179	B22010625-001	ICPMS-6020-W-	SAMP		1/14/2022 6:13:3	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	B	mg/L	7.367	7.367		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00006023	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0006889	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980180	B22010626-001	ICPMS-6020-W-	SAMP		1/14/2022 6:19:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003522	0.003522		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0002	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0008153	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.003303	0.003303		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009285	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00003845	0.00003845		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.00163	0.00163		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00000833	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0000195	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.00007477	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001172	0.0001172		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.00009683	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.00006239	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.06568	0.06568		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001108	0.0001108		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	-1.254E-06	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001803	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	10.03	10.03		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.001421	0.001421		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.001421	0.001421		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	9.823	9.823		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Potassium	B	mg/L	2.232	2.232		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Sodium	B	mg/L	31.88	31.88		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.00003914	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980181	B22010626-001	ICPMS-6020-W-	SAMP		1/14/2022 6:25:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0006977	0.0006977		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	J
Barium	A	mg/L	0.005322	0.005322		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008179	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0004184	0.0004184		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.0001206	0.0001206		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.008359	0.008359		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0002013	0.0002013		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0001891	0.0001891		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.0000192	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.06926	0.06926		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000111	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.05742	0.05742		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0000227	0.0000227		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	J
Aluminum	B	mg/L	0.7788	0.7788		0	0	0	0.0038747	0.0031975	1	0%	0	0	0%	D
Calcium	B	mg/L	9.779	9.779		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	D
Chromium	B	mg/L	0.003701	0.003701		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.6866	0.6866		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	10.4	10.4		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Potassium	B	mg/L	1.969	1.969		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	D
Sodium	B	mg/L	33.63	33.63		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00004629	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0009022	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980182	B22010628-001	ICPMS-6020-W-	SAMP		1/14/2022 6:32:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003693	0.003693		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00007695	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0008412	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.005214	0.005214		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009794	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0001075	0.0001075		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.0005207	0.0005207		0	0	0	0.00018	0.001	1	0%	0	0	0%	J
Cobalt	A	mg/L	0.00002758	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980182	B22010628-001	ICPMS-6020-W-	SAMP		1/14/2022 6:32:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00007536	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.008172	0.008172		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0005213	0.0005213		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0001907	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.00006135	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1715	0.1715		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00007378	0.00007378		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	-1.953E-08	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001084	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	15.6	15.6		0	0	0	0.02092	0.02092	50	0%	0	0	0%	D
Iron	B	mg/L	0.00008679	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.00008679	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	18.57	18.57		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Potassium	B	mg/L	3.693	3.693		0	0	0	0.08139	0.08139	50	0%	0	0	0%	D
Sodium	B	mg/L	40.17	40.17		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.00009178	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980183	CCV	ICPMS-6020-W-	CCV		1/14/2022 6:38:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04956	0.04956		0.05	0	0	0.00086	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05088	0.05088		0.05	0	0	0.00042	0.001	0.1	102%	90	110	0%	
Arsenic	A	mg/L	0.05245	0.05245		0.05	0	0	0.00019	0.001	1	105%	90	110	0%	
Barium	A	mg/L	0.05241	0.05241		0.05	0	0	0.000042	0.001	1	105%	90	110	0%	
Beryllium	A	mg/L	0.05207	0.05207		0.05	0	0	0.00012	0.001	1	104%	90	110	0%	
Boron	A	mg/L	0.05672	0.05672		0.05	0	0	0.00561	0.00561	1	113%	90	110	0%	S
Cadmium	A	mg/L	0.05109	0.05109		0.05	0	0	0.000025	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	11.49	11.49		12.5	0	0	0.02092	0.02092	50	92%	90	110	0%	
Cerium	A	mg/L	0.2696	0.2696		0.05	0	0	0.000012	0.001	0.1	539%	90	110	0%	S
Chromium	A	mg/L	0.05323	0.05323		0.05	0	0	0.00018	0.001	1	106%	90	110	0%	
Cobalt	A	mg/L	0.04974	0.04974		0.05	0	0	0.000042	0.001	1	99%	90	110	0%	
Copper	A	mg/L	0.05796	0.05796		0.05	0	0	0.00027	0.001	1	116%	90	110	0%	S
Iron	A	mg/L	1.281	1.281		1.3	0	0	0.00119	0.00119	5	99%	90	110	0%	
Lanthanum	A	mg/L	0.04111	0.04111		0.05	0	0	0.000011	0.001	0.1	82%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980183	CCV	ICPMS-6020-W- CCV			1/14/2022 6:38:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.05138	0.05138		0.05	0	0	0.000056	0.001	1	103%	90	110	0%	
Magnesium	A	mg/L	13.28	13.28		12.5	0	0	0.00564	0.00564	50	106%	90	110	0%	
Manganese	A	mg/L	0.05125	0.05125		0.05	0	0	0.000095	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.005466	0.005466		0.001	0	0	0.00016	0.001	0.002	547%	90	110	0%	S
Molybdenum	A	mg/L	0.04893	0.04893		0.05	0	0	0.00005	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.05515	0.05515		0.05	0	0	0.00063	0.001	1	110%	90	110	0%	
Potassium	A	mg/L	11.5	11.5		12.5	0	0	0.08139	0.08139	50	92%	90	110	0%	
Selenium	A	mg/L	0.05258	0.05258		0.05	0	0	0.00033	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.1996	0.1996		0.2	0	0	0.01223	0.1	0.4	100%	90	110	0%	
Silver	A	mg/L	0.01962	0.01962		0.02	0	0	0.00002	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	13.75	13.75		12.5	0	0	0.02171	0.02171	50	110%	90	110	0%	
Strontium	A	mg/L	0.0517	0.0517		0.05	0	0	0.00014	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.04951	0.04951		0.05	0	0	0.000041	0.001	1	99%	90	110	0%	
Thorium	A	mg/L	0.05013	0.05013		0.05	0	0	0.00061	0.001	1	100%	90	110	0%	
Tin	A	mg/L	0.05079	0.05079		0.05	0	0	0.00132	0.00132	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.04878	0.04878		0.05	0	0	0.000094	0.001	1	98%	90	110	0%	
Uranium	A	mg/L	0.04888	0.04888		0.05	0	0	0.000052	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05387	0.05387		0.05	0	0	0.0013	0.0013	1	108%	90	110	0%	
Zinc	A	mg/L	0.05548	0.05548		0.05	0	0	0.00273	0.00273	1	111%	90	110	0%	S
Iron, Ferrous	C	mg/L	1.281	1.281		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980184	CCB	ICPMS-6020-W- CCB			1/14/2022 6:44:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002093	0.0002093		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.00007787	0.00007787		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00005099	0.00005099		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	-5.102E-06	-5.102E-06		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00008296	-0.00008296		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.001792	0.001792		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.000004307	0.000004307		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	-0.003076	-0.003076		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	0.00000311	0.00000311		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.000078	-0.000078		0	0	0	0.00018	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980184	CCB	ICPMS-6020-W-	CCB		1/14/2022 6:44:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cobalt	A	mg/L	-6.186E-06	-6.186E-06		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	0.00002426	0.00002426		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	0.0002132	0.0002132		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	-0.009868	-0.009868		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	-5.718E-06	-5.718E-06		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	0.0006968	0.0006968		0	0	0	0.00564	0.00564	50	0%			0%	
Manganese	A	mg/L	-0.0000182	-0.0000182		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.00002248	0.00002248		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00002329	0.00002329		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	0.00003739	0.00003739		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	-0.01703	-0.01703		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	0.00002241	0.00002241		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	-0.01029	-0.01029		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-4.258E-06	-4.258E-06		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.0348	0.0348		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	-8.174E-07	-8.174E-07		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003356	0.0003356		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001435	0.00001435		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	-0.0000283	-0.0000283		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0002561	-0.0002561		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000002119	0.000002119		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.001638	0.001638		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	0.00001435	0.00001435		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0002132	0.0002132		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980185	B22010628-001	ICPMS-6020-W-	SAMP		1/14/2022 6:50:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0001502	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0009469	0.0009469		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.008384	0.008384		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007439	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0005065	0.0005065		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.0001267	0.0001267		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980185	B22010628-001	ICPMS-6020-W-	SAMP		1/14/2022 6:50:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.03929	0.03929		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0005959	0.0005959		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0003005	0.0003005		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00004871	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1868	0.1868		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001927	0.0001927		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.01437	0.01437		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001768	0.00001768		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	J
Aluminum	B	mg/L	0.3194	0.3194		0	0	0	0.0038747	0.0031975	1	0%	0	0	0%	D
Chromium	B	mg/L	0.001965	0.001965		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.2058	0.2058		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	20.25	20.25		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Sodium	B	mg/L	42.73	42.73		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00006424	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0004745	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980186	B22010629-001	ICPMS-6020-W-	SAMP		1/14/2022 6:57:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003171	0.003171		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00003234	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0008094	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.002389	0.002389		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008764	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00003784	0.00003784		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	-0.0002903	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001538	0.0001538		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001129	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.3557	0.3557		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.005955	0.005955		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	-0.00003154	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.0000636	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.143	0.143		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001058	0.0001058		0	0	0	0.000041	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980186	B22010629-001	ICPMS-6020-W-	SAMP		1/14/2022 6:57:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thorium	A	mg/L	0.000001089	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000571	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Iron	B	mg/L	0.09458	0.09458		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.09458	0.09458		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	18.86	18.86		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Sodium	B	mg/L	40.77	40.77		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.0001129	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980187	B22010629-001	ICPMS-6020-W-	SAMP		1/14/2022 7:03:2	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00006079	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0009132	0.0009132		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.002458	0.002458		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00007982	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.000227	0.000227		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001866	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.3417	0.3417		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.006663	0.006663		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00008099	0		0	0	0	0.0001357	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-0.00006332	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1382	0.1382		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009581	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001153	0.001153		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000005985	0		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	U
Chromium	B	mg/L	0.0006178	0		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	LU
Iron	B	mg/L	0.1273	0.1273		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	19.19	19.19		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Sodium	B	mg/L	41.88	41.88		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00002851	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0002889	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980188	B22010633-001	ICPMS-6020-W-	SAMP		1/14/2022 7:09:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002586	0.002586		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.000444	0.000444		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	-0.0008942	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.004564	0.004564		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009176	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000036	0.000036		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.001801	0.001801		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-2.172E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00003649	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.000055	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001406	0.0001406		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0001414	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.00006247	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.07401	0.07401		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0000624	0.0000624		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	-1.186E-06	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001787	0.0001787		0	0	0	0.000052	0.0003	1	0%	0	0	0%	J
Iron	B	mg/L	0.0002539	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0002539	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	11.79	11.79		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Sodium	B	mg/L	36.9	36.9		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.0001015	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980189	B22010633-001	ICPMS-6020-W-	SAMP		1/14/2022 7:15:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0005152	0.0005152		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.0008677	0.0008677		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.006671	0.006671		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008547	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0001357	0.0001357		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.0002328	0.0002328		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.003213	0.003213		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0003421	0.0003421		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980189	B22010633-001	ICPMS-6020-W-	SAMP		1/14/2022 7:15:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Selenium	A	mg/L	0.0002577	0.0002577		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-3.897E-06	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.07345	0.07345		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00006465	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.003863	0.003863		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001551	0		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	U
Aluminum	B	mg/L	0.0466	0.0466		0	0	0	0.0038747	0.0031975	1	0%	0	0	0%	D
Chromium	B	mg/L	0.003382	0.003382		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.06731	0.06731		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	12.44	12.44		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Sodium	B	mg/L	38.78	38.78		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00002265	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0003914	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980190	B22010637-001	ICPMS-6020-W-	SAMP		1/14/2022 7:22:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001807	0.001807		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002509	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0009027	0		0	0	0	0.00019	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.001911	0.001911		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00009338	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000339	0.0000339		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.002815	0.002815		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-0.00001099	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0000366	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0003697	0.0003697		0	0	0	0.000095	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.0009029	0.0009029		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0001235	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.00006297	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.05586	0.05586		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003979	0		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	-1.976E-06	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000004559	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980190	B22010637-001	ICPMS-6020-W-	SAMP		1/14/2022 7:22:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron	B	mg/L	0.0005612	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.0005612	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	8.8	8.8		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Sodium	B	mg/L	37.3	37.3		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	-0.0001138	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980191	B22010637-001	ICPMS-6020-W-	SAMP		1/14/2022 7:28:1	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00005021	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0007227	0.0007227		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.001983	0.001983		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-0.00008065	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0001163	0.0001163		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.0001137	0.0001137		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.00157	0.00157		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0009795	0.0009795		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0002309	0.0002309		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006414	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.05411	0.05411		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005461	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001411	0.001411		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000005951	0		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	U
Chromium	B	mg/L	0.003631	0.003631		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.02815	0.02815		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	9.289	9.289		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Sodium	B	mg/L	39.13	39.13		0	0	0	0.1019461	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00001917	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0002911	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980192	CCV	ICPMS-6020-W-	CCV		1/14/2022 7:34:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04786	0.04786		0.05	0	0	0.0006966	0.001	1	96%	90	110	0%	
Antimony	A	mg/L	0.05144	0.05144		0.05	0	0	0.0002882	0.001	0.1	103%	90	110	0%	
Arsenic	A	mg/L	0.05198	0.05198		0.05	0	0	0.0001626	0.001	1	104%	90	110	0%	
Barium	A	mg/L	0.0521	0.0521		0.05	0	0	8.917E-05	0.001	1	104%	90	110	0%	
Beryllium	A	mg/L	0.05179	0.05179		0.05	0	0	0.0001137	0.001	1	104%	90	110	0%	
Boron	A	mg/L	0.05656	0.05656		0.05	0	0	0.0036397	0.0036397	1	113%	90	110	0%	S
Cadmium	A	mg/L	0.05073	0.05073		0.05	0	0	2.969E-05	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	11.06	11.06		12.5	0	0	0.0254163	0.0254163	50	88%	90	110	0%	S
Cerium	A	mg/L	0.274	0.274		0.05	0	0	8.97E-06	0.001	0.1	548%	90	110	0%	S
Chromium	A	mg/L	0.05256	0.05256		0.05	0	0	0.0002078	0.001	1	105%	90	110	0%	
Cobalt	A	mg/L	0.05035	0.05035		0.05	0	0	2.037E-05	0.001	1	101%	90	110	0%	
Copper	A	mg/L	0.05934	0.05934		0.05	0	0	0.0001010	0.001	1	119%	90	110	0%	S
Iron	A	mg/L	1.251	1.251		1.3	0	0	0.0021231	0.0021231	5	96%	90	110	0%	
Lanthanum	A	mg/L	0.035	0.035		0.05	0	0	1.209E-05	0.001	0.1	70%	90	110	0%	S
Lead	A	mg/L	0.0521	0.0521		0.05	0	0	3.957E-05	0.001	1	104%	90	110	0%	
Lithium	A	mg/L	0.6588	0.6588		0.625	0	0	0.05	0.05	1	105%	90	110	0%	
Magnesium	A	mg/L	13.23	13.23		12.5	0	0	0.0084694	0.0084694	50	106%	90	110	0%	
Manganese	A	mg/L	0.05011	0.05011		0.05	0	0	5.319E-05	0.001	1	100%	90	110	0%	
Mercury	A	mg/L	0.005536	0.005536		0.001	0	0	7.78E-06	0.001	0.002	554%	90	110	0%	S
Molybdenum	A	mg/L	0.04781	0.04781		0.05	0	0	0.0000598	0.001	0.1	96%	90	110	0%	
Nickel	A	mg/L	0.0571	0.0571		0.05	0	0	0.0001477	0.001	1	114%	90	110	0%	S
Potassium	A	mg/L	10.69	10.69		12.5	0	0	0.0951865	0.0951865	50	86%	90	110	0%	S
Selenium	A	mg/L	0.05204	0.05204		0.05	0	0	6.961E-05	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.1964	0.1964		0.2	0	0	0.0786454	0.1	0.4	98%	90	110	0%	
Silver	A	mg/L	0.01939	0.01939		0.02	0	0	1.541E-05	0.001	0.04	97%	90	110	0%	
Sodium	A	mg/L	13.54	13.54		12.5	0	0	0.0321039	0.0321039	50	108%	90	110	0%	
Strontium	A	mg/L	0.05035	0.05035		0.05	0	0	9.136E-05	0.001	1	101%	90	110	0%	
Thallium	A	mg/L	0.04917	0.04917		0.05	0	0	0.0001262	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.05092	0.05092		0.05	0	0	7.051E-05	0.001	1	102%	90	110	0%	
Tin	A	mg/L	0.05137	0.05137		0.05	0	0	0.0021596	0.0021596	0.1	103%	90	110	0%	
Titanium	A	mg/L	0.04765	0.04765		0.05	0	0	0.0001844	0.001	1	95%	90	110	0%	
Uranium	A	mg/L	0.04877	0.04877		0.05	0	0	1.948E-05	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05152	0.05152		0.05	0	0	0.004194	0.004194	1	103%	90	110	0%	
Zinc	A	mg/L	0.05574	0.05574		0.05	0	0	0.0006119	0.001	1	111%	90	110	0%	S
Iron, Ferrous	C	mg/L	1.251	1.251		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980193	CCB	ICPMS-6020-W-	CCB		1/14/2022 7:40:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0003075	-0.0003075		0	0	0	0.0006966	0.001	1	0%			0%	
Antimony	A	mg/L	0.0000699	0.0000699		0	0	0	0.0002882	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-0.0001237	-0.0001237		0	0	0	0.0001626	0.001	1	0%			0%	
Barium	A	mg/L	-5.535E-06	-5.535E-06		0	0	0	8.917E-05	0.001	1	0%			0%	
Beryllium	A	mg/L	-0.00007969	-0.00007969		0	0	0	0.0001137	0.001	1	0%			0%	
Boron	A	mg/L	0.001491	0.001491		0	0	0	0.0036397	0.0036397	1	0%			0%	
Cadmium	A	mg/L	0.000002437	0.000002437		0	0	0	2.969E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.004071	-0.004071		0	0	0	0.0254163	0.0254163	50	0%			0%	
Cerium	A	mg/L	0.00001322	0.00001322		0	0	0	8.97E-06	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-4.477E-06	-4.477E-06		0	0	0	0.0002078	0.001	1	0%			0%	
Cobalt	A	mg/L	-0.00001096	-0.00001096		0	0	0	2.037E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00004554	0.00004554		0	0	0	0.0001010	0.001	1	0%			0%	
Iron	A	mg/L	0.000286	0.000286		0	0	0	0.0021231	0.0021231	5	0%			0%	
Lanthanum	A	mg/L	-0.0118	-0.0118		0	0	0	1.209E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	-3.303E-06	-3.303E-06		0	0	0	3.957E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.000396	-0.000396		0	0	0	0.05	0.05	1	0%			0%	
Magnesium	A	mg/L	0.0008915	0.0008915		0	0	0	0.0084694	0.0084694	50	0%			0%	
Manganese	A	mg/L	-9.688E-06	-9.688E-06		0	0	0	5.319E-05	0.001	1	0%			0%	
Mercury	A	mg/L	0.00001315	0.00001315		0	0	0	7.78E-06	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00002318	0.00002318		0	0	0	0.0000598	0.001	0.1	0%			0%	
Nickel	A	mg/L	0.00007918	0.00007918		0	0	0	0.0001477	0.001	1	0%			0%	
Potassium	A	mg/L	-0.04453	-0.04453		0	0	0	0.0951865	0.0951865	50	0%			0%	
Selenium	A	mg/L	0.00001925	0.00001925		0	0	0	6.961E-05	0.001	1	0%			0%	
Silicon	A	mg/L	-0.01161	-0.01161		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.288E-08	-6.288E-08		0	0	0	1.541E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.05475	0.05475		0	0	0	0.0321039	0.0321039	50	0%			0%	
Strontium	A	mg/L	0.000002961	0.000002961		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003251	0.0003251		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001534	0.00001534		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	-0.00002155	-0.00002155		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	
Titanium	A	mg/L	-0.0002249	-0.0002249		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000002504	0.000002504		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0003642	0.0003642		0	0	0	0.004194	0.004194	1	0%	0	0	0%	
Zinc	A	mg/L	0.00005881	0.00005881		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.000286	0.000286		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980194	Cal Blk	ICPMS-6020-W-	SAMP		1/14/2022 7:46:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Magnesium	A	mg/L	0	0		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Lithium	B	mg/L	0	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980195	0.025 ppb STD	ICPMS-6020B-C	Cal1		1/14/2022 7:53:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002081	0.0002081		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00003545	0.00003545		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00005817	0.00005817	0.000025	0	0	0		0.001		233%	80	120	0%	S
Barium	A	mg/L	0.00002751	0.00002751	0.000025	0	0	0		0.0003		110%	80	120	0%	
Beryllium	A	mg/L	0.00002483	0.00002483	0.000025	0	0	0		0.001		99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980195	0.025 ppb STD	ICPMS-6020B-C	Ca11		1/14/2022 7:53:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	-0.0002677	-0.0002677		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00003391	0.00003391		0.000025	0	0		0.001		136%	80	120	0%	S
Calcium	A	mg/L	0.009545	0.009545		0	0	0		1		0%			0%	
Cerium	A	mg/L	0.00001159	0.00001159		0.000025	0	0		0.001		46%	80	120	0%	S
Chromium	A	mg/L	0.000003072	0.000003072		0.000025	0	0		0.001		12%	80	120	0%	S
Cobalt	A	mg/L	0.00002595	0.00002595		0.000025	0	0		0.001		104%	80	120	0%	
Copper	A	mg/L	0.00006749	0.00006749		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0008925	0.0008925		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.08064	0.08064		0.000025	0	0		0.001		322560%	80	120	0%	S
Lead	A	mg/L	0.00003202	0.00003202		0.000025	0	0		0.001		128%	80	120	0%	S
Lithium	A	mg/L	0.0001684	0.0001684		0.0003125	0	0		1		54%	80	120	0%	S
Magnesium	A	mg/L	0.007907	0.007907		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.0000255	0.0000255		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	-0.00001381	-0.00001381		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00002805	0.00002805		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00004774	0.00004774		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.002543	0.002543		0.00625	0	0		1		41%	80	120	0%	S
Selenium	A	mg/L	0.00003055	0.00003055		0.000025	0	0		0.005		122%	80	120	0%	S
Silicon	A	mg/L	0.0002173	0.0002173		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00002166	0.00002166		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.008972	0.008972		0.00625	0	0		1		144%	80	120	0%	S
Strontium	A	mg/L	0.00004195	0.00004195		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	-0.00003785	-0.00003785		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001458	0.00001458		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.0001551	0.0001551		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.0000966	0.0000966		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00003144	0.00003144		0.000025	0	0		0.001		126%	80	120	0%	S
Vanadium	A	mg/L	0.0001919	0.0001919		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.0007238	0.0007238		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0008925	0.0008925		0.000025	0	0		0.01	5	3570%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.000465022	0.000465022		0.0000535	0	0		0.214	0.9	869%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980196	0.05 ppb STD	ICPMS-6020B-C	Cal2		1/14/2022 7:59:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001106	0.0001106		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00004246	0.00004246		0.00005	0	0		0.001		85%	80	120	0%	
Arsenic	A	mg/L	0.00003907	0.00003907		0.00005	0	0		0.001		78%	80	120	0%	S
Barium	A	mg/L	0.00005513	0.00005513		0.00005	0	0		0.0003		110%	80	120	0%	
Beryllium	A	mg/L	0.00005745	0.00005745		0.00005	0	0		0.001		115%	80	120	0%	
Boron	A	mg/L	-0.0004215	-0.0004215		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00005799	0.00005799		0.00005	0	0		0.001		116%	80	120	0%	
Calcium	A	mg/L	0.01432	0.01432		0.0125	0	0		1		115%	80	120	0%	
Cerium	A	mg/L	-2.429E-06	-2.429E-06		0.00005	0	0		0.001		-5%	80	120	0%	S
Chromium	A	mg/L	0.00006158	0.00006158		0.00005	0	0		0.001		123%	80	120	0%	S
Cobalt	A	mg/L	0.00005911	0.00005911		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00006382	0.00006382		0.00005	0	0		0.005		128%	80	120	0%	S
Iron	A	mg/L	0.001509	0.001509		0.00125	0	0		0.01		121%	80	120	0%	S
Lanthanum	A	mg/L	0.007517	0.007517		0.00005	0	0		0.001		15034%	80	120	0%	S
Lead	A	mg/L	0.00005232	0.00005232		0.00005	0	0		0.001		105%	80	120	0%	
Lithium	A	mg/L	0.0005368	0.0005368		0.000625	0	0		1		86%	80	120	0%	
Magnesium	A	mg/L	0.0157	0.0157		0.0125	0	0		1		126%	80	120	0%	S
Manganese	A	mg/L	0.00005554	0.00005554		0.00005	0	0		0.001		111%	80	120	0%	
Mercury	A	mg/L	-0.00002814	-0.00002814		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004863	0.00004863		0.00005	0	0		0.001		97%	80	120	0%	
Nickel	A	mg/L	0.00004091	0.00004091		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.00435	0.00435		0.0125	0	0		1		35%	80	120	0%	S
Selenium	A	mg/L	0.0000566	0.0000566		0.00005	0	0		0.005		113%	80	120	0%	
Silicon	A	mg/L	-0.0004512	-0.0004512		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00002949	0.00002949		0.00002	0	0		0.001		147%	80	120	0%	S
Sodium	A	mg/L	0.01348	0.01348		0.0125	0	0		1		108%	80	120	0%	
Strontium	A	mg/L	0.00005359	0.00005359		0.00005	0	0		0.001		107%	80	120	0%	
Thallium	A	mg/L	-0.00003517	-0.00003517		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003068	0.00003068		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.000307	0.000307		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00007059	0.00007059		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.0000484	0.0000484		0.00005	0	0		0.001		97%	80	120	0%	
Vanadium	A	mg/L	-0.00006058	-0.00006058		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.0001033	0.0001033		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001509	0.001509		0.00005	0	0		0.01	5	3018%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980196	0.05 ppb STD	ICPMS-6020B-C Cal2			1/14/2022 7:59:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	-0.00096557	-0.00096557		0.00428	0	0		0.214	0.9	-23%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980197	0.10 ppb STD	ICPMS-6020B-C Cal3			1/14/2022 8:06:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001717	0.0001717		0.0001	0	0		0.01		172%	80	120	0%	S
Antimony	A	mg/L	0.00009894	0.00009894		0.0001	0	0		0.001		99%	80	120	0%	
Arsenic	A	mg/L	0.0001246	0.0001246		0.0001	0	0		0.001		125%	80	120	0%	S
Barium	A	mg/L	0.0001004	0.0001004		0.0001	0	0		0.0003		100%	80	120	0%	
Beryllium	A	mg/L	0.0001105	0.0001105		0.0001	0	0		0.001		111%	80	120	0%	
Boron	A	mg/L	-0.0006131	-0.0006131		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001072	0.0001072		0.0001	0	0		0.001		107%	80	120	0%	
Calcium	A	mg/L	0.02907	0.02907		0.025	0	0		1		116%	80	120	0%	
Cerium	A	mg/L	0.000002119	0.000002119		0.0001	0	0		0.001		2%	80	120	0%	S
Chromium	A	mg/L	0.0001315	0.0001315		0.0001	0	0		0.001		132%	80	120	0%	S
Cobalt	A	mg/L	0.0001162	0.0001162		0.0001	0	0		0.001		116%	80	120	0%	
Copper	A	mg/L	0.0001165	0.0001165		0.0001	0	0		0.005		117%	80	120	0%	
Iron	A	mg/L	0.00307	0.00307		0.0025	0	0		0.01		123%	80	120	0%	S
Lanthanum	A	mg/L	0.007494	0.007494		0.0001	0	0		0.001		7494%	80	120	0%	S
Lead	A	mg/L	0.0001068	0.0001068		0.0001	0	0		0.001		107%	80	120	0%	
Lithium	A	mg/L	0.001279	0.001279		0.00125	0	0		1		102%	80	120	0%	
Magnesium	A	mg/L	0.03107	0.03107		0.025	0	0		1		124%	80	120	0%	S
Manganese	A	mg/L	0.0001121	0.0001121		0.0001	0	0		0.001		112%	80	120	0%	
Mercury	A	mg/L	-0.0000134	-0.0000134		0.000002	0	0		0.001		-670%	80	120	0%	S
Molybdenum	A	mg/L	0.0001019	0.0001019		0.0001	0	0		0.001		102%	80	120	0%	
Nickel	A	mg/L	0.000127	0.000127		0.0001	0	0		0.005		127%	80	120	0%	S
Potassium	A	mg/L	0.02309	0.02309		0.025	0	0		1		92%	80	120	0%	
Selenium	A	mg/L	0.0001229	0.0001229		0.0001	0	0		0.005		123%	80	120	0%	S
Silicon	A	mg/L	-0.0006545	-0.0006545		0.0004	0	0		0.1		-164%	80	120	0%	S
Silver	A	mg/L	0.00005592	0.00005592		0.00004	0	0		0.001		140%	80	120	0%	S
Sodium	A	mg/L	0.02978	0.02978		0.025	0	0		1		119%	80	120	0%	
Strontium	A	mg/L	0.0001199	0.0001199		0.0001	0	0		0.001		120%	80	120	0%	
Thallium	A	mg/L	0.00001272	0.00001272		0.0001	0	0		0.001		13%	80	120	0%	S
Thorium	A	mg/L	0.00007358	0.00007358		0.0001	0	0		0.05		74%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980197	0.10 ppb STD	ICPMS-6020B-C	Cal3		1/14/2022 8:06:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.0003526	0.0003526		0.0001	0	0		0.001		353%	80	120	0%	S
Titanium	A	mg/L	0.0001439	0.0001439		0.0001	0	0		0.001		144%	80	120	0%	S
Uranium	A	mg/L	0.0001054	0.0001054		0.0001	0	0		0.001		105%	80	120	0%	
Vanadium	A	mg/L	0.00002753	0.00002753		0.0001	0	0		0.005		28%	80	120	0%	S
Zinc	A	mg/L	0.0002264	0.0002264		0.0001	0	0		0.01		226%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.00307	0.00307		0.0001	0	0		0.01	5	3070%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.00140063	-0.00140063		0.00856	0	0		0.214	0.9	-16%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980198	0.5 ppb STD	ICPMS-6020B-C	Cal4		1/14/2022 8:12:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0006409	0.0006409		0.0005	0	0		0.01		128%	80	120	0%	S
Antimony	A	mg/L	0.0004822	0.0004822		0.0005	0	0		0.001		96%	80	120	0%	
Arsenic	A	mg/L	0.0005259	0.0005259		0.0005	0	0		0.001		105%	80	120	0%	
Barium	A	mg/L	0.0004988	0.0004988		0.0005	0	0		0.0003		100%	80	120	0%	
Beryllium	A	mg/L	0.0005215	0.0005215		0.0005	0	0		0.001		104%	80	120	0%	
Boron	A	mg/L	-0.0003003	-0.0003003		0.0005	0	0		0.1		-60%	80	120	0%	S
Cadmium	A	mg/L	0.0005282	0.0005282		0.0005	0	0		0.001		106%	80	120	0%	
Calcium	A	mg/L	0.1336	0.1336		0.125	0	0		1		107%	80	120	0%	
Cerium	A	mg/L	0.000002992	0.000002992		0.0005	0	0		0.001		1%	80	120	0%	S
Chromium	A	mg/L	0.0004933	0.0004933		0.0005	0	0		0.001		99%	80	120	0%	
Cobalt	A	mg/L	0.0005464	0.0005464		0.0005	0	0		0.001		109%	80	120	0%	
Copper	A	mg/L	0.0006	0.0006		0.0005	0	0		0.005		120%	80	120	0%	
Iron	A	mg/L	0.01421	0.01421		0.0125	0	0		0.01		114%	80	120	0%	
Lanthanum	A	mg/L	0.06813	0.06813		0.0005	0	0		0.001		13626%	80	120	0%	S
Lead	A	mg/L	0.0005237	0.0005237		0.0005	0	0		0.001		105%	80	120	0%	
Lithium	A	mg/L	0.006633	0.006633		0.00625	0	0		1		106%	80	120	0%	
Magnesium	A	mg/L	0.145	0.145		0.125	0	0		1		116%	80	120	0%	
Manganese	A	mg/L	0.000541	0.000541		0.0005	0	0		0.001		108%	80	120	0%	
Mercury	A	mg/L	-3.935E-06	-3.935E-06		0.00001	0	0		0.001		-39%	80	120	0%	S
Molybdenum	A	mg/L	0.0005065	0.0005065		0.0005	0	0		0.001		101%	80	120	0%	
Nickel	A	mg/L	0.000572	0.000572		0.0005	0	0		0.005		114%	80	120	0%	
Potassium	A	mg/L	0.1194	0.1194		0.125	0	0		1		96%	80	120	0%	
Selenium	A	mg/L	0.000524	0.000524		0.0005	0	0		0.005		105%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980198	0.5 ppb STD	ICPMS-6020B-C	CaI4		1/14/2022 8:12:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	0.001035	0.001035		0.002	0	0		0.1		52%	80	120	0%	S
Silver	A	mg/L	0.000219	0.000219		0.0002	0	0		0.001		110%	80	120	0%	
Sodium	A	mg/L	0.1368	0.1368		0.125	0	0		1		109%	80	120	0%	
Strontium	A	mg/L	0.0005277	0.0005277		0.0005	0	0		0.001		106%	80	120	0%	
Thallium	A	mg/L	0.0004159	0.0004159		0.0005	0	0		0.001		83%	80	120	0%	
Thorium	A	mg/L	0.00045	0.00045		0.0005	0	0		0.05		90%	80	120	0%	
Tin	A	mg/L	0.0007419	0.0007419		0.0005	0	0		0.001		148%	80	120	0%	S
Titanium	A	mg/L	0.0005618	0.0005618		0.0005	0	0		0.001		112%	80	120	0%	
Uranium	A	mg/L	0.0005079	0.0005079		0.0005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.0002236	0.0002236		0.0005	0	0		0.005		45%	80	120	0%	S
Zinc	A	mg/L	0.0008575	0.0008575		0.0005	0	0		0.01		171%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.01421	0.01421		0.0005	0	0		0.01	5	2842%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.0022149	0.0022149		0.0428	0	0		0.214	0.9	5%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980199	1 ppb STD	ICPMS-6020B-C	CaI5		1/14/2022 8:18:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001254	0.001254		0.001	0	0		0.01		125%	80	120	0%	S
Antimony	A	mg/L	0.001052	0.001052		0.001	0	0		0.001		105%	80	120	0%	
Arsenic	A	mg/L	0.001107	0.001107		0.001	0	0		0.001		111%	80	120	0%	
Barium	A	mg/L	0.001084	0.001084		0.001	0	0		0.0003		108%	80	120	0%	
Beryllium	A	mg/L	0.001111	0.001111		0.001	0	0		0.001		111%	80	120	0%	
Boron	A	mg/L	0.0002314	0.0002314		0.001	0	0		0.1		23%	80	120	0%	S
Cadmium	A	mg/L	0.001114	0.001114		0.001	0	0		0.001		111%	80	120	0%	
Calcium	A	mg/L	0.2741	0.2741		0.25	0	0		1		110%	80	120	0%	
Cerium	A	mg/L	0.000005493	0.000005493		0.001	0	0		0.001		1%	80	120	0%	S
Chromium	A	mg/L	0.001124	0.001124		0.001	0	0		0.001		112%	80	120	0%	
Cobalt	A	mg/L	0.001181	0.001181		0.001	0	0		0.001		118%	80	120	0%	
Copper	A	mg/L	0.001244	0.001244		0.001	0	0		0.005		124%	80	120	0%	S
Iron	A	mg/L	0.0295	0.0295		0.025	0	0		0.01		118%	80	120	0%	
Lanthanum	A	mg/L	0.02239	0.02239		0.001	0	0		0.001		2239%	80	120	0%	S
Lead	A	mg/L	0.001089	0.001089		0.001	0	0		0.001		109%	80	120	0%	
Lithium	A	mg/L	0.01404	0.01404		0.0125	0	0		1		112%	80	120	0%	
Magnesium	A	mg/L	0.3086	0.3086		0.25	0	0		1		123%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980199	1 ppb STD	ICPMS-6020B-C	Cal5		1/14/2022 8:18:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.001135	0.001135		0.001	0	0		0.001		114%	80	120	0%	
Mercury	A	mg/L	-0.0000279	-0.0000279		0.00002	0	0		0.001		-140%	80	120	0%	S
Molybdenum	A	mg/L	0.001071	0.001071		0.001	0	0		0.001		107%	80	120	0%	
Nickel	A	mg/L	0.001223	0.001223		0.001	0	0		0.005		122%	80	120	0%	S
Potassium	A	mg/L	0.2621	0.2621		0.25	0	0		1		105%	80	120	0%	
Selenium	A	mg/L	0.001154	0.001154		0.001	0	0		0.005		115%	80	120	0%	
Silicon	A	mg/L	0.003281	0.003281		0.004	0	0		0.1		82%	80	120	0%	
Silver	A	mg/L	0.000455	0.000455		0.0004	0	0		0.001		114%	80	120	0%	
Sodium	A	mg/L	0.3016	0.3016		0.25	0	0		1		121%	80	120	0%	S
Strontium	A	mg/L	0.001099	0.001099		0.001	0	0		0.001		110%	80	120	0%	
Thallium	A	mg/L	0.0009772	0.0009772		0.001	0	0		0.001		98%	80	120	0%	
Thorium	A	mg/L	0.0009844	0.0009844		0.001	0	0		0.05		98%	80	120	0%	
Tin	A	mg/L	0.001453	0.001453		0.001	0	0		0.001		145%	80	120	0%	S
Titanium	A	mg/L	0.001221	0.001221		0.001	0	0		0.001		122%	80	120	0%	S
Uranium	A	mg/L	0.001029	0.001029		0.001	0	0		0.001		103%	80	120	0%	
Vanadium	A	mg/L	0.0007364	0.0007364		0.001	0	0		0.005		74%	80	120	0%	S
Zinc	A	mg/L	0.001407	0.001407		0.001	0	0		0.01		141%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.0295	0.0295		0.001	0	0		0.01	5	2950%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00702134	0.00702134		0.0856	0	0		0.214	0.9	8%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980200	10 ppb STD	ICPMS-6020B-C	Cal6		1/14/2022 8:25:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.01077	0.01077		0.01	0	0		0.01		108%	90	110	0%	
Antimony	A	mg/L	0.01027	0.01027		0.01	0	0		0.001		103%	90	110	0%	
Arsenic	A	mg/L	0.01064	0.01064		0.01	0	0		0.001		106%	90	110	0%	
Barium	A	mg/L	0.01068	0.01068		0.01	0	0		0.0003		107%	90	110	0%	
Beryllium	A	mg/L	0.01119	0.01119		0.01	0	0		0.001		112%	90	110	0%	S
Boron	A	mg/L	0.009623	0.009623		0.01	0	0		0.1		96%	90	110	0%	
Cadmium	A	mg/L	0.0106	0.0106		0.01	0	0		0.001		106%	90	110	0%	
Calcium	A	mg/L	2.634	2.634		2.5	0	0		1		105%	90	110	0%	
Cerium	A	mg/L	0.000009799	0.000009799		0.01	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.01084	0.01084		0.01	0	0		0.001		108%	90	110	0%	
Cobalt	A	mg/L	0.01119	0.01119		0.01	0	0		0.001		112%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980200	10 ppb STD	ICPMS-6020B-C	Cal6		1/14/2022 8:25:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.01201	0.01201		0.01	0	0		0.005		120%	90	110	0%	S
Iron	A	mg/L	0.2795	0.2795		0.25	0	0		0.01		112%	90	110	0%	S
Lanthanum	A	mg/L	0.07387	0.07387		0.01	0	0		0.001		739%	90	110	0%	S
Lead	A	mg/L	0.0104	0.0104		0.01	0	0		0.001		104%	90	110	0%	
Lithium	A	mg/L	0.1333	0.1333		0.125	0	0		1		107%	90	110	0%	
Magnesium	A	mg/L	2.862	2.862		2.5	0	0		1		114%	90	110	0%	S
Manganese	A	mg/L	0.01065	0.01065		0.01	0	0		0.001		106%	90	110	0%	
Mercury	A	mg/L	-0.00002245	-0.00002245		0.0002	0	0		0.001		-11%	90	110	0%	S
Molybdenum	A	mg/L	0.01049	0.01049		0.01	0	0		0.001		105%	90	110	0%	
Nickel	A	mg/L	0.01188	0.01188		0.01	0	0		0.005		119%	90	110	0%	S
Potassium	A	mg/L	2.537	2.537		2.5	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.01092	0.01092		0.01	0	0		0.005		109%	90	110	0%	
Silicon	A	mg/L	0.0405	0.0405		0.04	0	0		0.1		101%	90	110	0%	
Silver	A	mg/L	0.004333	0.004333		0.004	0	0		0.001		108%	90	110	0%	
Sodium	A	mg/L	2.903	2.903		2.5	0	0		1		116%	90	110	0%	S
Strontium	A	mg/L	0.01064	0.01064		0.01	0	0		0.001		106%	90	110	0%	
Thallium	A	mg/L	0.01038	0.01038		0.01	0	0		0.001		104%	90	110	0%	
Thorium	A	mg/L	0.01005	0.01005		0.01	0	0		0.05		101%	90	110	0%	
Tin	A	mg/L	0.01102	0.01102		0.01	0	0		0.001		110%	90	110	0%	
Titanium	A	mg/L	0.01082	0.01082		0.01	0	0		0.001		108%	90	110	0%	
Uranium	A	mg/L	0.009991	0.009991		0.01	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.01017	0.01017		0.01	0	0		0.005		102%	90	110	0%	
Zinc	A	mg/L	0.0122	0.0122		0.01	0	0		0.01		122%	90	110	0%	S
Iron, Ferrous	C	mg/L	0.2795	0.2795		0.01	0	0		0.01	5	2795%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.08667	0.08667		0.856	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980201	50 ppb STD	ICPMS-6020B-C	Cal7		1/14/2022 8:31:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05202	0.05202		0.05	0	0		0.01		104%	90	110	0%	
Antimony	A	mg/L	0.05255	0.05255		0.05	0	0		0.001		105%	90	110	0%	
Arsenic	A	mg/L	0.05161	0.05161		0.05	0	0		0.001		103%	90	110	0%	
Barium	A	mg/L	0.05258	0.05258		0.05	0	0		0.0003		105%	90	110	0%	
Beryllium	A	mg/L	0.05226	0.05226		0.05	0	0		0.001		105%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980201	50 ppb STD	ICPMS-6020B-C Cal7			1/14/2022 8:31:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.0522	0.0522		0.05	0	0		0.1		104%	90	110	0%	
Cadmium	A	mg/L	0.05171	0.05171		0.05	0	0		0.001		103%	90	110	0%	
Calcium	A	mg/L	11.89	11.89		12.5	0	0		1		95%	90	110	0%	
Cerium	A	mg/L	0.252	0.252		0.05	0	0		0.001		504%	90	110	0%	S
Chromium	A	mg/L	0.05204	0.05204		0.05	0	0		0.001		104%	90	110	0%	
Cobalt	A	mg/L	0.05171	0.05171		0.05	0	0		0.001		103%	90	110	0%	
Copper	A	mg/L	0.05547	0.05547		0.05	0	0		0.005		111%	90	110	0%	S
Iron	A	mg/L	1.281	1.281		1.25	0	0		0.01		102%	90	110	0%	
Lanthanum	A	mg/L	0.05959	0.05959		0.05	0	0		0.001		119%	90	110	0%	S
Lead	A	mg/L	0.04886	0.04886		0.05	0	0		0.001		98%	90	110	0%	
Lithium	A	mg/L	0.6398	0.6398		0.625	0	0		1		102%	90	110	0%	
Magnesium	A	mg/L	12.89	12.89		12.5	0	0		1		103%	90	110	0%	
Manganese	A	mg/L	0.05081	0.05081		0.05	0	0		0.001		102%	90	110	0%	
Mercury	A	mg/L	0.005067	0.005067		0.001	0	0		0.001		507%	90	110	0%	S
Molybdenum	A	mg/L	0.05182	0.05182		0.05	0	0		0.001		104%	90	110	0%	
Nickel	A	mg/L	0.05463	0.05463		0.05	0	0		0.005		109%	90	110	0%	
Potassium	A	mg/L	11.92	11.92		12.5	0	0		1		95%	90	110	0%	
Selenium	A	mg/L	0.05139	0.05139		0.05	0	0		0.005		103%	90	110	0%	
Silicon	A	mg/L	0.2063	0.2063		0.2	0	0		0.1		103%	90	110	0%	
Silver	A	mg/L	0.02034	0.02034		0.02	0	0		0.001		102%	90	110	0%	
Sodium	A	mg/L	13.1	13.1		12.5	0	0		1		105%	90	110	0%	
Strontium	A	mg/L	0.05048	0.05048		0.05	0	0		0.001		101%	90	110	0%	
Thallium	A	mg/L	0.04779	0.04779		0.05	0	0		0.001		96%	90	110	0%	
Thorium	A	mg/L	0.04865	0.04865		0.05	0	0		0.05		97%	90	110	0%	
Tin	A	mg/L	0.05192	0.05192		0.05	0	0		0.001		104%	90	110	0%	
Titanium	A	mg/L	0.05171	0.05171		0.05	0	0		0.001		103%	90	110	0%	
Uranium	A	mg/L	0.04859	0.04859		0.05	0	0		0.001		97%	90	110	0%	
Vanadium	A	mg/L	0.05117	0.05117		0.05	0	0		0.005		102%	90	110	0%	
Zinc	A	mg/L	0.05432	0.05432		0.05	0	0		0.01		109%	90	110	0%	
Iron, Ferrous	C	mg/L	1.281	1.281		0.05	0	0		0.01	5	2562%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.441482	0.441482		4.28	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980202	100 ppb STD	ICPMS-6020B-C	Cal8		1/14/2022 8:38:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.09879	0.09879		0.1	0	0		0.01		99%	90	110	0%	
Antimony	A	mg/L	0.0987	0.0987		0.1	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.09912	0.09912		0.1	0	0		0.001		99%	90	110	0%	
Barium	A	mg/L	0.0995	0.0995		0.1	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Boron	A	mg/L	0.1009	0.1009		0.1	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	23.55	23.55		25	0	0		1		94%	90	110	0%	
Cerium	A	mg/L	0.00002068	0.00002068		0.1	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.09818	0.09818		0.1	0	0		0.001		98%	90	110	0%	
Cobalt	A	mg/L	0.09945	0.09945		0.1	0	0		0.001		99%	90	110	0%	
Copper	A	mg/L	0.1046	0.1046		0.1	0	0		0.005		105%	90	110	0%	
Iron	A	mg/L	2.513	2.513		2.5	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.08823	0.08823		0.1	0	0		0.001		88%	90	110	0%	S
Lead	A	mg/L	0.09582	0.09582		0.1	0	0		0.001		96%	90	110	0%	
Lithium	A	mg/L	1.234	1.234		1.25	0	0		1		99%	90	110	0%	
Magnesium	A	mg/L	25.31	25.31		25	0	0		1		101%	90	110	0%	
Manganese	A	mg/L	0.09705	0.09705		0.1	0	0		0.001		97%	90	110	0%	
Mercury	A	mg/L	-0.00001081	-0.00001081		0.002	0	0		0.001		-1%	90	110	0%	S
Molybdenum	A	mg/L	0.09904	0.09904		0.1	0	0		0.001		99%	90	110	0%	
Nickel	A	mg/L	0.1023	0.1023		0.1	0	0		0.005		102%	90	110	0%	
Potassium	A	mg/L	23.82	23.82		25	0	0		1		95%	90	110	0%	
Selenium	A	mg/L	0.1003	0.1003		0.1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	0.3968	0.3968		0.4	0	0		0.1		99%	90	110	0%	
Silver	A	mg/L	0.0398	0.0398		0.04	0	0		0.001		99%	90	110	0%	
Sodium	A	mg/L	25.19	25.19		25	0	0		1		101%	90	110	0%	
Strontium	A	mg/L	0.09619	0.09619		0.1	0	0		0.001		96%	90	110	0%	
Thallium	A	mg/L	0.09644	0.09644		0.1	0	0		0.001		96%	90	110	0%	
Thorium	A	mg/L	0.0955	0.0955		0.1	0	0		0.05		95%	90	110	0%	
Tin	A	mg/L	0.09893	0.09893		0.1	0	0		0.001		99%	90	110	0%	
Titanium	A	mg/L	0.09906	0.09906		0.1	0	0		0.001		99%	90	110	0%	
Uranium	A	mg/L	0.09644	0.09644		0.1	0	0		0.001		96%	90	110	0%	
Vanadium	A	mg/L	0.09632	0.09632		0.1	0	0		0.005		96%	90	110	0%	
Zinc	A	mg/L	0.1015	0.1015		0.1	0	0		0.01		101%	90	110	0%	
Iron, Ferrous	C	mg/L	2.513	2.513		0.1	0	0		0.01	5	2513%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980202	100 ppb STD	ICPMS-6020B-C Cal8			1/14/2022 8:38:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	0.849152	0.849152		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980203	1000 ppb STD	ICPMS-6020B-C Cal10			1/14/2022 8:44:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1	1		1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.0001967	0.0001967		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.9999	0.9999		1	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	0.9998	0.9998		1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.9998	0.9998		1	0	0		0.1		100%	90	110	0%	
Cadmium	A	mg/L	0.9999	0.9999		1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	50.87	50.87		50	0	0		1		102%	90	110	0%	
Cerium	A	mg/L	0.0001174	0.0001174		0	0	0		0.001		0%			0%	
Chromium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.9992	0.9992		1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	6.041	6.041		6	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.3434	0.3434		0	0	0		0.001		0%			0%	
Lead	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Lithium	A	mg/L	2.504	2.504		2.5	0	0		1		100%	90	110	0%	
Magnesium	A	mg/L	49.73	49.73		50	0	0		1		99%	90	110	0%	
Manganese	A	mg/L	1	1		1	0	0		0.001		100%	90		0%	
Mercury	A	mg/L	-2.779E-07	-2.779E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00008298	0.00008298		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.9995	0.9995		1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	50.73	50.73		50	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.9999	0.9999		1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	0.0004564	0.0004564		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3564	0.3564		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	49.73	49.73		50	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	1.001	1.001		1	0	0		0.05		100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980203	1000 ppb STD	ICPMS-6020B-C	Ca110		1/14/2022 8:44:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.000268	0.000268		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.006049	0.006049		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	1	1		1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.9996	0.9996		1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	6.041	6.041		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	0.000976696	0.000976696		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980204	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/14/2022 8:50:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0003824	0		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00003601	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0003816	0.0003816		0	0	0	0.0001626	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.0001332	0.0001332		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	J
Beryllium	A	mg/L	0.0002759	0.0002759		0	0	0	0.0001137	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.0001397	0.0001397		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	J
Chromium	A	mg/L	0.00005907	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001364	0.0001364		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	J
Iron	A	mg/L	0.0009106	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.0002018	0.0002018		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	J
Magnesium	A	mg/L	0.008734	0.008734		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	D
Manganese	A	mg/L	0.000131	0.000131		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.0000135	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0003098	0.0003098		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	J
Silicon	A	mg/L	-0.000986	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0001603	0.0001603		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	J
Sodium	A	mg/L	0.01284	0		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	L
Strontium	A	mg/L	0.0001156	0.0001156		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	J
Thallium	A	mg/L	0.0004696	0.0004696		0	0	0	0.0001262	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.0002165	0.0002165		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	J
Tin	A	mg/L	0.005572	0.005572		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	D
Titanium	A	mg/L	0.0001539	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001596	0.0001596		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980204	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/14/2022 8:50:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lithium	B	mg/L	0.004057	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	0.0009106	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980205	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 8:57:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.004908	0.004908		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-4.419E-07	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.00004262	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003281	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0000805	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002246	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.00007751	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.000004967	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.00001895	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.00002774	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Magnesium	A	mg/L	0.002985	0		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	L
Manganese	A	mg/L	0.00001431	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	-1.981E-06	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00005087	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.002188	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000001702	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.0161	0		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	L
Strontium	A	mg/L	0.000004552	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00006356	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000023	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.001773	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0.00003957	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001258	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Lithium	B	mg/L	0.0008544	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	0.00001895	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980206	QCS	ICPMS-6020-W-ICV			1/14/2022 9:03:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2599	0.2599		0.25	0	0	0.0006966	0.001	1	104%	90	110	0%	
Antimony	A	mg/L	0.04877	0.04877		0.05	0	0	0.0002882	0.001	0.1	98%	90	110	0%	
Arsenic	A	mg/L	0.05096	0.05096		0.05	0	0	0.0001626	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05091	0.05091		0.05	0	0	8.917E-05	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.02602	0.02602		0.025	0	0	0.0001137	0.001	1	104%	90	110	0%	
Boron	A	mg/L	0.0565	0.0565		0.05	0	0	0.0036397	0.0036397	1	113%	90	110	0%	S
Cadmium	A	mg/L	0.02573	0.02573		0.025	0	0	2.969E-05	0.001	1	103%	90	110	0%	
Calcium	A	mg/L	2.621	2.621		2.5	0	0	0.0254163	0.0254163	50	105%	90	110	0%	
Cerium	A	mg/L	0.268	0.268		0.05	0	0	8.97E-06	0.001	0.1	536%	90	110	0%	S
Chromium	A	mg/L	0.05136	0.05136		0.05	0	0	0.0002078	0.001	1	103%	90	110	0%	
Cobalt	A	mg/L	0.05186	0.05186		0.05	0	0	2.037E-05	0.001	1	104%	90	110	0%	
Copper	A	mg/L	0.05529	0.05529		0.05	0	0	0.0001010	0.001	1	111%	90	110	0%	S
Iron	A	mg/L	0.2611	0.2611		0.25	0	0	0.0021231	0.0021231	5	104%	90	110	0%	
Lanthanum	A	mg/L	1418	1418		0.05	0	0	1.209E-05	0.001	0.1	836000%	90	110	0%	S
Lead	A	mg/L	0.04869	0.04869		0.05	0	0	3.957E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.05251	0.05251		0.05	0	0	0.05	0.05	1	105%	90	110	0%	
Magnesium	A	mg/L	2.726	2.726		2.5	0	0	0.0084694	0.0084694	50	109%	90	110	0%	
Manganese	A	mg/L	0.2596	0.2596		0.25	0	0	5.319E-05	0.001	1	104%	90	110	0%	
Mercury	A	mg/L	0.00494	0.00494		0.001	0	0	7.78E-06	0.001	0.002	494%	90	110	0%	S
Molybdenum	A	mg/L	0.05039	0.05039		0.05	0	0	0.0000598	0.001	0.1	101%	90	110	0%	
Nickel	A	mg/L	0.05412	0.05412		0.05	0	0	0.0001477	0.001	1	108%	90	110	0%	
Potassium	A	mg/L	2.561	2.561		2.5	0	0	0.0951865	0.0951865	50	102%	90	110	0%	
Selenium	A	mg/L	0.05206	0.05206		0.05	0	0	6.961E-05	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.5178	0.5178		0.5	0	0	0.0786454	0.1	0.4	104%	90	110	0%	
Silver	A	mg/L	0.02578	0.02578		0.025	0	0	1.541E-05	0.001	0.04	103%	90	110	0%	
Sodium	A	mg/L	2.748	2.748		2.5	0	0	0.0321039	0.0321039	50	110%	90	110	0%	
Strontium	A	mg/L	0.05085	0.05085		0.05	0	0	9.136E-05	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.04772	0.04772		0.05	0	0	0.0001262	0.001	1	95%	90	110	0%	
Thorium	A	mg/L	0.04758	0.04758		0.05	0	0	7.051E-05	0.001	1	95%	90	110	0%	
Tin	A	mg/L	0.05024	0.05024		0.05	0	0	0.0021596	0.0021596	0.1	100%	90	110	0%	
Titanium	A	mg/L	0.05065	0.05065		0.05	0	0	0.0001844	0.001	1	101%	90	110	0%	
Uranium	A	mg/L	0.04954	0.04954		0.05	0	0	1.948E-05	0.0003	1	99%	90	110	0%	
Vanadium	A	mg/L	0.04864	0.04864		0.05	0	0	0.004194	0.004194	1	97%	90	110	0%	
Zinc	A	mg/L	0.05324	0.05324		0.05	0	0	0.0006119	0.001	1	106%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2611	0.2611		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980207	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 9:09:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.004678	0.004678		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00008766	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.00008239	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002021	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00005053	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000002211	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0.001918	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	-0.00002612	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.000005483	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	-0.00001197	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.0000158	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Magnesium	A	mg/L	0.002375	0		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	L
Manganese	A	mg/L	0.000005571	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001507	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.00001079	0		0	0	0	0.0001477	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0.00954	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	0.00004309	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.001658	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-2.182E-07	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.01685	0		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	L
Strontium	A	mg/L	0.000001342	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000009203	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00002559	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.001778	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0.00001484	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000006767	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Zinc	A	mg/L	0.00003523	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Lithium	B	mg/L	0.0001854	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	-0.00001197	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980208	CCV	ICPMS-6020-W-	CCV		1/14/2022 9:16:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980208	CCV	ICPMS-6020-W-	CCV		1/14/2022 9:16:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.052	0.052		0.05	0	0	0.0006966	0.001	1	104%	90	110	0%	
Antimony	A	mg/L	0.05162	0.05162		0.05	0	0	0.0002882	0.001	0.1	103%	90	110	0%	
Arsenic	A	mg/L	0.05082	0.05082		0.05	0	0	0.0001626	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05148	0.05148		0.05	0	0	8.917E-05	0.001	1	103%	90	110	0%	
Beryllium	A	mg/L	0.05071	0.05071		0.05	0	0	0.0001137	0.001	1	101%	90	110	0%	
Boron	A	mg/L	0.05335	0.05335		0.05	0	0	0.0036397	0.0036397	1	107%	90	110	0%	
Cadmium	A	mg/L	0.05126	0.05126		0.05	0	0	2.969E-05	0.001	1	103%	90	110	0%	
Calcium	A	mg/L	12.12	12.12		12.5	0	0	0.0254163	0.0254163	50	97%	90	110	0%	
Cerium	A	mg/L	0.2482	0.2482		0.05	0	0	8.97E-06	0.001	0.1	496%	90	110	0%	S
Chromium	A	mg/L	0.05107	0.05107		0.05	0	0	0.0002078	0.001	1	102%	90	110	0%	
Cobalt	A	mg/L	0.05198	0.05198		0.05	0	0	2.037E-05	0.001	1	104%	90	110	0%	
Copper	A	mg/L	0.0546	0.0546		0.05	0	0	0.0001010	0.001	1	109%	90	110	0%	
Iron	A	mg/L	1.271	1.271		1.3	0	0	0.0021231	0.0021231	5	98%	90	110	0%	
Lanthanum	A	mg/L	0.05699	0.05699		0.05	0	0	1.209E-05	0.001	0.1	114%	90	110	0%	S
Lead	A	mg/L	0.04919	0.04919		0.05	0	0	3.957E-05	0.001	1	98%	90	110	0%	
Lithium	A	mg/L	0.6242	0.6242		0.625	0	0	0.05	0.05	1	100%	90	110	0%	
Magnesium	A	mg/L	12.83	12.83		12.5	0	0	0.0084694	0.0084694	50	103%	90	110	0%	
Manganese	A	mg/L	0.05066	0.05066		0.05	0	0	5.319E-05	0.001	1	101%	90	110	0%	
Mercury	A	mg/L	0.004759	0.004759		0.001	0	0	7.78E-06	0.001	0.002	476%	90	110	0%	S
Molybdenum	A	mg/L	0.05088	0.05088		0.05	0	0	0.0000598	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.05311	0.05311		0.05	0	0	0.0001477	0.001	1	106%	90	110	0%	
Potassium	A	mg/L	12.07	12.07		12.5	0	0	0.0951865	0.0951865	50	97%	90	110	0%	
Selenium	A	mg/L	0.0518	0.0518		0.05	0	0	6.961E-05	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.2083	0.2083		0.2	0	0	0.0786454	0.1	0.4	104%	90	110	0%	
Silver	A	mg/L	0.02028	0.02028		0.02	0	0	1.541E-05	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	12.9	12.9		12.5	0	0	0.0321039	0.0321039	50	103%	90	110	0%	
Strontium	A	mg/L	0.0501	0.0501		0.05	0	0	9.136E-05	0.001	1	100%	90	110	0%	
Thallium	A	mg/L	0.04752	0.04752		0.05	0	0	0.0001262	0.001	1	95%	90	110	0%	
Thorium	A	mg/L	0.04845	0.04845		0.05	0	0	7.051E-05	0.001	1	97%	90	110	0%	
Tin	A	mg/L	0.05084	0.05084		0.05	0	0	0.0021596	0.0021596	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.05199	0.05199		0.05	0	0	0.0001844	0.001	1	104%	90	110	0%	
Uranium	A	mg/L	0.04867	0.04867		0.05	0	0	1.948E-05	0.0003	1	97%	90	110	0%	
Vanadium	A	mg/L	0.04883	0.04883		0.05	0	0	0.004194	0.004194	1	98%	90	110	0%	
Zinc	A	mg/L	0.05347	0.05347		0.05	0	0	0.0006119	0.001	1	107%	90	110	0%	
Iron, Ferrous	C	mg/L	1.271	1.271		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980209	CCB	ICPMS-6020-W-	CCB		1/14/2022 9:22:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.00000935	-0.00000935		0	0	0	0.0006966	0.001	1	0%				0%
Antimony	A	mg/L	0.00006441	0.00006441		0	0	0	0.0002882	0.001	0.1	0%				0%
Arsenic	A	mg/L	-0.00002654	-0.00002654		0	0	0	0.0001626	0.001	1	0%				0%
Barium	A	mg/L	-4.509E-06	-4.509E-06		0	0	0	8.917E-05	0.001	1	0%				0%
Beryllium	A	mg/L	0.00003311	0.00003311		0	0	0	0.0001137	0.001	1	0%				0%
Boron	A	mg/L	0.001746	0.001746		0	0	0	0.0036397	0.0036397	1	0%				0%
Cadmium	A	mg/L	0.000002751	0.000002751		0	0	0	2.969E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.001998	0.001998		0	0	0	0.0254163	0.0254163	50	0%				0%
Cerium	A	mg/L	-3.408E-06	-3.408E-06		0	0	0	8.97E-06	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.00003545	-0.00003545		0	0	0	0.0002078	0.001	1	0%				0%
Cobalt	A	mg/L	-2.321E-06	-2.321E-06		0	0	0	2.037E-05	0.001	1	0%				0%
Copper	A	mg/L	-0.00001419	-0.00001419		0	0	0	0.0001010	0.001	1	0%				0%
Iron	A	mg/L	-9.927E-06	-9.927E-06		0	0	0	0.0021231	0.0021231	5	0%				0%
Lanthanum	A	mg/L	0.0244	0.0244		0	0	0	1.209E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	0.00001031	0.00001031		0	0	0	3.957E-05	0.001	1	0%				0%
Lithium	A	mg/L	0.0005854	0.0005854		0	0	0	0.05	0.05	1	0%				0%
Magnesium	A	mg/L	0.0003955	0.0003955		0	0	0	0.0084694	0.0084694	50	0%				0%
Manganese	A	mg/L	0.000002209	0.000002209		0	0	0	5.319E-05	0.001	1	0%				0%
Mercury	A	mg/L	0.00001121	0.00001121		0	0	0	7.78E-06	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.00001302	0.00001302		0	0	0	0.0000598	0.001	0.1	0%				0%
Nickel	A	mg/L	-8.759E-06	-8.759E-06		0	0	0	0.0001477	0.001	1	0%				0%
Potassium	A	mg/L	0.01439	0.01439		0	0	0	0.0951865	0.0951865	50	0%				0%
Selenium	A	mg/L	0.00003213	0.00003213		0	0	0	6.961E-05	0.001	1	0%				0%
Silicon	A	mg/L	-0.0004185	-0.0004185		0	0	0	0.0786454	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.000002513	0.000002513		0	0	0	1.541E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	-0.0179	-0.0179		0	0	0	0.0321039	0.0321039	50	0%				0%
Strontium	A	mg/L	-0.00001044	-0.00001044		0	0	0	9.136E-05	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.0002448	0.0002448		0	0	0	0.0001262	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00002039	0.00002039		0	0	0	7.051E-05	0.001	1	0%	0	0		0%
Tin	A	mg/L	0.00001663	0.00001663		0	0	0	0.0021596	0.0021596	0.1	0%	0	0		0%
Titanium	A	mg/L	-7.852E-07	-7.852E-07		0	0	0	0.0001844	0.001	1	0%	0	0		0%
Uranium	A	mg/L	0.000004031	0.000004031		0	0	0	1.948E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	-0.001811	-0.001811		0	0	0	0.004194	0.004194	1	0%	0	0		0%
Zinc	A	mg/L	0.00002376	0.00002376		0	0	0	0.0006119	0.001	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-9.927E-06	-9.927E-06		0	0	0	0.0021231	0.0021231	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980210	B22010641-001	ICPMS-6020-W-	SAMP		1/14/2022 9:34:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00007528	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Barium	A	mg/L	0.009831	0.009831		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00003873	0.00003873		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00003316	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0002319	0.0002319		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0006498	0.0006498		0	0	0	0.00033	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006289	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Thallium	A	mg/L	0.0006368	0.0006368		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	-2.358E-06	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000032	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Iron	B	mg/L	0.001651	0.001651		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.001651	0.001651		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Tin	B	mg/L	-0.00004043	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980211	B22010641-001	ICPMS-6020-W-	SAMP		1/14/2022 9:40:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0000798	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0007902	0.0007902		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.01008	0.01008		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00002279	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cadmium	A	mg/L	0.00001449	0		0	0	0	1.821E-05	0.005	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.0004363	0.0004363		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00005253	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.01126	0.01126		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.001057	0.001057		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.000718	0.000718		0	0	0	0.0001357	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006247	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1486	0.1486		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009488	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001578	0.001578		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00003333	0.00003333		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	20.17	20.17		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	D
Chromium	B	mg/L	0.001351	0		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	LU

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980211	B22010641-001	ICPMS-6020-W-	SAMP		1/14/2022 9:40:5	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron	B	mg/L	0.01747	0.01747		0	0	0	0.007424	0.00513	5	0%	0	0	0%	DU
Magnesium	B	mg/L	21.6	21.6		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Nickel	B	mg/L	0.001716	0.001716		0	0	0	0.0002288	0.0024200	1	0%	0	0	0%	JL
Potassium	B	mg/L	2.311	2.311		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00004698	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0003695	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U
Zinc	B	mg/L	0.00288	0.00288		0	0	0	0.0011617	0.0065544	1	0%	0	0	0%	JL

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980212	B22010643-001	ICPMS-6020-W-	SAMP		1/14/2022 9:47:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00009088	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Barium	A	mg/L	0.01357	0.01357		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00006636	0.00006636		0	0	0	0.000025	0.001	1	0%	0	0	0%	J
Cobalt	A	mg/L	0.0001395	0.0001395		0	0	0	0.000042	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001793	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	U
Molybdenum	A	mg/L	0.0002322	0.0002322		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0009892	0.0009892		0	0	0	0.00033	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-0.00006042	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1693	0.1693		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00006263	0.00006263		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	-2.772E-06	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002851	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Iron	B	mg/L	0.01761	0.01761		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	0.01761	0.01761		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Tin	B	mg/L	-0.00005463	0		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980213	B22010643-001	ICPMS-6020-W-	SAMP		1/14/2022 9:53:2	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00006422	0		0	0	0	0.0002799	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0009236	0.0009236		0	0	0	0.0003412	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980213	B22010643-001	ICPMS-6020-W-	SAMP		1/14/2022 9:53:2	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.01356	0.01356		0	0	0	0.0002682	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00002013	0		0	0	0	0.0001071	0.01	1	0%	0	0	0%	U
Cadmium	A	mg/L	0.00005737	0.00005737		0	0	0	1.821E-05	0.005	1	0%	0	0	0%	J
Cobalt	A	mg/L	0.0002543	0.0002543		0	0	0	9.541E-05	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00004269	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0493	0.0493		0	0	0	0.0005399	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0004818	0.0004818		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.001018	0.001018		0	0	0	0.0001357	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.00005994	0		0	0	0	4.281E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1651	0.1651		0	0	0	0.0002433	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-0.00001536	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001575	0.001575		0	0	0	0.0005733	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00003189	0.00003189		0	0	0	1.699E-05	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	22.21	22.21		0	0	0	0.0372936	0.1103481	50	0%	0	0	0%	D
Chromium	B	mg/L	0.00161	0.00161		0	0	0	0.0015375	0.0015375	1	0%	0	0	0%	DU
Iron	B	mg/L	0.1277	0.1277		0	0	0	0.007424	0.00513	5	0%	0	0	0%	D
Magnesium	B	mg/L	23.9	23.9		0	0	0	0.0104254	0.0081522	50	0%	0	0	0%	D
Nickel	B	mg/L	0.00406	0.00406		0	0	0	0.0002288	0.0024200	1	0%	0	0	0%	D
Potassium	B	mg/L	2.199	2.199		0	0	0	0.0765619	0.0261205	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00003475	0		0	0	0	0.0003796	0.00415	1	0%	0	0	0%	LU
Tin	B	mg/L	0.0004356	0		0	0	0	0.0018932	0.0011175	0.1	0%	0	0	0%	U
Zinc	B	mg/L	0.005362	0.005362		0	0	0	0.0011617	0.0065544	1	0%	0	0	0%	JL

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980214	B22010750-001	ICPMS-6020-W-	SAMP		1/14/2022 9:59:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980215	B22010750-001	ICPMS-6020-W-	SD		1/14/2022 10:05:	5	R373222		0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001095	0.005475		0	0	0.001001	0.0043	0.0043	1	0%				N
Antimony	A	mg/L	0.00002564	0		0	0	0	0.0021	0.0021	0.1	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980215	B22010750-001	ICPMS-6020-W- SD			1/14/2022 10:05:	5	R373222		0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0004986	0.002493		0	0	0.0007098	0.00095	0.001	1	0%				N
Barium	A	mg/L	0.01317	0.06585		0	0	0.06356	0.00021	0.001	1	0%			4%	
Beryllium	A	mg/L	-0.00000217	0		0	0	0	0.0006	0.001	1	0%				
Boron	A	mg/L	0.01173	0.05865		0	0	0.04863	0.02805	0.02805	1	0%				N
Cadmium	A	mg/L	0.00002385	0		0	0	4.602E-05	0.000125	0.001	1	0%				
Calcium	A	mg/L	28.73	143.65		0	0	142	0.1046	0.1046	50	0%			1%	
Cerium	A	mg/L	0.000007656	0		0	0	0	0.00006	0.001	0.1	0%				
Chromium	A	mg/L	0.001269	0.006345		0	0	0.007538	0.0009	0.001	1	0%				N
Cobalt	A	mg/L	0.0001512	0.000756		0	0	0.0006387	0.00021	0.001	1	0%				N
Copper	A	mg/L	0.0002893	0.0014465		0	0	0.0008099	0.00135	0.00135	1	0%				N
Iron	A	mg/L	0.00473	0.02365		0	0	0.02009	0.00595	0.00595	5	0%				N
Lanthanum	A	mg/L	0.05589	0.27945		0	0	0.03854	0.000055	0.001	0.1	0%			152%	R
Lead	A	mg/L	0.00002361	0		0	0	0	0.00028	0.001	1	0%				
Magnesium	A	mg/L	51.96	259.8		0	0	260.6	0.0282	0.0282	50	0%			0%	
Manganese	A	mg/L	0.0005706	0.002853		0	0	0.002605	0.000475	0.001	1	0%				N
Mercury	A	mg/L	0.00002107	0		0	0	0	0.0008	0.001	0.002	0%				
Molybdenum	A	mg/L	0.0002274	0.001137		0	0	0.0009677	0.00025	0.001	0.1	0%				N
Nickel	A	mg/L	0.01087	0.05435		0	0	0.05617	0.00315	0.00315	1	0%			3%	
Potassium	A	mg/L	1.482	7.41		0	0	7.366	0.40695	0.40695	50	0%			1%	
Selenium	A	mg/L	0.0009527	0.0047635		0	0	0.004484	0.00165	0.00165	1	0%				N
Silicon	A	mg/L	5.931	29.655		0	0	28.15	0.06115	0.1	0.4	0%			5%	
Silver	A	mg/L	-0.00006401	0		0	0	0	0.0001	0.001	0.04	0%				
Sodium	A	mg/L	78.38	391.9		0	0	383.6	0.10855	0.10855	50	0%			2%	
Strontium	A	mg/L	0.3643	1.8215		0	0	1.892	0.0007	0.001	1	0%			4%	
Thallium	A	mg/L	-0.00006898	0		0	0	0	0.000205	0.001	1	0%				
Thorium	A	mg/L	0.000001527	0		0	0	0	0.00305	0.00305	1	0%				
Tin	A	mg/L	0.00008392	0		0	0	0	0.0066	0.0066	0.1	0%				
Titanium	A	mg/L	0.0004754	0.002377		0	0	0.001729	0.00047	0.001	1	0%				N
Uranium	A	mg/L	0.00003802	0		0	0	7.601E-05	0.00026	0.0003	1	0%				
Vanadium	A	mg/L	0.001074	0		0	0	0.004244	0.0065	0.0065	1	0%				
Zinc	A	mg/L	0.001123	0		0	0	0	0.01365	0.01365	1	0%				
Iron, Ferrous	C	mg/L	0.00473	0.02365		0	0	0	0.00595	0.00595	5	0%				N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980216	B22010750-001	ICPMS-6020-W- MS			1/14/2022 10:12:	1.03	R373222		1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04936	0.0508408		0.05	0.001001	0	0.0008858	0.001	1	100%	75	125	0%	
Antimony	A	mg/L	0.04622	0.0476066		0.05	0	0	0.0004326	0.001	0.1	95%	75	125	0%	
Arsenic	A	mg/L	0.04909	0.0505627		0.05	0.0007098	0	0.0001957	0.001	1	100%	75	125	0%	
Barium	A	mg/L	0.1177	0.121231		0.05	0.06356	0	4.326E-05	0.001	1	115%	75	125	0%	
Beryllium	A	mg/L	0.04334	0.0446402		0.05	0	0	0.0001236	0.001	1	89%	75	125	0%	
Boron	A	mg/L	0.08736	0.0899808		0.05	0.04863	0	0.0057783	0.0057783	1	83%	75	125	0%	
Cadmium	A	mg/L	0.04785	0.0492855		0.05	4.602E-05	0	2.575E-05	0.001	1	98%	75	125	0%	
Calcium	A	mg/L	191.6	197.348		50	142	0	0.0215476	0.0215476	50	111%	75	125	0%	E
Cerium	A	mg/L	0.2365	0.243595		0.05	0	0	1.236E-05	0.001	0.1	487%	75	125	0%	SE
Chromium	A	mg/L	0.05403	0.0556509		0.05	0.007538	0	0.0001854	0.001	1	96%	75	125	0%	
Cobalt	A	mg/L	0.04938	0.0508614		0.05	0.0006387	0	4.326E-05	0.001	1	100%	75	125	0%	
Copper	A	mg/L	0.04597	0.0473491		0.05	0.0008099	0	0.0002781	0.001	1	93%	75	125	0%	
Iron	A	mg/L	5.001	5.15103		5.05	0.02009	0	0.0012257	0.0012257	5	102%	75	125	0%	E
Lanthanum	A	mg/L	0.1808	0.186224		0.05	0.03854	0	1.133E-05	0.001	0.1	295%	75	125	0%	SE
Lead	A	mg/L	0.04782	0.0492546		0.05	0	0	5.768E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	285.2	293.756		50	260.6	0	0.0058092	0.0058092	50		75	125	0%	AE
Manganese	A	mg/L	0.05028	0.0517884		0.05	0.002605	0	9.785E-05	0.001	1	98%	75	125	0%	
Mercury	A	mg/L	0.004806	0.00495018		0.001	0	0	0.0001648	0.001	0.002	495%	75	125	0%	SE
Molybdenum	A	mg/L	0.04965	0.0511395		0.05	0.0009677	0	0.0000515	0.001	0.1	100%	75	125	0%	
Nickel	A	mg/L	0.09779	0.1007237		0.05	0.05617	0	0.0006489	0.001	1	89%	75	125	0%	
Potassium	A	mg/L	57.89	59.6267		50	7.366	0	0.0838317	0.0838317	50	105%	75	125	0%	E
Selenium	A	mg/L	0.05217	0.0537351		0.05	0.004484	0	0.0003399	0.001	1	99%	75	125	0%	
Silicon	A	mg/L	28.19	29.0357		0.2	28.15	0	0.0125969	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.01948	0.0200644		0.02	0	0	0.0000206	0.001	0.04	100%	75	125	0%	
Sodium	A	mg/L	402	414.06		50	383.6	0	0.0223613	0.0223613	50		75	125	0%	AE
Strontium	A	mg/L	1.911	1.96833		0.05	1.892	0	0.0001442	0.001	1		75	125	0%	AE
Thallium	A	mg/L	0.04633	0.0477199		0.05	0	0	4.223E-05	0.001	1	95%	75	125	0%	
Thorium	A	mg/L	0.0463	0.047689		0.05	0	0	0.0006283	0.001	1	95%	75	125	0%	
Tin	A	mg/L	0.04827	0.0497181		0.05	0	0	0.0013596	0.0013596	0.1	99%	75	125	0%	
Titanium	A	mg/L	0.05655	0.0582465		0.05	0.001729	0	9.682E-05	0.001	1	113%	75	125	0%	
Uranium	A	mg/L	0.0497	0.051191		0.05	7.601E-05	0	5.356E-05	0.0003	1	102%	75	125	0%	
Vanadium	A	mg/L	0.05579	0.0574637		0.05	0.004244	0	0.001339	0.001339	1	106%	75	125	0%	
Zinc	A	mg/L	0.04752	0.0489456		0.05	0	0	0.0028119	0.0028119	1	98%	75	125	0%	
Iron, Ferrous	C	mg/L	5.001	5.15103		0	0	0	0.0012257	0.0012257	5	0%	0	0	0%	E

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980217	B22010750-001	ICPMS-6020-W- MSD			1/14/2022 10:18:	1.03	R373222		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04895	0.0504185		0.05	0.001001	0.0508408	0.0008858	0.001	1	99%	75	125	1%	
Antimony	A	mg/L	0.0451	0.046453		0.05	0	0.0476066	0.0004326	0.001	0.1	93%	75	125	2%	
Arsenic	A	mg/L	0.04885	0.0503155		0.05	0.0007098	0.0505627	0.0001957	0.001	1	99%	75	125	0%	
Barium	A	mg/L	0.1126	0.115978		0.05	0.06356	0.121231	4.326E-05	0.001	1	105%	75	125	4%	
Beryllium	A	mg/L	0.04311	0.0444033		0.05	0	0.0446402	0.0001236	0.001	1	89%	75	125	1%	
Boron	A	mg/L	0.08549	0.0880547		0.05	0.04863	0.0899808	0.0057783	0.0057783	1	79%	75	125	2%	
Cadmium	A	mg/L	0.04695	0.0483585		0.05	4.602E-05	0.0492855	2.575E-05	0.001	1	97%	75	125	2%	
Calcium	A	mg/L	190.4	196.112		50	142	197.348	0.0215476	0.0215476	50	108%	75	125	1%	E
Cerium	A	mg/L	0.2325	0.239475		0.05	0	0.243595	1.236E-05	0.001	0.1	479%	75	125	2%	SE
Chromium	A	mg/L	0.05256	0.0541368		0.05	0.007538	0.0556509	0.0001854	0.001	1	93%	75	125	3%	
Cobalt	A	mg/L	0.04757	0.0489971		0.05	0.0006387	0.0508614	4.326E-05	0.001	1	97%	75	125	4%	
Copper	A	mg/L	0.04552	0.0468856		0.05	0.0008099	0.0473491	0.0002781	0.001	1	92%	75	125	1%	
Iron	A	mg/L	5.013	5.16339		5.05	0.02009	5.15103	0.0012257	0.0012257	5	102%	75	125	0%	E
Lanthanum	A	mg/L	0.1216	0.125248		0.05	0.03854	0.186224	1.133E-05	0.001	0.1	173%	75	125	39%	SRE
Lead	A	mg/L	0.04746	0.0488838		0.05	0	0.0492546	5.768E-05	0.001	1	98%	88	115	1%	
Magnesium	A	mg/L	285.9	294.477		50	260.6	293.756	0.0058092	0.0058092	50		75	125	0%	AE
Manganese	A	mg/L	0.05081	0.0523343		0.05	0.002605	0.0517884	9.785E-05	0.001	1	99%	75	125	1%	
Mercury	A	mg/L	0.004936	0.00508408		0.001	0	0.0049502	0.0001648	0.001	0.002	508%	75	125	3%	SE
Molybdenum	A	mg/L	0.04911	0.0505833		0.05	0.0009677	0.0511395	0.0000515	0.001	0.1	99%	75	125	1%	
Nickel	A	mg/L	0.09514	0.0979942		0.05	0.05617	0.1007237	0.0006489	0.001	1	84%	75	125	3%	
Potassium	A	mg/L	58.58	60.3374		50	7.366	59.6267	0.0838317	0.0838317	50	106%	75	125	1%	E
Selenium	A	mg/L	0.05209	0.0536527		0.05	0.004484	0.0537351	0.0003399	0.001	1	98%	75	125	0%	
Silicon	A	mg/L	28.36	29.2108		0.2	28.15	29.0357	0.0125969	0.1	0.4		75	125	1%	AE
Silver	A	mg/L	0.01904	0.0196112		0.02	0	0.0200644	0.0000206	0.001	0.04	98%	75	125	2%	
Sodium	A	mg/L	404.3	416.429		50	383.6	414.06	0.0223613	0.0223613	50		75	125	1%	AE
Strontium	A	mg/L	1.957	2.01571		0.05	1.892	1.96833	0.0001442	0.001	1		75	125	2%	AE
Thallium	A	mg/L	0.0464	0.047792		0.05	0	0.0477199	4.223E-05	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.04755	0.0489765		0.05	0	0.047689	0.0006283	0.001	1	98%	75	125	3%	
Tin	A	mg/L	0.04638	0.0477714		0.05	0	0.0497181	0.0013596	0.0013596	0.1	96%	75	125	4%	
Titanium	A	mg/L	0.05442	0.0560526		0.05	0.001729	0.0582465	9.682E-05	0.001	1	109%	75	125	4%	
Uranium	A	mg/L	0.04966	0.0511498		0.05	7.601E-05	0.051191	5.356E-05	0.0003	1	102%	75	125	0%	
Vanadium	A	mg/L	0.05748	0.0592044		0.05	0.004244	0.0574637	0.001339	0.001339	1	110%	75	125	3%	
Zinc	A	mg/L	0.0476	0.049028		0.05	0	0.0489456	0.0028119	0.0028119	1	98%	75	125	0%	
Iron, Ferrous	C	mg/L	5.013	5.16339		0	0	5.15103	0.0012257	0.0012257	5	0%	0	0	0%	E

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980218	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 10:24:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.005479	0.005479		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0006057	0.0006057		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.0005194	0.0005194		0	0	0	0.00019	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.00002459	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00001484	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000003609	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.0005651	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-2.554E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.000005704	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00001605	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003747	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.0001101	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0000318	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.000002297	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00003579	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001033	0.0001033		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00002547	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.000187	0.000187		0	0	0	0.000094	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.000005646	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Iron	B	mg/L	-0.0003103	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	-0.0003103	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Magnesium	B	mg/L	1.633	1.633		0	0	0	0.00564	0.00564	50	0%	0	0	0%	D
Sodium	B	mg/L	0.0283	0.0283		0	0	0	0.02171	0.02171	50	0%	0	0	0%	D
Tin	B	mg/L	0.00181	0.00181		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Zinc	B	mg/L	-0.00002062	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980219	B22010750-001	ICPMS-6020-W-	SAMP		1/14/2022 10:30:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980220	CCV	ICPMS-6020-W-	CCV		1/14/2022 10:37:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05482	0.05482		0.05	0	0	0.00086	0.001	1	110%	90	110	0%	
Antimony	A	mg/L	0.05169	0.05169		0.05	0	0	0.00042	0.001	0.1	103%	90	110	0%	
Arsenic	A	mg/L	0.05076	0.05076		0.05	0	0	0.00019	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05118	0.05118		0.05	0	0	0.000042	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.04798	0.04798		0.05	0	0	0.00012	0.001	1	96%	90	110	0%	
Boron	A	mg/L	0.04528	0.04528		0.05	0	0	0.00561	0.00561	1	91%	90	110	0%	
Cadmium	A	mg/L	0.05078	0.05078		0.05	0	0	0.000025	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	13.45	13.45		12.5	0	0	0.02092	0.02092	50	108%	90	110	0%	
Cerium	A	mg/L	0.2326	0.2326		0.05	0	0	0.000012	0.001	0.1	465%	90	110	0%	S
Chromium	A	mg/L	0.04903	0.04903		0.05	0	0	0.00018	0.001	1	98%	90	110	0%	
Cobalt	A	mg/L	0.05146	0.05146		0.05	0	0	0.000042	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.04873	0.04873		0.05	0	0	0.00027	0.001	1	97%	90	110	0%	
Iron	A	mg/L	1.318	1.318		1.3	0	0	0.00119	0.00119	5	101%	90	110	0%	
Lanthanum	A	mg/L	1.33	1.33		0.05	0	0	0.000011	0.001	0.1	2660%	90	110	0%	S
Lead	A	mg/L	0.05059	0.05059		0.05	0	0	0.000056	0.001	1	101%	90	110	0%	
Magnesium	A	mg/L	12.57	12.57		12.5	0	0	0.00564	0.00564	50	101%	90	110	0%	
Manganese	A	mg/L	0.05228	0.05228		0.05	0	0	0.000095	0.001	1	105%	90	110	0%	
Mercury	A	mg/L	0.004558	0.004558		0.001	0	0	0.00016	0.001	0.002	456%	90	110	0%	S
Molybdenum	A	mg/L	0.05186	0.05186		0.05	0	0	0.00005	0.001	0.1	104%	90	110	0%	
Nickel	A	mg/L	0.04901	0.04901		0.05	0	0	0.00063	0.001	1	98%	90	110	0%	
Potassium	A	mg/L	13.54	13.54		12.5	0	0	0.08139	0.08139	50	108%	90	110	0%	
Selenium	A	mg/L	0.05107	0.05107		0.05	0	0	0.00033	0.001	1	102%	90	110	0%	
Silicon	A	mg/L	0.2331	0.2331		0.2	0	0	0.01223	0.1	0.4	117%	90	110	0%	S
Silver	A	mg/L	0.02026	0.02026		0.02	0	0	0.00002	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	12.05	12.05		12.5	0	0	0.02171	0.02171	50	96%	90	110	0%	
Strontium	A	mg/L	0.05437	0.05437		0.05	0	0	0.00014	0.001	1	109%	90	110	0%	
Thallium	A	mg/L	0.04907	0.04907		0.05	0	0	0.000041	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.0475	0.0475		0.05	0	0	0.00061	0.001	1	95%	90	110	0%	
Tin	A	mg/L	0.05114	0.05114		0.05	0	0	0.00132	0.00132	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.05422	0.05422		0.05	0	0	0.000094	0.001	1	108%	90	110	0%	
Uranium	A	mg/L	0.05174	0.05174		0.05	0	0	0.000052	0.0003	1	103%	90	110	0%	
Vanadium	A	mg/L	0.05257	0.05257		0.05	0	0	0.0013	0.0013	1	105%	90	110	0%	
Zinc	A	mg/L	0.0508	0.0508		0.05	0	0	0.00273	0.00273	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.318	1.318		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980221	CCB	ICPMS-6020-W-	CCB		1/14/2022 10:43:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-9.024E-06	-9.024E-06		0	0	0	0.00086	0.001	1	0%				0%
Antimony	A	mg/L	0.0001168	0.0001168		0	0	0	0.00042	0.001	0.1	0%				0%
Arsenic	A	mg/L	0.0005539	0.0005539		0	0	0	0.00019	0.001	1	0%				0%
Barium	A	mg/L	0.000007654	0.000007654		0	0	0	0.000042	0.001	1	0%				0%
Beryllium	A	mg/L	0.000009472	0.000009472		0	0	0	0.00012	0.001	1	0%				0%
Boron	A	mg/L	0.0002874	0.0002874		0	0	0	0.00561	0.00561	1	0%				0%
Cadmium	A	mg/L	0.000005643	0.000005643		0	0	0	0.000025	0.001	1	0%				0%
Calcium	A	mg/L	0.02758	0.02758		0	0	0	0.02092	0.02092	50	0%				0%
Cerium	A	mg/L	-8.234E-07	-8.234E-07		0	0	0	0.000012	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.0006059	-0.0006059		0	0	0	0.00018	0.001	1	0%				0%
Cobalt	A	mg/L	-1.974E-06	-1.974E-06		0	0	0	0.000042	0.001	1	0%				0%
Copper	A	mg/L	0.000142	0.000142		0	0	0	0.00027	0.001	1	0%				0%
Iron	A	mg/L	-0.0004564	-0.0004564		0	0	0	0.00119	0.00119	5	0%				0%
Lanthanum	A	mg/L	0.004809	0.004809		0	0	0	0.000011	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	0.000007531	0.000007531		0	0	0	0.000056	0.001	1	0%				0%
Magnesium	A	mg/L	0.005733	0.005733		0	0	0	0.00564	0.00564	50	0%				0%
Manganese	A	mg/L	-4.418E-07	-4.418E-07		0	0	0	0.000095	0.001	1	0%				0%
Mercury	A	mg/L	0.00001431	0.00001431		0	0	0	0.00016	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.00002089	0.00002089		0	0	0	0.00005	0.001	0.1	0%				0%
Nickel	A	mg/L	-0.0001177	-0.0001177		0	0	0	0.00063	0.001	1	0%				0%
Potassium	A	mg/L	0.08486	0.08486		0	0	0	0.08139	0.08139	50	0%				0%
Selenium	A	mg/L	0.00002399	0.00002399		0	0	0	0.00033	0.001	1	0%				0%
Silicon	A	mg/L	0.004069	0.004069		0	0	0	0.01223	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.000004048	0.000004048		0	0	0	0.00002	0.001	0.04	0%				0%
Sodium	A	mg/L	-0.001928	-0.001928		0	0	0	0.02171	0.02171	50	0%				0%
Strontium	A	mg/L	-7.201E-06	-7.201E-06		0	0	0	0.00014	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.0001985	0.0001985		0	0	0	0.000041	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00001714	0.00001714		0	0	0	0.00061	0.001	1	0%	0	0		0%
Tin	A	mg/L	0.00002732	0.00002732		0	0	0	0.00132	0.00132	0.1	0%	0	0		0%
Titanium	A	mg/L	0.0001243	0.0001243		0	0	0	0.000094	0.001	1	0%	0	0		0%
Uranium	A	mg/L	0.000004633	0.000004633		0	0	0	0.000052	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.003806	0.003806		0	0	0	0.0013	0.0013	1	0%	0	0		0%
Zinc	A	mg/L	-0.00002114	-0.00002114		0	0	0	0.00273	0.00273	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-0.0004564	-0.0004564		0	0	0	0.00119	0.00119	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980222	B22010751-001	ICPMS-6020-W-	SAMP		1/14/2022 10:49:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980223	B22010751-001	ICPMS-6020-W-	SAMP		1/14/2022 10:55:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980224	B22010751-001	ICPMS-6020-W-	SD		1/14/2022 11:02:	5	162926	1/14/2022 8:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.02709	0.13545		0	0	0.1328	0.0193736	0.0159875	1	0%	0	0		N
Antimony	A	mg/L	0.00007015	0		0	0	0.000327	0.0013997	0.0049	0.1	0%	0	0		
Arsenic	A	mg/L	0.0007648	0.003824		0	0	0.001985	0.0017061	0.0013383	1	0%	0	0		N
Barium	A	mg/L	0.01491	0.07455		0	0	0.07638	0.0013411	0.0012039	1	0%	0	0	2%	
Beryllium	A	mg/L	0.0002541	0.0012705		0	0	0	0.0005353	0.01	1	0%	0	0		N
Boron	A	mg/L	0.0443	0.2215		0	0	0.2231	0.1019008	0.07335	1	0%	0	0		N
Cadmium	A	mg/L	0.00001945	0.00009725		0	0	8.211E-05	9.105E-05	0.005	1	0%	0	0		N
Calcium	A	mg/L	10.09	50.45		0	0	49.08	0.1864681	0.5517403	50	0%	0	0	3%	
Cerium	A	mg/L	0.0001428	0.000714		0	0	0.000973	0.0001369	0.001	0.1	0%	0	0		N
Chromium	A	mg/L	-0.0001454	0		0	0	0	0.0076875	0.0076875	1	0%	0	0		
Cobalt	A	mg/L	0.0002195	0.0010975		0	0	0.001098	0.0004771	0.001	1	0%	0	0		N
Copper	A	mg/L	0.001129	0.005645		0	0	0.004621	0.0043735	0.0099	1	0%	0	0		N
Iron	A	mg/L	0.05786	0.2893		0	0	0.2964	0.0371198	0.02565	5	0%	0	0		N
Lanthanum	A	mg/L	0.3843	1.9215		0	0	1.785	0.000275	0.001	0.1	0%	0	0	7%	
Lead	A	mg/L	0.0002916	0.001458		0	0	0.001481	0.0003858	0.001	1	0%	0	0		N
Magnesium	A	mg/L	9.212	46.06		0	0	45.32	0.0521269	0.0407608	50	0%	0	0	2%	
Manganese	A	mg/L	0.02805	0.14025		0	0	0.137	0.0026994	0.0010695	1	0%	0	0	2%	
Molybdenum	A	mg/L	0.0003543	0.0017715		0	0	0.001805	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.001356	0.00678		0	0	0.007038	0.0011441	0.0121000	1	0%	0	0		N
Potassium	A	mg/L	0.9072	4.536		0	0	4.206	0.3828097	0.1306027	50	0%	0	0	8%	
Selenium	A	mg/L	0.001064	0.00532		0	0	0.00541	0.0006787	0.0029274	1	0%	0	0		N
Silicon	A	mg/L	3.725	18.625		0	0	18.99	0.2110446	0.026606	0.4	0%	0	0	2%	
Silver	A	mg/L	-0.00006333	0		0	0	0	0.0002141	0.001	0.04	0%	0	0		
Sodium	A	mg/L	28.05	140.25		0	0	142	0.5097304	3.6651346	50	0%	0	0	1%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980224	B22010751-001	ICPMS-6020-W- SD			1/14/2022 11:02:	5	162926	1/14/2022 8:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	0.07539	0.37695		0	0	0.3781	0.0012164	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-0.00008849	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	0.00000487	0		0	0	0	0.0018981	0.02075	1	0%	0	0		
Tin	A	mg/L	0.0001275	0		0	0	0	0.0094659	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.001974	0.00987		0	0	0.009315	0.0028666	0.001	1	0%	0	0		N
Uranium	A	mg/L	0.00006821	0.00034105		0	0	0.0002876	8.495E-05	0.0004224	1	0%	0	0		N
Vanadium	A	mg/L	0.005399	0.026995		0	0	0.01768	0.0195637	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.003331	0.016655		0	0	0.01264	0.0058087	0.0327721	1	0%	0	0		N
Silica	C	mg/L	7.96852	39.8426		0	0	0	0.4514666	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	7.96852	39.8426		0	0	0	0.4514666	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980225	B22010751-001	ICPMS-6020-W- PDS1			1/14/2022 11:08:	1.03	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1701	0.175203		0.0515	0.1328	0	0.003991	0.0032934	1	82%	75	125	0%	
Antimony	A	mg/L	0.04492	0.0462676		0.0515	0.000327	0	0.0002883	0.0010094	0.1	89%	75	125	0%	
Arsenic	A	mg/L	0.04957	0.0510571		0.0515	0.001985	0	0.0003514	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.1206	0.124218		0.0515	0.07638	0	0.0002763	0.001	1	93%	75	125	0%	
Beryllium	A	mg/L	0.04268	0.0439604		0.0515	0	0	0.0001103	0.01	1	85%	75	125	0%	
Boron	A	mg/L	0.2515	0.259045		0.0515	0.2231	0	0.0209916	0.0151101	1		75	125	0%	A
Cadmium	A	mg/L	0.04583	0.0472049		0.0515	8.211E-05	0	1.876E-05	0.005	1	92%	75	125	0%	
Calcium	A	mg/L	101.2	104.236		51.5	49.08	0	0.0384124	0.1136585	50	107%	75	125	0%	
Cerium	A	mg/L	0.2335	0.240505		0.0515	0.000973	0	2.820E-05	0.001	0.1	465%	75	125	0%	S
Chromium	A	mg/L	0.0471	0.048513		0.0515	0	0	0.0015836	0.0015836	1	94%	75	125	0%	
Cobalt	A	mg/L	0.04197	0.0432291		0.0515	0.001098	0	9.827E-05	0.001	1	82%	75	125	0%	
Copper	A	mg/L	0.0495	0.050985		0.0515	0.004621	0	0.0009009	0.0020394	1	90%	75	125	0%	
Iron	A	mg/L	5.445	5.60835		5.15	0.2964	0	0.0076467	0.0052839	5	103%	75	125	0%	
Lanthanum	A	mg/L	1.894	1.95082		0.0515	1.785	0	5.665E-05	0.001	0.1		75	125	0%	A
Lead	A	mg/L	0.04567	0.0470401		0.0515	0.001481	0	7.947E-05	0.001	1	88%	88	115	0%	
Magnesium	A	mg/L	92.66	95.4398		51.5	45.32	0	0.0107381	0.0083967	50	97%	75	125	0%	
Manganese	A	mg/L	0.1808	0.186224		0.0515	0.137	0	0.0005561	0.001	1	96%	75	125	0%	
Molybdenum	A	mg/L	0.0488	0.050264		0.0515	0.001805	0	0.0001816	0.001	0.1	94%	75	125	0%	
Nickel	A	mg/L	0.0514	0.052942		0.0515	0.007038	0	0.0002357	0.0024926	1	89%	75	125	0%	
Potassium	A	mg/L	54.81	56.4543		51.5	4.206	0	0.0788588	0.0269042	50	101%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980225	B22010751-001	ICPMS-6020-W-	PDS1		1/14/2022 11:08:	1.03	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Selenium	A	mg/L	0.05395	0.0555685		0.0515	0.00541	0	0.0001398	0.001	1	97%	75	125	0%	
Silicon	A	mg/L	20.22	20.8266		0.206	18.99	0	0.0434752	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.01876	0.0193228		0.0206	0	0	4.409E-05	0.001	0.04	94%	75	125	0%	
Sodium	A	mg/L	186.9	192.507		51.5	142	0	0.1050045	0.7550177	50	98%	75	125	0%	
Strontium	A	mg/L	0.4265	0.439295		0.0515	0.3781	0	0.0002506	0.001	1		75	125	0%	A
Thallium	A	mg/L	0.04524	0.0465972		0.0515	0	0	0.0001147	0.001	1	90%	75	125	0%	
Thorium	A	mg/L	0.0462	0.047586		0.0515	0	0	0.000391	0.0042745	1	92%	75	125	0%	
Tin	A	mg/L	0.04666	0.0480598		0.0515	0	0	0.00195	0.001151	0.1	93%	75	125	0%	
Titanium	A	mg/L	0.0555	0.057165		0.0515	0.009315	0	0.0005905	0.001	1	93%	75	125	0%	
Uranium	A	mg/L	0.04754	0.0489662		0.0515	0.0002876	0	1.75E-05	0.0003	1	95%	75	125	0%	
Vanadium	A	mg/L	0.06792	0.0699576		0.0515	0.01768	0	0.0040301	0.0021717	1	102%	75	125	0%	
Zinc	A	mg/L	0.05847	0.0602241		0.0515	0.01264	0	0.0011966	0.0067511	1	92%	75	125	0%	
Silica	C	mg/L	43.254624	44.55226272		0	0	0	0.0930021	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	43.254624	44.55226272		0.0515	0	0	0.0930021	0.0117246	5	86509%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980226	B22010751-001	ICPMS-6020-W-	MS4		1/14/2022 11:14:	1	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.6596	0.6596		0.5	0.1328	0	0.0038747	0.0031975	1	105%	75	125	0%	
Antimony	A	mg/L	0.1043	0.1043		0.1	0.000327	0	0.0002799	0.001	0.1	104%	75	125	0%	
Arsenic	A	mg/L	0.09882	0.09882		0.1	0.001985	0	0.0003412	0.001	1	97%	75	125	0%	
Barium	A	mg/L	0.1755	0.1755		0.1	0.07638	0	0.0002682	0.001	1	99%	75	125	0%	
Beryllium	A	mg/L	0.0463	0.0463		0.05	0	0	0.0001071	0.01	1	93%	75	125	0%	
Boron	A	mg/L	0.3026	0.3026		0.1	0.2231	0	0.0203802	0.01467	1	80%	75	125	0%	
Cadmium	A	mg/L	0.04788	0.04788		0.05	8.211E-05	0	1.821E-05	0.005	1	96%	75	125	0%	
Calcium	A	mg/L	54.71	54.71		5	49.08	0	0.0372936	0.1103481	50		75	125	0%	A
Cerium	A	mg/L	0.4833	0.4833		0.1	0.000973	0	2.738E-05	0.001	0.1	482%	75	125	0%	S
Chromium	A	mg/L	0.09613	0.09613		0.1	0	0	0.0015375	0.0015375	1	96%	75	125	0%	
Cobalt	A	mg/L	0.09288	0.09288		0.1	0.001098	0	9.541E-05	0.001	1	92%	75	125	0%	
Copper	A	mg/L	0.09798	0.09798		0.1	0.004621	0	0.0008747	0.00198	1	93%	75	125	0%	
Iron	A	mg/L	0.7786	0.7786		0.5	0.2964	0	0.007424	0.00513	5	96%	75	125	0%	
Lanthanum	A	mg/L	2676	2676		0.1	1.785	0	0.000055	0.001	0.1		75	125	0%	A
Lead	A	mg/L	0.1001	0.1001		0.1	0.001481	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	50.19	50.19		5	45.32	0	0.0104254	0.0081522	50		75	125	0%	A

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980226	B22010751-001	ICPMS-6020-W- MS4			1/14/2022 11:14:	1	162926	1/14/2022 8:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.6381	0.6381		0.5	0.137	0	0.0005399	0.001	1	100%	75	125	0%	
Molybdenum	A	mg/L	0.1025	0.1025		0.1	0.001805	0	0.0001763	0.001	0.1	101%	75	125	0%	
Nickel	A	mg/L	0.1045	0.1045		0.1	0.007038	0	0.0002288	0.0024200	1	97%	75	125	0%	
Potassium	A	mg/L	9.446	9.446		5	4.206	0	0.0765619	0.0261205	50	105%	75	125	0%	
Selenium	A	mg/L	0.1034	0.1034		0.1	0.00541	0	0.0001357	0.001	1	98%	75	125	0%	
Silicon	A	mg/L	19.89	19.89		1	18.99	0	0.0422089	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009471	0.009471		0.01	0	0	4.281E-05	0.001	0.04	95%	75	125	0%	
Sodium	A	mg/L	144.3	144.3		5	142	0	0.1019461	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.4925	0.4925		0.1	0.3781	0	0.0002433	0.001	1	114%	75	125	0%	
Thallium	A	mg/L	0.09628	0.09628		0.1	0	0	0.0001114	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.09741	0.09741		0.1	0	0	0.0003796	0.00415	1	97%	75	125	0%	
Tin	A	mg/L	0.1017	0.1017		0.1	0	0	0.0018932	0.0011175	0.1	102%	75	125	0%	
Titanium	A	mg/L	0.1021	0.1021		0.1	0.009315	0	0.0005733	0.001	1	93%	75	125	0%	
Uranium	A	mg/L	0.1036	0.1036		0.1	0.0002876	0	1.699E-05	0.0003	1	103%	75	125	0%	
Vanadium	A	mg/L	0.1125	0.1125		0.1	0.01768	0	0.0039127	0.0021085	1	95%	75	125	0%	
Zinc	A	mg/L	0.1095	0.1095		0.1	0.01264	0	0.0011617	0.0065544	1	97%	75	125	0%	
Silica	C	mg/L	42.548688	42.548688		0	0	0	0.0902933	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	42.548688	42.548688		2.14	0	0	0.0902933	0.0113831	5	1988%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980227	B22010751-001	ICPMS-6020-W- MSD4			1/14/2022 11:20:	1	162926	1/14/2022 8:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.6634	0.6634		0.5	0.1328	0.6596	0.0038747	0.0031975	1	106%	75	125	1%	
Antimony	A	mg/L	0.1073	0.1073		0.1	0.000327	0.1043	0.0002799	0.001	0.1	107%	75	125	3%	
Arsenic	A	mg/L	0.0998	0.0998		0.1	0.001985	0.09882	0.0003412	0.001	1	98%	75	125	1%	
Barium	A	mg/L	0.1812	0.1812		0.1	0.07638	0.1755	0.0002682	0.001	1	105%	75	125	3%	
Beryllium	A	mg/L	0.04559	0.04559		0.05	0	0.0463	0.0001071	0.01	1	91%	75	125	2%	
Boron	A	mg/L	0.2975	0.2975		0.1	0.2231	0.3026	0.0203802	0.01467	1	74%	75	125	2%	S
Cadmium	A	mg/L	0.04827	0.04827		0.05	8.211E-05	0.04788	1.821E-05	0.005	1	96%	75	125	1%	
Calcium	A	mg/L	54.11	54.11		5	49.08	54.71	0.0372936	0.1103481	50		75	125	1%	A
Cerium	A	mg/L	0.4913	0.4913		0.1	0.000973	0.4833	2.738E-05	0.001	0.1	490%	75	125	2%	S
Chromium	A	mg/L	0.09693	0.09693		0.1	0	0.09613	0.0015375	0.0015375	1	97%	75	125	1%	
Cobalt	A	mg/L	0.09514	0.09514		0.1	0.001098	0.09288	9.541E-05	0.001	1	94%	75	125	2%	
Copper	A	mg/L	0.09794	0.09794		0.1	0.004621	0.09798	0.0008747	0.00198	1	93%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980227	B22010751-001	ICPMS-6020-W- MSD4			1/14/2022 11:20:	1	162926	1/14/2022 8:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron	A	mg/L	0.7819	0.7819		0.5	0.2964	0.7786	0.007424	0.00513	5	97%	75	125	0%	
Lanthanum	A	mg/L	2699	2699		0.1	1.785	2676	0.000055	0.001	0.1		75	125	1%	A
Lead	A	mg/L	0.1018	0.1018		0.1	0.001481	0.1001	7.716E-05	0.001	1	100%	88	115	2%	
Magnesium	A	mg/L	49.73	49.73		5	45.32	50.19	0.0104254	0.0081522	50		75	125	1%	A
Manganese	A	mg/L	0.6509	0.6509		0.5	0.137	0.6381	0.0005399	0.001	1	103%	75	125	2%	
Molybdenum	A	mg/L	0.1051	0.1051		0.1	0.001805	0.1025	0.0001763	0.001	0.1	103%	75	125	3%	
Nickel	A	mg/L	0.1014	0.1014		0.1	0.007038	0.1045	0.0002288	0.0024200	1	94%	75	125	3%	
Potassium	A	mg/L	9.478	9.478		5	4.206	9.446	0.0765619	0.0261205	50	105%	75	125	0%	
Selenium	A	mg/L	0.1026	0.1026		0.1	0.00541	0.1034	0.0001357	0.001	1	97%	75	125	1%	
Silicon	A	mg/L	19.98	19.98		1	18.99	19.89	0.0422089	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009699	0.009699		0.01	0	0.009471	4.281E-05	0.001	0.04	97%	75	125	2%	
Sodium	A	mg/L	145.1	145.1		5	142	144.3	0.1019461	0.7330269	50		75	125	1%	A
Strontium	A	mg/L	0.5024	0.5024		0.1	0.3781	0.4925	0.0002433	0.001	1	124%	75	125	2%	
Thallium	A	mg/L	0.09435	0.09435		0.1	0	0.09628	0.0001114	0.001	1	94%	75	125	2%	
Thorium	A	mg/L	0.09482	0.09482		0.1	0	0.09741	0.0003796	0.00415	1	95%	75	125	3%	
Tin	A	mg/L	0.1034	0.1034		0.1	0	0.1017	0.0018932	0.0011175	0.1	103%	75	125	2%	
Titanium	A	mg/L	0.1028	0.1028		0.1	0.009315	0.1021	0.0005733	0.001	1	93%	75	125	1%	
Uranium	A	mg/L	0.1053	0.1053		0.1	0.0002876	0.1036	1.699E-05	0.0003	1	105%	75	125	2%	
Vanadium	A	mg/L	0.1134	0.1134		0.1	0.01768	0.1125	0.0039127	0.0021085	1	96%	75	125	1%	
Zinc	A	mg/L	0.1105	0.1105		0.1	0.01264	0.1095	0.0011617	0.0065544	1	98%	75	125	1%	
Silica	C	mg/L	42.741216	42.741216		0	0	42.548688	0.0902933	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	42.741216	42.741216		2.14	0	42.548688	0.0902933	0.0113831	5	1997%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980228	Rinse	ICPMS-6020-W- SAMP			1/14/2022 11:26:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.005184	0.005184		0	0	0	0.00086	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0001462	0		0	0	0	0.00042	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0002103	0.0002103		0	0	0	0.00019	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.00002114	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00002111	0		0	0	0	0.00012	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.000006783	0		0	0	0	0.000025	0.001	1	0%	0	0	0%	
Chromium	A	mg/L	-0.0006525	0		0	0	0	0.00018	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-1.883E-06	0		0	0	0	0.000042	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980228	Rinse	ICPMS-6020-W-	SAMP		1/14/2022 11:26:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00001154	0		0	0	0	0.000056	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00002309	0		0	0	0	0.000095	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001579	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.000141	0		0	0	0	0.00063	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.000003525	0		0	0	0	0.00033	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-1.944E-06	0		0	0	0	0.00002	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	-0.00000667	0		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002375	0.0002375		0	0	0	0.000041	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.00001165	0		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00004708	0		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000507	0		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	0.003385	0		0	0	0	0.02092	0.02092	50	0%	0	0	0%	L
Iron	B	mg/L	-0.0006235	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Iron, Ferrous	B	mg/L	-0.0006235	0		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Sodium	B	mg/L	-0.006109	0		0	0	0	0.02171	0.02171	50	0%	0	0	0%	L
Tin	B	mg/L	0.001765	0.001765		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Zinc	B	mg/L	0.0002189	0		0	0	0	0.00273	0.00273	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980229	B22010753-001	ICPMS-6020-W-	SAMP		1/14/2022 11:33:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980230	B22010753-001	ICPMS-6020-W-	SAMP		1/14/2022 11:39:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980231	B22010754-001	ICPMS-6020-W-	SAMP		1/14/2022 11:45:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980232	B22010754-001	ICPMS-6020-W-	SAMP		1/14/2022 11:51:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980233	CCV	ICPMS-6020-W-	CCV		1/14/2022 11:58:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Aluminum	A	mg/L	0.05293	0.05293		0.05	0	0	0.00086	0.001	1	106%	90	110	0%	
Antimony	A	mg/L	0.05176	0.05176		0.05	0	0	0.00042	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.05114	0.05114		0.05	0	0	0.00019	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05121	0.05121		0.05	0	0	0.000042	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.04736	0.04736		0.05	0	0	0.00012	0.001	1	95%	90	110	0%	
Boron	A	mg/L	0.04525	0.04525		0.05	0	0	0.00561	0.00561	1	90%	90	110	0%	
Cadmium	A	mg/L	0.05075	0.05075		0.05	0	0	0.000025	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	13.48	13.48		12.5	0	0	0.02092	0.02092	50	108%	90	110	0%	
Cerium	A	mg/L	0.2348	0.2348		0.05	0	0	0.000012	0.001	0.1	470%	90	110	0%	S
Chromium	A	mg/L	0.04935	0.04935		0.05	0	0	0.00018	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05049	0.05049		0.05	0	0	0.000042	0.001	1	101%	90	110	0%	
Copper	A	mg/L	0.04967	0.04967		0.05	0	0	0.00027	0.001	1	99%	90	110	0%	
Iron	A	mg/L	1.315	1.315		1.3	0	0	0.00119	0.00119	5	101%	90	110	0%	
Lanthanum	A	mg/L	0.06722	0.06722		0.05	0	0	0.000011	0.001	0.1	134%	90	110	0%	S
Lead	A	mg/L	0.04983	0.04983		0.05	0	0	0.000056	0.001	1	100%	90	110	0%	
Magnesium	A	mg/L	12.45	12.45		12.5	0	0	0.00564	0.00564	50	100%	90	110	0%	
Manganese	A	mg/L	0.05309	0.05309		0.05	0	0	0.000095	0.001	1	106%	90	110	0%	
Mercury	A	mg/L	0.004622	0.004622		0.001	0	0	0.00016	0.001	0.002	462%	90	110	0%	S
Molybdenum	A	mg/L	0.05105	0.05105		0.05	0	0	0.00005	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.04876	0.04876		0.05	0	0	0.00063	0.001	1	98%	90	110	0%	
Potassium	A	mg/L	13.42	13.42		12.5	0	0	0.08139	0.08139	50	107%	90	110	0%	
Selenium	A	mg/L	0.05087	0.05087		0.05	0	0	0.00033	0.001	1	102%	90	110	0%	
Silicon	A	mg/L	0.2598	0.2598		0.2	0	0	0.01223	0.1	0.4	130%	90	110	0%	S
Silver	A	mg/L	0.02001	0.02001		0.02	0	0	0.00002	0.001	0.04	100%	90	110	0%	
Sodium	A	mg/L	12.28	12.28		12.5	0	0	0.02171	0.02171	50	98%	90	110	0%	
Strontium	A	mg/L	0.05431	0.05431		0.05	0	0	0.00014	0.001	1	109%	90	110	0%	
Thallium	A	mg/L	0.04906	0.04906		0.05	0	0	0.000041	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.04913	0.04913		0.05	0	0	0.00061	0.001	1	98%	90	110	0%	
Tin	A	mg/L	0.05064	0.05064		0.05	0	0	0.00132	0.00132	0.1	101%	90	110	0%	
Titanium	A	mg/L	0.05172	0.05172		0.05	0	0	0.000094	0.001	1	103%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980233	CCV	ICPMS-6020-W- CCV			1/14/2022 11:58:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.05154	0.05154		0.05	0	0	0.000052	0.0003	1	103%	90	110	0%	
Vanadium	A	mg/L	0.05238	0.05238		0.05	0	0	0.0013	0.0013	1	105%	90	110	0%	
Zinc	A	mg/L	0.05232	0.05232		0.05	0	0	0.00273	0.00273	1	105%	90	110	0%	
Iron, Ferrous	C	mg/L	1.315	1.315		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980234	CCB	ICPMS-6020-W- CCB			1/15/2022 12:04:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0004462	0.0004462		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.00007808	0.00007808		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0002756	0.0002756		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	-2.455E-06	-2.455E-06		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	0.0000973	0.0000973		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.001123	0.001123		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.000007263	0.000007263		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	0.003059	0.003059		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	-5.421E-07	-5.421E-07		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.000618	-0.000618		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	-2.576E-06	-2.576E-06		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	0.00002358	0.00002358		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	0.005871	0.005871		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	0.0153	0.0153		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000005869	0.000005869		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	0.001925	0.001925		0	0	0	0.00564	0.00564	50	0%			0%	
Manganese	A	mg/L	-0.0000147	-0.0000147		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.000007711	0.000007711		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00001399	0.00001399		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0001288	-0.0001288		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	0.05763	0.05763		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	0.00001109	0.00001109		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	0.0148	0.0148		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000002776	0.000002776		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.01237	-0.01237		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	-0.00001418	-0.00001418		0	0	0	0.00014	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980234	CCB	ICPMS-6020-W-	CCB		1/15/2022 12:04:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	A	mg/L	0.0001737	0.0001737		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001553	0.00001553		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.00002716	0.00002716		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00007248	0.00007248		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000003911	0.000003911		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.002295	0.002295		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	0.00003184	0.00003184		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.005871	0.005871		0	0	0	0.00119	0.00119	5	0%	0	0	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980235	B22010755-001	ICPMS-6020-W-	SAMP		1/15/2022 12:10:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980236	B22010755-001	ICPMS-6020-W-	SAMP		1/15/2022 12:16:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980237	B22010756-001	ICPMS-6020-W-	SAMP		1/15/2022 12:23:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980238	B22010756-001	ICPMS-6020-W-	SAMP		1/15/2022 12:29:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980239	B22010757-001	ICPMS-6020-W-	SAMP		1/15/2022 12:35:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980240	B22010757-001	ICPMS-6020-W-	SAMP		1/15/2022 12:41:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980241	B22010758-001	ICPMS-6020-W-	SAMP		1/15/2022 12:48:	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980242	B22010758-001	ICPMS-6020-W-	SAMP		1/15/2022 12:54:	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980243	B22010759-001	ICPMS-6020-W-	SAMP		1/15/2022 1:00:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980244	B22010759-001	ICPMS-6020-W-	SAMP		1/15/2022 1:06:4	1	162926	1/14/2022 8:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14980245	CCV	ICPMS-6020-W-	CCV		1/15/2022 1:12:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05357	0.05357		0.05	0	0	0.00086	0.001	1	107%	90	110	0%	
Antimony	A	mg/L	0.05112	0.05112		0.05	0	0	0.00042	0.001	0.1	102%	90	110	0%	
Arsenic	A	mg/L	0.05016	0.05016		0.05	0	0	0.00019	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.05159	0.05159		0.05	0	0	0.000042	0.001	1	103%	90	110	0%	
Beryllium	A	mg/L	0.04818	0.04818		0.05	0	0	0.00012	0.001	1	96%	90	110	0%	
Boron	A	mg/L	0.04997	0.04997		0.05	0	0	0.00561	0.00561	1	100%	90	110	0%	
Cadmium	A	mg/L	0.05063	0.05063		0.05	0	0	0.000025	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	12.92	12.92		12.5	0	0	0.02092	0.02092	50	103%	90	110	0%	
Cerium	A	mg/L	0.2345	0.2345		0.05	0	0	0.000012	0.001	0.1	469%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980245	CCV	ICPMS-6020-W-	CCV		1/15/2022 1:12:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.04942	0.04942		0.05	0	0	0.00018	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05017	0.05017		0.05	0	0	0.000042	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05044	0.05044		0.05	0	0	0.00027	0.001	1	101%	90	110	0%	
Iron	A	mg/L	1.326	1.326		1.3	0	0	0.00119	0.00119	5	102%	90	110	0%	
Lanthanum	A	mg/L	0.03476	0.03476		0.05	0	0	0.000011	0.001	0.1	70%	90	110	0%	S
Lead	A	mg/L	0.04937	0.04937		0.05	0	0	0.000056	0.001	1	99%	90	110	0%	
Magnesium	A	mg/L	12.43	12.43		12.5	0	0	0.00564	0.00564	50	99%	90	110	0%	
Manganese	A	mg/L	0.05187	0.05187		0.05	0	0	0.000095	0.001	1	104%	90	110	0%	
Mercury	A	mg/L	0.004712	0.004712		0.001	0	0	0.00016	0.001	0.002	471%	90	110	0%	S
Molybdenum	A	mg/L	0.05164	0.05164		0.05	0	0	0.00005	0.001	0.1	103%	90	110	0%	
Nickel	A	mg/L	0.04969	0.04969		0.05	0	0	0.00063	0.001	1	99%	90	110	0%	
Potassium	A	mg/L	13.14	13.14		12.5	0	0	0.08139	0.08139	50	105%	90	110	0%	
Selenium	A	mg/L	0.05054	0.05054		0.05	0	0	0.00033	0.001	1	101%	90	110	0%	
Silicon	A	mg/L	0.3992	0.3992		0.2	0	0	0.01223	0.1	0.4	200%	90	110	0%	S
Silver	A	mg/L	0.02014	0.02014		0.02	0	0	0.00002	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	12.23	12.23		12.5	0	0	0.02171	0.02171	50	98%	90	110	0%	
Strontium	A	mg/L	0.05203	0.05203		0.05	0	0	0.00014	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.04839	0.04839		0.05	0	0	0.000041	0.001	1	97%	90	110	0%	
Thorium	A	mg/L	0.04868	0.04868		0.05	0	0	0.00061	0.001	1	97%	90	110	0%	
Tin	A	mg/L	0.05067	0.05067		0.05	0	0	0.00132	0.00132	0.1	101%	90	110	0%	
Titanium	A	mg/L	0.0513	0.0513		0.05	0	0	0.000094	0.001	1	103%	90	110	0%	
Uranium	A	mg/L	0.04995	0.04995		0.05	0	0	0.000052	0.0003	1	100%	90	110	0%	
Vanadium	A	mg/L	0.05553	0.05553		0.05	0	0	0.0013	0.0013	1	111%	90	110	0%	S
Zinc	A	mg/L	0.05089	0.05089		0.05	0	0	0.00273	0.00273	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.326	1.326		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980246	CCB	ICPMS-6020-W-	CCB		1/15/2022 1:19:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00005013	0.00005013		0	0	0	0.00086	0.001	1	0%			0%	
Antimony	A	mg/L	0.00008999	0.00008999		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0002595	0.0002595		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	0.000001328	0.000001328		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	-2.639E-06	-2.639E-06		0	0	0	0.00012	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980246	CCB	ICPMS-6020-W-	CCB		1/15/2022 1:19:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.002391	0.002391		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	-5.174E-06	-5.174E-06		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	0.001956	0.001956		0	0	0	0.02092	0.02092	50	0%			0%	
Cerium	A	mg/L	-7.53E-08	-7.53E-08		0	0	0	0.000012	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0004128	-0.0004128		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	-2.895E-07	-2.895E-07		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	0.00000871	0.00000871		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	-0.0003599	-0.0003599		0	0	0	0.00119	0.00119	5	0%			0%	
Lanthanum	A	mg/L	0.02452	0.02452		0	0	0	0.000011	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000003505	0.000003505		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	0.001076	0.001076		0	0	0	0.00564	0.00564	50	0%			0%	
Manganese	A	mg/L	0.000001031	0.000001031		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	-6.313E-06	-6.313E-06		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.00001945	0.00001945		0	0	0	0.00005	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.00009511	-0.00009511		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	0.03718	0.03718		0	0	0	0.08139	0.08139	50	0%			0%	
Selenium	A	mg/L	-8.209E-07	-8.209E-07		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	0.07179	0.07179		0	0	0	0.01223	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-1.228E-06	-1.228E-06		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.000867	-0.000867		0	0	0	0.02171	0.02171	50	0%			0%	
Strontium	A	mg/L	-0.00001041	-0.00001041		0	0	0	0.00014	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001008	0.0001008		0	0	0	0.000041	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001171	0.00001171		0	0	0	0.00061	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.00003119	0.00003119		0	0	0	0.00132	0.00132	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00009271	0.00009271		0	0	0	0.000094	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000004316	0.000004316		0	0	0	0.000052	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.004457	0.004457		0	0	0	0.0013	0.0013	1	0%	0	0	0%	
Zinc	A	mg/L	-0.00002102	-0.00002102		0	0	0	0.00273	0.00273	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-0.0003599	-0.0003599		0	0	0	0.00119	0.00119	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980247	Rinse	ICPMS-6020-W-	SAMP		1/15/2022 1:25:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980247	Rinse	ICPMS-6020-W-	SAMP		1/15/2022 1:25:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.005033	0.005033		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.000006847	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0002673	0.0002673		0	0	0	0.0001626	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.00002788	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-5.777E-06	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-4.692E-06	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0.004078	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	-0.0004238	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-4.401E-06	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	-0.0003171	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.00000355	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Magnesium	A	mg/L	0.003082	0		0	0	0	0.0084694	0.0084694	50	0%	0	0	0%	L
Manganese	A	mg/L	0.00001615	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	-3.201E-06	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.0001007	0		0	0	0	0.0001477	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0.04138	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	0.000002141	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silver	A	mg/L	1.138E-07	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.0118	0		0	0	0	0.0321039	0.0321039	50	0%	0	0	0%	L
Strontium	A	mg/L	-1.735E-06	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-0.00004045	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.000002099	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.00175	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0.00003953	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.000001263	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Zinc	A	mg/L	0.000002096	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Lithium	B	mg/L	-0.0001609	0		0	0	0	0.05	0.05	1	0%	0	0	0%	L
Iron, Ferrous	C	mg/L	-0.0003171	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980248	CCV	ICPMS-6020-W-	CCV		1/15/2022 1:31:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980248	CCV	ICPMS-6020-W- CCV			1/15/2022 1:31:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05116	0.05116		0.05	0	0	0.0006966	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.05148	0.05148		0.05	0	0	0.0002882	0.001	0.1	103%	90	110	0%	
Arsenic	A	mg/L	0.05004	0.05004		0.05	0	0	0.0001626	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.0521	0.0521		0.05	0	0	8.917E-05	0.001	1	104%	90	110	0%	
Beryllium	A	mg/L	0.04825	0.04825		0.05	0	0	0.0001137	0.001	1	96%	90	110	0%	
Boron	A	mg/L	0.04838	0.04838		0.05	0	0	0.0036397	0.0036397	1	97%	90	110	0%	
Cadmium	A	mg/L	0.0513	0.0513		0.05	0	0	2.969E-05	0.001	1	103%	90	110	0%	
Calcium	A	mg/L	13	13		12.5	0	0	0.0254163	0.0254163	50	104%	90	110	0%	
Cerium	A	mg/L	0.2411	0.2411		0.05	0	0	8.97E-06	0.001	0.1	482%	90	110	0%	S
Chromium	A	mg/L	0.04915	0.04915		0.05	0	0	0.0002078	0.001	1	98%	90	110	0%	
Cobalt	A	mg/L	0.05063	0.05063		0.05	0	0	2.037E-05	0.001	1	101%	90	110	0%	
Copper	A	mg/L	0.05088	0.05088		0.05	0	0	0.0001010	0.001	1	102%	90	110	0%	
Iron	A	mg/L	1.309	1.309		1.3	0	0	0.0021231	0.0021231	5	101%	90	110	0%	
Lanthanum	A	mg/L	0.06939	0.06939		0.05	0	0	1.209E-05	0.001	0.1	139%	90	110	0%	S
Lead	A	mg/L	0.0503	0.0503		0.05	0	0	3.957E-05	0.001	1	101%	90	110	0%	
Lithium	A	mg/L	0.6003	0.6003		0.625	0	0	0.05	0.05	1	96%	90	110	0%	
Magnesium	A	mg/L	12.74	12.74		12.5	0	0	0.0084694	0.0084694	50	102%	90	110	0%	
Manganese	A	mg/L	0.05148	0.05148		0.05	0	0	5.319E-05	0.001	1	103%	90	110	0%	
Mercury	A	mg/L	0.004758	0.004758		0.001	0	0	7.78E-06	0.001	0.002	476%	90	110	0%	S
Molybdenum	A	mg/L	0.05161	0.05161		0.05	0	0	0.0000598	0.001	0.1	103%	90	110	0%	
Nickel	A	mg/L	0.05028	0.05028		0.05	0	0	0.0001477	0.001	1	101%	90	110	0%	
Potassium	A	mg/L	12.76	12.76		12.5	0	0	0.0951865	0.0951865	50	102%	90	110	0%	
Selenium	A	mg/L	0.05048	0.05048		0.05	0	0	6.961E-05	0.001	1	101%	90	110	0%	
Silicon	A	mg/L	0.2551	0.2551		0.2	0	0	0.0786454	0.1	0.4	128%	90	110	0%	S
Silver	A	mg/L	0.02025	0.02025		0.02	0	0	1.541E-05	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	12.66	12.66		12.5	0	0	0.0321039	0.0321039	50	101%	90	110	0%	
Strontium	A	mg/L	0.05181	0.05181		0.05	0	0	9.136E-05	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.0494	0.0494		0.05	0	0	0.0001262	0.001	1	99%	90	110	0%	
Thorium	A	mg/L	0.04889	0.04889		0.05	0	0	7.051E-05	0.001	1	98%	90	110	0%	
Tin	A	mg/L	0.05059	0.05059		0.05	0	0	0.0021596	0.0021596	0.1	101%	90	110	0%	
Titanium	A	mg/L	0.05133	0.05133		0.05	0	0	0.0001844	0.001	1	103%	90	110	0%	
Uranium	A	mg/L	0.05097	0.05097		0.05	0	0	1.948E-05	0.0003	1	102%	90	110	0%	
Vanadium	A	mg/L	0.05477	0.05477		0.05	0	0	0.004194	0.004194	1	110%	90	110	0%	
Zinc	A	mg/L	0.05175	0.05175		0.05	0	0	0.0006119	0.001	1	103%	90	110	0%	
Iron, Ferrous	C	mg/L	1.309	1.309		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980249	CCB	ICPMS-6020-W-	CCB		1/15/2022 1:37:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.00001962	-0.00001962		0	0	0	0.0006966	0.001	1	0%				0%
Antimony	A	mg/L	0.00009667	0.00009667		0	0	0	0.0002882	0.001	0.1	0%				0%
Arsenic	A	mg/L	0.0002845	0.0002845		0	0	0	0.0001626	0.001	1	0%				0%
Barium	A	mg/L	0.000003862	0.000003862		0	0	0	8.917E-05	0.001	1	0%				0%
Beryllium	A	mg/L	0.000001064	0.000001064		0	0	0	0.0001137	0.001	1	0%				0%
Boron	A	mg/L	0.001101	0.001101		0	0	0	0.0036397	0.0036397	1	0%				0%
Cadmium	A	mg/L	0.000001362	0.000001362		0	0	0	2.969E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.002069	0.002069		0	0	0	0.0254163	0.0254163	50	0%				0%
Cerium	A	mg/L	7.647E-07	7.647E-07		0	0	0	8.97E-06	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.0003772	-0.0003772		0	0	0	0.0002078	0.001	1	0%				0%
Cobalt	A	mg/L	-0.00000572	-0.00000572		0	0	0	2.037E-05	0.001	1	0%				0%
Copper	A	mg/L	0.00001092	0.00001092		0	0	0	0.0001010	0.001	1	0%				0%
Iron	A	mg/L	-0.000322	-0.000322		0	0	0	0.0021231	0.0021231	5	0%				0%
Lanthanum	A	mg/L	0.01676	0.01676		0	0	0	1.209E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	0.000007091	0.000007091		0	0	0	3.957E-05	0.001	1	0%				0%
Lithium	A	mg/L	0.00007607	0.00007607		0	0	0	0.05	0.05	1	0%				0%
Magnesium	A	mg/L	0.0008084	0.0008084		0	0	0	0.0084694	0.0084694	50	0%				0%
Manganese	A	mg/L	-0.00000258	-0.00000258		0	0	0	5.319E-05	0.001	1	0%				0%
Mercury	A	mg/L	0.00001241	0.00001241		0	0	0	7.78E-06	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.00002109	0.00002109		0	0	0	0.0000598	0.001	0.1	0%				0%
Nickel	A	mg/L	-0.0000945	-0.0000945		0	0	0	0.0001477	0.001	1	0%				0%
Potassium	A	mg/L	0.04	0.04		0	0	0	0.0951865	0.0951865	50	0%				0%
Selenium	A	mg/L	0.00001304	0.00001304		0	0	0	6.961E-05	0.001	1	0%				0%
Silicon	A	mg/L	0.02655	0.02655		0	0	0	0.0786454	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	-2.227E-06	-2.227E-06		0	0	0	1.541E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	-0.01829	-0.01829		0	0	0	0.0321039	0.0321039	50	0%				0%
Strontium	A	mg/L	-0.00000737	-0.00000737		0	0	0	9.136E-05	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.0001685	0.0001685		0	0	0	0.0001262	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00001283	0.00001283		0	0	0	7.051E-05	0.001	1	0%	0	0		0%
Tin	A	mg/L	0.00002687	0.00002687		0	0	0	0.0021596	0.0021596	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00005002	0.00005002		0	0	0	0.0001844	0.001	1	0%	0	0		0%
Uranium	A	mg/L	0.00000037	0.00000037		0	0	0	1.948E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.004331	0.004331		0	0	0	0.004194	0.004194	1	0%	0	0		0%
Zinc	A	mg/L	-0.00004873	-0.00004873		0	0	0	0.0006119	0.001	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-0.000322	-0.000322		0	0	0	0.0021231	0.0021231	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980250	Cal Blk	ICPMS-6020-W-	SAMP		1/15/2022 1:44:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	0	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Zinc	A	mg/L	0	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980251	0.025 ppb STD	ICPMS-6020B-C	Cal1		1/15/2022 1:50:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002402	0.0002402		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00002943	0.00002943		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.0001384	0.0001384		0.000025	0	0		0.001		554%	80	120	0%	S
Barium	A	mg/L	0.00003258	0.00003258		0.000025	0	0		0.0003		130%	80	120	0%	S
Beryllium	A	mg/L	0.0000306	0.0000306		0.000025	0	0		0.001		122%	80	120	0%	S
Boron	A	mg/L	-0.000191	-0.000191		0	0	0		0.1		0%				0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980251	0.025 ppb STD	ICPMS-6020B-C Cal1			1/15/2022 1:50:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	0.00003138	0.00003138		0.000025	0	0		0.001		126%	80	120	0%	S
Calcium	A	mg/L	0.0001937	0.0001937		0	0	0		1		0%			0%	
Cerium	A	mg/L	0.00002313	0.00002313		0.000025	0	0		0.001		93%	80	120	0%	
Chromium	A	mg/L	0.00003372	0.00003372		0.000025	0	0		0.001		135%	80	120	0%	S
Cobalt	A	mg/L	0.00002906	0.00002906		0.000025	0	0		0.001		116%	80	120	0%	
Copper	A	mg/L	0.00008351	0.00008351		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0009166	0.0009166		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.03657	0.03657		0.000025	0	0		0.001	146280%		80	120	0%	S
Lead	A	mg/L	0.00003672	0.00003672		0.000025	0	0		0.001		147%	80	120	0%	S
Lithium	A	mg/L	0.0004719	0.0004719		0.0003125	0	0		1		151%	80	120	0%	S
Magnesium	A	mg/L	0.007466	0.007466		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00004228	0.00004228		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	-0.00002444	-0.00002444		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00002426	0.00002426		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00005162	0.00005162		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.01214	0.01214		0.00625	0	0		1		194%	80	120	0%	S
Selenium	A	mg/L	0.00002702	0.00002702		0.000025	0	0		0.005		108%	80	120	0%	
Silicon	A	mg/L	0.0001072	0.0001072		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001838	0.00001838		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.006007	0.006007		0.00625	0	0		1		96%	80	120	0%	
Strontium	A	mg/L	0.00002523	0.00002523		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	-0.00004947	-0.00004947		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00002392	0.00002392		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.0001548	0.0001548		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00008804	0.00008804		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00003163	0.00003163		0.000025	0	0		0.001		127%	80	120	0%	S
Vanadium	A	mg/L	0.0009325	0.0009325		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.0007662	0.0007662		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0009166	0.0009166		0.000025	0	0		0.01	5	3666%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.000229408	0.000229408		0.0000535	0	0		0.214	0.9	429%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980252	0.05 ppb STD	ICPMS-6020B-C Cal2			1/15/2022 1:56:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980252	0.05 ppb STD	ICPMS-6020B-C	Cal2		1/15/2022 1:56:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001353	0.0001353		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00003132	0.00003132		0.00005	0	0		0.001		63%	80	120	0%	S
Arsenic	A	mg/L	0.0001458	0.0001458		0.00005	0	0		0.001		292%	80	120	0%	S
Barium	A	mg/L	0.00002997	0.00002997		0.00005	0	0		0.0003		60%	80	120	0%	S
Beryllium	A	mg/L	0.00005796	0.00005796		0.00005	0	0		0.001		116%	80	120	0%	
Boron	A	mg/L	-0.0004671	-0.0004671		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0000405	0.0000405		0.00005	0	0		0.001		81%	80	120	0%	
Calcium	A	mg/L	-0.002484	-0.002484		0.0125	0	0		1		-20%	80	120	0%	S
Cerium	A	mg/L	9.295E-08	9.295E-08		0.00005	0	0		0.001		0%	80	120	0%	S
Chromium	A	mg/L	0.00007842	0.00007842		0.00005	0	0		0.001		157%	80	120	0%	S
Cobalt	A	mg/L	0.00005902	0.00005902		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00007998	0.00007998		0.00005	0	0		0.005		160%	80	120	0%	S
Iron	A	mg/L	0.001487	0.001487		0.00125	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.01664	0.01664		0.00005	0	0		0.001		33280%	80	120	0%	S
Lead	A	mg/L	0.00005189	0.00005189		0.00005	0	0		0.001		104%	80	120	0%	
Lithium	A	mg/L	0.0007146	0.0007146		0.000625	0	0		1		114%	80	120	0%	
Magnesium	A	mg/L	0.01622	0.01622		0.0125	0	0		1		130%	80	120	0%	S
Manganese	A	mg/L	0.00006247	0.00006247		0.00005	0	0		0.001		125%	80	120	0%	S
Mercury	A	mg/L	-0.0000248	-0.0000248		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004486	0.00004486		0.00005	0	0		0.001		90%	80	120	0%	
Nickel	A	mg/L	0.00008362	0.00008362		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.01526	0.01526		0.0125	0	0		1		122%	80	120	0%	S
Selenium	A	mg/L	0.0000559	0.0000559		0.00005	0	0		0.005		112%	80	120	0%	
Silicon	A	mg/L	-0.005185	-0.005185		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00002761	0.00002761		0.00002	0	0		0.001		138%	80	120	0%	S
Sodium	A	mg/L	0.008114	0.008114		0.0125	0	0		1		65%	80	120	0%	S
Strontium	A	mg/L	0.00006221	0.00006221		0.00005	0	0		0.001		124%	80	120	0%	S
Thallium	A	mg/L	-0.00003872	-0.00003872		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.0000349	0.0000349		0	0	0		0.05		0%			0%	
Tin	A	mg/L	0.0002633	0.0002633		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.0000923	0.0000923		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005098	0.00005098		0.00005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.0005027	0.0005027		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00008095	0.00008095		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001487	0.001487		0.00005	0	0		0.01	5	2974%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980252	0.05 ppb STD	ICPMS-6020B-C Cal2			1/15/2022 1:56:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	-0.0110959	-0.0110959		0.00428	0	0		0.214	0.9	-259%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980253	0.10 ppb STD	ICPMS-6020B-C Cal3			1/15/2022 2:03:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002064	0.0002064		0.0001	0	0		0.01		206%	80	120	0%	S
Antimony	A	mg/L	0.00008641	0.00008641		0.0001	0	0		0.001		86%	80	120	0%	
Arsenic	A	mg/L	0.0001679	0.0001679		0.0001	0	0		0.001		168%	80	120	0%	S
Barium	A	mg/L	0.0001182	0.0001182		0.0001	0	0		0.0003		118%	80	120	0%	
Beryllium	A	mg/L	0.0001146	0.0001146		0.0001	0	0		0.001		115%	80	120	0%	
Boron	A	mg/L	-0.0006476	-0.0006476		0	0	0		0.1		0%				0%
Cadmium	A	mg/L	0.0001175	0.0001175		0.0001	0	0		0.001		118%	80	120	0%	
Calcium	A	mg/L	0.01116	0.01116		0.025	0	0		1		45%	80	120	0%	S
Cerium	A	mg/L	0.00003031	0.00003031		0.0001	0	0		0.001		3%	80	120	0%	S
Chromium	A	mg/L	0.0001275	0.0001275		0.0001	0	0		0.001		128%	80	120	0%	S
Cobalt	A	mg/L	0.0001153	0.0001153		0.0001	0	0		0.001		115%	80	120	0%	
Copper	A	mg/L	0.0001458	0.0001458		0.0001	0	0		0.005		146%	80	120	0%	S
Iron	A	mg/L	0.003009	0.003009		0.0025	0	0		0.01		120%	80	120	0%	
Lanthanum	A	mg/L	0.7485	0.7485		0.0001	0	0		0.001		748500%	80	120	0%	S
Lead	A	mg/L	0.0001021	0.0001021		0.0001	0	0		0.001		102%	80	120	0%	
Lithium	A	mg/L	0.00146	0.00146		0.00125	0	0		1		117%	80	120	0%	
Magnesium	A	mg/L	0.03235	0.03235		0.025	0	0		1		129%	80	120	0%	S
Manganese	A	mg/L	0.000137	0.000137		0.0001	0	0		0.001		137%	80	120	0%	S
Mercury	A	mg/L	-0.00002987	-0.00002987		0.000002	0	0		0.001		-1494%	80	120	0%	S
Molybdenum	A	mg/L	0.0001072	0.0001072		0.0001	0	0		0.001		107%	80	120	0%	
Nickel	A	mg/L	0.000109	0.000109		0.0001	0	0		0.005		109%	80	120	0%	
Potassium	A	mg/L	0.02718	0.02718		0.025	0	0		1		109%	80	120	0%	
Selenium	A	mg/L	0.0001218	0.0001218		0.0001	0	0		0.005		122%	80	120	0%	S
Silicon	A	mg/L	-0.006131	-0.006131		0.0004	0	0		0.1		-1533%	80	120	0%	S
Silver	A	mg/L	0.00004734	0.00004734		0.00004	0	0		0.001		118%	80	120	0%	
Sodium	A	mg/L	0.02152	0.02152		0.025	0	0		1		86%	80	120	0%	
Strontium	A	mg/L	0.0001139	0.0001139		0.0001	0	0		0.001		114%	80	120	0%	
Thallium	A	mg/L	-3.985E-06	-3.985E-06		0.0001	0	0		0.001		-4%	80	120	0%	S
Thorium	A	mg/L	0.0000769	0.0000769		0.0001	0	0		0.05		77%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980253	0.10 ppb STD	ICPMS-6020B-C	Cal3		1/15/2022 2:03:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.0003731	0.0003731		0.0001	0	0		0.001		373%	80	120	0%	S
Titanium	A	mg/L	0.0001571	0.0001571		0.0001	0	0		0.001		157%	80	120	0%	S
Uranium	A	mg/L	0.0001028	0.0001028		0.0001	0	0		0.001		103%	80	120	0%	
Vanadium	A	mg/L	0.0001666	0.0001666		0.0001	0	0		0.005		167%	80	120	0%	S
Zinc	A	mg/L	0.00008588	0.00008588		0.0001	0	0		0.01		86%	80	120	0%	
Iron, Ferrous	C	mg/L	0.003009	0.003009		0.0001	0	0		0.01	5	3009%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.01312034	-0.01312034		0.00856	0	0		0.214	0.9	-153%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980254	0.5 ppb STD	ICPMS-6020B-C	Cal4		1/15/2022 2:09:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0006831	0.0006831		0.0005	0	0		0.01		137%	80	120	0%	S
Antimony	A	mg/L	0.0004828	0.0004828		0.0005	0	0		0.001		97%	80	120	0%	
Arsenic	A	mg/L	0.0005656	0.0005656		0.0005	0	0		0.001		113%	80	120	0%	
Barium	A	mg/L	0.000475	0.000475		0.0005	0	0		0.0003		95%	80	120	0%	
Beryllium	A	mg/L	0.0005498	0.0005498		0.0005	0	0		0.001		110%	80	120	0%	
Boron	A	mg/L	-0.0003812	-0.0003812		0.0005	0	0		0.1		-76%	80	120	0%	S
Cadmium	A	mg/L	0.0005068	0.0005068		0.0005	0	0		0.001		101%	80	120	0%	
Calcium	A	mg/L	0.122	0.122		0.125	0	0		1		98%	80	120	0%	
Cerium	A	mg/L	0.000007922	0.000007922		0.0005	0	0		0.001		2%	80	120	0%	S
Chromium	A	mg/L	0.0005744	0.0005744		0.0005	0	0		0.001		115%	80	120	0%	
Cobalt	A	mg/L	0.0005566	0.0005566		0.0005	0	0		0.001		111%	80	120	0%	
Copper	A	mg/L	0.0006444	0.0006444		0.0005	0	0		0.005		129%	80	120	0%	S
Iron	A	mg/L	0.0146	0.0146		0.0125	0	0		0.01		117%	80	120	0%	
Lanthanum	A	mg/L	0.03887	0.03887		0.0005	0	0		0.001		7774%	80	120	0%	S
Lead	A	mg/L	0.0005095	0.0005095		0.0005	0	0		0.001		102%	80	120	0%	
Lithium	A	mg/L	0.00725	0.00725		0.00625	0	0		1		116%	80	120	0%	
Magnesium	A	mg/L	0.1437	0.1437		0.125	0	0		1		115%	80	120	0%	
Manganese	A	mg/L	0.0005581	0.0005581		0.0005	0	0		0.001		112%	80	120	0%	
Mercury	A	mg/L	-0.0000175	-0.0000175		0.00001	0	0		0.001		-175%	80	120	0%	S
Molybdenum	A	mg/L	0.0005042	0.0005042		0.0005	0	0		0.001		101%	80	120	0%	
Nickel	A	mg/L	0.000619	0.000619		0.0005	0	0		0.005		124%	80	120	0%	S
Potassium	A	mg/L	0.1251	0.1251		0.125	0	0		1		100%	80	120	0%	
Selenium	A	mg/L	0.0005736	0.0005736		0.0005	0	0		0.005		115%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980254	0.5 ppb STD	ICPMS-6020B-C	CaI4		1/15/2022 2:09:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	-0.006085	-0.006085		0.002	0	0		0.1		-304%	80	120	0%	S
Silver	A	mg/L	0.0002171	0.0002171		0.0002	0	0		0.001		109%	80	120	0%	
Sodium	A	mg/L	0.1323	0.1323		0.125	0	0		1		106%	80	120	0%	
Strontium	A	mg/L	0.0005478	0.0005478		0.0005	0	0		0.001		110%	80	120	0%	
Thallium	A	mg/L	0.0004075	0.0004075		0.0005	0	0		0.001		81%	80	120	0%	
Thorium	A	mg/L	0.0004565	0.0004565		0.0005	0	0		0.05		91%	80	120	0%	
Tin	A	mg/L	0.0007177	0.0007177		0.0005	0	0		0.001		144%	80	120	0%	S
Titanium	A	mg/L	0.000596	0.000596		0.0005	0	0		0.001		119%	80	120	0%	
Uranium	A	mg/L	0.0004969	0.0004969		0.0005	0	0		0.001		99%	80	120	0%	
Vanadium	A	mg/L	0.000435	0.000435		0.0005	0	0		0.005		87%	80	120	0%	
Zinc	A	mg/L	0.0008422	0.0008422		0.0005	0	0		0.01		168%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.0146	0.0146		0.0005	0	0		0.01	5	2920%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0130219	-0.0130219		0.0428	0	0		0.214	0.9	-30%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980255	1 ppb STD	ICPMS-6020B-C	CaI5		1/15/2022 2:16:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001219	0.001219		0.001	0	0		0.01		122%	80	120	0%	S
Antimony	A	mg/L	0.001051	0.001051		0.001	0	0		0.001		105%	80	120	0%	
Arsenic	A	mg/L	0.00121	0.00121		0.001	0	0		0.001		121%	80	120	0%	S
Barium	A	mg/L	0.001101	0.001101		0.001	0	0		0.0003		110%	80	120	0%	
Beryllium	A	mg/L	0.001152	0.001152		0.001	0	0		0.001		115%	80	120	0%	
Boron	A	mg/L	0.00006512	0.00006512		0.001	0	0		0.1		7%	80	120	0%	S
Cadmium	A	mg/L	0.001116	0.001116		0.001	0	0		0.001		112%	80	120	0%	
Calcium	A	mg/L	0.2667	0.2667		0.25	0	0		1		107%	80	120	0%	
Cerium	A	mg/L	0.000008723	0.000008723		0.001	0	0		0.001		1%	80	120	0%	S
Chromium	A	mg/L	0.001268	0.001268		0.001	0	0		0.001		127%	80	120	0%	S
Cobalt	A	mg/L	0.001176	0.001176		0.001	0	0		0.001		118%	80	120	0%	
Copper	A	mg/L	0.001339	0.001339		0.001	0	0		0.005		134%	80	120	0%	S
Iron	A	mg/L	0.02922	0.02922		0.025	0	0		0.01		117%	80	120	0%	
Lanthanum	A	mg/L	0.02076	0.02076		0.001	0	0		0.001		2076%	80	120	0%	S
Lead	A	mg/L	0.00109	0.00109		0.001	0	0		0.001		109%	80	120	0%	
Lithium	A	mg/L	0.01503	0.01503		0.0125	0	0		1		120%	80	120	0%	
Magnesium	A	mg/L	0.3043	0.3043		0.25	0	0		1		122%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980255	1 ppb STD	ICPMS-6020B-C	Ca15		1/15/2022 2:16:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.001198	0.001198		0.001	0	0		0.001		120%	80	120	0%	
Mercury	A	mg/L	-0.00002677	-0.00002677		0.00002	0	0		0.001		-134%	80	120	0%	S
Molybdenum	A	mg/L	0.001068	0.001068		0.001	0	0		0.001		107%	80	120	0%	
Nickel	A	mg/L	0.001327	0.001327		0.001	0	0		0.005		133%	80	120	0%	S
Potassium	A	mg/L	0.2988	0.2988		0.25	0	0		1		120%	80	120	0%	
Selenium	A	mg/L	0.001129	0.001129		0.001	0	0		0.005		113%	80	120	0%	
Silicon	A	mg/L	-0.004424	-0.004424		0.004	0	0		0.1		-111%	80	120	0%	S
Silver	A	mg/L	0.0004619	0.0004619		0.0004	0	0		0.001		115%	80	120	0%	
Sodium	A	mg/L	0.296	0.296		0.25	0	0		1		118%	80	120	0%	
Strontium	A	mg/L	0.001127	0.001127		0.001	0	0		0.001		113%	80	120	0%	
Thallium	A	mg/L	0.0009646	0.0009646		0.001	0	0		0.001		96%	80	120	0%	
Thorium	A	mg/L	0.001006	0.001006		0.001	0	0		0.05		101%	80	120	0%	
Tin	A	mg/L	0.001418	0.001418		0.001	0	0		0.001		142%	80	120	0%	S
Titanium	A	mg/L	0.001108	0.001108		0.001	0	0		0.001		111%	80	120	0%	
Uranium	A	mg/L	0.001037	0.001037		0.001	0	0		0.001		104%	80	120	0%	
Vanadium	A	mg/L	0.001458	0.001458		0.001	0	0		0.005		146%	80	120	0%	S
Zinc	A	mg/L	0.001419	0.001419		0.001	0	0		0.01		142%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.02922	0.02922		0.001	0	0		0.01	5	2922%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.00946736	-0.00946736		0.0856	0	0		0.214	0.9	-11%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980256	10 ppb STD	ICPMS-6020B-C	Ca16		1/15/2022 2:22:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.01137	0.01137		0.01	0	0		0.01		114%	90	110	0%	S
Antimony	A	mg/L	0.01038	0.01038		0.01	0	0		0.001		104%	90	110	0%	
Arsenic	A	mg/L	0.01095	0.01095		0.01	0	0		0.001		109%	90	110	0%	
Barium	A	mg/L	0.01086	0.01086		0.01	0	0		0.0003		109%	90	110	0%	
Beryllium	A	mg/L	0.01142	0.01142		0.01	0	0		0.001		114%	90	110	0%	S
Boron	A	mg/L	0.01057	0.01057		0.01	0	0		0.1		106%	90	110	0%	
Cadmium	A	mg/L	0.01067	0.01067		0.01	0	0		0.001		107%	90	110	0%	
Calcium	A	mg/L	2.67	2.67		2.5	0	0		1		107%	90	110	0%	
Cerium	A	mg/L	0.00001681	0.00001681		0.01	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.01105	0.01105		0.01	0	0		0.001		110%	90	110	0%	
Cobalt	A	mg/L	0.01083	0.01083		0.01	0	0		0.001		108%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980256	10 ppb STD	ICPMS-6020B-C Cal6			1/15/2022 2:22:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.01203	0.01203		0.01	0	0		0.005		120%	90	110	0%	S
Iron	A	mg/L	0.2833	0.2833		0.25	0	0		0.01		113%	90	110	0%	S
Lanthanum	A	mg/L	0.05546	0.05546		0.01	0	0		0.001		555%	90	110	0%	S
Lead	A	mg/L	0.01031	0.01031		0.01	0	0		0.001		103%	90	110	0%	
Lithium	A	mg/L	0.1473	0.1473		0.125	0	0		1		118%	90	110	0%	S
Magnesium	A	mg/L	2.838	2.838		2.5	0	0		1		114%	90	110	0%	S
Manganese	A	mg/L	0.01101	0.01101		0.01	0	0		0.001		110%	90	110	0%	
Mercury	A	mg/L	-0.00005327	-0.00005327		0.0002	0	0		0.001		-27%	90	110	0%	S
Molybdenum	A	mg/L	0.01062	0.01062		0.01	0	0		0.001		106%	90	110	0%	
Nickel	A	mg/L	0.01204	0.01204		0.01	0	0		0.005		120%	90	110	0%	S
Potassium	A	mg/L	2.697	2.697		2.5	0	0		1		108%	90	110	0%	
Selenium	A	mg/L	0.01091	0.01091		0.01	0	0		0.005		109%	90	110	0%	
Silicon	A	mg/L	0.0319	0.0319		0.04	0	0		0.1		80%	90	110	0%	S
Silver	A	mg/L	0.004329	0.004329		0.004	0	0		0.001		108%	90	110	0%	
Sodium	A	mg/L	2.86	2.86		2.5	0	0		1		114%	90	110	0%	S
Strontium	A	mg/L	0.01054	0.01054		0.01	0	0		0.001		105%	90	110	0%	
Thallium	A	mg/L	0.01054	0.01054		0.01	0	0		0.001		105%	90	110	0%	
Thorium	A	mg/L	0.01003	0.01003		0.01	0	0		0.05		100%	90	110	0%	
Tin	A	mg/L	0.01075	0.01075		0.01	0	0		0.001		107%	90	110	0%	
Titanium	A	mg/L	0.01092	0.01092		0.01	0	0		0.001		109%	90	110	0%	
Uranium	A	mg/L	0.009863	0.009863		0.01	0	0		0.001		99%	90	110	0%	
Vanadium	A	mg/L	0.01056	0.01056		0.01	0	0		0.005		106%	90	110	0%	
Zinc	A	mg/L	0.01261	0.01261		0.01	0	0		0.01		126%	90	110	0%	S
Iron, Ferrous	C	mg/L	0.2833	0.2833		0.01	0	0		0.01	5	2833%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.068266	0.068266		0.856	0	0		0.214	0.9	8%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980257	50 ppb STD	ICPMS-6020B-C Cal7			1/15/2022 2:28:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0514	0.0514		0.05	0	0		0.01		103%	90	110	0%	
Antimony	A	mg/L	0.05259	0.05259		0.05	0	0		0.001		105%	90	110	0%	
Arsenic	A	mg/L	0.05212	0.05212		0.05	0	0		0.001		104%	90	110	0%	
Barium	A	mg/L	0.04985	0.04985		0.05	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	0.05318	0.05318		0.05	0	0		0.001		106%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980257	50 ppb STD	ICPMS-6020B-C Cal7			1/15/2022 2:28:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.05418	0.05418		0.05	0	0		0.1		108%	90	110	0%	
Cadmium	A	mg/L	0.05094	0.05094		0.05	0	0		0.001		102%	90	110	0%	
Calcium	A	mg/L	12.15	12.15		12.5	0	0		1		97%	90	110	0%	
Cerium	A	mg/L	0.252	0.252		0.05	0	0		0.001		504%	90	110	0%	S
Chromium	A	mg/L	0.05312	0.05312		0.05	0	0		0.001		106%	90	110	0%	
Cobalt	A	mg/L	0.05006	0.05006		0.05	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.05543	0.05543		0.05	0	0		0.005		111%	90	110	0%	S
Iron	A	mg/L	1.273	1.273		1.25	0	0		0.01		102%	90	110	0%	
Lanthanum	A	mg/L	0.02756	0.02756		0.05	0	0		0.001		55%	90	110	0%	S
Lead	A	mg/L	0.04951	0.04951		0.05	0	0		0.001		99%	90	110	0%	
Lithium	A	mg/L	0.6587	0.6587		0.625	0	0		1		105%	90	110	0%	
Magnesium	A	mg/L	12.9	12.9		12.5	0	0		1		103%	90	110	0%	
Manganese	A	mg/L	0.05086	0.05086		0.05	0	0		0.001		102%	90	110	0%	
Mercury	A	mg/L	0.005068	0.005068		0.001	0	0		0.001		507%	90	110	0%	S
Molybdenum	A	mg/L	0.05103	0.05103		0.05	0	0		0.001		102%	90	110	0%	
Nickel	A	mg/L	0.05499	0.05499		0.05	0	0		0.005		110%	90	110	0%	
Potassium	A	mg/L	12.29	12.29		12.5	0	0		1		98%	90	110	0%	
Selenium	A	mg/L	0.05181	0.05181		0.05	0	0		0.005		104%	90	110	0%	
Silicon	A	mg/L	0.2004	0.2004		0.2	0	0		0.1		100%	90	110	0%	
Silver	A	mg/L	0.02059	0.02059		0.02	0	0		0.001		103%	90	110	0%	
Sodium	A	mg/L	12.79	12.79		12.5	0	0		1		102%	90	110	0%	
Strontium	A	mg/L	0.04952	0.04952		0.05	0	0		0.001		99%	90	110	0%	
Thallium	A	mg/L	0.04818	0.04818		0.05	0	0		0.001		96%	90	110	0%	
Thorium	A	mg/L	0.04902	0.04902		0.05	0	0		0.05		98%	90	110	0%	
Tin	A	mg/L	0.05139	0.05139		0.05	0	0		0.001		103%	90	110	0%	
Titanium	A	mg/L	0.05266	0.05266		0.05	0	0		0.001		105%	90	110	0%	
Uranium	A	mg/L	0.04812	0.04812		0.05	0	0		0.001		96%	90	110	0%	
Vanadium	A	mg/L	0.0503	0.0503		0.05	0	0		0.005		101%	90	110	0%	
Zinc	A	mg/L	0.05398	0.05398		0.05	0	0		0.01		108%	90	110	0%	
Iron, Ferrous	C	mg/L	1.273	1.273		0.05	0	0		0.01	5	2546%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.428856	0.428856		4.28	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980258	100 ppb STD	ICPMS-6020B-C	Cal8		1/15/2022 2:35:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.09963	0.09963		0.1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.09867	0.09867		0.1	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.09897	0.09897		0.1	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.1019	0.1019		0.1	0	0		0.001		102%	90	110	0%	
Boron	A	mg/L	0.1036	0.1036		0.1	0	0		0.1		104%	90	110	0%	
Cadmium	A	mg/L	0.0989	0.0989		0.1	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	24.37	24.37		25	0	0		1		97%	90	110	0%	
Cerium	A	mg/L	0.00001513	0.00001513		0.1	0	0		0.001		0%	90	110	0%	S
Chromium	A	mg/L	0.09987	0.09987		0.1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	0.09767	0.09767		0.1	0	0		0.001		98%	90	110	0%	
Copper	A	mg/L	0.1034	0.1034		0.1	0	0		0.005		103%	90	110	0%	
Iron	A	mg/L	2.53	2.53		2.5	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.1055	0.1055		0.1	0	0		0.001		105%	90	110	0%	
Lead	A	mg/L	0.09599	0.09599		0.1	0	0		0.001		96%	90	110	0%	
Lithium	A	mg/L	1.28	1.28		1.25	0	0		1		102%	90	110	0%	
Magnesium	A	mg/L	25.02	25.02		25	0	0		1		100%	90	110	0%	
Manganese	A	mg/L	0.0978	0.0978		0.1	0	0		0.001		98%	90	110	0%	
Mercury	A	mg/L	-8.105E-06	-8.105E-06		0.002	0	0		0.001		0%	90	110	0%	S
Molybdenum	A	mg/L	0.09942	0.09942		0.1	0	0		0.001		99%	90	110	0%	
Nickel	A	mg/L	0.1034	0.1034		0.1	0	0		0.005		103%	90	110	0%	
Potassium	A	mg/L	24.29	24.29		25	0	0		1		97%	90	110	0%	
Selenium	A	mg/L	0.1001	0.1001		0.1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	0.4007	0.4007		0.4	0	0		0.1		100%	90	110	0%	
Silver	A	mg/L	0.03967	0.03967		0.04	0	0		0.001		99%	90	110	0%	
Sodium	A	mg/L	24.93	24.93		25	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	0.0964	0.0964		0.1	0	0		0.001		96%	90	110	0%	
Thallium	A	mg/L	0.09817	0.09817		0.1	0	0		0.001		98%	90	110	0%	
Thorium	A	mg/L	0.09727	0.09727		0.1	0	0		0.05		97%	90	110	0%	
Tin	A	mg/L	0.09923	0.09923		0.1	0	0		0.001		99%	90	110	0%	
Titanium	A	mg/L	0.09857	0.09857		0.1	0	0		0.001		99%	90	110	0%	
Uranium	A	mg/L	0.09491	0.09491		0.1	0	0		0.001		95%	90	110	0%	
Vanadium	A	mg/L	0.09588	0.09588		0.1	0	0		0.005		96%	90	110	0%	
Zinc	A	mg/L	0.1024	0.1024		0.1	0	0		0.01		102%	90	110	0%	
Iron, Ferrous	C	mg/L	2.53	2.53		0.1	0	0		0.01	5	2530%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980258	100 ppb STD	ICPMS-6020B-C Cal8			1/15/2022 2:35:1	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon as SiO2	C	mg/L	0.857498	0.857498		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980259	1000 ppb STD	ICPMS-6020B-C Cal10			1/15/2022 2:41:3	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Aluminum	A	mg/L	1	1		1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.0002598	0.0002598		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.9999	0.9999		1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	1	1		1	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	0.9996	0.9996		1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.9994	0.9994		1	0	0		0.1		100%	90	110	0%	
Cadmium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	50.39	50.39		50	0	0		1		101%	90	110	0%	
Cerium	A	mg/L	0.0001156	0.0001156		0	0	0		0.001		0%			0%	
Chromium	A	mg/L	0.9998	0.9998		1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.9994	0.9994		1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	6.035	6.035		6	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.2522	0.2522		0	0	0		0.001		0%			0%	
Lead	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Lithium	A	mg/L	2.476	2.476		2.5	0	0		1		99%	90	110	0%	
Magnesium	A	mg/L	49.87	49.87		50	0	0		1		100%	90	110	0%	
Manganese	A	mg/L	1	1		1	0	0		0.001		100%	90		0%	
Mercury	A	mg/L	-0.00001826	-0.00001826		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0001027	0.0001027		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.9994	0.9994		1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	50.4	50.4		50	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.9999	0.9999		1	0	0		0.005		100%	90	110	0%	
Silicon	A	mg/L	-0.01012	-0.01012		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3594	0.3594		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	49.94	49.94		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	1	1		1	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	1	1		1	0	0		0.05		100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980259	1000 ppb STD	ICPMS-6020B-C	Cal10		1/15/2022 2:41:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Tin	A	mg/L	0.0002924	0.0002924		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.006219	0.006219		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	1.001	1.001		1	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	1	1		1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.9995	0.9995		1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	6.035	6.035		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	-0.0216568	-0.0216568		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980260	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/15/2022 2:48:0	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0003762	0		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00004435	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0004667	0.0004667		0	0	0	0.0001626	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.0001653	0.0001653		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	J
Beryllium	A	mg/L	0.0003036	0.0003036		0	0	0	0.0001137	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.0001251	0.0001251		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	J
Calcium	A	mg/L	-0.007892	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	0.00004947	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.000154	0.000154		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	J
Iron	A	mg/L	0.0008041	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.0002042	0.0002042		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001477	0.0001477		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.00001957	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Potassium	A	mg/L	0.6703	0.6703		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	D
Selenium	A	mg/L	0.0003575	0.0003575		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	0.000172	0.000172		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001311	0.0001311		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	J
Thallium	A	mg/L	0.0004275	0.0004275		0	0	0	0.0001262	0.001	1	0%	0	0	0%	J
Thorium	A	mg/L	0.0002249	0.0002249		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	J
Tin	A	mg/L	0.005733	0.005733		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	D
Titanium	A	mg/L	0.0002502	0.0002502		0	0	0	0.0001844	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	0.0001626	0.0001626		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	J
Zinc	A	mg/L	0.000269	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980260	100 ppb Br STD	ICPMS-6020-W-	SAMP		1/15/2022 2:48:0	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Iron, Ferrous	C	mg/L	0.0008041	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
14980261	Rinse	ICPMS-6020-W-	SAMP		1/15/2022 2:54:2	1	R373222			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00502	0.00502		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.000002815	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.00001945	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001944	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0000865	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001587	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	-0.01568	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	-0.00007432	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001091	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	-0.00009851	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L
Lead	A	mg/L	0.00002927	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00002102	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	7.139E-07	0		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	
Potassium	A	mg/L	0.01906	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	0.00005121	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.000008566	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.000007574	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004798	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00002658	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.001781	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0.00008612	0		0	0	0	0.0001844	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001089	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Zinc	A	mg/L	0.00001375	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-0.00009851	0		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980262	QCS	ICPMS-6020-W-ICV			1/15/2022 3:00:3	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2755	0.2755		0.25	0	0	0.0006966	0.001	1	110%	90	110	0%	
Antimony	A	mg/L	0.04943	0.04943		0.05	0	0	0.0002882	0.001	0.1	99%	90	110	0%	
Arsenic	A	mg/L	0.05298	0.05298		0.05	0	0	0.0001626	0.001	1	106%	90	110	0%	
Barium	A	mg/L	0.05114	0.05114		0.05	0	0	8.917E-05	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.02644	0.02644		0.025	0	0	0.0001137	0.001	1	106%	90	110	0%	
Boron	A	mg/L	0.05829	0.05829		0.05	0	0	0.0036397	0.0036397	1	117%	90	110	0%	S
Cadmium	A	mg/L	0.0257	0.0257		0.025	0	0	2.969E-05	0.001	1	103%	90	110	0%	
Calcium	A	mg/L	2.66	2.66		2.5	0	0	0.0254163	0.0254163	50	106%	90	110	0%	
Cerium	A	mg/L	0.2662	0.2662		0.05	0	0	8.97E-06	0.001	0.1	532%	90	110	0%	S
Chromium	A	mg/L	0.05401	0.05401		0.05	0	0	0.0002078	0.001	1	108%	90	110	0%	
Cobalt	A	mg/L	0.05171	0.05171		0.05	0	0	2.037E-05	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05701	0.05701		0.05	0	0	0.0001010	0.001	1	114%	90	110	0%	S
Iron	A	mg/L	0.2696	0.2696		0.25	0	0	0.0021231	0.0021231	5	108%	90	110	0%	
Lanthanum	A	mg/L	844.1	844.1		0.05	0	0	1.209E-05	0.001	0.1	688200%	90	110	0%	S
Lead	A	mg/L	0.0506	0.0506		0.05	0	0	3.957E-05	0.001	1	101%	90	110	0%	
Lithium	A	mg/L	0.05669	0.05669		0.05	0	0	0.05	0.05	1	113%	90	110	0%	S
Magnesium	A	mg/L	2.784	2.784		2.5	0	0	0.0084694	0.0084694	50	111%	90	110	0%	S
Manganese	A	mg/L	0.2696	0.2696		0.25	0	0	5.319E-05	0.001	1	108%	90	110	0%	
Mercury	A	mg/L	0.0055	0.0055		0.001	0	0	7.78E-06	0.001	0.002	550%	90	110	0%	S
Molybdenum	A	mg/L	0.05041	0.05041		0.05	0	0	0.0000598	0.001	0.1	101%	90	110	0%	
Nickel	A	mg/L	0.05584	0.05584		0.05	0	0	0.0001477	0.001	1	112%	90	110	0%	S
Potassium	A	mg/L	2.74	2.74		2.5	0	0	0.0951865	0.0951865	50	110%	90	110	0%	
Selenium	A	mg/L	0.05317	0.05317		0.05	0	0	6.961E-05	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.5521	0.5521		0.5	0	0	0.0786454	0.1	0.4	110%	90	110	0%	
Silver	A	mg/L	0.02622	0.02622		0.025	0	0	1.541E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	2.792	2.792		2.5	0	0	0.0321039	0.0321039	50	112%	90	110	0%	S
Strontium	A	mg/L	0.05179	0.05179		0.05	0	0	9.136E-05	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.05023	0.05023		0.05	0	0	0.0001262	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05044	0.05044		0.05	0	0	7.051E-05	0.001	1	101%	90	110	0%	
Tin	A	mg/L	0.05104	0.05104		0.05	0	0	0.0021596	0.0021596	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.05125	0.05125		0.05	0	0	0.0001844	0.001	1	102%	90	110	0%	
Uranium	A	mg/L	0.05291	0.05291		0.05	0	0	1.948E-05	0.0003	1	106%	90	110	0%	
Vanadium	A	mg/L	0.05021	0.05021		0.05	0	0	0.004194	0.004194	1	100%	90	110	0%	
Zinc	A	mg/L	0.05465	0.05465		0.05	0	0	0.0006119	0.001	1	109%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2696	0.2696		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980263	ICSA	ICPMS-6020-W- ICSA			1/15/2022 3:06:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	39.98	39.98		40	0	0	0.00086	0.001	1	100%	80	120	0%	
Antimony	A	mg/L	0.0001594	0.0001594		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	-0.0004001	-0.0004001		0	0	0	0.00019	0.001	1	0%			0%	
Barium	A	mg/L	0.0000857	0.0000857		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00002806	0.00002806		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.002344	0.002344		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.0000388	0.0000388		0	0	0	0.000025	0.001	1	0%			0%	
Calcium	A	mg/L	125.6	125.6		120	0	0	0.02092	0.02092	50	105%	80	120	0%	
Cerium	A	mg/L	0.00002285	0.00002285		0	0	0	0.000012	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0006686	0.0006686		0	0	0	0.00018	0.001	1	0%			0%	
Cobalt	A	mg/L	0.0003354	0.0003354		0	0	0	0.000042	0.001	1	0%			0%	
Copper	A	mg/L	0.0001572	0.0001572		0	0	0	0.00027	0.001	1	0%			0%	
Iron	A	mg/L	104.7	104.7		100	0	0	0.00119	0.00119	5	105%	80	120	0%	
Lanthanum	A	mg/L	0.1668	0.1668		0	0	0	0.000011	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00004187	0.00004187		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	41.9	41.9		50	0	0	0.00564	0.00564	50	84%			0%	
Manganese	A	mg/L	0.000181	0.000181		0	0	0	0.000095	0.001	1	0%			0%	
Mercury	A	mg/L	0.00000847	0.00000847		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.8222	0.8222		0.8	0	0	0.00005	0.001	0.1	103%	80	120	0%	
Nickel	A	mg/L	0.0001467	0.0001467		0	0	0	0.00063	0.001	1	0%			0%	
Potassium	A	mg/L	41.89	41.89		50	0	0	0.08139	0.08139	50	84%			0%	
Selenium	A	mg/L	0.0001409	0.0001409		0	0	0	0.00033	0.001	1	0%			0%	
Silicon	A	mg/L	-0.01267	-0.01267		0	0	0	0.01223	0.1	0.4	0%			0%	
Silver	A	mg/L	0.00001467	0.00001467		0	0	0	0.00002	0.001	0.04	0%			0%	
Sodium	A	mg/L	102.1	102.1		100	0	0	0.02171	0.02171	50	102%			0%	
Strontium	A	mg/L	0.001261	0.001261		0	0	0	0.00014	0.001	1	0%			0%	
Thallium	A	mg/L	0.00001115	0.00001115		0	0	0	0.000041	0.001	1	0%			0%	
Thorium	A	mg/L	0.00005607	0.00005607		0	0	0	0.00061	0.001	1	0%			0%	
Tin	A	mg/L	0.000137	0.000137		0	0	0	0.00132	0.00132	0.1	0%			0%	
Titanium	A	mg/L	0.8655	0.8655		0.8	0	0	0.000094	0.001	1	108%			0%	
Uranium	A	mg/L	0.000007222	0.000007222		0	0	0	0.000052	0.0003	1	0%			0%	
Vanadium	A	mg/L	-0.01003	-0.01003		0	0	0	0.0013	0.0013	1	0%			0%	
Zinc	A	mg/L	0.0005185	0.0005185		0	0	0	0.00273	0.00273	1	0%			0%	
Iron, Ferrous	C	mg/L	104.7	104.7		0	0	0	0.00119	0.00119	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980264	ICSAB	ICPMS-6020-W- ICSAB			1/15/2022 3:13:1	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	40.9	40.9		40	0	0	0.00086	0.001	1	102%	80	120	0%	
Antimony	A	mg/L	0.00003859	0.00003859		0	0	0	0.00042	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.009666	0.009666		0.01	0	0	0.00019	0.001	1	97%	80	120	0%	
Barium	A	mg/L	0.00005886	0.00005886		0	0	0	0.000042	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00001924	0.00001924		0	0	0	0.00012	0.001	1	0%			0%	
Boron	A	mg/L	0.001091	0.001091		0	0	0	0.00561	0.00561	1	0%			0%	
Cadmium	A	mg/L	0.009801	0.009801		0.01	0	0	0.000025	0.001	1	98%	80	120	0%	
Calcium	A	mg/L	127.6	127.6		120	0	0	0.02092	0.02092	50	106%	80	120	0%	
Cerium	A	mg/L	0.00001543	0.00001543		0	0	0	0.000012	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.02078	0.02078		0.02	0	0	0.00018	0.001	1	104%	80	120	0%	
Cobalt	A	mg/L	0.02149	0.02149		0.02	0	0	0.000042	0.001	1	107%	80	120	0%	
Copper	A	mg/L	0.02061	0.02061		0.02	0	0	0.00027	0.001	1	103%	80	120	0%	
Iron	A	mg/L	106.3	106.3		100	0	0	0.00119	0.00119	5	106%	80	120	0%	
Lanthanum	A	mg/L	0.1826	0.1826		0	0	0	0.000011	0.001	0.1	0%			0%	
Lead	A	mg/L	0.0000216	0.0000216		0	0	0	0.000056	0.001	1	0%			0%	
Magnesium	A	mg/L	42.42	42.42		40	0	0	0.00564	0.00564	50	106%	80	120	0%	
Manganese	A	mg/L	0.02022	0.02022		0.02	0	0	0.000095	0.001	1	101%	80	120	0%	
Mercury	A	mg/L	-6.83E-07	-6.83E-07		0	0	0	0.00016	0.001	0.002	0%			0%	
Molybdenum	A	mg/L	0.8103	0.8103		0.8	0	0	0.00005	0.001	0.1	101%	80	120	0%	
Nickel	A	mg/L	0.02067	0.02067		0.02	0	0	0.00063	0.001	1	103%	80	120	0%	
Potassium	A	mg/L	41.44	41.44		40	0	0	0.08139	0.08139	50	104%	80	120	0%	
Selenium	A	mg/L	0.01054	0.01054		0.01	0	0	0.00033	0.001	1	105%	80	120	0%	
Silicon	A	mg/L	-0.01292	-0.01292		0	0	0	0.01223	0.1	0.4	0%			0%	
Silver	A	mg/L	0.005142	0.005142		0.005	0	0	0.00002	0.001	0.04	103%	80	120	0%	
Sodium	A	mg/L	102.7	102.7		100	0	0	0.02171	0.02171	50	103%	80	120	0%	
Strontium	A	mg/L	0.00123	0.00123		0	0	0	0.00014	0.001	1	0%			0%	
Thallium	A	mg/L	-0.00003935	-0.00003935		0	0	0	0.000041	0.001	1	0%			0%	
Thorium	A	mg/L	0.00002403	0.00002403		0	0	0	0.00061	0.001	1	0%			0%	
Tin	A	mg/L	0.00006914	0.00006914		0	0	0	0.00132	0.00132	0.1	0%			0%	
Titanium	A	mg/L	0.8866	0.8866		0.8	0	0	0.000094	0.001	1	111%	80	120	0%	
Uranium	A	mg/L	0.00000378	0.00000378		0	0	0	0.000052	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.008954	0.008954		0.02	0	0	0.0013	0.0013	1	45%	80	120	0%	S
Zinc	A	mg/L	0.01058	0.01058		0.01	0	0	0.00273	0.00273	1	106%	80	120	0%	
Iron, Ferrous	C	mg/L	106.3	106.3		0	0	0	0.00119	0.00119	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980265	Rinse	ICPMS-6020-W-	SAMP		1/15/2022 3:19:2	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.005981	0.005981		0	0	0	0.0006966	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-0.00000986	0		0	0	0	0.0002882	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-0.0006054	0		0	0	0	0.0001626	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.000007828	0		0	0	0	8.917E-05	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0000124	0		0	0	0	0.0001137	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-6.53E-07	0		0	0	0	2.969E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	-0.01079	0		0	0	0	0.0254163	0.0254163	50	0%	0	0	0%	L
Chromium	A	mg/L	-0.0003163	0		0	0	0	0.0002078	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00000564	0		0	0	0	2.037E-05	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.00302	0.00302		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	D
Lead	A	mg/L	0.000001589	0		0	0	0	3.957E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-0.00001842	0		0	0	0	5.319E-05	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0002931	0.0002931		0	0	0	0.0000598	0.001	0.1	0%	0	0	0%	J
Potassium	A	mg/L	0.01198	0		0	0	0	0.0951865	0.0951865	50	0%	0	0	0%	L
Selenium	A	mg/L	-7.984E-06	0		0	0	0	6.961E-05	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.01603	0		0	0	0	0.0786454	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000785	0		0	0	0	1.541E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.000001898	0		0	0	0	9.136E-05	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-0.00003892	0		0	0	0	0.0001262	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00001319	0		0	0	0	7.051E-05	0.001	1	0%	0	0	0%	
Tin	A	mg/L	0.001737	0		0	0	0	0.0021596	0.0021596	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0.0002235	0.0002235		0	0	0	0.0001844	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	6.195E-07	0		0	0	0	1.948E-05	0.0003	1	0%	0	0	0%	
Zinc	A	mg/L	0.00002481	0		0	0	0	0.0006119	0.001	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.00302	0.00302		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980266	CCV	ICPMS-6020-W-	CCV		1/15/2022 3:25:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.05116	0.05116		0.05	0	0	0.0006966	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.05113	0.05113		0.05	0	0	0.0002882	0.001	0.1	102%	90	110	0%	
Arsenic	A	mg/L	0.05144	0.05144		0.05	0	0	0.0001626	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.05017	0.05017		0.05	0	0	8.917E-05	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.05006	0.05006		0.05	0	0	0.0001137	0.001	1	100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980266	CCV	ICPMS-6020-W- CCV			1/15/2022 3:25:4	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.04948	0.04948		0.05	0	0	0.0036397	0.0036397	1	99%	90	110	0%	
Cadmium	A	mg/L	0.04961	0.04961		0.05	0	0	2.969E-05	0.001	1	99%	90	110	0%	
Calcium	A	mg/L	12.97	12.97		12.5	0	0	0.0254163	0.0254163	50	104%	90	110	0%	
Cerium	A	mg/L	0.2418	0.2418		0.05	0	0	8.97E-06	0.001	0.1	484%	90	110	0%	S
Chromium	A	mg/L	0.05186	0.05186		0.05	0	0	0.0002078	0.001	1	104%	90	110	0%	
Cobalt	A	mg/L	0.05346	0.05346		0.05	0	0	2.037E-05	0.001	1	107%	90	110	0%	
Copper	A	mg/L	0.05338	0.05338		0.05	0	0	0.0001010	0.001	1	107%	90	110	0%	
Iron	A	mg/L	1.337	1.337		1.3	0	0	0.0021231	0.0021231	5	103%	90	110	0%	
Lanthanum	A	mg/L	0.04807	0.04807		0.05	0	0	1.209E-05	0.001	0.1	96%	90	110	0%	
Lead	A	mg/L	0.0493	0.0493		0.05	0	0	3.957E-05	0.001	1	99%	90	110	0%	
Lithium	A	mg/L	0.6075	0.6075		0.625	0	0	0.05	0.05	1	97%	90	110	0%	
Magnesium	A	mg/L	12.51	12.51		12.5	0	0	0.0084694	0.0084694	50	100%	90	110	0%	
Manganese	A	mg/L	0.05186	0.05186		0.05	0	0	5.319E-05	0.001	1	104%	90	110	0%	
Mercury	A	mg/L	0.005024	0.005024		0.001	0	0	7.78E-06	0.001	0.002	502%	90	110	0%	S
Molybdenum	A	mg/L	0.0512	0.0512		0.05	0	0	0.0000598	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.05378	0.05378		0.05	0	0	0.0001477	0.001	1	108%	90	110	0%	
Potassium	A	mg/L	12.99	12.99		12.5	0	0	0.0951865	0.0951865	50	104%	90	110	0%	
Selenium	A	mg/L	0.05247	0.05247		0.05	0	0	6.961E-05	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.1929	0.1929		0.2	0	0	0.0786454	0.1	0.4	96%	90	110	0%	
Silver	A	mg/L	0.0201	0.0201		0.02	0	0	1.541E-05	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	12.49	12.49		12.5	0	0	0.0321039	0.0321039	50	100%	90	110	0%	
Strontium	A	mg/L	0.05166	0.05166		0.05	0	0	9.136E-05	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.04913	0.04913		0.05	0	0	0.0001262	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.04759	0.04759		0.05	0	0	7.051E-05	0.001	1	95%	90	110	0%	
Tin	A	mg/L	0.04983	0.04983		0.05	0	0	0.0021596	0.0021596	0.1	100%	90	110	0%	
Titanium	A	mg/L	0.05504	0.05504		0.05	0	0	0.0001844	0.001	1	110%	90	110	0%	
Uranium	A	mg/L	0.04953	0.04953		0.05	0	0	1.948E-05	0.0003	1	99%	90	110	0%	
Vanadium	A	mg/L	0.04224	0.04224		0.05	0	0	0.004194	0.004194	1	84%	90	110	0%	S
Zinc	A	mg/L	0.05308	0.05308		0.05	0	0	0.0006119	0.001	1	106%	90	110	0%	
Iron, Ferrous	C	mg/L	1.337	1.337		0	0	0	0.0021231	0.0021231	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980267	CCB	ICPMS-6020-W- CCB			1/15/2022 3:31:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14980267	CCB	ICPMS-6020-W-	CCB		1/15/2022 3:31:5	1	R373222		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001482	0.0001482		0	0	0	0.0006966	0.001	1	0%				0%
Antimony	A	mg/L	0.00008848	0.00008848		0	0	0	0.0002882	0.001	0.1	0%				0%
Arsenic	A	mg/L	-0.0004816	-0.0004816		0	0	0	0.0001626	0.001	1	0%				0%
Barium	A	mg/L	-9.178E-06	-9.178E-06		0	0	0	8.917E-05	0.001	1	0%				0%
Beryllium	A	mg/L	0.00002816	0.00002816		0	0	0	0.0001137	0.001	1	0%				0%
Boron	A	mg/L	0.00008961	0.00008961		0	0	0	0.0036397	0.0036397	1	0%				0%
Cadmium	A	mg/L	0.00001032	0.00001032		0	0	0	2.969E-05	0.001	1	0%				0%
Calcium	A	mg/L	-0.01542	-0.01542		0	0	0	0.0254163	0.0254163	50	0%				0%
Cerium	A	mg/L	7.071E-07	7.071E-07		0	0	0	8.97E-06	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.0002178	-0.0002178		0	0	0	0.0002078	0.001	1	0%				0%
Cobalt	A	mg/L	-1.262E-06	-1.262E-06		0	0	0	2.037E-05	0.001	1	0%				0%
Copper	A	mg/L	0.00008359	0.00008359		0	0	0	0.0001010	0.001	1	0%				0%
Iron	A	mg/L	0.0004959	0.0004959		0	0	0	0.0021231	0.0021231	5	0%				0%
Lanthanum	A	mg/L	0.002645	0.002645		0	0	0	1.209E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	0.000005	0.000005		0	0	0	3.957E-05	0.001	1	0%				0%
Lithium	A	mg/L	0.001846	0.001846		0	0	0	0.05	0.05	1	0%				0%
Magnesium	A	mg/L	-0.0001503	-0.0001503		0	0	0	0.0084694	0.0084694	50	0%				0%
Manganese	A	mg/L	-0.00001963	-0.00001963		0	0	0	5.319E-05	0.001	1	0%				0%
Mercury	A	mg/L	-8.472E-06	-8.472E-06		0	0	0	7.78E-06	0.001	0.002	0%				0%
Molybdenum	A	mg/L	0.00005319	0.00005319		0	0	0	0.0000598	0.001	0.1	0%				0%
Nickel	A	mg/L	-0.00002858	-0.00002858		0	0	0	0.0001477	0.001	1	0%				0%
Potassium	A	mg/L	0.01252	0.01252		0	0	0	0.0951865	0.0951865	50	0%				0%
Selenium	A	mg/L	0.000008565	0.000008565		0	0	0	6.961E-05	0.001	1	0%				0%
Silicon	A	mg/L	-0.01579	-0.01579		0	0	0	0.0786454	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.000002166	0.000002166		0	0	0	1.541E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	0.03837	0.03837		0	0	0	0.0321039	0.0321039	50	0%				0%
Strontium	A	mg/L	-1.239E-06	-1.239E-06		0	0	0	9.136E-05	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.0002161	0.0002161		0	0	0	0.0001262	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00001895	0.00001895		0	0	0	7.051E-05	0.001	1	0%	0	0		0%
Tin	A	mg/L	0.00004763	0.00004763		0	0	0	0.0021596	0.0021596	0.1	0%	0	0		0%
Titanium	A	mg/L	0.0001226	0.0001226		0	0	0	0.0001844	0.001	1	0%	0	0		0%
Uranium	A	mg/L	0.000002945	0.000002945		0	0	0	1.948E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	-0.008841	-0.008841		0	0	0	0.004194	0.004194	1	0%	0	0		0%
Zinc	A	mg/L	-0.00001524	-0.00001524		0	0	0	0.0006119	0.001	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	0.0004959	0.0004959		0	0	0	0.0021231	0.0021231	5	0%	0	0		0%

Batch Summary Report

Batch Folder: D:\Agilent\ICPMH\1\DATA\220114ADoD.b\
 Analysis File: 220114ADoD.batch.bin
 Tune Step: #1 No Gas
 #2 H2
 #3 He

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
1		2022-01-14 11:54:19	001BLKV.d	Rinse	BlkVrfy		1.0000
2		2022-01-14 12:00:34	002BLKV.d	Rinse	BlkVrfy		1.0000
3		2022-01-14 12:06:48	003CALB.d	Cal Blk	CalBlk	1	1.0000
4		2022-01-14 12:13:32	004CAL.S.d	0.025 ppb STD	CalStd	2	1.0000
5		2022-01-14 12:20:10	005CAL.S.d	0.05 ppb STD	CalStd	3	1.0000
6		2022-01-14 12:26:48	006CAL.S.d	0.10 ppb STD	CalStd	4	1.0000
7		2022-01-14 12:33:25	007CAL.S.d	0.5 ppb STD	CalStd	5	1.0000
8		2022-01-14 12:40:03	008CAL.S.d	1 ppb STD	CalStd	6	1.0000
9		2022-01-14 12:46:40	009CAL.S.d	10 ppb STD	CalStd	7	1.0000
10		2022-01-14 12:53:18	010CAL.S.d	50 ppb STD	CalStd	8	1.0000
11		2022-01-14 12:59:53	011CAL.S.d	100 ppb STD	CalStd	9	1.0000
12		2022-01-14 13:06:27	012CAL.S.d	1000 ppb STD	CalStd	10	1.0000
13		2022-01-14 13:12:59	013CAL.S.d	100 ppb Br STD	CalStd	11	1.0000
14		2022-01-14 13:19:23	014BLKV.d	Rinse	BlkVrfy		1.0000
15		2022-01-14 13:25:36	015_QC1.d	QCS	QC1		1.0000
16		2022-01-14 13:32:57	016_CC.V.d	CCV	CCV		1.0000
17		2022-01-14 13:39:11	017_CCB.d	CCB	CCB		1.0000
18		2022-01-14 13:45:26	018MBLK.d	LRB	MBLK		1.0000
19		2022-01-14 13:51:41	019_LFB.d	LFB	LFB		1.0300
20		2022-01-14 13:57:57	020ICSA.d	ICSA	ICSA		1.0000
21		2022-01-14 14:04:14	021ICSB.d	ICSAB	ICSAB		1.0000
22		2022-01-14 14:10:31	022BLKV.d	Rinse	BlkVrfy		1.0000
23		2022-01-14 14:16:44	023BLKV.d	Rinse	BlkVrfy		1.0000
24		2022-01-14 14:22:58	024_CC.V.d	CCV	CCV		1.0000
25		2022-01-14 14:29:12	025_CCB.d	CCB	CCB		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
26		2022-01-14 14:35:26	026BLKV.d	Rinse	BlkVrfy		1.0000
27		2022-01-14 14:41:40	027SMPL.d	B22010212-001A	Sample		1.0000
28		2022-01-14 14:47:53	028ARef.d	B22010212-001ADIL	AllRef		5.0000
29		2022-01-14 14:54:06	029MS.d	B22010212-001AMS	MS		1.0300
30		2022-01-14 15:00:21	030MSD.d	B22010212-001AMSD	MSD		1.0300
31		2022-01-14 15:06:35	031BLKV.d	Rinse	BlkVrfy		1.0000
32		2022-01-14 15:12:48	032SMPL.d	B22010213-003A	Sample		1.0000
33		2022-01-14 15:19:01	033SMPL.d	B22010214-001A	Sample		1.0000
34		2022-01-14 15:25:15	034SMPL.d	B22010219-001A	Sample		1.0000
35		2022-01-14 15:31:29	035SMPL.d	B22010366-001A	Sample		1.0000
36		2022-01-14 15:37:42	036SMPL.d	B22010369-001A	Sample		1.0000
37		2022-01-14 15:43:56	037SMPL.d	B22010403-001A	Sample		1.0000
38		2022-01-14 15:50:09	038_CCV.d	CCV	CCV		1.0000
39		2022-01-14 15:56:24	039_CCB.d	CCB	CCB		1.0000
40		2022-01-14 16:02:37	040SMPL.d	B22010406-001A	Sample		1.0000
41		2022-01-14 16:08:52	041SMPL.d	B22010409-001A	Sample		1.0000
42		2022-01-14 16:15:05	042SMPL.d	B22010410-001A	Sample		1.0000
43		2022-01-14 16:21:19	043SMPL.d	B22010411-001A	Sample		1.0000
44		2022-01-14 16:27:34	044ARef.d	B22010411-001ADIL	AllRef		5.0000
45		2022-01-14 16:33:49	045MS.d	B22010411-001AMS	MS		1.0300
46		2022-01-14 16:40:03	046MSD.d	B22010411-001AMSD	MSD		1.0300
47		2022-01-14 16:46:18	047BLKV.d	Rinse	BlkVrfy		1.0000
48		2022-01-14 16:52:31	048ARef.d	MB-162926	AllRef		1.0000
49		2022-01-14 16:58:44	049LCS4.d	LCS4-162926	LCS4		1.0000
50		2022-01-14 17:04:57	050BLKV.d	Rinse	BlkVrfy		1.0000
51		2022-01-14 17:11:11	051SMPL.d	B22010507-001A	Sample		1.0000
52		2022-01-14 17:17:25	052_CCV.d	CCV	CCV		1.0000
53		2022-01-14 17:23:39	053_CCB.d	CCB	CCB		1.0000
54		2022-01-14 17:29:54	054SMPL.d	B22010507-001B	Sample		1.0000
55		2022-01-14 17:36:08	055SMPL.d	B22010507-001BDIL	Sample		5.0000
56		2022-01-14 17:42:21	056ARef.d	B22010507-001BPDS1	AllRef		1.0300
57		2022-01-14 17:48:35	057MS4.d	B22010507-001BMS4	MS4		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
58		2022-01-14 17:54:50	058MSD4.d	B22010507-001BMSD4	MSD4		1.0000
59		2022-01-14 18:01:05	059BLKV.d	Rinse	BlkVrfy		1.0000
60		2022-01-14 18:07:18	060SMPL.d	B22010625-001A	Sample		1.0000
61		2022-01-14 18:13:32	061SMPL.d	B22010625-001B	Sample		1.0000
62		2022-01-14 18:19:46	062SMPL.d	B22010626-001A	Sample		1.0000
63		2022-01-14 18:25:59	063SMPL.d	B22010626-001B	Sample		1.0000
64		2022-01-14 18:32:14	064SMPL.d	B22010628-001A	Sample		1.0000
65		2022-01-14 18:38:28	065_CCV.d	CCV	CCV		1.0000
66		2022-01-14 18:44:42	066_CCB.d	CCB	CCB		1.0000
67		2022-01-14 18:50:57	067SMPL.d	B22010628-001B	Sample		1.0000
68		2022-01-14 18:57:10	068SMPL.d	B22010629-001A	Sample		1.0000
69		2022-01-14 19:03:24	069SMPL.d	B22010629-001B	Sample		1.0000
70		2022-01-14 19:09:37	070SMPL.d	B22010633-001A	Sample		1.0000
71		2022-01-14 19:15:50	071SMPL.d	B22010633-001B	Sample		1.0000
72		2022-01-14 19:22:04	072SMPL.d	B22010637-001A	Sample		1.0000
73		2022-01-14 19:28:17	073SMPL.d	B22010637-001B	Sample		1.0000
74		2022-01-14 19:34:30	074_CCV.d	CCV	CCV		1.0000
75		2022-01-14 19:40:45	075_CCB.d	CCB	CCB		1.0000
76		2022-01-14 19:46:59	076CALB.d	Cal Blk	CalBlk	1	1.0000
77		2022-01-14 19:53:23	077CAL.S.d	0.025 ppb STD	CalStd	2	1.0000
78		2022-01-14 19:59:47	078CAL.S.d	0.05 ppb STD	CalStd	3	1.0000
79		2022-01-14 20:06:10	079CAL.S.d	0.10 ppb STD	CalStd	4	1.0000
80		2022-01-14 20:12:33	080CAL.S.d	0.5 ppb STD	CalStd	5	1.0000
81		2022-01-14 20:18:57	081CAL.S.d	1 ppb STD	CalStd	6	1.0000
82		2022-01-14 20:25:20	082CAL.S.d	10 ppb STD	CalStd	7	1.0000
83		2022-01-14 20:31:44	083CAL.S.d	50 ppb STD	CalStd	8	1.0000
84		2022-01-14 20:38:06	084CAL.S.d	100 ppb STD	CalStd	9	1.0000
85		2022-01-14 20:44:32	085CAL.S.d	1000 ppb STD	CalStd	10	1.0000
86		2022-01-14 20:50:56	086CAL.S.d	100 ppb Br STD	CalStd	11	1.0000
87		2022-01-14 20:57:19	087BLKV.d	Rinse	BlkVrfy		1.0000
88		2022-01-14 21:03:33	088_QC1.d	QCS	QC1		1.0000
89		2022-01-14 21:09:47	089BLKV.d	Rinse	BlkVrfy		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
90		2022-01-14 21:16:01	090_CCV.d	CCV	CCV		1.0000
91		2022-01-14 21:22:15	091_CCB.d	CCB	CCB		1.0000
92		2022-01-14 21:28:30	092ARef.d	MB-162926	AllRef		1.0000
93		2022-01-14 21:34:43	093SMPL.d	B22010641-001A	Sample		1.0000
94		2022-01-14 21:40:57	094SMPL.d	B22010641-001B	Sample		1.0000
95		2022-01-14 21:47:10	095SMPL.d	B22010643-001A	Sample		1.0000
96		2022-01-14 21:53:23	096SMPL.d	B22010643-001B	Sample		1.0000
97		2022-01-14 21:59:38	097SMPL.d	B22010750-001A	Sample		1.0000
98		2022-01-14 22:05:53	098ARef.d	B22010750-001ADIL	AllRef		5.0000
99		2022-01-14 22:12:08	099MS.d	B22010750-001AMS	MS		1.0300
100		2022-01-14 22:18:23	100MSD.d	B22010750-001AMSD	MSD		1.0300
101		2022-01-14 22:24:37	101BLKV.d	Rinse	BlkVrfy		1.0000
102		2022-01-14 22:30:51	102SMPL.d	B22010750-001B	Sample		1.0000
103		2022-01-14 22:37:04	103_CCV.d	CCV	CCV		1.0000
104		2022-01-14 22:43:19	104_CCB.d	CCB	CCB		1.0000
105		2022-01-14 22:49:33	105SMPL.d	B22010751-001A	Sample		1.0000
106		2022-01-14 22:55:47	106SMPL.d	B22010751-001B	Sample		1.0000
107		2022-01-14 23:02:02	107SMPL.d	B22010751-001BDIL	Sample		5.0000
108		2022-01-14 23:08:15	108ARef.d	B22010751-001BPDS1	AllRef		1.0300
109		2022-01-14 23:14:29	109MS4.d	B22010751-001BMS4	MS4		1.0000
110		2022-01-14 23:20:44	110MSD4.d	B22010751-001BMSD4	MSD4		1.0000
111		2022-01-14 23:26:58	111BLKV.d	Rinse	BlkVrfy		1.0000
112		2022-01-14 23:33:11	112SMPL.d	B22010753-001A	Sample		1.0000
113		2022-01-14 23:39:25	113SMPL.d	B22010753-001B	Sample		1.0000
114		2022-01-14 23:45:40	114SMPL.d	B22010754-001A	Sample		1.0000
115		2022-01-14 23:51:55	115SMPL.d	B22010754-001B	Sample		1.0000
116		2022-01-14 23:58:10	116_CCV.d	CCV	CCV		1.0000
117		2022-01-15 00:04:24	117_CCB.d	CCB	CCB		1.0000
118		2022-01-15 00:10:38	118SMPL.d	B22010755-001A	Sample		1.0000
119		2022-01-15 00:16:51	119SMPL.d	B22010755-001B	Sample		1.0000
120		2022-01-15 00:23:04	120SMPL.d	B22010756-001A	Sample		1.0000
121		2022-01-15 00:29:20	121SMPL.d	B22010756-001B	Sample		1.0000

Batch Summary Report

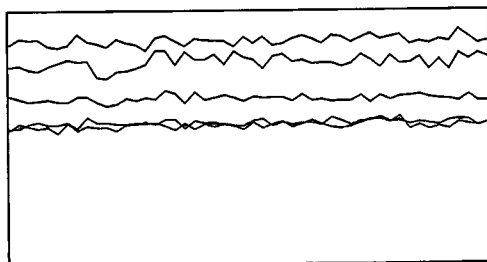
	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
122		2022-01-15 00:35:35	122SMPL.d	B22010757-001A	Sample		1.0000
123		2022-01-15 00:41:49	123SMPL.d	B22010757-001B	Sample		1.0000
124		2022-01-15 00:48:02	124SMPL.d	B22010758-001A	Sample		1.0000
125		2022-01-15 00:54:15	125SMPL.d	B22010758-001B	Sample		1.0000
126		2022-01-15 01:00:28	126SMPL.d	B22010759-001A	Sample		1.0000
127		2022-01-15 01:06:41	127SMPL.d	B22010759-001B	Sample		1.0000
128		2022-01-15 01:12:56	128 CCV.d	CCV	CCV		1.0000
129		2022-01-15 01:19:10	129 CCB.d	CCB	CCB		1.0000
130		2022-01-15 01:25:24	130BLKV.d	Rinse	BlkVrfy		1.0000
131		2022-01-15 01:31:37	131 CCV.d	CCV	CCV		1.0000
132		2022-01-15 01:37:52	132 CCB.d	CCB	CCB		1.0000
133		2022-01-15 01:44:07	133CALB.d	Cal Blk	CalBlk	1	1.0000
134		2022-01-15 01:50:31	134CAL.S.d	0.025 ppb STD	CalStd	2	1.0000
135		2022-01-15 01:56:54	135CAL.S.d	0.05 ppb STD	CalStd	3	1.0000
136		2022-01-15 02:03:18	136CAL.S.d	0.10 ppb STD	CalStd	4	1.0000
137		2022-01-15 02:09:41	137CAL.S.d	0.5 ppb STD	CalStd	5	1.0000
138		2022-01-15 02:16:05	138CAL.S.d	1 ppb STD	CalStd	6	1.0000
139		2022-01-15 02:22:29	139CAL.S.d	10 ppb STD	CalStd	7	1.0000
140		2022-01-15 02:28:52	140CAL.S.d	50 ppb STD	CalStd	8	1.0000
141		2022-01-15 02:35:14	141CAL.S.d	100 ppb STD	CalStd	9	1.0000
142		2022-01-15 02:41:38	142CAL.S.d	1000 ppb STD	CalStd	10	1.0000
143		2022-01-15 02:48:03	143CAL.S.d	100 ppb Br STD	CalStd	11	1.0000
144		2022-01-15 02:54:25	144BLKV.d	Rinse	BlkVrfy		1.0000
145		2022-01-15 03:00:39	145_QC1.d	QCS	QC1		1.0000
146		2022-01-15 03:06:55	146ICSA.d	ICSA	ICSA		1.0000
147		2022-01-15 03:13:12	147ICSB.d	ICSAB	ICSAB		1.0000
148		2022-01-15 03:19:28	148BLKV.d	Rinse	BlkVrfy		1.0000
149		2022-01-15 03:25:42	149 CCV.d	CCV	CCV		1.0000
150		2022-01-15 03:31:56	150 CCB.d	CCB	CCB		1.0000

Tune Report

Operator Name elim
 Acq/Data Batch D:\Agilent\ICPMH1\DATA\220114A.b
 Acq Date-Time 2022-01-14 11 08 32
 Report Comment ICPMS207-B JPV
 Instrument Name G8403A JP17281923

[No Gas]

Sensitivity



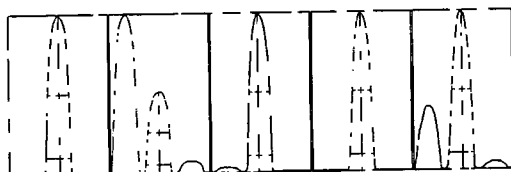
Mass	Range	Count	RSD%	Background
9	200000	130182	1.945	5.000
24	50000	27711	1.913	2.700
59	50000	44212	1.883	3.200
115	50000	27191	2.307	5.200
208	10000	7979	3.290	10.100

Sampling Period [sec] 0.514
 Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide 156 / 140 1.000 %
 Doubly Charged 70 / 140 1.772 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
9	133219.18	9.05	0.65	0.769
24	27395.16	24.00	0.65	0.765
59	45044.35	58.95	0.61	0.728
115	27360.88	115.00	0.56	0.726
208	8145.66	208.00	0.58	0.758

Integration Time [sec] 0.1
 Acquisition Time [sec] 37.4
 Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	—	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	—	Auxiliary Gas	0.90 L/min
RF Matching	1.00 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.1 V	Deflect	15.0 V
Extract 2	-250.0 V	Cell Entrance	-30 V	Plate Bias	-35 V

Tune Report

Omega Bias	-110 V	Cell Exit	-50 V	
Cell Parameters				
Use Gas	No	3rd Gas Flow	—	Energy Discrimination 5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V	
H2 Flow	0.0 mL/min	OctP RF	200 V	
QP Parameters				
Mass Gain	125	Axis Gain	0 9990	QP Bias -3.0 V
Mass Offset	126	Axis Offset	0 10	

Hardware Settings

Torch

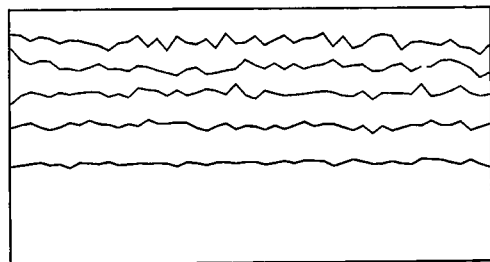
Torch H	-0.5 mm	Torch V	0.1 mm
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EM

Discriminator	5.1 mV	Analog HV	2266 V	Pulse HV	1630 V
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[H2]

Sensitivity



Mass	Range	Count	RSD%	Background
9	20000	17470	2.425	0.200
24	10000	7735	2.675	0.100
59	50000	19468	1.856	0.100
115	50000	33382	2.115	0.300
208	20000	10783	2.348	0.500

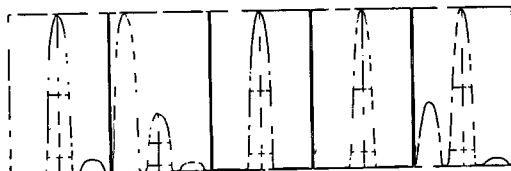
Sampling Period [sec] 0.514

Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide	—
Doubly Charged	70 / 140 1.056 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
9	17085.25	9.00	0.63	0.764
24	7747.64	23.95	0.64	0.735
59	19527.65	59.00	0.62	0.726
115	32588.18	115.05	0.55	0.717
208	10921.74	208.00	0.59	0.758

Integration Time [sec] 0.1

Acquisition Time [sec] 37.4

Y Axis Linear

Tune Parameters

Plasma Parameters

Tune Report

Plasma Mode	—	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	—	Auxiliary Gas	0.90 L/min
RF Matching	1.00 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.4 V	Deflect	2.4 V
Extract 2	-250.0 V	Cell Entrance	-30 V	Plate Bias	-80 V
Omega Bias	-120 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	—	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	3.8 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	125	Axis Gain	0.9990	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	0.10		

Hardware Settings

Torch

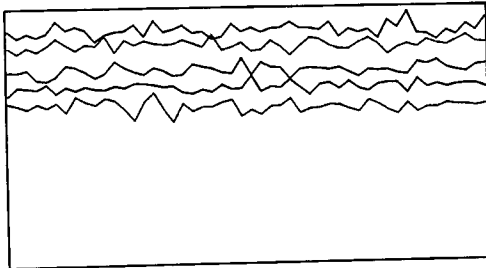
Torch H	-0.5 mm	Torch V	0.1 mm
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EM

Discriminator	5.1 mV	Analog HV	2266 V	Pulse HV	1630 V
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[He]

Sensitivity



Mass	Range	Count	RSD%	Background
9	2000	1519	2.526	4.300
24	2000	1230	3.818	1.700
59	20000	13836	2.185	0.800
115	10000	8597	2.172	1.600
208	5000	4584	2.507	3.100

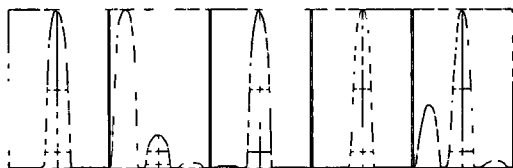
Sampling Period [sec]	0.514
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	—
Doubly Charged	70 / 140 1.459 %

Resolution/Axis

Tune Report



Mass	Peak Height	Axis	W-50%	W-10%
9	1515.80	9.00	0.63	0.763
24	1223.04	24.00	0.64	0.733
59	14018.60	59.00	0.61	0.723
115	8460.01	115.05	0.54	0.698
208	4660.35	208.00	0.55	0.733

Integration Time [sec] 0.1
 Acquisition Time [sec] 37.4
 Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	—	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	—	Auxiliary Gas	0.90 L/min
RF Matching	1.00 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.9 V	Deflect	1.4 V
Extract 2	-250.0 V	Cell Entrance	-30 V	Plate Bias	-80 V
Omega Bias	-115 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	—	Energy Discrimination	5.0 V
He Flow	4.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	125	Axis Gain	0.9990	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	0.10		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.1 mm
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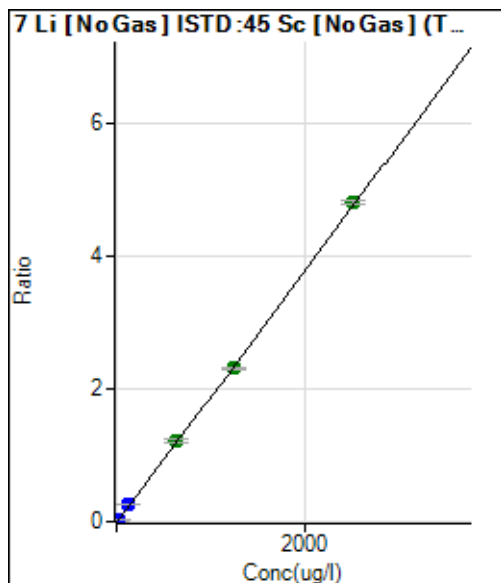
EM

Discriminator	5.1 mV	Analog HV	2266 V	Pulse HV	1630 V
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Calibration for 007CAL.S.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\220114ADoD.b\
 Analysis File: 220114ADoD.batch.bin
 DA Date-Time: 2022-01-14 13:53:41
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	Cal Blk	2022-01-14 12:06:48
2	004CAL.S.d	0.025 ppb STD	2022-01-14 12:13:32
3	005CAL.S.d	0.05 ppb STD	2022-01-14 12:20:10
4	006CAL.S.d	0.10 ppb STD	2022-01-14 12:26:48
5	007CAL.S.d	0.5 ppb STD	2022-01-14 12:33:25
6	008CAL.S.d	1 ppb STD	2022-01-14 12:40:03
7	009CAL.S.d	10 ppb STD	2022-01-14 12:46:40
8	010CAL.S.d	50 ppb STD	2022-01-14 12:53:18
9	011CAL.S.d	100 ppb STD	2022-01-14 12:59:53
10	012CAL.S.d	1000 ppb STD	2022-01-14 13:06:27
11	013CAL.S.d	100 ppb Br STD	2022-01-14 13:12:59



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	11522.31	0.0043	P	2.3	
2	<input type="checkbox"/>	0.313	0.104	12237.17	0.0045	P	1.5	-66.8
3	<input type="checkbox"/>	0.625	0.370	13647.59	0.0050	P	2.2	-40.9
4	<input type="checkbox"/>	1.250	0.997	16866.09	0.0062	P	2.2	-20.3
5	<input type="checkbox"/>	6.250	6.487	45794.92	0.0167	P	3.5	3.8
6	<input type="checkbox"/>	12.500	13.913	85307.13	0.0309	P	4.1	11.3
7	<input type="checkbox"/>	125.000	140.381	743548.63	0.2726	P	0.3	12.3
8	<input type="checkbox"/>	625.000	633.873	3356148.13	1.2160	A	3.3	1.4
9	<input type="checkbox"/>	1250.000	1206.130	6593815.04	2.3100	A	1.1	-3.5
10	<input type="checkbox"/>	2500.000	2518.940	13650989.75	4.8197	A	1.2	0.8
11	<input type="checkbox"/>			26038.65	0.0094	P	3.1	

$$y = 0.0019 * x + 0.0043$$

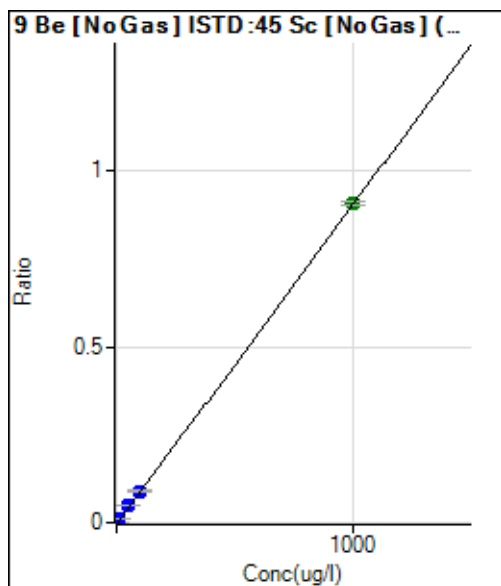
$$R = 0.9998$$

$$DL = 0.1555 \text{ ug/l}$$

$$BEC = 2.241 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	257.95	0.0001	P	4.9	
2	<input type="checkbox"/>	0.025	0.023	318.61	0.0001	P	0.9	-8.3
3	<input type="checkbox"/>	0.050	0.045	373.26	0.0001	P	2.9	-10.6
4	<input type="checkbox"/>	0.100	0.160	659.00	0.0002	P	40.7	59.8
5	<input type="checkbox"/>	0.500	0.523	1568.77	0.0006	P	2.4	4.6
6	<input type="checkbox"/>	1.000	1.086	2991.37	0.0011	P	2.8	8.6
7	<input type="checkbox"/>	10.000	10.934	27359.09	0.0100	P	1.4	9.3
8	<input type="checkbox"/>	50.000	51.895	130420.64	0.0473	P	3.0	3.8
9	<input type="checkbox"/>	100.000	99.195	257565.88	0.0902	P	1.6	-0.8
10	<input type="checkbox"/>	1000.000	999.976	2573861.10	0.9088	A	1.2	0.0
11	<input type="checkbox"/>			477.58	0.0002	P	4.9	

$$y = 9.0870E-004 * x + 9.5858E-005$$

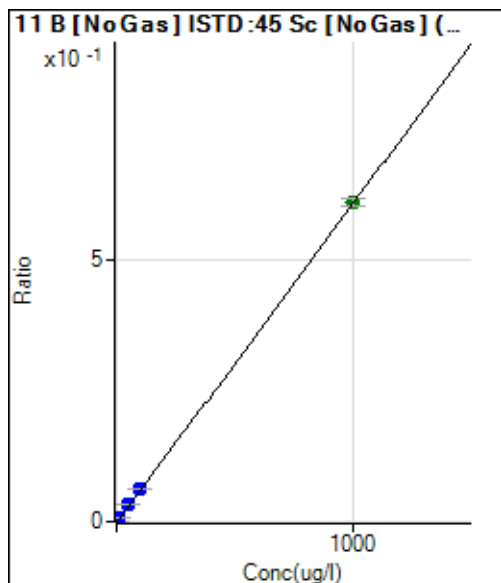
$$R = 1.0000$$

$$DL = 0.01546 \text{ ug/l}$$

$$BEC = 0.1055 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	2137.68	0.0008	P	5.9	
2	<input type="checkbox"/>			1952.92	0.0007	P	3.8	
3	<input type="checkbox"/>	0.050	-0.132	1954.25	0.0007	P	4.2	-363.5
4	<input type="checkbox"/>	0.100	-0.158	1905.55	0.0007	P	2.5	-257.5
5	<input type="checkbox"/>	0.500	0.183	2489.21	0.0009	P	3.3	-63.5
6	<input type="checkbox"/>	1.000	0.752	3462.46	0.0013	P	2.2	-24.8
7	<input type="checkbox"/>	10.000	10.712	19947.10	0.0073	P	0.8	7.1
8	<input type="checkbox"/>	50.000	52.271	89993.40	0.0326	P	3.4	4.5
9	<input type="checkbox"/>	100.000	98.864	174015.26	0.0610	P	1.2	-1.1
10	<input type="checkbox"/>	1000.000	999.993	1725846.82	0.6094	A	2.2	0.0
11	<input type="checkbox"/>			23679.97	0.0085	P	4.6	

$y = 6.0861E-004 * x + 7.9500E-004$

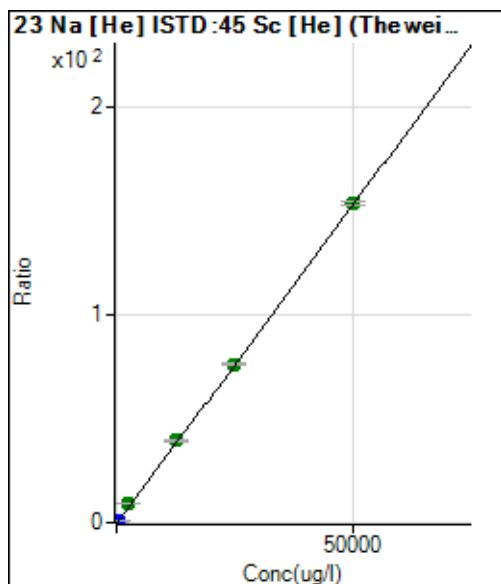
R = 1.0000

DL = 0.2307 ug/l

BEC = 1.306 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	56864.77	0.2516	P	1.9	
2	<input type="checkbox"/>	6.250	7.403	62623.95	0.2743	P	2.3	18.5
3	<input type="checkbox"/>	12.500	13.601	65847.59	0.2933	P	0.7	8.8
4	<input type="checkbox"/>	25.000	28.328	76067.56	0.3384	P	0.8	13.3
5	<input type="checkbox"/>	125.000	140.184	151767.61	0.6809	P	2.1	12.1
6	<input type="checkbox"/>	250.000	292.012	259057.08	1.1458	P	1.0	16.8
7	<input type="checkbox"/>	2500.000	2825.859	2025778.48	8.9052	A	2.1	13.0
8	<input type="checkbox"/>	12500.00	12784.35	9121495.28	39.4010	A	1.2	2.3
9	<input type="checkbox"/>	25000.00	24738.30	18406175.01	76.0074	A	1.2	-1.0
10	<input type="checkbox"/>	50000.00	50043.21	37225520.00	153.498	A	1.5	0.1
11	<input type="checkbox"/>			79174.46	0.3400	P	0.9	

$y = 0.0031 * x + 0.2516$

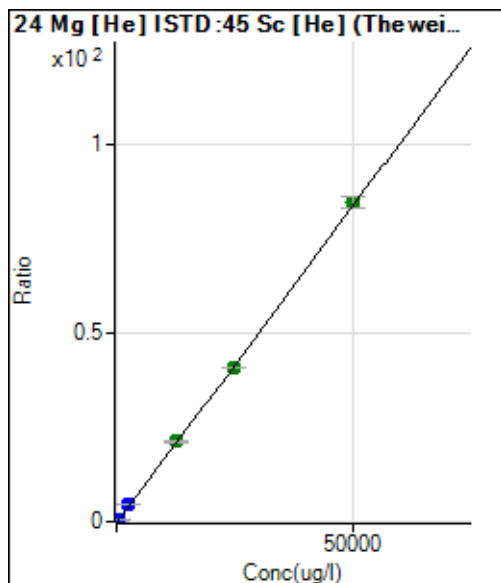
R = 1.0000

DL = 4.582 ug/l

BEC = 82.16 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1533.70	0.0068	P	5.2	
2	<input type="checkbox"/>	6.250	7.237	4328.72	0.0190	P	11.6	15.8
3	<input type="checkbox"/>	12.500	14.748	7094.28	0.0316	P	4.5	18.0
4	<input type="checkbox"/>	25.000	29.481	12680.22	0.0564	P	1.1	17.9
5	<input type="checkbox"/>	125.000	145.713	56186.65	0.2520	P	0.9	16.6
6	<input type="checkbox"/>	250.000	291.494	112462.17	0.4974	P	0.8	16.6
7	<input type="checkbox"/>	2500.000	2804.210	1075493.32	4.7267	P	1.0	12.2
8	<input type="checkbox"/>	12500.00	12619.34	4918861.36	21.2472	A	1.6	1.0
9	<input type="checkbox"/>	25000.00	24201.89	9866473.76	40.7425	A	0.4	-3.2
10	<input type="checkbox"/>	50000.00	50353.74	20551957.86	84.7603	A	3.3	0.7
11	<input type="checkbox"/>			4082.47	0.0175	P	1.5	

$$y = 0.0017 * x + 0.0068$$

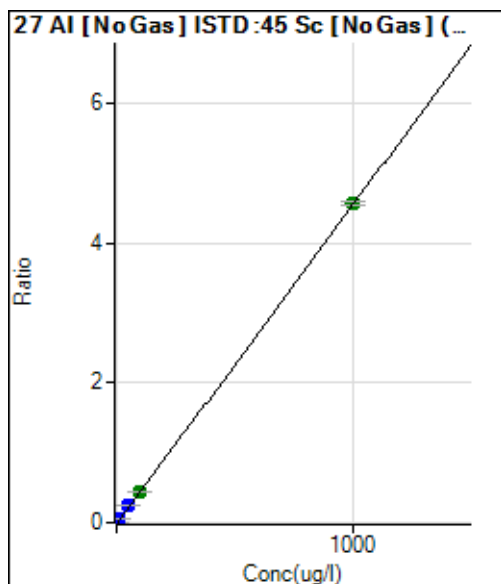
$$R = 0.9998$$

$$DL = 0.6328 \text{ ug/l}$$

$$BEC = 4.031 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	9684.28	0.0036	P	2.1	
2	<input type="checkbox"/>			11995.95	0.0044	P	1.4	
3	<input type="checkbox"/>	0.050	0.065	10652.72	0.0039	P	2.7	29.3
4	<input type="checkbox"/>	0.100	0.099	11038.55	0.0041	P	3.5	-1.3
5	<input type="checkbox"/>	0.500	0.554	16822.83	0.0061	P	3.6	10.8
6	<input type="checkbox"/>	1.000	1.142	24337.60	0.0088	P	5.8	14.2
7	<input type="checkbox"/>	10.000	11.007	146846.20	0.0538	P	1.1	10.1
8	<input type="checkbox"/>	50.000	51.980	664815.85	0.2409	P	3.3	4.0
9	<input type="checkbox"/>	100.000	96.666	1269836.27	0.4449	A	1.3	-3.3
10	<input type="checkbox"/>	1000.000	1000.224	12941835.92	4.5695	A	1.0	0.0
11	<input type="checkbox"/>			13226.99	0.0048	P	1.1	

$$y = 0.0046 * x + 0.0036$$

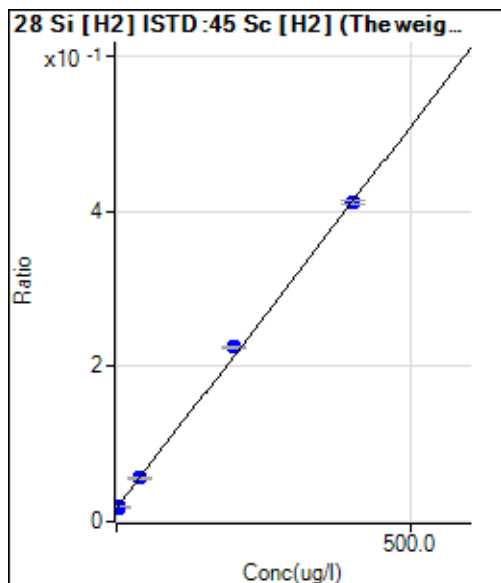
$$R = 1.0000$$

$$DL = 0.04852 \text{ ug/l}$$

$$BEC = 0.7887 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	31551.76	0.0198	P	1.3	
2	<input type="checkbox"/>			30448.35	0.0194	P	0.8	
3	<input type="checkbox"/>	0.200	-1.918	28361.45	0.0179	P	3.1	-1058.9
4	<input type="checkbox"/>	0.400	-2.960	26344.31	0.0169	P	1.1	-839.9
5	<input type="checkbox"/>	2.000	-2.597	26949.63	0.0172	P	1.3	-229.8
6	<input type="checkbox"/>	4.000	-0.017	30181.76	0.0198	P	9.9	-100.4
7	<input type="checkbox"/>	40.000	36.674	88203.16	0.0560	P	1.8	-8.3
8	<input type="checkbox"/>	200.000	207.830	355779.86	0.2250	P	1.0	3.9
9	<input type="checkbox"/>	400.000	396.485	656406.80	0.4112	P	0.7	-0.9
10	<input type="checkbox"/>			25576.03	0.0159	P	1.6	
11	<input type="checkbox"/>			21626.24	0.0134	P	2.5	

$$y = 9.8721E-004 * x + 0.0198$$

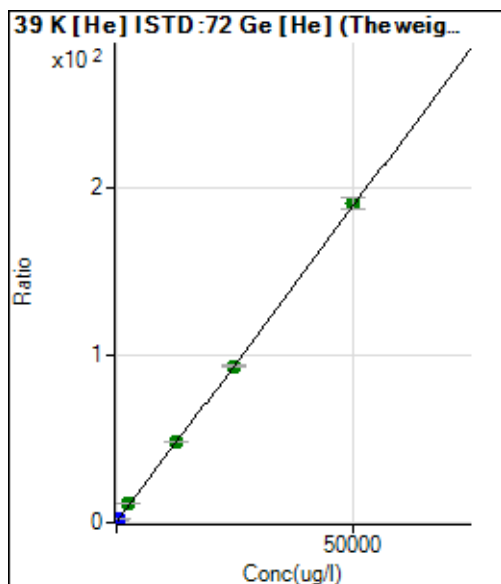
$$R = 0.9996$$

$$DL = 0.8086 \text{ ug/l}$$

$$BEC = 20.04 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	159548.52	1.2713	P	2.7	
2	<input type="checkbox"/>	6.250	3.925	162565.33	1.2862	P	1.0	-37.2
3	<input type="checkbox"/>	12.500	12.965	165002.73	1.3203	P	3.1	3.7
4	<input type="checkbox"/>	25.000	25.454	169695.52	1.3676	P	2.6	1.8
5	<input type="checkbox"/>	125.000	131.226	219400.05	1.7675	P	0.6	5.0
6	<input type="checkbox"/>	250.000	279.960	294159.72	2.3300	P	2.7	12.0
7	<input type="checkbox"/>	2500.000	2722.951	1460755.45	11.5680	A	2.2	8.9
8	<input type="checkbox"/>	12500.00	12539.44	6243851.72	48.6885	A	1.0	0.3
9	<input type="checkbox"/>	25000.00	24464.28	12501164.82	93.7816	A	0.5	-2.1
10	<input type="checkbox"/>	50000.00	50246.68	25970737.95	191.276	A	3.5	0.5
11	<input type="checkbox"/>			492145.06	3.8675	P	2.3	

$$y = 0.0038 * x + 1.2713$$

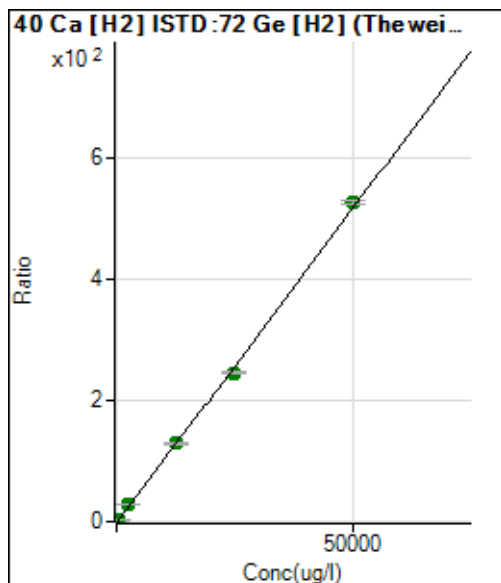
$$R = 0.9999$$

$$DL = 27.47 \text{ ug/l}$$

$$BEC = 336.2 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	229028.24	0.4118	P	0.9	
2	<input type="checkbox"/>	6.250	9.883	283875.38	0.5144	P	1.5	58.1
3	<input type="checkbox"/>	12.500	13.555	311430.75	0.5525	P	1.6	8.4
4	<input type="checkbox"/>	25.000	28.574	394221.99	0.7084	P	1.8	14.3
5	<input type="checkbox"/>	125.000	132.753	1003815.44	1.7897	P	1.8	6.2
6	<input type="checkbox"/>	250.000	284.713	1841654.42	3.3670	A	4.5	13.9
7	<input type="checkbox"/>	2500.000	2660.536	15628843.71	28.0268	A	0.7	6.4
8	<input type="checkbox"/>	12500.00	12348.50	73075119.21	128.582	A	2.6	-1.2
9	<input type="checkbox"/>	25000.00	23622.29	142774869.8	245.599	A	1.8	-5.5
10	<input type="checkbox"/>	50000.00	50718.50	306459695.5	526.843	A	1.2	1.4
11	<input type="checkbox"/>			301327.75	0.5381	P	9.3	

$y = 0.0104 * x + 0.4118$

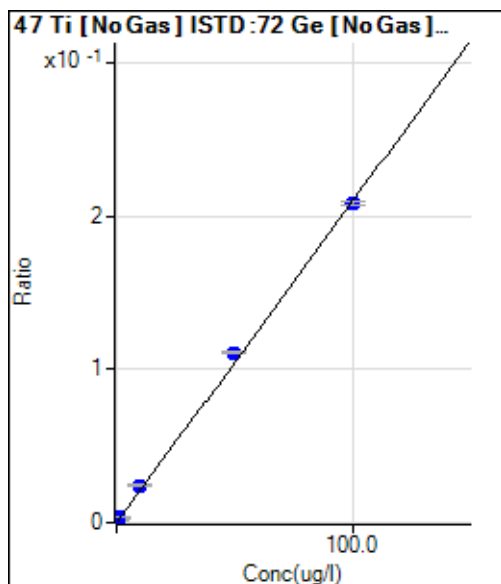
R = 0.9995

DL = 1.118 ug/l

BEC = 39.68 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	655.68	0.0010	P	7.4	
2	<input type="checkbox"/>	0.025	0.013	674.03	0.0010	P	9.3	-47.2
3	<input type="checkbox"/>	0.050	0.012	659.01	0.0010	P	10.0	-76.7
4	<input type="checkbox"/>	0.100	0.044	724.08	0.0011	P	3.8	-55.6
5	<input type="checkbox"/>	0.500	0.629	1496.69	0.0023	P	17.6	25.9
6	<input type="checkbox"/>	1.000	1.101	2149.00	0.0033	P	5.3	10.1
7	<input type="checkbox"/>	10.000	10.945	15797.66	0.0240	P	4.8	9.5
8	<input type="checkbox"/>	50.000	52.289	74047.10	0.1109	P	1.5	4.6
9	<input type="checkbox"/>	100.000	98.760	143402.24	0.2087	P	1.5	-1.2
10	<input type="checkbox"/>			7995.22	0.0117	P	1.1	
11	<input type="checkbox"/>			582.27	0.0009	P	5.7	

$y = 0.0021 * x + 0.0010$

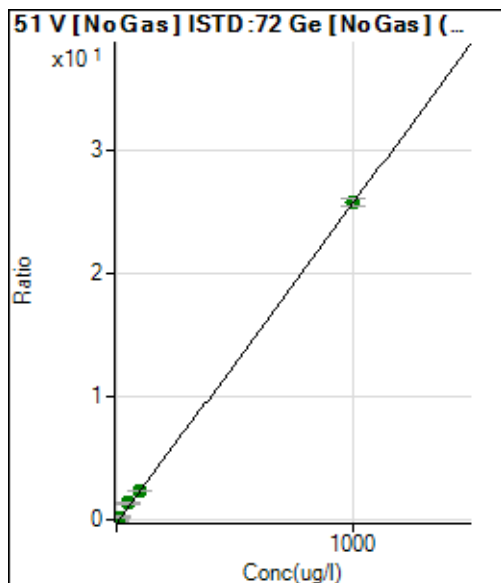
R = 0.9996

DL = 0.106 ug/l

BEC = 0.478 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	-59286.33	-0.0898	A	-97.2	
2	<input type="checkbox"/>	0.025	2.666	-14072.09	-0.0208	A	-445.	10562.5
3	<input type="checkbox"/>	0.050	2.138	-21932.94	-0.0344	A	-104.	4176.2
4	<input type="checkbox"/>	0.100	0.684	-47402.43	-0.0721	A	-81.1	584.1
5	<input type="checkbox"/>	0.500	1.492	-31445.07	-0.0512	A	-298.	198.4
6	<input type="checkbox"/>	1.000	2.197	-21884.92	-0.0329	A	-155.	119.7
7	<input type="checkbox"/>	10.000	13.754	174005.68	0.2664	A	57.5	37.5
8	<input type="checkbox"/>	50.000	57.282	929548.73	1.3937	A	10.7	14.6
9	<input type="checkbox"/>	100.000	96.978	1664219.01	2.4218	A	1.9	-3.0
10	<input type="checkbox"/>	1000.000	999.899	17705149.21	25.8066	A	2.7	0.0
11	<input type="checkbox"/>			-21884.16	-0.0325	A	-87.8	

$y = 0.0259 * x - 0.0898$

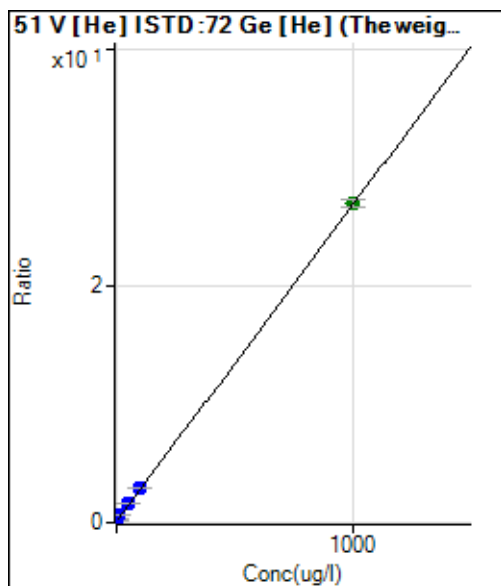
$R = 1.0000$

DL = 10.11 ug/l

BEC = -3.468 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	30965.80	0.2468	P	4.2	
2	<input type="checkbox"/>	0.025	0.372	32453.45	0.2568	P	0.5	1389.4
3	<input type="checkbox"/>	0.050	0.503	32529.18	0.2603	P	1.5	906.3
4	<input type="checkbox"/>	0.100	0.528	32377.78	0.2609	P	4.6	428.5
5	<input type="checkbox"/>	0.500	1.100	34290.84	0.2763	P	0.3	120.0
6	<input type="checkbox"/>	1.000	2.004	37937.58	0.3005	P	0.9	100.4
7	<input type="checkbox"/>	10.000	12.485	73392.77	0.5812	P	2.6	24.8
8	<input type="checkbox"/>	50.000	52.793	213010.75	1.6610	P	0.2	5.6
9	<input type="checkbox"/>	100.000	99.272	387360.02	2.9060	P	1.3	-0.7
10	<input type="checkbox"/>	1000.000	999.907	3670955.53	27.0311	A	2.5	0.0
11	<input type="checkbox"/>			29169.96	0.2292	P	1.7	

$y = 0.0268 * x + 0.2468$

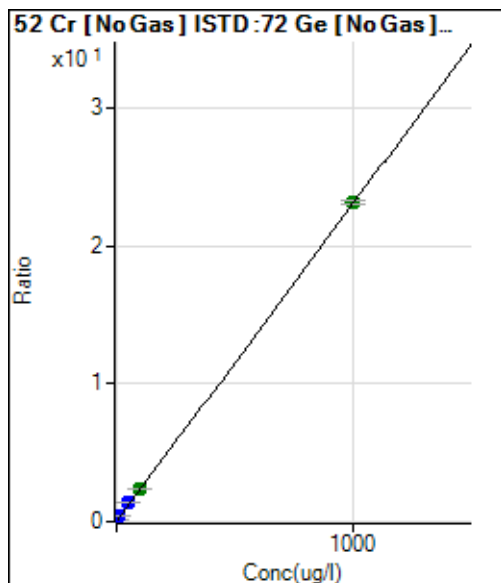
$R = 1.0000$

DL = 1.158 ug/l

BEC = 9.213 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	94580.85	0.1450	P	3.2	
2	<input type="checkbox"/>	0.025	0.025	95076.48	0.1456	P	2.5	-0.9
3	<input type="checkbox"/>	0.050	0.364	98117.31	0.1534	P	2.1	628.3
4	<input type="checkbox"/>	0.100	0.221	98953.40	0.1501	P	1.7	121.0
5	<input type="checkbox"/>	0.500	0.825	105506.06	0.1641	P	1.9	65.0
6	<input type="checkbox"/>	1.000	1.602	117728.13	0.1820	P	3.5	60.2
7	<input type="checkbox"/>	10.000	11.538	270572.80	0.4112	P	2.1	15.4
8	<input type="checkbox"/>	50.000	53.974	927755.71	1.3903	P	2.9	7.9
9	<input type="checkbox"/>	100.000	98.720	1664723.97	2.4226	A	1.8	-1.3
10	<input type="checkbox"/>	1000.000	999.913	15923141.11	23.2143	A	0.8	0.0
11	<input type="checkbox"/>			122267.13	0.1801	P	1.7	

$$y = 0.0231 * x + 0.1450$$

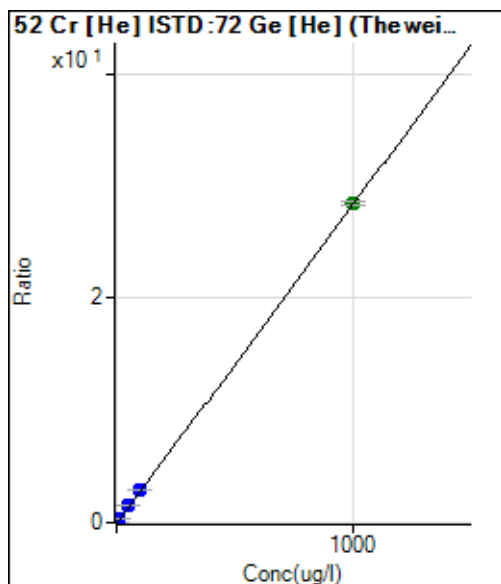
$$R = 1.0000$$

$$DL = 0.601 \text{ ug/l}$$

$$BEC = 6.286 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	4969.75	0.0396	P	1.6	
2	<input type="checkbox"/>	0.025	-0.049	4828.59	0.0382	P	1.7	-294.8
3	<input type="checkbox"/>	0.050	-0.013	4901.95	0.0392	P	3.3	-126.3
4	<input type="checkbox"/>	0.100	0.079	5193.16	0.0418	P	2.0	-21.0
5	<input type="checkbox"/>	0.500	0.539	6818.27	0.0549	P	3.0	7.9
6	<input type="checkbox"/>	1.000	1.159	9159.55	0.0726	P	1.6	15.9
7	<input type="checkbox"/>	10.000	11.305	45601.49	0.3611	P	0.9	13.0
8	<input type="checkbox"/>	50.000	53.241	199230.66	1.5536	P	1.5	6.5
9	<input type="checkbox"/>	100.000	100.643	386742.28	2.9016	P	2.0	0.6
10	<input type="checkbox"/>	1000.000	999.760	3866820.74	28.4699	A	1.3	0.0
11	<input type="checkbox"/>			5425.47	0.0426	P	3.0	

$$y = 0.0284 * x + 0.0396$$

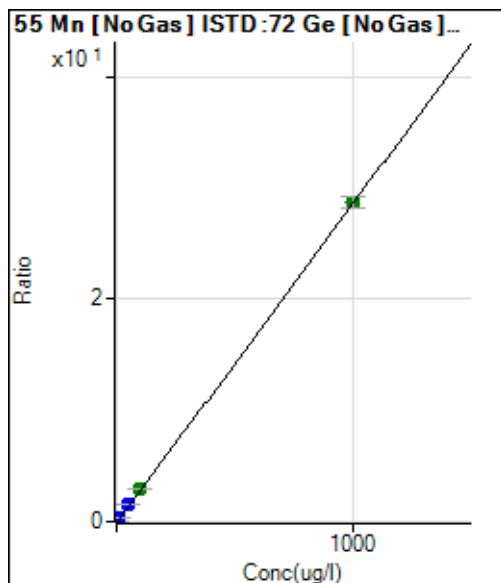
$$R = 1.0000$$

$$DL = 0.06494 \text{ ug/l}$$

$$BEC = 1.392 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	9690.64	0.0149	P	6.6	
2	<input type="checkbox"/>	0.025	0.046	10569.56	0.0162	P	5.8	84.8
3	<input type="checkbox"/>	0.050	0.078	10939.07	0.0171	P	3.7	56.4
4	<input type="checkbox"/>	0.100	0.114	11957.82	0.0181	P	2.1	14.1
5	<input type="checkbox"/>	0.500	0.599	20596.97	0.0320	P	4.0	19.7
6	<input type="checkbox"/>	1.000	1.172	31377.88	0.0485	P	1.3	17.2
7	<input type="checkbox"/>	10.000	11.329	223602.40	0.3399	P	3.0	13.3
8	<input type="checkbox"/>	50.000	53.764	1039267.31	1.5573	P	2.2	7.5
9	<input type="checkbox"/>	100.000	99.435	1970705.46	2.8675	A	0.5	-0.6
10	<input type="checkbox"/>	1000.000	999.855	19681919.17	28.6992	A	3.1	0.0
11	<input type="checkbox"/>			19264.45	0.0284	P	0.9	

$$y = 0.0287 * x + 0.0149$$

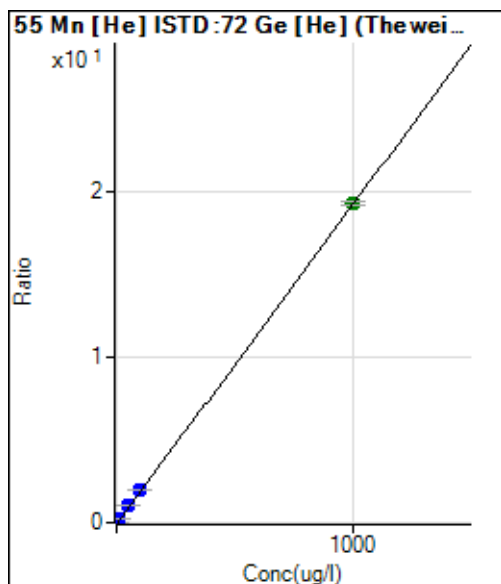
$$R = 1.0000$$

$$DL = 0.1026 \text{ ug/l}$$

$$BEC = 0.5182 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	346.27	0.0028	P	4.7	
2	<input type="checkbox"/>	0.025	0.032	426.25	0.0034	P	1.3	27.0
3	<input type="checkbox"/>	0.050	0.056	479.58	0.0038	P	8.5	11.6
4	<input type="checkbox"/>	0.100	0.099	579.90	0.0047	P	3.8	-0.9
5	<input type="checkbox"/>	0.500	0.564	1692.09	0.0136	P	1.1	12.8
6	<input type="checkbox"/>	1.000	1.160	3173.05	0.0251	P	3.1	16.0
7	<input type="checkbox"/>	10.000	11.363	28019.99	0.2219	P	1.5	13.6
8	<input type="checkbox"/>	50.000	53.543	132760.05	1.0352	P	1.0	7.1
9	<input type="checkbox"/>	100.000	102.719	264381.91	1.9835	P	0.9	2.7
10	<input type="checkbox"/>	1000.000	999.537	2618074.67	19.2767	A	1.6	0.0
11	<input type="checkbox"/>			647.88	0.0051	P	2.6	

$$y = 0.0193 * x + 0.0028$$

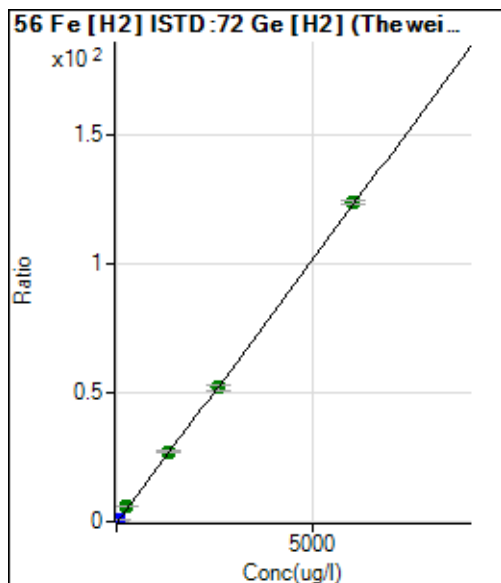
$$R = 1.0000$$

$$DL = 0.02023 \text{ ug/l}$$

$$BEC = 0.1431 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	20810.64	0.0374	P	0.4	
2	<input type="checkbox"/>	0.650	0.942	31316.33	0.0567	P	0.4	44.9
3	<input type="checkbox"/>	1.300	1.407	37353.18	0.0663	P	4.2	8.3
4	<input type="checkbox"/>	2.600	2.952	54520.20	0.0980	P	2.7	13.5
5	<input type="checkbox"/>	13.000	14.047	182578.38	0.3255	P	2.0	8.1
6	<input type="checkbox"/>	26.000	30.257	359971.15	0.6580	P	3.6	16.4
7	<input type="checkbox"/>	260.000	285.685	3287925.49	5.8970	A	2.3	9.9
8	<input type="checkbox"/>	1300.000	1311.044	15301744.12	26.9277	A	2.2	0.8
9	<input type="checkbox"/>	2600.000	2534.091	30228892.00	52.0130	A	3.9	-2.5
10	<input type="checkbox"/>	6000.000	6025.034	71895992.63	123.614	A	1.7	0.4
11	<input type="checkbox"/>			32309.47	0.0577	P	2.3	

$$y = 0.0205 * x + 0.0374$$

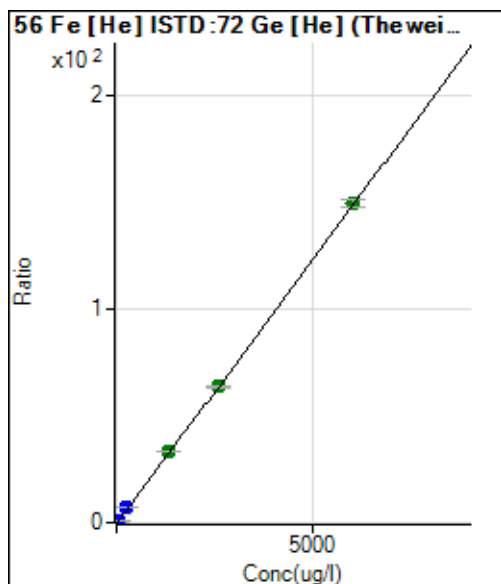
$$R = 0.9999$$

$$DL = 0.01941 \text{ ug/l}$$

$$BEC = 1.824 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	19206.84	0.1530	P	0.5	
2	<input type="checkbox"/>	0.650	0.952	22334.38	0.1767	P	1.5	46.5
3	<input type="checkbox"/>	1.300	1.688	24374.67	0.1950	P	3.0	29.8
4	<input type="checkbox"/>	2.600	3.423	29565.95	0.2383	P	3.0	31.7
5	<input type="checkbox"/>	13.000	14.686	64404.99	0.5189	P	0.8	13.0
6	<input type="checkbox"/>	26.000	30.198	114311.00	0.9053	P	0.8	16.1
7	<input type="checkbox"/>	260.000	288.712	927473.73	7.3456	P	3.1	11.0
8	<input type="checkbox"/>	1300.000	1341.179	4304447.37	33.5653	A	0.8	3.2
9	<input type="checkbox"/>	2600.000	2555.936	8507403.57	63.8280	A	1.7	-1.7
10	<input type="checkbox"/>	6000.000	6008.906	20354555.92	149.850	A	2.2	0.1
11	<input type="checkbox"/>			24790.77	0.1948	P	2.6	

$$y = 0.0249 * x + 0.1530$$

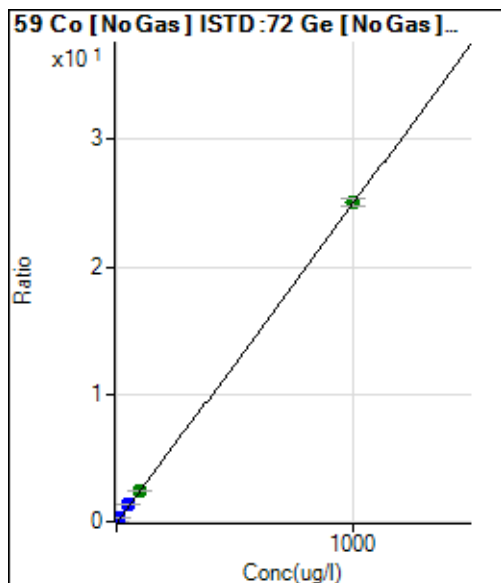
$$R = 0.9999$$

$$DL = 0.09709 \text{ ug/l}$$

$$BEC = 6.142 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	721.92	0.0011	P	7.1	
2	<input type="checkbox"/>	0.025	0.026	1144.44	0.0018	P	6.0	3.2
3	<input type="checkbox"/>	0.050	0.051	1527.05	0.0024	P	12.9	2.4
4	<input type="checkbox"/>	0.100	0.103	2425.40	0.0037	P	5.1	2.6
5	<input type="checkbox"/>	0.500	0.583	10116.80	0.0157	P	3.9	16.6
6	<input type="checkbox"/>	1.000	1.192	20063.95	0.0310	P	1.5	19.2
7	<input type="checkbox"/>	10.000	11.274	186749.13	0.2839	P	3.2	12.7
8	<input type="checkbox"/>	50.000	53.391	894454.06	1.3402	P	3.4	6.8
9	<input type="checkbox"/>	100.000	97.279	1677814.26	2.4410	A	2.5	-2.7
10	<input type="checkbox"/>	1000.000	1000.090	17203619.04	25.0851	A	2.3	0.0
11	<input type="checkbox"/>			2874.59	0.0042	P	2.0	

$$y = 0.0251 * x + 0.0011$$

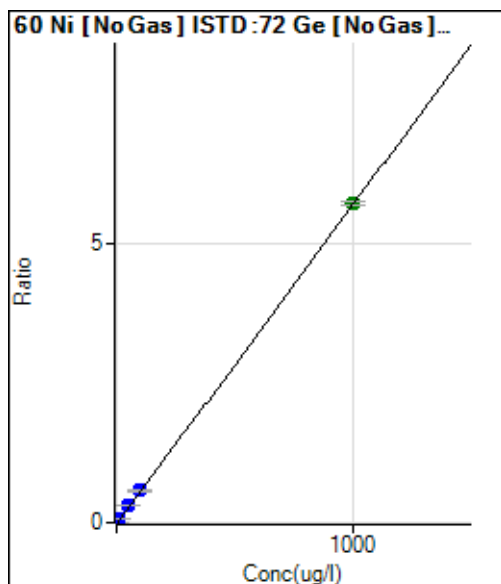
$$R = 1.0000$$

$$DL = 0.009347 \text{ ug/l}$$

$$BEC = 0.04411 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	808.43	0.0012	P	7.6	
2	<input type="checkbox"/>	0.025	0.076	1091.22	0.0017	P	4.5	202.7
3	<input type="checkbox"/>	0.050	0.076	1071.25	0.0017	P	3.1	52.5
4	<input type="checkbox"/>	0.100	0.100	1194.35	0.0018	P	2.7	0.2
5	<input type="checkbox"/>	0.500	0.594	2974.43	0.0046	P	11.5	18.7
6	<input type="checkbox"/>	1.000	1.175	5150.81	0.0080	P	8.0	17.5
7	<input type="checkbox"/>	10.000	11.087	42513.90	0.0646	P	1.2	10.9
8	<input type="checkbox"/>	50.000	52.523	201158.54	0.3014	P	2.0	5.0
9	<input type="checkbox"/>	100.000	99.230	390640.16	0.5684	P	1.9	-0.8
10	<input type="checkbox"/>	1000.000	999.940	3920666.11	5.7162	A	1.3	0.0
11	<input type="checkbox"/>			1596.92	0.0024	P	8.1	

$$y = 0.0057 * x + 0.0012$$

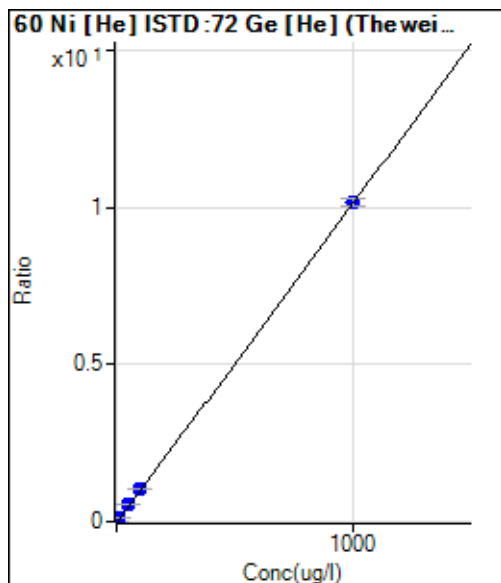
$$R = 1.0000$$

$$DL = 0.04916 \text{ ug/l}$$

$$BEC = 0.2168 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	296.67	0.0024	P	15.0	
2	<input type="checkbox"/>	0.025	0.099	426.68	0.0034	P	6.2	297.0
3	<input type="checkbox"/>	0.050	0.071	385.56	0.0031	P	9.9	41.4
4	<input type="checkbox"/>	0.100	0.124	450.01	0.0036	P	12.1	24.0
5	<input type="checkbox"/>	0.500	0.571	1015.60	0.0082	P	7.6	14.2
6	<input type="checkbox"/>	1.000	1.242	1895.69	0.0150	P	3.1	24.2
7	<input type="checkbox"/>	10.000	11.885	15585.01	0.1234	P	0.8	18.8
8	<input type="checkbox"/>	50.000	55.014	72145.88	0.5626	P	0.4	10.0
9	<input type="checkbox"/>	100.000	103.854	141281.86	1.0599	P	1.6	3.9
10	<input type="checkbox"/>	1000.000	999.345	1382334.65	10.1784	P	1.9	-0.1
11	<input type="checkbox"/>			494.46	0.0039	P	2.1	

$$y = 0.0102 * x + 0.0024$$

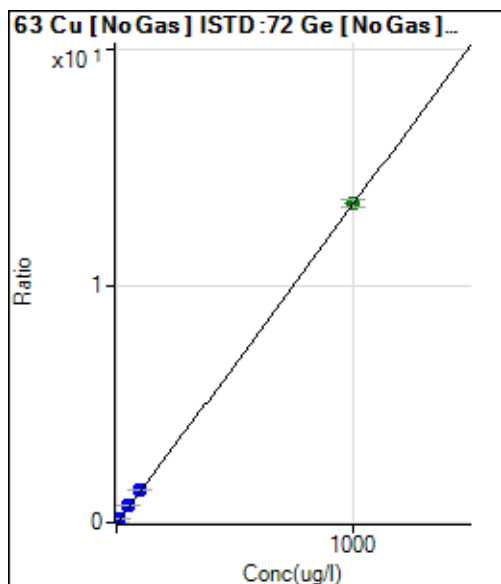
$$R = 1.0000$$

$$DL = 0.1049 \text{ ug/l}$$

$$BEC = 0.2325 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1861.54	0.0029	P	4.2	
2	<input type="checkbox"/>	0.025	0.059	2381.15	0.0036	P	2.6	134.6
3	<input type="checkbox"/>	0.050	0.054	2291.10	0.0036	P	1.6	7.9
4	<input type="checkbox"/>	0.100	0.105	2816.07	0.0043	P	0.9	5.1
5	<input type="checkbox"/>	0.500	0.592	6973.14	0.0108	P	2.8	18.5
6	<input type="checkbox"/>	1.000	1.220	12493.70	0.0193	P	1.3	22.0
7	<input type="checkbox"/>	10.000	11.513	104069.80	0.1582	P	2.4	15.1
8	<input type="checkbox"/>	50.000	54.545	492974.58	0.7387	P	2.3	9.1
9	<input type="checkbox"/>	100.000	101.858	946355.75	1.3770	P	1.3	1.9
10	<input type="checkbox"/>	1000.000	999.572	9250481.07	13.4878	A	2.0	0.0
11	<input type="checkbox"/>			4221.64	0.0062	P	4.3	

$$y = 0.0135 * x + 0.0029$$

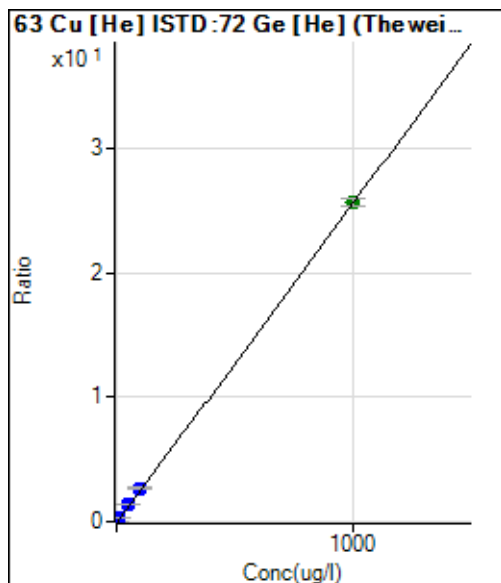
$$R = 1.0000$$

$$DL = 0.02676 \text{ ug/l}$$

$$BEC = 0.2116 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	594.23	0.0047	P	1.8	
2	<input type="checkbox"/>	0.025	0.067	815.86	0.0065	P	3.1	168.0
3	<input type="checkbox"/>	0.050	0.054	763.54	0.0061	P	1.1	7.1
4	<input type="checkbox"/>	0.100	0.121	972.51	0.0078	P	5.9	21.0
5	<input type="checkbox"/>	0.500	0.616	2550.38	0.0205	P	2.7	23.2
6	<input type="checkbox"/>	1.000	1.281	4750.83	0.0376	P	2.6	28.1
7	<input type="checkbox"/>	10.000	12.115	39876.05	0.3158	P	2.2	21.1
8	<input type="checkbox"/>	50.000	55.428	183114.15	1.4279	P	1.2	10.9
9	<input type="checkbox"/>	100.000	104.811	359314.72	2.6958	P	1.5	4.8
10	<input type="checkbox"/>	1000.000	999.226	3484734.35	25.6601	A	2.2	-0.1
11	<input type="checkbox"/>			1248.14	0.0098	P	1.6	

$$y = 0.0257 * x + 0.0047$$

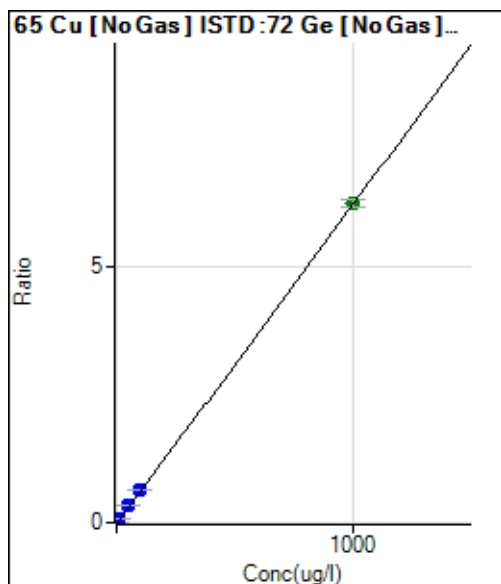
$$R = 1.0000$$

$$DL = 0.009805 \text{ ug/l}$$

$$BEC = 0.1844 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	656.28	0.0010	P	4.1	
2	<input type="checkbox"/>	0.025	0.081	989.10	0.0015	P	4.0	224.1
3	<input type="checkbox"/>	0.050	0.079	960.42	0.0015	P	7.5	58.1
4	<input type="checkbox"/>	0.100	0.116	1141.84	0.0017	P	1.1	15.9
5	<input type="checkbox"/>	0.500	0.614	3119.60	0.0048	P	2.2	22.7
6	<input type="checkbox"/>	1.000	1.223	5606.67	0.0087	P	1.9	22.3
7	<input type="checkbox"/>	10.000	11.558	48294.97	0.0734	P	3.0	15.6
8	<input type="checkbox"/>	50.000	54.371	227962.32	0.3416	P	2.9	8.7
9	<input type="checkbox"/>	100.000	103.415	445894.32	0.6489	P	1.2	3.4
10	<input type="checkbox"/>	1000.000	999.424	4294676.14	6.2619	A	2.0	-0.1
11	<input type="checkbox"/>			1626.75	0.0024	P	2.4	

$$y = 0.0063 * x + 0.0010$$

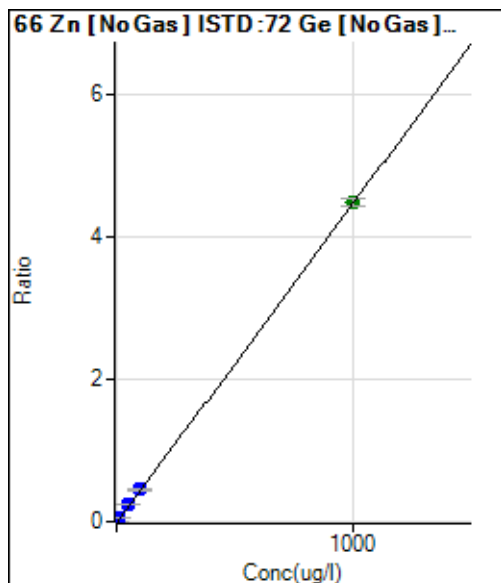
$$R = 1.0000$$

$$DL = 0.01972 \text{ ug/l}$$

$$BEC = 0.1607 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	763.77	0.0012	P	3.5	
2	<input type="checkbox"/>			3069.55	0.0047	P	4.5	
3	<input type="checkbox"/>	0.050	0.118	1089.86	0.0017	P	13.9	136.6
4	<input type="checkbox"/>	0.100	0.122	1132.88	0.0017	P	1.0	21.9
5	<input type="checkbox"/>	0.500	0.804	3076.01	0.0048	P	3.0	60.8
6	<input type="checkbox"/>	1.000	1.382	4769.29	0.0074	P	11.1	38.2
7	<input type="checkbox"/>	10.000	12.263	37018.61	0.0563	P	4.0	22.6
8	<input type="checkbox"/>	50.000	53.863	162290.84	0.2432	P	2.7	7.7
9	<input type="checkbox"/>	100.000	100.047	309732.75	0.4507	P	3.5	0.0
10	<input type="checkbox"/>	1000.000	999.779	3081804.58	4.4935	A	1.9	0.0
11	<input type="checkbox"/>			1601.96	0.0024	P	10.7	

$$y = 0.0045 * x + 0.0012$$

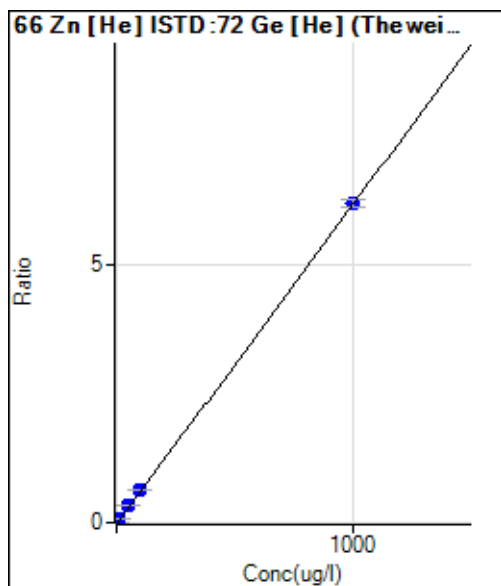
$$R = 1.0000$$

$$DL = 0.02734 \text{ ug/l}$$

$$BEC = 0.2606 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	186.67	0.0015	P	12.2	
2	<input type="checkbox"/>			772.25	0.0061	P	3.5	
3	<input type="checkbox"/>	0.050	0.133	288.89	0.0023	P	5.7	165.2
4	<input type="checkbox"/>	0.100	0.152	301.12	0.0024	P	19.6	51.6
5	<input type="checkbox"/>	0.500	0.805	805.58	0.0065	P	11.2	61.0
6	<input type="checkbox"/>	1.000	1.430	1308.96	0.0104	P	5.4	43.0
7	<input type="checkbox"/>	10.000	12.383	9898.95	0.0784	P	1.3	23.8
8	<input type="checkbox"/>	50.000	54.096	43270.66	0.3374	P	1.9	8.2
9	<input type="checkbox"/>	100.000	103.774	86097.34	0.6459	P	0.5	3.8
10	<input type="checkbox"/>	1000.000	999.393	843020.07	6.2074	P	2.0	-0.1
11	<input type="checkbox"/>			407.78	0.0032	P	12.1	

$$y = 0.0062 * x + 0.0015$$

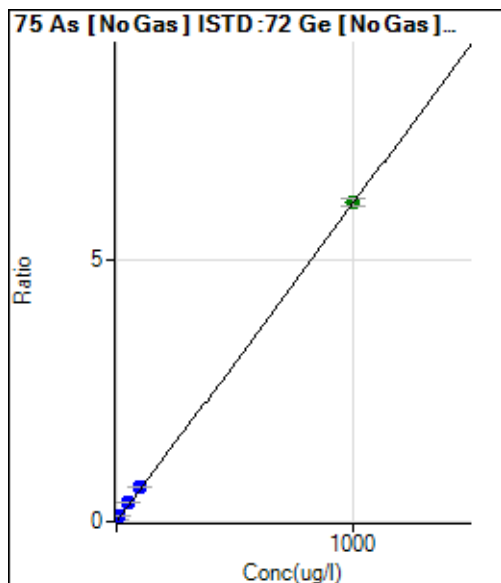
$$R = 1.0000$$

$$DL = 0.08787 \text{ ug/l}$$

$$BEC = 0.2397 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	18715.51	0.0287	P	11.1	
2	<input type="checkbox"/>	0.025	0.572	21030.29	0.0322	P	23.1	2187.2
3	<input type="checkbox"/>	0.050	-0.235	17460.33	0.0273	P	29.0	-570.4
4	<input type="checkbox"/>	0.100	0.023	19011.03	0.0289	P	17.3	-77.3
5	<input type="checkbox"/>	0.500	0.994	22427.46	0.0348	P	24.3	98.8
6	<input type="checkbox"/>	1.000	1.422	24201.96	0.0373	P	21.0	42.2
7	<input type="checkbox"/>	10.000	12.752	69808.64	0.1060	P	7.8	27.5
8	<input type="checkbox"/>	50.000	55.829	244870.97	0.3669	P	1.9	11.7
9	<input type="checkbox"/>	100.000	104.593	455206.98	0.6623	P	1.2	4.6
10	<input type="checkbox"/>	1000.000	999.221	4170928.02	6.0816	A	2.0	-0.1
11	<input type="checkbox"/>			23867.53	0.0352	P	4.8	

$$y = 0.0061 * x + 0.0287$$

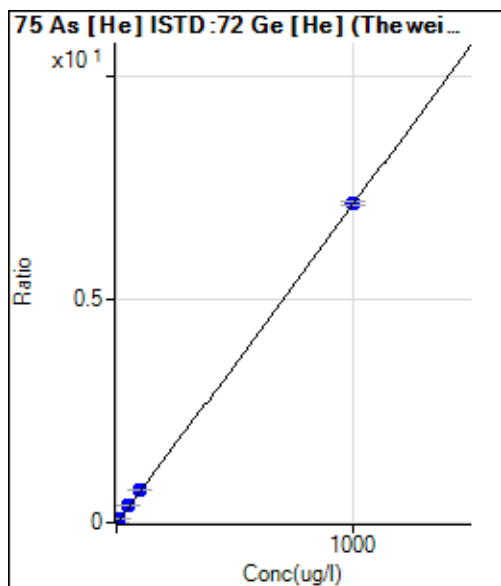
$$R = 1.0000$$

$$DL = 1.58 \text{ ug/l}$$

$$BEC = 4.743 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1163.55	0.0093	P	3.1	
2	<input type="checkbox"/>	0.025	0.049	1216.76	0.0096	P	1.1	98.0
3	<input type="checkbox"/>	0.050	0.100	1248.50	0.0100	P	2.7	100.8
4	<input type="checkbox"/>	0.100	0.149	1282.83	0.0103	P	1.2	49.0
5	<input type="checkbox"/>	0.500	0.612	1694.67	0.0137	P	0.2	22.5
6	<input type="checkbox"/>	1.000	1.225	2277.26	0.0180	P	0.9	22.5
7	<input type="checkbox"/>	10.000	11.197	11286.26	0.0894	P	1.6	12.0
8	<input type="checkbox"/>	50.000	52.921	49739.06	0.3878	P	0.3	5.8
9	<input type="checkbox"/>	100.000	100.980	97524.45	0.7316	P	0.3	1.0
10	<input type="checkbox"/>	1000.000	999.744	972559.48	7.1610	P	1.7	0.0
11	<input type="checkbox"/>			1551.92	0.0122	P	2.0	

$$y = 0.0072 * x + 0.0093$$

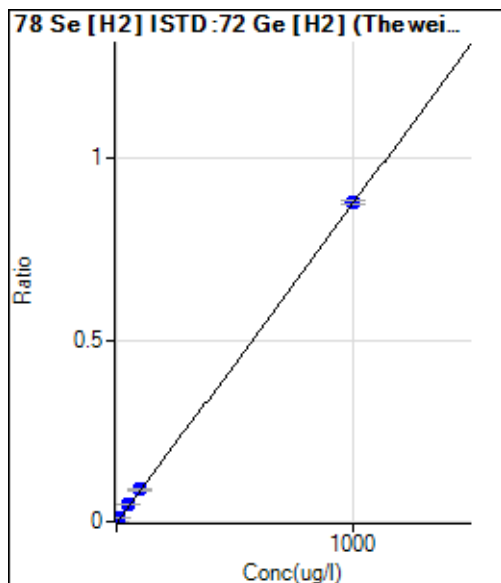
$$R = 1.0000$$

$$DL = 0.1202 \text{ ug/l}$$

$$BEC = 1.296 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	45.22	0.0001	P	6.4	
2	<input type="checkbox"/>	0.025	0.029	59.00	0.0001	P	11.4	16.0
3	<input type="checkbox"/>	0.050	0.053	72.22	0.0001	P	9.8	6.4
4	<input type="checkbox"/>	0.100	0.098	93.45	0.0002	P	10.1	-1.6
5	<input type="checkbox"/>	0.500	0.516	300.11	0.0005	P	2.2	3.1
6	<input type="checkbox"/>	1.000	1.142	594.35	0.0011	P	2.4	14.2
7	<input type="checkbox"/>	10.000	10.946	5416.79	0.0097	P	0.8	9.5
8	<input type="checkbox"/>	50.000	52.590	26344.67	0.0464	P	1.5	5.2
9	<input type="checkbox"/>	100.000	100.104	51256.68	0.0882	P	2.1	0.1
10	<input type="checkbox"/>	1000.000	999.850	511824.83	0.8800	P	1.3	0.0
11	<input type="checkbox"/>			173.89	0.0003	P	1.9	

$$y = 8.8001E-004 * x + 8.1325E-005$$

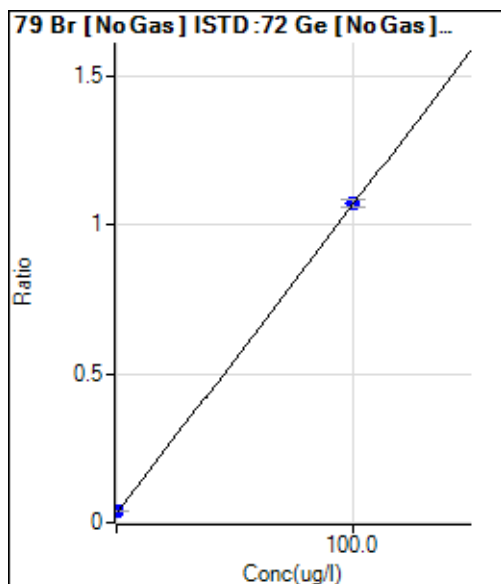
R = 1.0000

DL = 0.0178 ug/l

BEC = 0.09241 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	23762.60	0.0364	P	4.3	
2	<input type="checkbox"/>			61322.05	0.0939	P	8.5	
3	<input type="checkbox"/>			60533.07	0.0947	P	7.6	
4	<input type="checkbox"/>			65872.37	0.0999	P	4.7	
5	<input type="checkbox"/>			63222.32	0.0983	P	1.3	
6	<input type="checkbox"/>			66069.87	0.1022	P	7.0	
7	<input type="checkbox"/>			65494.52	0.0995	P	3.8	
8	<input type="checkbox"/>			23019.42	0.0345	P	8.4	
9	<input type="checkbox"/>			67844.07	0.0988	P	4.6	
10	<input type="checkbox"/>			67249.15	0.0981	P	2.8	
11	<input type="checkbox"/>	100.000	100.000	728682.54	1.0736	P	2.3	0.0

$$y = 0.0104 * x + 0.0364$$

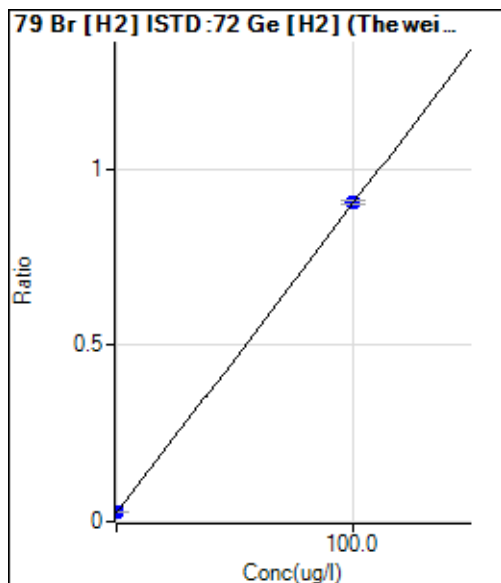
R = 1.0000

DL = 0.457 ug/l

BEC = 3.514 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	16133.71	0.0290	P	3.4	
2	<input type="checkbox"/>			38745.06	0.0702	P	2.2	
3	<input type="checkbox"/>			40526.20	0.0719	P	1.1	
4	<input type="checkbox"/>			45200.60	0.0812	P	0.8	
5	<input type="checkbox"/>			43926.02	0.0783	P	1.4	
6	<input type="checkbox"/>			44880.48	0.0821	P	4.9	
7	<input type="checkbox"/>			44713.53	0.0802	P	1.2	
8	<input type="checkbox"/>			15847.31	0.0279	P	3.8	
9	<input type="checkbox"/>			48211.42	0.0830	P	5.4	
10	<input type="checkbox"/>			60857.42	0.1046	P	0.9	
11	<input type="checkbox"/>	100.000	100.000	506852.35	0.9056	P	1.4	0.0

$y = 0.0088 * x + 0.0290$

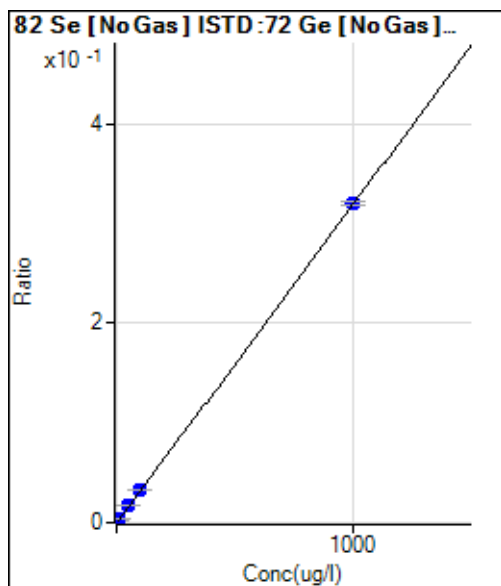
$R = 1.0000$

DL = 0.335 ug/l

BEC = 3.31 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	725.55	0.0011	P	7.6	
2	<input type="checkbox"/>	0.025	-0.375	648.08	0.0010	P	2.5	-1598.1
3	<input type="checkbox"/>	0.050	0.185	747.82	0.0012	P	19.0	270.6
4	<input type="checkbox"/>	0.100	0.454	828.62	0.0013	P	2.1	354.4
5	<input type="checkbox"/>	0.500	1.359	994.24	0.0015	P	4.1	171.8
6	<input type="checkbox"/>	1.000	1.329	995.71	0.0015	P	12.8	32.9
7	<input type="checkbox"/>	10.000	11.177	3080.83	0.0047	P	4.1	11.8
8	<input type="checkbox"/>	50.000	52.702	11979.15	0.0179	P	0.8	5.4
9	<input type="checkbox"/>	100.000	100.898	22913.46	0.0333	P	2.3	0.9
10	<input type="checkbox"/>	1000.000	999.763	219801.32	0.3205	P	1.1	0.0
11	<input type="checkbox"/>			1196.80	0.0018	P	18.0	

$y = 3.1943E-004 * x + 0.0011$

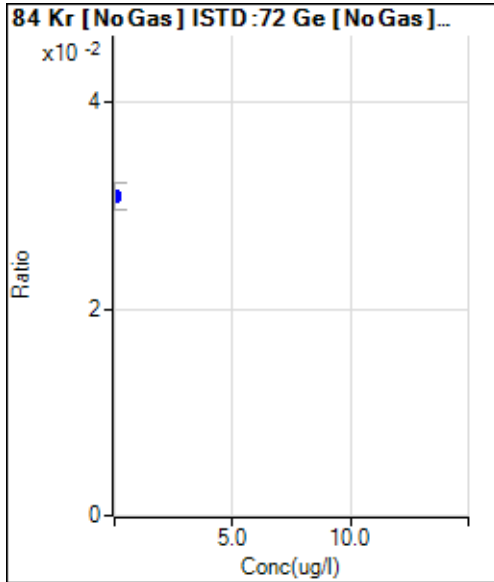
$R = 1.0000$

DL = 0.7952 ug/l

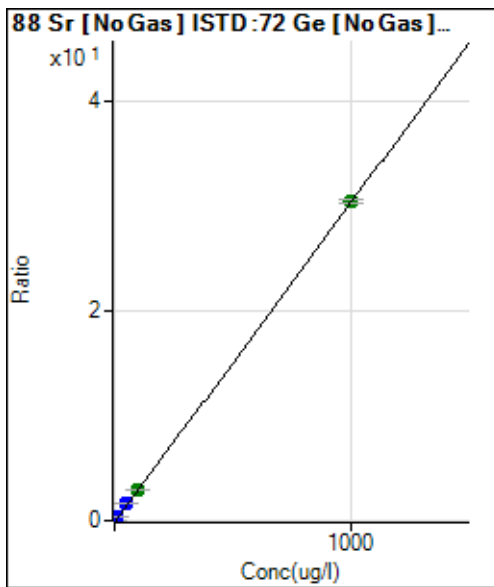
BEC = 3.481 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000		20140.86	0.0309	P	8.3	
2	<input type="checkbox"/>			19344.76	0.0296	P	7.4	
3	<input type="checkbox"/>			18924.94	0.0296	P	7.1	
4	<input type="checkbox"/>			19491.29	0.0296	P	9.7	
5	<input type="checkbox"/>			20580.53	0.0320	P	2.8	
6	<input type="checkbox"/>			20457.20	0.0316	P	1.5	
7	<input type="checkbox"/>			21020.27	0.0319	P	2.2	
8	<input type="checkbox"/>			28238.24	0.0423	P	4.5	
9	<input type="checkbox"/>			36413.66	0.0530	P	2.4	
10	<input type="checkbox"/>			158408.03	0.2309	P	1.3	
11	<input type="checkbox"/>			21769.88	0.0321	P	1.4	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	226.22	0.0003	P	36.7	
2	<input type="checkbox"/>	0.025	0.031	841.70	0.0013	P	7.7	23.5
3	<input type="checkbox"/>	0.050	0.057	1334.09	0.0021	P	12.2	14.1
4	<input type="checkbox"/>	0.100	0.110	2432.06	0.0037	P	3.3	9.7
5	<input type="checkbox"/>	0.500	0.569	11371.99	0.0177	P	1.5	13.8
6	<input type="checkbox"/>	1.000	1.151	22926.33	0.0354	P	2.1	15.1
7	<input type="checkbox"/>	10.000	11.279	226346.46	0.3441	P	3.8	12.8
8	<input type="checkbox"/>	50.000	53.906	1096476.48	1.6430	P	2.4	7.8
9	<input type="checkbox"/>	100.000	99.036	2074356.26	3.0183	A	0.5	-1.0
10	<input type="checkbox"/>	1000.000	999.888	20898842.43	30.4699	A	1.2	0.0
11	<input type="checkbox"/>			3775.87	0.0056	P	40.9	

$y = 0.0305 * x + 3.4752E-004$

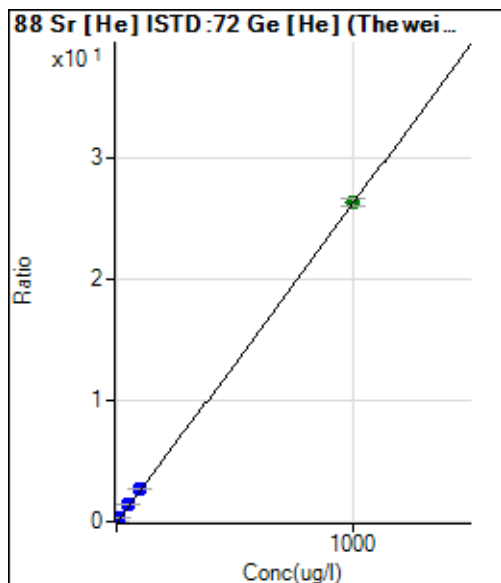
R = 1.0000

DL = 0.01254 ug/l

BEC = 0.0114 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	121.11	0.0010	P	14.1	
2	<input type="checkbox"/>	0.025	0.020	188.89	0.0015	P	8.4	-19.8
3	<input type="checkbox"/>	0.050	0.065	334.45	0.0027	P	17.8	29.9
4	<input type="checkbox"/>	0.100	0.115	497.79	0.0040	P	6.2	15.3
5	<input type="checkbox"/>	0.500	0.544	1902.36	0.0153	P	5.6	8.9
6	<input type="checkbox"/>	1.000	1.155	3969.46	0.0314	P	1.4	15.5
7	<input type="checkbox"/>	10.000	11.168	37326.29	0.2956	P	3.0	11.7
8	<input type="checkbox"/>	50.000	53.315	180514.74	1.4076	P	0.6	6.6
9	<input type="checkbox"/>	100.000	100.020	351891.45	2.6399	P	0.3	0.0
10	<input type="checkbox"/>	1000.000	999.820	3581989.32	26.3797	A	2.9	0.0
11	<input type="checkbox"/>			580.01	0.0046	P	9.2	

$$y = 0.0264 * x + 9.6626E-004$$

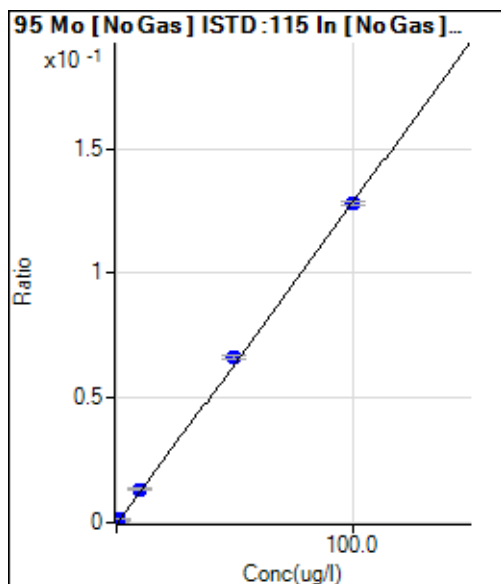
$$R = 1.0000$$

$$DL = 0.0155 \text{ ug/l}$$

$$BEC = 0.03662 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	20.00	0.0000	P	45.0	
2	<input type="checkbox"/>	0.025	0.039	174.45	0.0001	P	2.1	54.2
3	<input type="checkbox"/>	0.050	0.053	232.23	0.0001	P	5.2	5.8
4	<input type="checkbox"/>	0.100	0.108	445.57	0.0001	P	6.2	8.2
5	<input type="checkbox"/>	0.500	0.496	1953.48	0.0006	P	3.0	-0.8
6	<input type="checkbox"/>	1.000	1.058	4256.22	0.0014	P	4.3	5.8
7	<input type="checkbox"/>	10.000	10.363	40464.95	0.0134	P	2.1	3.6
8	<input type="checkbox"/>	50.000	51.539	199215.56	0.0666	P	2.3	3.1
9	<input type="checkbox"/>	100.000	99.194	382705.13	0.1282	P	1.7	-0.8
10	<input type="checkbox"/>			334.45	0.0001	P	11.9	
11	<input type="checkbox"/>			131.11	0.0000	P	22.5	

$$y = 0.0013 * x + 6.5247E-006$$

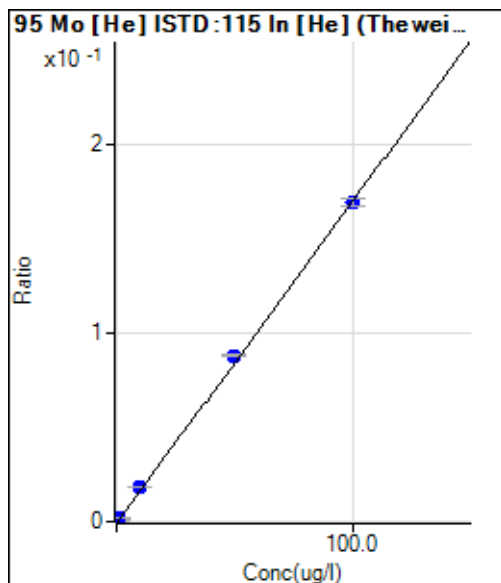
$$R = 0.9998$$

$$DL = 0.006814 \text{ ug/l}$$

$$BEC = 0.00505 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	8.89	0.0000	P	21.9	
2	<input type="checkbox"/>	0.025	0.035	65.55	0.0001	P	17.0	38.8
3	<input type="checkbox"/>	0.050	0.045	82.22	0.0001	P	17.2	-10.5
4	<input type="checkbox"/>	0.100	0.132	222.22	0.0002	P	17.6	31.5
5	<input type="checkbox"/>	0.500	0.506	823.36	0.0009	P	8.6	1.2
6	<input type="checkbox"/>	1.000	1.107	1819.02	0.0019	P	2.3	10.7
7	<input type="checkbox"/>	10.000	10.515	17224.88	0.0180	P	1.3	5.1
8	<input type="checkbox"/>	50.000	51.641	84675.16	0.0883	P	1.3	3.3
9	<input type="checkbox"/>	100.000	99.127	167837.74	0.1695	P	2.4	-0.9
10	<input type="checkbox"/>			111.11	0.0001	P	13.7	
11	<input type="checkbox"/>			25.56	0.0000	P	46.0	

$$y = 0.0017 * x + 9.2862E-006$$

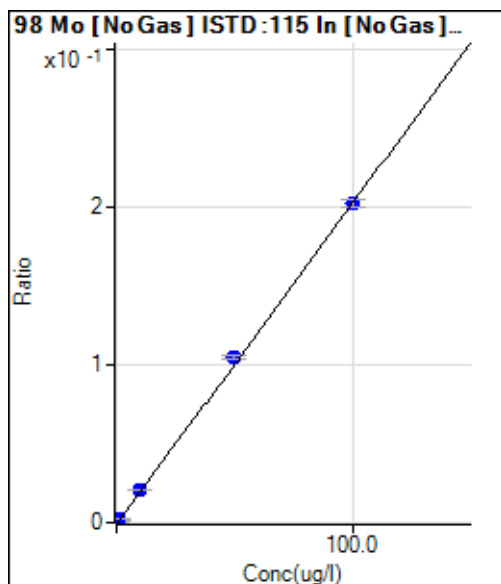
$$R = 0.9998$$

$$DL = 0.003563 \text{ ug/l}$$

$$BEC = 0.005431 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	32.78	0.0000	P	62.3	
2	<input type="checkbox"/>	0.025	0.032	232.16	0.0001	P	7.7	26.5
3	<input type="checkbox"/>	0.050	0.050	348.00	0.0001	P	9.7	-0.1
4	<input type="checkbox"/>	0.100	0.108	700.58	0.0002	P	3.8	7.8
5	<input type="checkbox"/>	0.500	0.504	3125.23	0.0010	P	1.2	0.8
6	<input type="checkbox"/>	1.000	1.010	6397.73	0.0021	P	4.5	1.0
7	<input type="checkbox"/>	10.000	10.111	62141.30	0.0206	P	1.7	1.1
8	<input type="checkbox"/>	50.000	51.260	311853.56	0.1042	P	2.4	2.5
9	<input type="checkbox"/>	100.000	99.359	603249.32	0.2021	P	2.9	-0.6
10	<input type="checkbox"/>			895.66	0.0003	P	6.8	
11	<input type="checkbox"/>			122.64	0.0000	P	5.3	

$$y = 0.0020 * x + 1.0722E-005$$

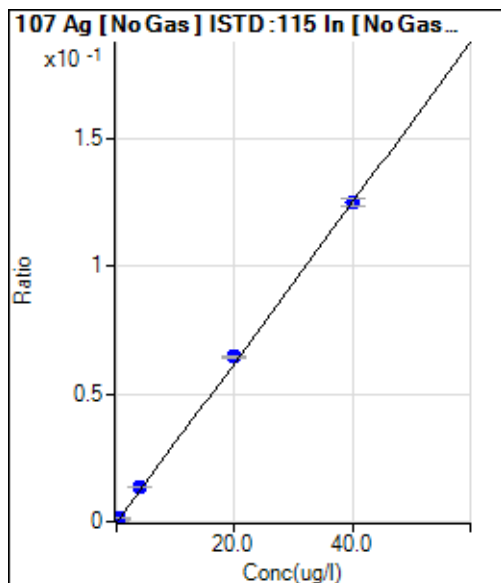
$$R = 0.9999$$

$$DL = 0.00986 \text{ ug/l}$$

$$BEC = 0.005273 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	658.95	0.0002	P	1.9	
2	<input type="checkbox"/>	0.010	0.015	812.35	0.0003	P	6.3	53.7
3	<input type="checkbox"/>	0.020	0.020	857.71	0.0003	P	1.7	-1.3
4	<input type="checkbox"/>	0.040	0.052	1147.84	0.0004	P	4.2	29.3
5	<input type="checkbox"/>	0.200	0.214	2676.00	0.0009	P	2.5	7.2
6	<input type="checkbox"/>	0.400	0.426	4805.42	0.0016	P	1.1	6.5
7	<input type="checkbox"/>	4.000	4.258	41011.44	0.0136	P	1.9	6.5
8	<input type="checkbox"/>	20.000	20.467	192789.69	0.0644	P	1.9	2.3
9	<input type="checkbox"/>	40.000	39.740	373052.10	0.1249	P	1.9	-0.6
10	<input type="checkbox"/>			3403787.27	1.1300	A	1.9	
11	<input type="checkbox"/>			2168.37	0.0007	P	2.1	

$$y = 0.0031 * x + 2.1428E-004$$

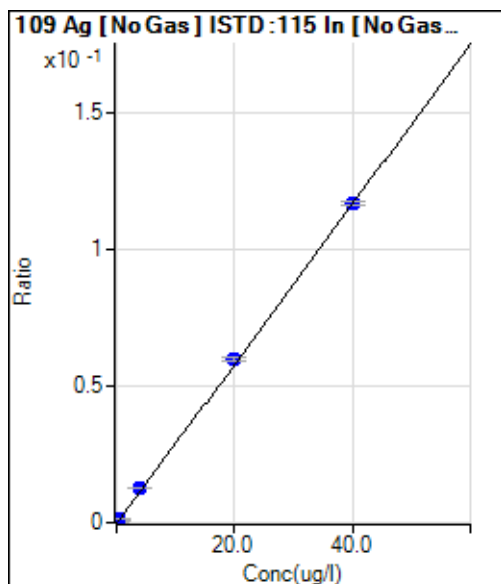
$$R = 0.9999$$

$$DL = 0.003895 \text{ ug/l}$$

$$BEC = 0.06828 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	588.92	0.0002	P	2.0	
2	<input type="checkbox"/>	0.010	0.019	760.33	0.0002	P	4.6	85.2
3	<input type="checkbox"/>	0.020	0.028	846.36	0.0003	P	4.2	38.9
4	<input type="checkbox"/>	0.040	0.048	1007.78	0.0003	P	4.8	19.0
5	<input type="checkbox"/>	0.200	0.222	2537.92	0.0008	P	2.7	10.9
6	<input type="checkbox"/>	0.400	0.431	4505.19	0.0015	P	1.8	7.7
7	<input type="checkbox"/>	4.000	4.184	37608.80	0.0125	P	0.8	4.6
8	<input type="checkbox"/>	20.000	20.301	178513.05	0.0597	P	2.7	1.5
9	<input type="checkbox"/>	40.000	39.831	349155.54	0.1169	P	1.2	-0.4
10	<input type="checkbox"/>			3220014.33	1.0694	A	2.1	
11	<input type="checkbox"/>			2014.29	0.0006	P	2.6	

$$y = 0.0029 * x + 1.9144E-004$$

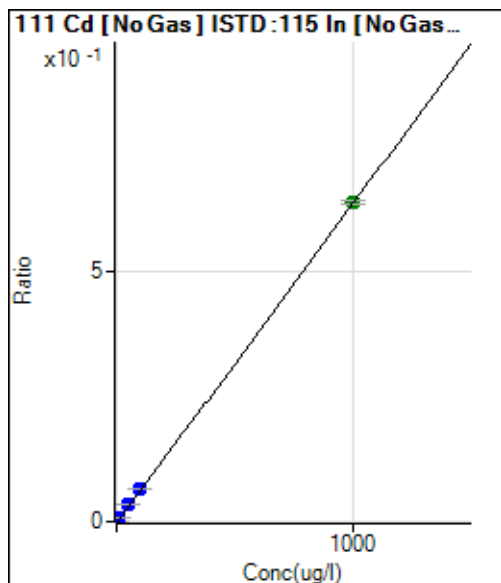
$$R = 1.0000$$

$$DL = 0.003988 \text{ ug/l}$$

$$BEC = 0.06533 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	10.47	0.0000	P	115.	
2	<input type="checkbox"/>	0.025	0.015	40.65	0.0000	P	145.	-39.7
3	<input type="checkbox"/>	0.050	0.045	99.51	0.0000	P	46.3	-10.0
4	<input type="checkbox"/>	0.100	0.101	205.76	0.0001	P	0.9	0.5
5	<input type="checkbox"/>	0.500	0.530	1030.14	0.0003	P	6.4	6.0
6	<input type="checkbox"/>	1.000	1.059	2102.98	0.0007	P	1.5	5.9
7	<input type="checkbox"/>	10.000	10.783	20782.32	0.0069	P	2.1	7.8
8	<input type="checkbox"/>	50.000	52.395	99955.11	0.0334	P	2.4	4.8
9	<input type="checkbox"/>	100.000	102.476	195143.80	0.0653	P	2.0	2.5
10	<input type="checkbox"/>	1000.000	999.625	1919560.10	0.6374	A	1.2	0.0
11	<input type="checkbox"/>			312.33	0.0001	P	18.5	

$y = 6.3767E-004 * x + 3.4204E-006$

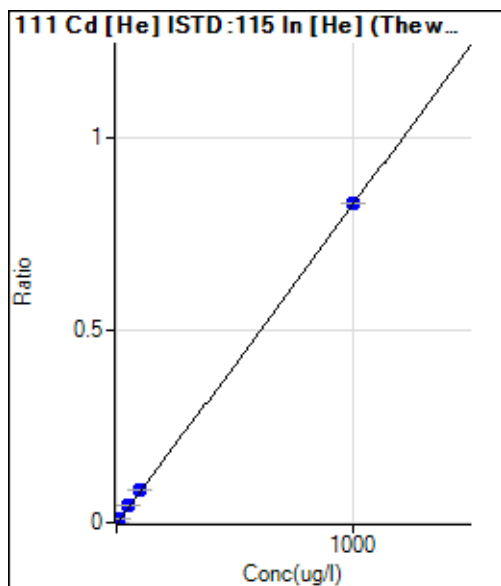
R = 1.0000

DL = 0.0186 ug/l

BEC = 0.005364 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	8.56	0.0000	P	9.7	
2	<input type="checkbox"/>	0.025	0.031	33.33	0.0000	P	10.7	24.8
3	<input type="checkbox"/>	0.050	0.055	52.00	0.0001	P	1.4	9.0
4	<input type="checkbox"/>	0.100	0.109	94.44	0.0001	P	3.8	9.2
5	<input type="checkbox"/>	0.500	0.554	441.89	0.0005	P	3.4	10.8
6	<input type="checkbox"/>	1.000	1.136	911.59	0.0010	P	1.2	13.6
7	<input type="checkbox"/>	10.000	10.941	8714.67	0.0091	P	0.5	9.4
8	<input type="checkbox"/>	50.000	53.209	42401.81	0.0442	P	0.3	6.4
9	<input type="checkbox"/>	100.000	99.941	82240.53	0.0831	P	0.6	-0.1
10	<input type="checkbox"/>	1000.000	999.836	827287.30	0.8308	P	0.2	0.0
11	<input type="checkbox"/>			123.45	0.0001	P	2.8	

$y = 8.3094E-004 * x + 8.9340E-006$

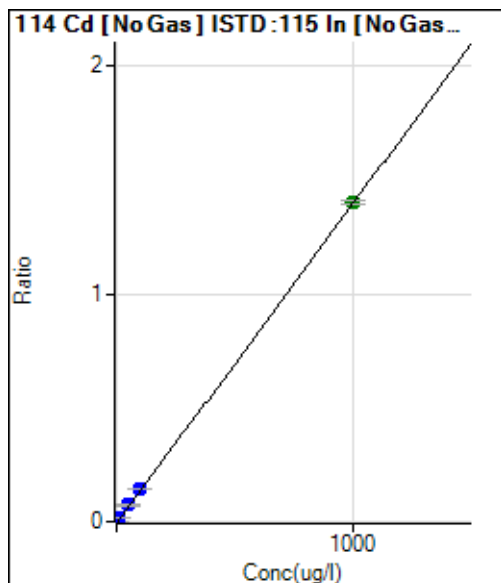
R = 1.0000

DL = 0.003137 ug/l

BEC = 0.01075 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	-40.78	0.0000	P	-67.4	
2	<input type="checkbox"/>	0.025	0.014	18.61	0.0000	P	321.	-45.4
3	<input type="checkbox"/>	0.050	0.045	154.60	0.0000	P	23.2	-10.0
4	<input type="checkbox"/>	0.100	0.105	407.74	0.0001	P	3.7	5.0
5	<input type="checkbox"/>	0.500	0.535	2220.13	0.0007	P	2.4	6.9
6	<input type="checkbox"/>	1.000	1.049	4513.20	0.0015	P	2.6	4.9
7	<input type="checkbox"/>	10.000	10.571	44711.34	0.0148	P	1.0	5.7
8	<input type="checkbox"/>	50.000	51.541	216030.96	0.0722	P	1.8	3.1
9	<input type="checkbox"/>	100.000	101.160	423273.32	0.1418	P	2.2	1.2
10	<input type="checkbox"/>	1000.000	999.801	4219437.31	1.4011	A	0.7	0.0
11	<input type="checkbox"/>			584.06	0.0002	P	12.2	

$$y = 0.0014 * x - 1.3274E-005$$

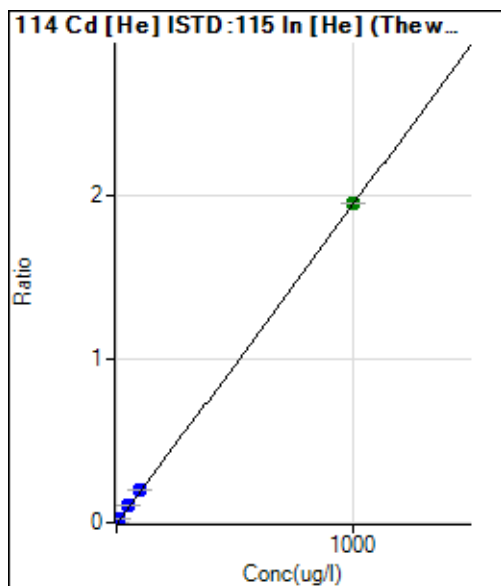
$$R = 1.0000$$

$$DL = 0.01916 \text{ ug/l}$$

$$BEC = -0.009472 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	14.38	0.0000	P	17.5	
2	<input type="checkbox"/>	0.025	0.031	71.73	0.0001	P	3.1	23.0
3	<input type="checkbox"/>	0.050	0.055	116.72	0.0001	P	7.7	9.3
4	<input type="checkbox"/>	0.100	0.117	230.62	0.0002	P	5.8	17.1
5	<input type="checkbox"/>	0.500	0.548	1021.79	0.0011	P	1.8	9.6
6	<input type="checkbox"/>	1.000	1.127	2117.81	0.0022	P	2.4	12.7
7	<input type="checkbox"/>	10.000	11.146	20852.52	0.0218	P	1.1	11.5
8	<input type="checkbox"/>	50.000	53.308	99802.06	0.1041	P	0.4	6.6
9	<input type="checkbox"/>	100.000	101.222	195685.36	0.1976	P	0.8	1.2
10	<input type="checkbox"/>	1000.000	999.701	1943350.44	1.9517	A	0.3	0.0
11	<input type="checkbox"/>			280.86	0.0003	P	2.4	

$$y = 0.0020 * x + 1.5015E-005$$

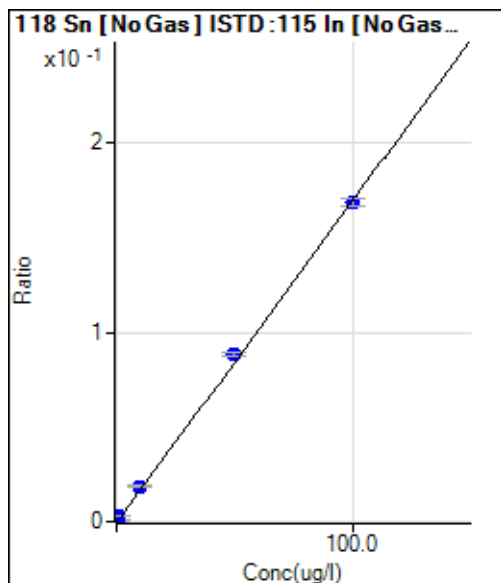
$$R = 1.0000$$

$$DL = 0.004029 \text{ ug/l}$$

$$BEC = 0.007691 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1011.38	0.0003	P	22.8	
2	<input type="checkbox"/>	0.025	0.121	1653.50	0.0005	P	11.9	383.5
3	<input type="checkbox"/>	0.050	0.248	2325.59	0.0008	P	9.4	395.3
4	<input type="checkbox"/>	0.100	0.328	2701.58	0.0009	P	12.5	228.0
5	<input type="checkbox"/>	0.500	0.670	4431.94	0.0015	P	5.2	33.9
6	<input type="checkbox"/>	1.000	1.363	8209.48	0.0026	P	4.4	36.3
7	<input type="checkbox"/>	10.000	10.851	56805.38	0.0188	P	4.1	8.5
8	<input type="checkbox"/>	50.000	51.968	265722.53	0.0888	P	2.6	3.9
9	<input type="checkbox"/>	100.000	98.926	504018.22	0.1688	P	2.1	-1.1
10	<input type="checkbox"/>			2425.40	0.0008	P	5.6	
11	<input type="checkbox"/>			30819.37	0.0097	P	4.7	

$$y = 0.0017 * x + 3.2845E-004$$

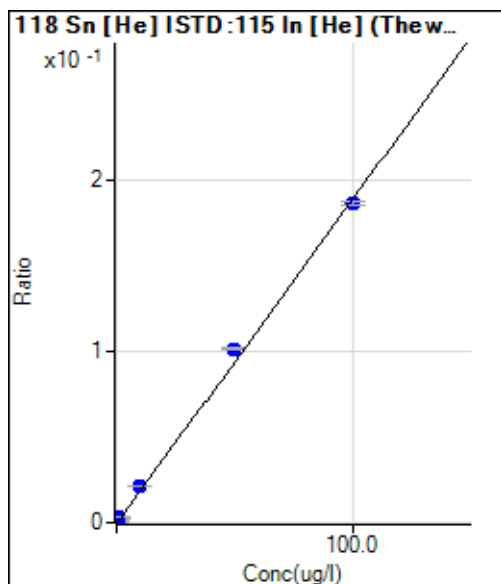
$$R = 0.9997$$

$$DL = 0.132 \text{ ug/l}$$

$$BEC = 0.1929 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	352.23	0.0004	P	14.4	
2	<input type="checkbox"/>	0.025	0.164	647.79	0.0007	P	1.7	554.6
3	<input type="checkbox"/>	0.050	0.265	833.36	0.0009	P	8.6	430.1
4	<input type="checkbox"/>	0.100	0.317	915.59	0.0010	P	4.7	216.6
5	<input type="checkbox"/>	0.500	0.741	1667.89	0.0018	P	6.0	48.3
6	<input type="checkbox"/>	1.000	1.375	2840.31	0.0030	P	1.4	37.5
7	<input type="checkbox"/>	10.000	11.191	20638.58	0.0216	P	0.5	11.9
8	<input type="checkbox"/>	50.000	53.321	97127.46	0.1013	P	0.5	6.6
9	<input type="checkbox"/>	100.000	98.215	184449.08	0.1863	P	1.2	-1.8
10	<input type="checkbox"/>			843.36	0.0008	P	4.4	
11	<input type="checkbox"/>			11186.71	0.0115	P	1.0	

$$y = 0.0019 * x + 3.6768E-004$$

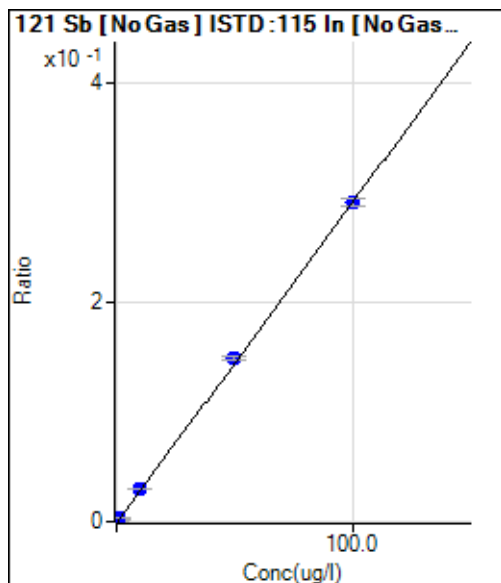
$$R = 0.9993$$

$$DL = 0.0842 \text{ ug/l}$$

$$BEC = 0.1942 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	108.01	0.0000	P	8.3	
2	<input type="checkbox"/>	0.025	0.044	511.39	0.0002	P	1.3	77.9
3	<input type="checkbox"/>	0.050	0.051	573.74	0.0002	P	6.5	2.5
4	<input type="checkbox"/>	0.100	0.103	1025.81	0.0003	P	3.1	3.2
5	<input type="checkbox"/>	0.500	0.503	4544.86	0.0015	P	3.8	0.6
6	<input type="checkbox"/>	1.000	1.038	9509.17	0.0031	P	2.9	3.8
7	<input type="checkbox"/>	10.000	10.299	91070.11	0.0301	P	1.4	3.0
8	<input type="checkbox"/>	50.000	51.034	446439.80	0.1492	P	2.5	2.1
9	<input type="checkbox"/>	100.000	99.453	868522.21	0.2908	P	2.3	-0.5
10	<input type="checkbox"/>			1823.30	0.0006	P	6.6	
11	<input type="checkbox"/>			570.40	0.0002	P	9.7	

$$y = 0.0029 * x + 3.5097E-005$$

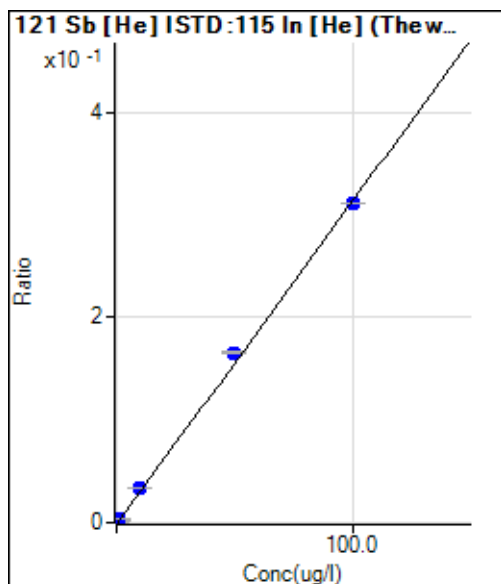
$$R = 0.9999$$

$$DL = 0.002974 \text{ ug/l}$$

$$BEC = 0.012 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	59.68	0.0001	P	8.5	
2	<input type="checkbox"/>	0.025	0.041	183.69	0.0002	P	7.5	64.5
3	<input type="checkbox"/>	0.050	0.047	202.69	0.0002	P	4.8	-5.6
4	<input type="checkbox"/>	0.100	0.108	381.38	0.0004	P	3.2	7.9
5	<input type="checkbox"/>	0.500	0.508	1568.92	0.0017	P	0.8	1.6
6	<input type="checkbox"/>	1.000	1.070	3288.05	0.0034	P	3.2	7.0
7	<input type="checkbox"/>	10.000	10.545	31930.93	0.0333	P	1.2	5.4
8	<input type="checkbox"/>	50.000	52.421	158704.95	0.1655	P	0.9	4.8
9	<input type="checkbox"/>	100.000	98.734	308631.40	0.3117	P	0.4	-1.3
10	<input type="checkbox"/>			608.74	0.0006	P	4.0	
11	<input type="checkbox"/>			198.02	0.0002	P	10.7	

$$y = 0.0032 * x + 6.2311E-005$$

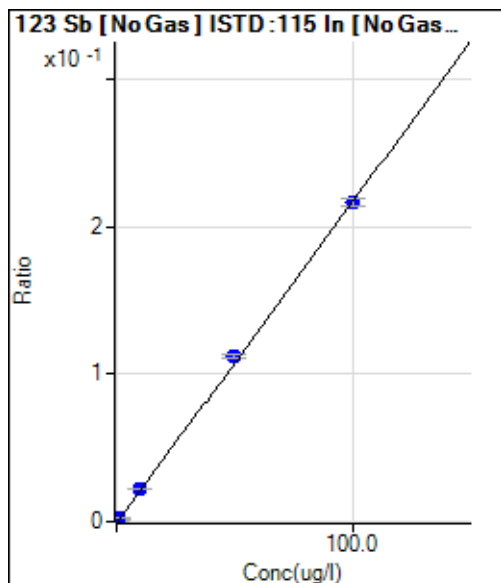
$$R = 0.9996$$

$$DL = 0.005008 \text{ ug/l}$$

$$BEC = 0.01974 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	81.68	0.0000	P	3.7	
2	<input type="checkbox"/>	0.025	0.044	378.71	0.0001	P	1.8	75.6
3	<input type="checkbox"/>	0.050	0.052	435.38	0.0001	P	3.8	4.3
4	<input type="checkbox"/>	0.100	0.103	764.43	0.0003	P	2.7	2.9
5	<input type="checkbox"/>	0.500	0.502	3381.08	0.0011	P	1.2	0.3
6	<input type="checkbox"/>	1.000	1.039	7103.51	0.0023	P	2.1	3.9
7	<input type="checkbox"/>	10.000	10.352	68305.48	0.0226	P	1.5	3.5
8	<input type="checkbox"/>	50.000	51.446	335835.43	0.1123	P	2.0	2.9
9	<input type="checkbox"/>	100.000	99.241	646649.98	0.2165	P	2.7	-0.8
10	<input type="checkbox"/>			1515.57	0.0005	P	8.4	
11	<input type="checkbox"/>			426.05	0.0001	P	10.0	

$y = 0.0022 * x + 2.6561E-005$

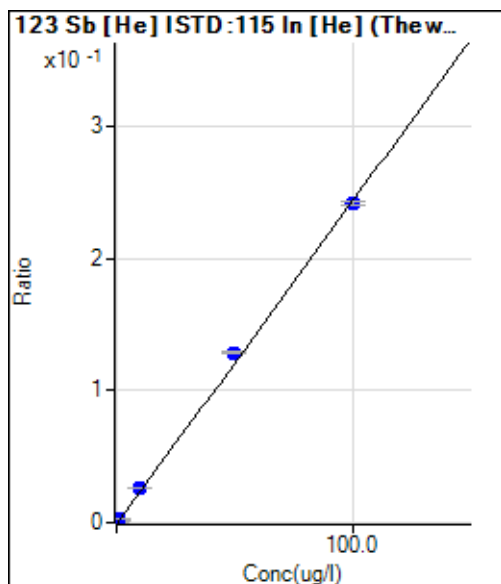
$R = 0.9999$

DL = 0.001363 ug/l

BEC = 0.01217 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	41.00	0.0000	P	25.6	
2	<input type="checkbox"/>	0.025	0.038	129.01	0.0001	P	2.0	50.4
3	<input type="checkbox"/>	0.050	0.056	171.69	0.0002	P	10.0	11.4
4	<input type="checkbox"/>	0.100	0.110	295.36	0.0003	P	3.9	9.9
5	<input type="checkbox"/>	0.500	0.514	1226.51	0.0013	P	1.4	2.9
6	<input type="checkbox"/>	1.000	1.076	2560.83	0.0027	P	3.7	7.6
7	<input type="checkbox"/>	10.000	10.619	24933.17	0.0260	P	1.2	6.2
8	<input type="checkbox"/>	50.000	52.460	123175.12	0.1285	P	0.7	4.9
9	<input type="checkbox"/>	100.000	98.707	239300.18	0.2417	P	1.0	-1.3
10	<input type="checkbox"/>			485.06	0.0005	P	2.1	
11	<input type="checkbox"/>			157.02	0.0002	P	8.6	

$y = 0.0024 * x + 4.2824E-005$

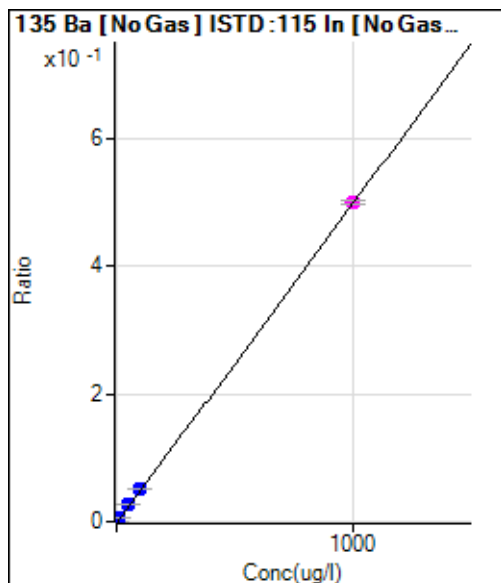
$R = 0.9996$

DL = 0.01345 ug/l

BEC = 0.01749 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	16.63	0.0000	P	35.3	
2	<input type="checkbox"/>	0.025	0.039	76.51	0.0000	P	47.2	55.1
3	<input type="checkbox"/>	0.050	0.062	113.11	0.0000	P	4.6	24.0
4	<input type="checkbox"/>	0.100	0.098	166.34	0.0001	P	39.8	-1.8
5	<input type="checkbox"/>	0.500	0.565	868.31	0.0003	P	3.9	13.0
6	<input type="checkbox"/>	1.000	1.015	1590.28	0.0005	P	4.9	1.5
7	<input type="checkbox"/>	10.000	10.420	15761.10	0.0052	P	2.4	4.2
8	<input type="checkbox"/>	50.000	52.522	78591.97	0.0263	P	3.4	5.0
9	<input type="checkbox"/>	100.000	102.837	153582.04	0.0514	P	2.8	2.8
10	<input type="checkbox"/>	1000.000	999.586	1505792.07	0.4999	M	1.7	0.0
11	<input type="checkbox"/>			242.86	0.0001	P	10.1	

$$y = 5.0015E-004 * x + 5.4202E-006$$

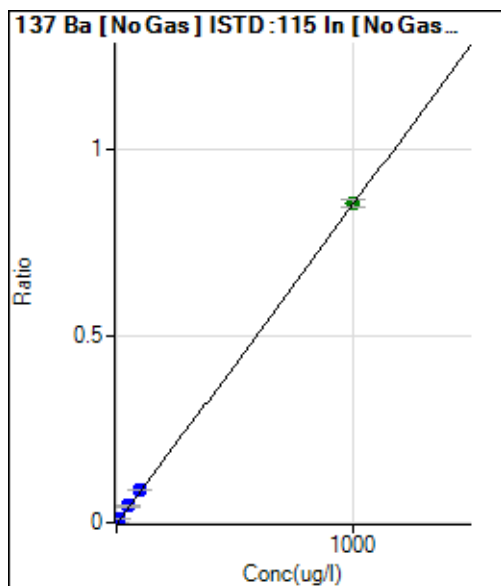
$$R = 1.0000$$

$$DL = 0.01149 \text{ ug/l}$$

$$BEC = 0.01084 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	49.90	0.0000	P	59.5	
2	<input type="checkbox"/>	0.025	0.020	103.13	0.0000	P	16.5	-19.6
3	<input type="checkbox"/>	0.050	0.041	159.68	0.0001	P	21.1	-17.2
4	<input type="checkbox"/>	0.100	0.099	306.06	0.0001	P	23.3	-1.3
5	<input type="checkbox"/>	0.500	0.517	1384.00	0.0005	P	5.5	3.4
6	<input type="checkbox"/>	1.000	1.075	2901.23	0.0009	P	7.8	7.5
7	<input type="checkbox"/>	10.000	10.767	27896.09	0.0092	P	2.8	7.7
8	<input type="checkbox"/>	50.000	52.230	133800.92	0.0447	P	4.4	4.5
9	<input type="checkbox"/>	100.000	102.732	262681.94	0.0880	P	2.0	2.7
10	<input type="checkbox"/>	1000.000	999.608	2577647.69	0.8559	A	1.8	0.0
11	<input type="checkbox"/>			352.64	0.0001	P	14.3	

$$y = 8.5618E-004 * x + 1.6154E-005$$

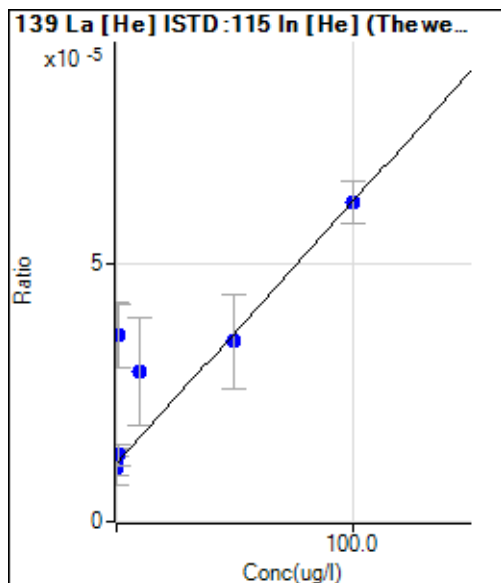
$$R = 1.0000$$

$$DL = 0.03367 \text{ ug/l}$$

$$BEC = 0.01887 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	11.11	0.0000	P	45.5	
2	<input type="checkbox"/>	0.025	48.363	34.44	0.0000	P	34.2	193352.
3	<input type="checkbox"/>	0.050	-2.392	10.00	0.0000	P	66.1	-4883.5
4	<input type="checkbox"/>	0.100	0.243	11.11	0.0000	P	16.2	143.1
5	<input type="checkbox"/>	0.500	2.750	12.22	0.0000	P	31.8	450.0
6	<input type="checkbox"/>	1.000	48.327	34.44	0.0000	P	34.2	4732.7
7	<input type="checkbox"/>	10.000	34.187	27.78	0.0000	P	72.4	241.9
8	<input type="checkbox"/>	50.000	45.875	33.33	0.0000	P	53.2	-8.3
9	<input type="checkbox"/>	100.000	99.148	61.11	0.0001	P	12.8	-0.9
10	<input type="checkbox"/>			132.22	0.0001	P	23.5	
11	<input type="checkbox"/>			13.33	0.0000	P	0.8	

$y = 5.0564E-007 * x + 1.1595E-005$

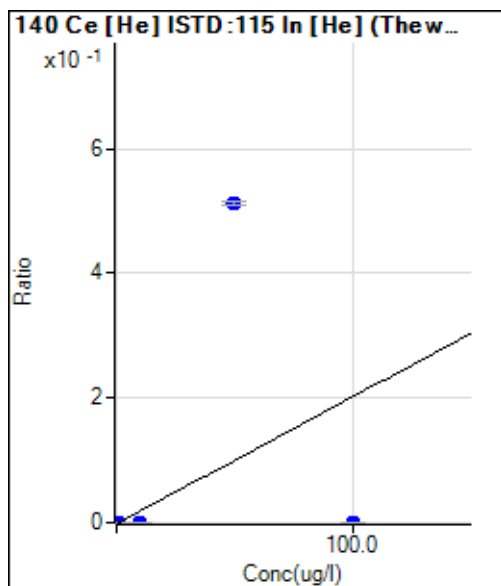
R = 0.8040

DL = 31.32 ug/l

BEC = 22.93 ug/l

Weight: 1/y

Min Conc: <None>



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	7.78	0.0000	P	65.6	
2	<input type="checkbox"/>	0.025	0.018	43.33	0.0000	P	19.7	-27.0
3	<input type="checkbox"/>	0.050	-0.001	6.66	0.0000	P	85.9	-101.2
4	<input type="checkbox"/>	0.100	0.002	11.11	0.0000	P	75.3	-98.3
5	<input type="checkbox"/>	0.500	0.013	33.33	0.0000	P	20.4	-97.3
6	<input type="checkbox"/>	1.000	0.019	44.44	0.0000	P	19.3	-98.1
7	<input type="checkbox"/>	10.000	0.019	45.56	0.0000	P	26.4	-99.8
8	<input type="checkbox"/>	50.000	251.970	491550.64	0.5127	P	1.7	403.9
9	<input type="checkbox"/>	100.000	0.025	58.89	0.0001	P	23.2	-100.0
10	<input type="checkbox"/>			246.67	0.0002	P	8.9	
11	<input type="checkbox"/>			21.11	0.0000	P	17.6	

$y = 0.0020 * x + 8.1269E-006$

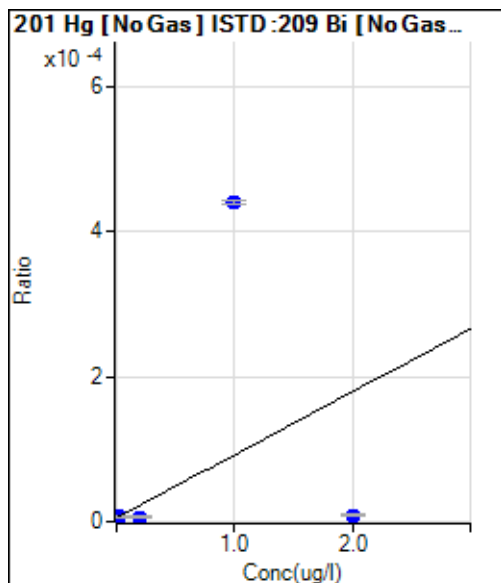
R = 0.3451

DL = 0.007859 ug/l

BEC = 0.003994 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	9.67	0.0000	P	64.1	
2	<input type="checkbox"/>			9.67	0.0000	P	6.6	
3	<input type="checkbox"/>	0.001	0.000	9.67	0.0000	P	23.7	-75.0
4	<input type="checkbox"/>	0.002	-0.007	8.67	0.0000	P	40.6	-437.1
5	<input type="checkbox"/>	0.010	0.002	9.67	0.0000	P	50.3	-82.7
6	<input type="checkbox"/>	0.020	-0.009	8.33	0.0000	P	56.8	-144.9
7	<input type="checkbox"/>	0.200	-0.011	8.00	0.0000	P	38.9	-105.6
8	<input type="checkbox"/>	1.000	4.990	611.89	0.0004	P	1.7	399.0
9	<input type="checkbox"/>	2.000	0.027	13.00	0.0000	P	19.4	-98.7
10	<input type="checkbox"/>			8.33	0.0000	P	36.7	
11	<input type="checkbox"/>			9.33	0.0000	P	43.1	

$$y = 8.6940E-005 * x + 6.7252E-006$$

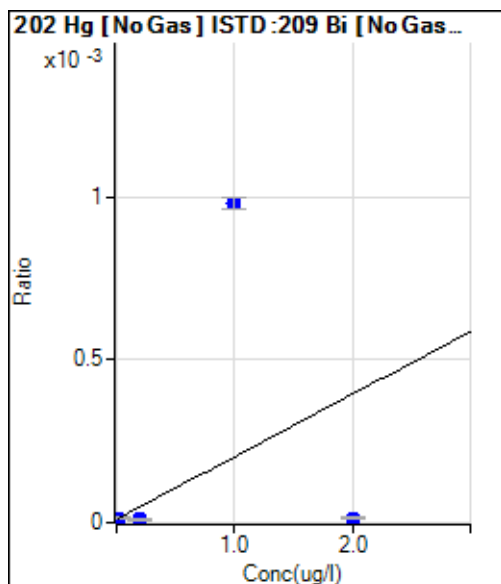
R = 0.3352

DL = 0.1488 ug/l

BEC = 0.07735 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	19.33	0.0000	P	32.7	
2	<input type="checkbox"/>			13.33	0.0000	P	11.5	
3	<input type="checkbox"/>	0.001	-0.008	17.33	0.0000	P	20.1	-856.7
4	<input type="checkbox"/>	0.002	-0.012	16.00	0.0000	P	28.6	-691.6
5	<input type="checkbox"/>	0.010	-0.011	16.00	0.0000	P	7.4	-213.2
6	<input type="checkbox"/>	0.020	-0.004	18.00	0.0000	P	50.0	-120.7
7	<input type="checkbox"/>	0.200	-0.016	14.67	0.0000	P	36.2	-108.0
8	<input type="checkbox"/>	1.000	5.034	1362.47	0.0010	P	3.8	403.4
9	<input type="checkbox"/>	2.000	0.005	21.00	0.0000	P	12.0	-99.7
10	<input type="checkbox"/>			20.00	0.0000	P	11.7	
11	<input type="checkbox"/>			20.00	0.0000	P	17.1	

$$y = 1.9204E-004 * x + 1.3603E-005$$

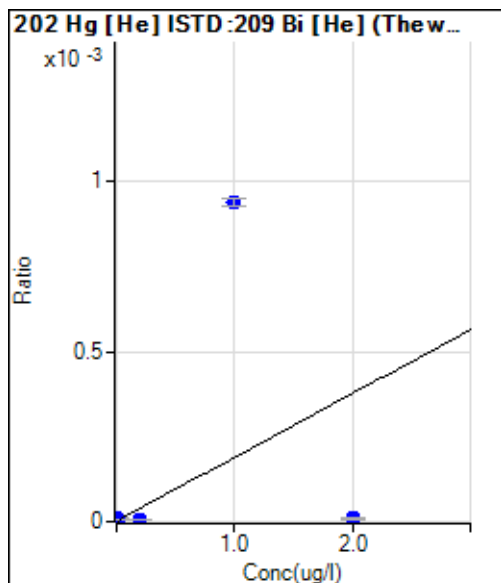
R = 0.3320

DL = 0.06945 ug/l

BEC = 0.07083 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	4.33	0.0000	P	58.8	
2	<input type="checkbox"/>			4.33	0.0000	P	26.7	
3	<input type="checkbox"/>	0.001	0.024	8.33	0.0000	P	42.9	2329.0
4	<input type="checkbox"/>	0.002	0.014	6.67	0.0000	P	73.0	624.0
5	<input type="checkbox"/>	0.010	-0.004	3.67	0.0000	P	15.9	-141.3
6	<input type="checkbox"/>	0.020	0.014	6.67	0.0000	P	8.3	-29.2
7	<input type="checkbox"/>	0.200	0.002	4.67	0.0000	P	11.9	-99.0
8	<input type="checkbox"/>	1.000	4.984	814.20	0.0009	P	2.7	398.4
9	<input type="checkbox"/>	2.000	0.028	9.00	0.0000	P	55.5	-98.6
10	<input type="checkbox"/>			6.67	0.0000	P	34.3	
11	<input type="checkbox"/>			7.00	0.0000	P	52.5	

$y = 1.8764E-004 * x + 5.0189E-006$

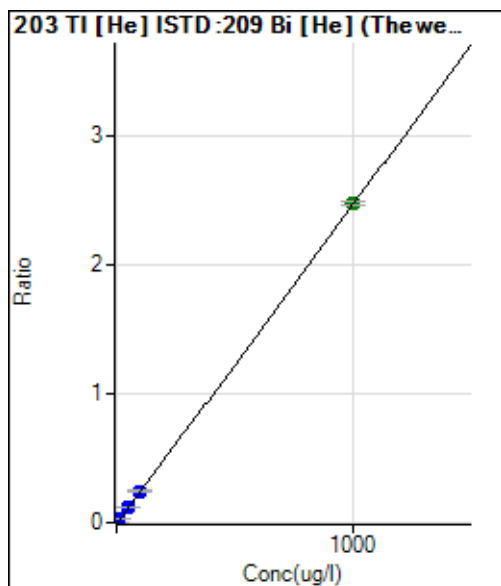
R = 0.3332

DL = 0.04717 ug/l

BEC = 0.02675 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	79.37	0.0001	P	14.8	
2	<input type="checkbox"/>	0.025	0.026	134.72	0.0002	P	17.8	2.3
3	<input type="checkbox"/>	0.050	0.060	210.09	0.0002	P	12.8	20.5
4	<input type="checkbox"/>	0.100	0.105	308.80	0.0004	P	7.8	5.2
5	<input type="checkbox"/>	0.500	0.504	1161.19	0.0013	P	5.4	0.9
6	<input type="checkbox"/>	1.000	1.088	2423.87	0.0028	P	2.5	8.8
7	<input type="checkbox"/>	10.000	10.693	23071.16	0.0266	P	2.7	6.9
8	<input type="checkbox"/>	50.000	50.608	108865.63	0.1257	P	1.0	1.2
9	<input type="checkbox"/>	100.000	98.676	214540.00	0.2450	P	1.5	-1.3
10	<input type="checkbox"/>	1000.000	1000.095	2126095.93	2.4824	A	1.6	0.0
11	<input type="checkbox"/>			661.62	0.0008	P	2.7	

$y = 0.0025 * x + 9.1424E-005$

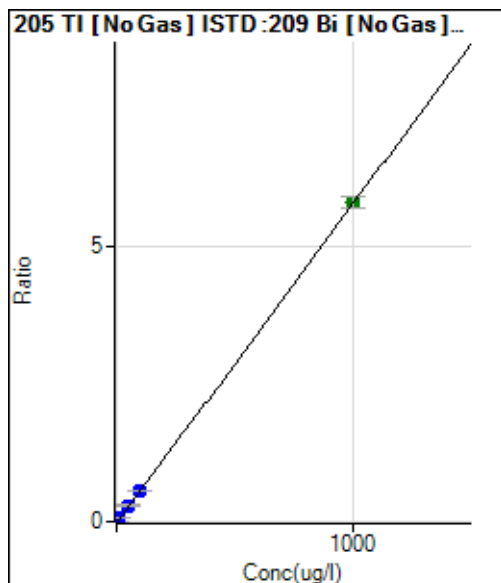
R = 1.0000

DL = 0.01631 ug/l

BEC = 0.03683 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	298.89	0.0002	P	8.1	
2	<input type="checkbox"/>	0.025	0.027	530.02	0.0004	P	7.9	8.8
3	<input type="checkbox"/>	0.050	0.050	714.47	0.0005	P	5.4	-0.2
4	<input type="checkbox"/>	0.100	0.106	1160.06	0.0008	P	6.2	5.8
5	<input type="checkbox"/>	0.500	0.499	4320.73	0.0031	P	8.2	-0.2
6	<input type="checkbox"/>	1.000	1.095	9168.77	0.0065	P	3.5	9.5
7	<input type="checkbox"/>	10.000	10.601	86054.39	0.0616	P	1.6	6.0
8	<input type="checkbox"/>	50.000	50.720	407993.88	0.2937	P	2.3	1.4
9	<input type="checkbox"/>	100.000	97.236	809393.44	0.5629	P	1.6	-2.8
10	<input type="checkbox"/>	1000.000	1000.234	8111810.78	5.7886	A	3.6	0.0
11	<input type="checkbox"/>			3143.72	0.0021	P	4.0	

$$y = 0.0058 * x + 2.0926E-004$$

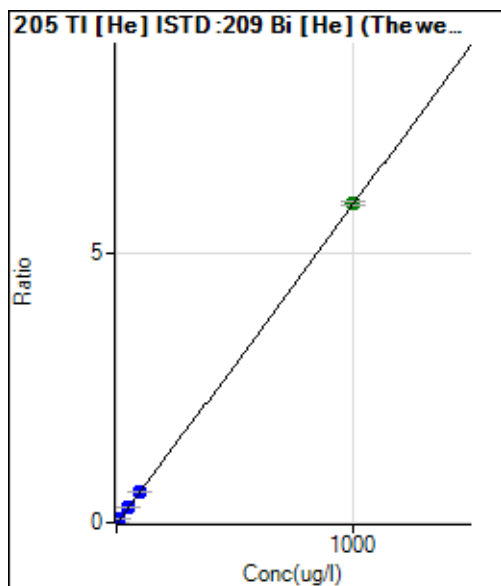
$$R = 1.0000$$

$$DL = 0.008792 \text{ ug/l}$$

$$BEC = 0.03616 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	174.07	0.0002	P	12.9	
2	<input type="checkbox"/>	0.025	0.027	315.46	0.0004	P	7.8	9.2
3	<input type="checkbox"/>	0.050	0.059	481.54	0.0006	P	2.0	18.6
4	<input type="checkbox"/>	0.100	0.108	735.65	0.0008	P	6.5	7.9
5	<input type="checkbox"/>	0.500	0.538	2930.17	0.0034	P	2.4	7.6
6	<input type="checkbox"/>	1.000	1.119	5933.05	0.0068	P	2.4	11.9
7	<input type="checkbox"/>	10.000	10.703	55130.98	0.0636	P	2.1	7.0
8	<input type="checkbox"/>	50.000	50.286	258345.87	0.2983	P	0.4	0.6
9	<input type="checkbox"/>	100.000	98.075	509264.79	0.5816	P	0.6	-1.9
10	<input type="checkbox"/>	1000.000	1000.171	5078330.80	5.9293	A	1.5	0.0
11	<input type="checkbox"/>			1492.02	0.0018	P	1.5	

$$y = 0.0059 * x + 2.0085E-004$$

$$R = 1.0000$$

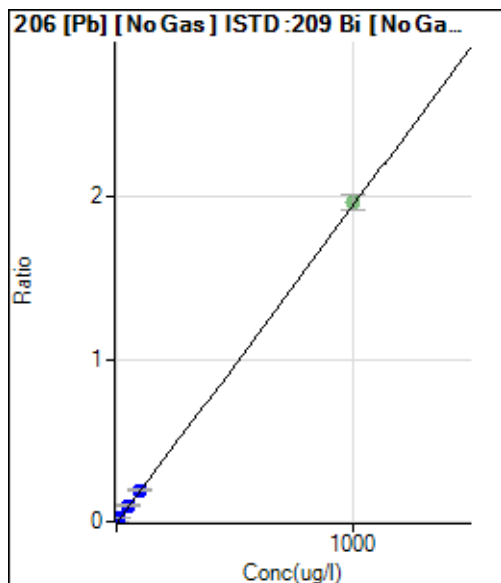
$$DL = 0.01306 \text{ ug/l}$$

$$BEC = 0.03388 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>

Calibration for 007CAL5.d



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	120.00	0.0001	P	22.2	
2	<input type="checkbox"/>	0.025	0.024	188.89	0.0001	P	15.9	-5.0
3	<input type="checkbox"/>	0.050	0.039	228.89	0.0002	P	5.9	-22.6
4	<input type="checkbox"/>	0.100	0.112	427.79	0.0003	P	8.9	11.8
5	<input type="checkbox"/>	0.500	0.529	1560.10	0.0011	P	7.3	5.7
6	<input type="checkbox"/>	1.000	1.084	3087.05	0.0022	P	3.4	8.4
7	<input type="checkbox"/>	10.000	10.819	29683.30	0.0212	P	2.8	8.2
8	<input type="checkbox"/>	50.000	51.375	139591.95	0.1005	P	1.9	2.8
9	<input type="checkbox"/>	100.000	99.230	279084.52	0.1941	P	2.5	-0.8
10	<input checked="" type="checkbox"/>	1000.000		2756455.58	1.9675	A	4.9	
11	<input type="checkbox"/>			707.80	0.0005	P	5.3	

$y = 0.0020 * x + 8.4297E-005$

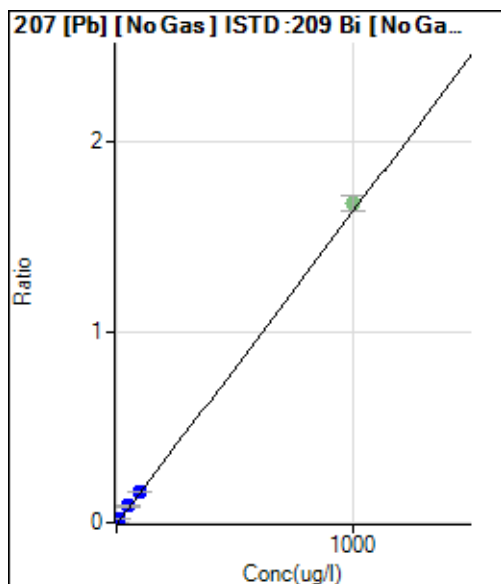
R = 0.9999

DL = 0.02874 ug/l

BEC = 0.04312 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	91.11	0.0001	P	14.6	
2	<input type="checkbox"/>	0.025	0.038	181.12	0.0001	P	12.0	50.2
3	<input type="checkbox"/>	0.050	0.037	178.89	0.0001	P	11.6	-25.0
4	<input type="checkbox"/>	0.100	0.110	344.45	0.0002	P	20.2	10.0
5	<input type="checkbox"/>	0.500	0.558	1368.97	0.0010	P	3.9	11.6
6	<input type="checkbox"/>	1.000	1.116	2653.62	0.0019	P	2.4	11.6
7	<input type="checkbox"/>	10.000	11.089	25521.29	0.0183	P	0.9	10.9
8	<input type="checkbox"/>	50.000	52.672	120078.61	0.0865	P	3.1	5.3
9	<input type="checkbox"/>	100.000	98.554	232589.43	0.1617	P	2.9	-1.4
10	<input checked="" type="checkbox"/>	1000.000		2348972.62	1.6766	A	4.7	
11	<input type="checkbox"/>			612.24	0.0004	P	4.3	

$y = 0.0016 * x + 6.3605E-005$

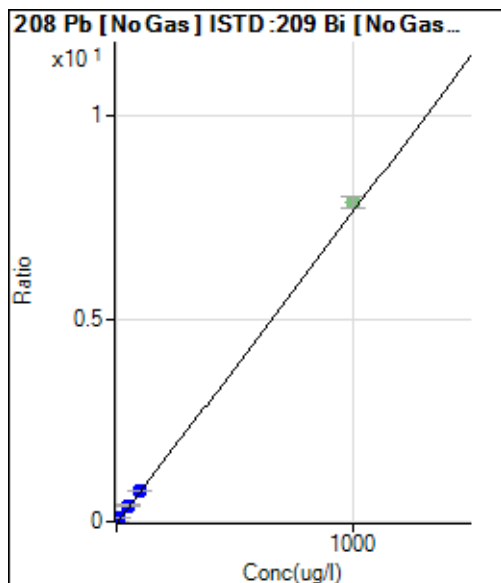
R = 0.9995

DL = 0.01701 ug/l

BEC = 0.03878 ug/l

Weight: 1/y

Min Conc: <None>



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	418.89	0.0003	P	2.6	
2	<input type="checkbox"/>	0.025	0.034	804.46	0.0006	P	8.4	37.1
3	<input type="checkbox"/>	0.050	0.041	868.91	0.0006	P	6.2	-18.3
4	<input type="checkbox"/>	0.100	0.109	1601.16	0.0011	P	3.8	9.4
5	<input type="checkbox"/>	0.500	0.543	6232.84	0.0045	P	3.3	8.5
6	<input type="checkbox"/>	1.000	1.106	12316.81	0.0088	P	2.4	10.6
7	<input type="checkbox"/>	10.000	10.817	116596.18	0.0834	P	1.9	8.2
8	<input type="checkbox"/>	50.000	52.342	558928.30	0.4024	P	1.5	4.7
9	<input type="checkbox"/>	100.000	98.746	1091318.27	0.7589	P	1.3	-1.3
10	<input checked="" type="checkbox"/>	1000.000		11037827.98	7.8772	A	4.0	
11	<input type="checkbox"/>			2772.36	0.0019	P	1.7	

$y = 0.0077 * x + 2.9323E-004$

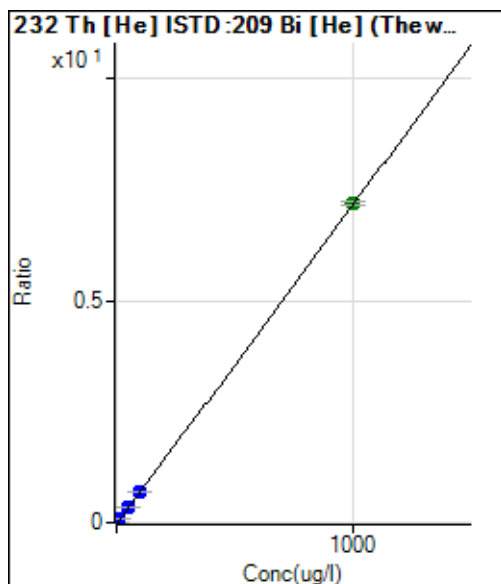
$R = 0.9996$

DL = 0.002936 ug/l

BEC = 0.03817 ug/l

Weight: 1/y

Min Conc: <None>



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	42.68	0.0000	P	31.2	
2	<input type="checkbox"/>	0.025	0.016	143.39	0.0002	P	9.8	-35.6
3	<input type="checkbox"/>	0.050	0.031	234.76	0.0003	P	14.4	-38.8
4	<input type="checkbox"/>	0.100	0.074	506.88	0.0006	P	4.6	-26.4
5	<input type="checkbox"/>	0.500	0.450	2842.79	0.0033	P	6.4	-9.9
6	<input type="checkbox"/>	1.000	0.962	6055.19	0.0070	P	2.2	-3.8
7	<input type="checkbox"/>	10.000	10.213	63736.55	0.0736	P	0.7	2.1
8	<input type="checkbox"/>	50.000	49.677	309754.92	0.3576	P	1.1	-0.6
9	<input type="checkbox"/>	100.000	97.307	613399.42	0.7005	P	1.5	-2.7
10	<input type="checkbox"/>	1000.000	1000.283	6167763.47	7.2007	A	0.9	0.0
11	<input type="checkbox"/>			1433.99	0.0017	P	10.6	

$y = 0.0072 * x + 4.8962E-005$

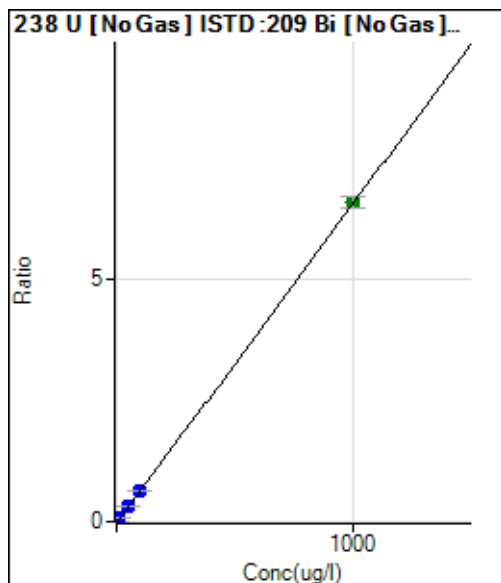
$R = 1.0000$

DL = 0.006358 ug/l

BEC = 0.006802 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	24.00	0.0000	P	42.1	
2	<input type="checkbox"/>	0.025	0.028	286.28	0.0002	P	2.1	10.5
3	<input type="checkbox"/>	0.050	0.050	492.25	0.0003	P	1.6	-0.4
4	<input type="checkbox"/>	0.100	0.109	1035.50	0.0007	P	2.9	9.2
5	<input type="checkbox"/>	0.500	0.504	4644.24	0.0033	P	0.7	0.8
6	<input type="checkbox"/>	1.000	1.057	9738.69	0.0070	P	1.7	5.7
7	<input type="checkbox"/>	10.000	10.372	95159.04	0.0681	P	2.3	3.7
8	<input type="checkbox"/>	50.000	50.311	458616.95	0.3302	P	1.6	0.6
9	<input type="checkbox"/>	100.000	96.382	909491.29	0.6325	P	1.5	-3.6
10	<input type="checkbox"/>	1000.000	1000.343	9199341.58	6.5642	A	3.1	0.0
11	<input type="checkbox"/>			1360.47	0.0009	P	2.5	

$$y = 0.0066 * x + 1.6747E-005$$

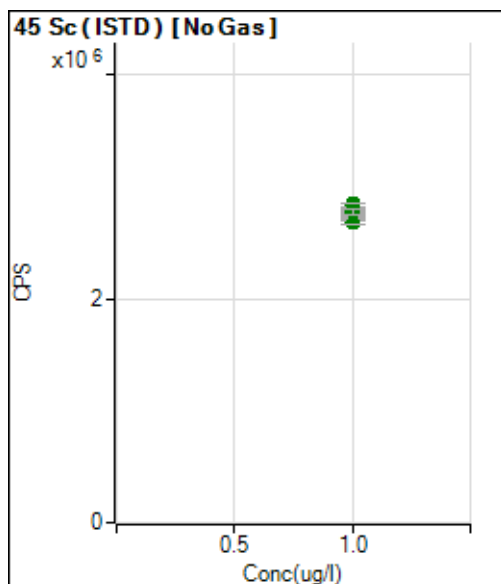
$$R = 1.0000$$

$$DL = 0.00322 \text{ ug/l}$$

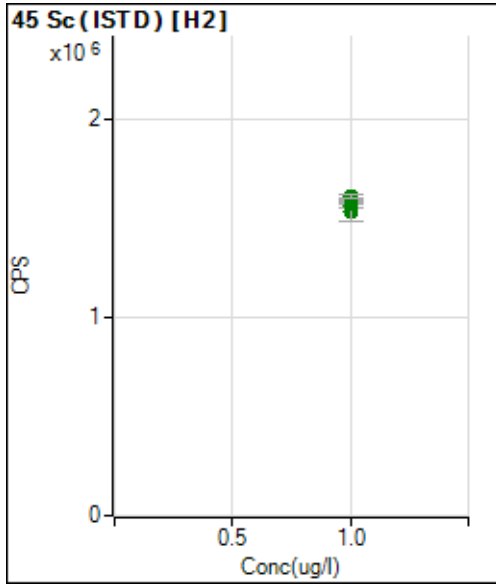
$$BEC = 0.002552 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

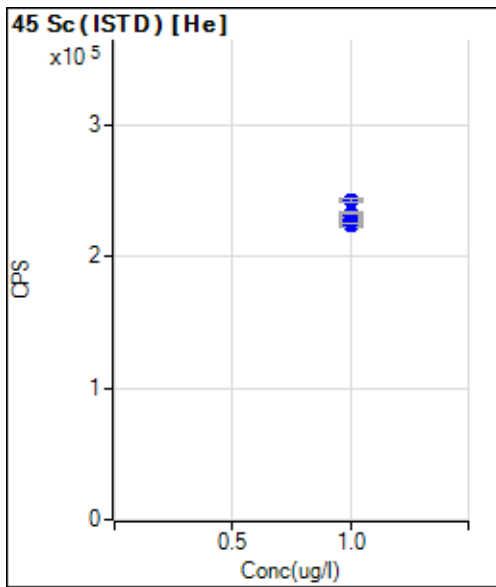
$$\text{Min Conc: } <\text{None}>$$



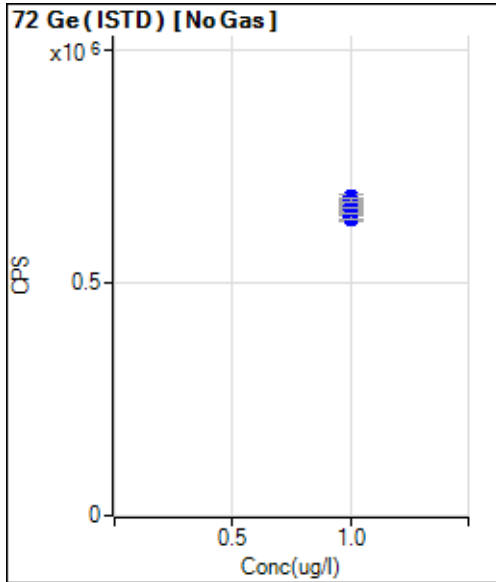
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2690306.33		A	1.4	
2	<input type="checkbox"/>	1.000		2730650.41		A	1.0	
3	<input type="checkbox"/>	1.000		2735614.86		A	2.2	
4	<input type="checkbox"/>	1.000		2725670.27		A	1.4	
5	<input type="checkbox"/>	1.000		2746339.45		A	2.7	
6	<input type="checkbox"/>	1.000		2765097.35		A	3.7	
7	<input type="checkbox"/>	1.000		2727190.40		A	0.7	
8	<input type="checkbox"/>	1.000		2761072.98		A	1.9	
9	<input type="checkbox"/>	1.000		2854473.42		A	0.6	
10	<input type="checkbox"/>	1.000		2832563.67		A	1.8	
11	<input type="checkbox"/>	1.000		2778431.51		A	1.7	



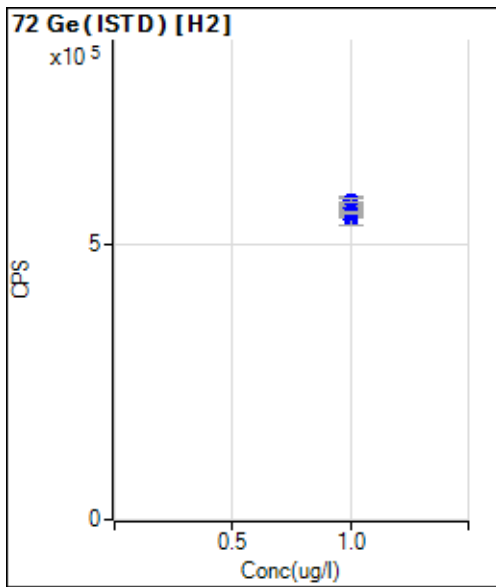
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1594616.03		A	0.2	
2	<input type="checkbox"/>	1.000		1573224.53		A	0.4	
3	<input type="checkbox"/>	1.000		1585207.90		A	0.6	
4	<input type="checkbox"/>	1.000		1562112.50		A	1.4	
5	<input type="checkbox"/>	1.000		1564634.98		A	1.1	
6	<input type="checkbox"/>	1.000		1533026.70		A	6.3	
7	<input type="checkbox"/>	1.000		1575307.89		A	0.9	
8	<input type="checkbox"/>	1.000		1581497.89		A	0.3	
9	<input type="checkbox"/>	1.000		1596282.96		A	0.5	
10	<input type="checkbox"/>	1.000		1610607.16		A	0.8	
11	<input type="checkbox"/>	1.000		1611272.76		A	1.4	



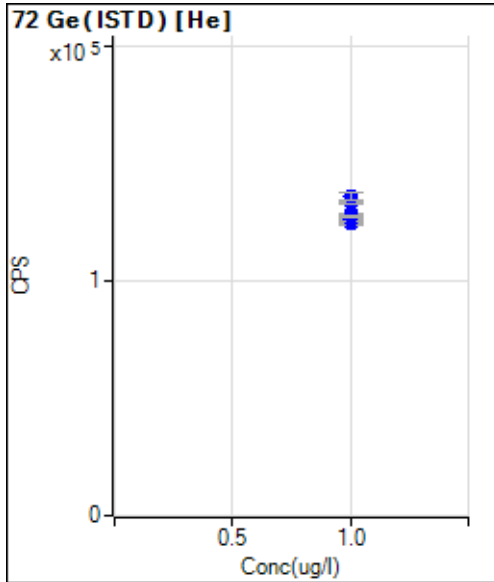
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		226047.03		P	1.9	
2	<input type="checkbox"/>	1.000		228380.71		P	1.7	
3	<input type="checkbox"/>	1.000		224552.89		P	1.7	
4	<input type="checkbox"/>	1.000		224813.66		P	0.6	
5	<input type="checkbox"/>	1.000		222936.91		P	1.4	
6	<input type="checkbox"/>	1.000		226104.60		P	1.2	
7	<input type="checkbox"/>	1.000		227532.86		P	1.6	
8	<input type="checkbox"/>	1.000		231524.73		P	1.3	
9	<input type="checkbox"/>	1.000		242170.30		P	0.5	
10	<input type="checkbox"/>	1.000		242551.26		P	1.6	
11	<input type="checkbox"/>	1.000		232851.77		P	1.1	



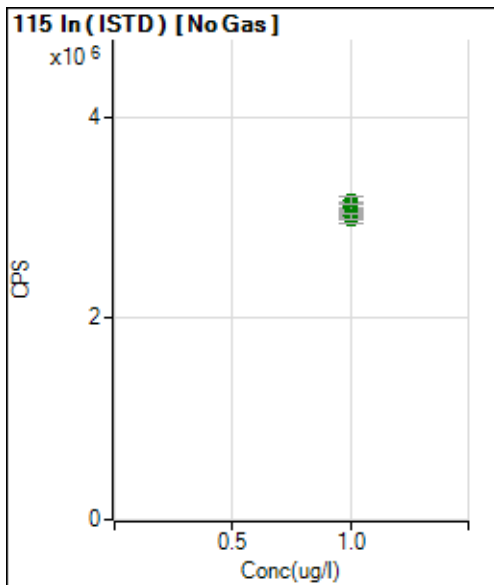
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		652390.19		P	2.3	
2	<input type="checkbox"/>	1.000		653083.50		P	1.2	
3	<input type="checkbox"/>	1.000		639602.89		P	1.5	
4	<input type="checkbox"/>	1.000		659170.20		P	0.9	
5	<input type="checkbox"/>	1.000		643242.58		P	2.3	
6	<input type="checkbox"/>	1.000		647200.50		P	2.6	
7	<input type="checkbox"/>	1.000		658134.74		P	2.0	
8	<input type="checkbox"/>	1.000		667458.80		P	1.1	
9	<input type="checkbox"/>	1.000		687244.99		P	1.1	
10	<input type="checkbox"/>	1.000		685964.70		P	1.5	
11	<input type="checkbox"/>	1.000		678842.70		P	1.3	



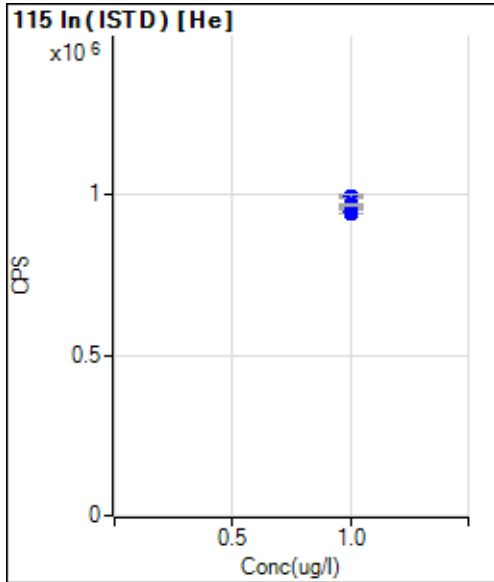
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		556125.38		P	0.9	
2	<input type="checkbox"/>	1.000		551883.16		P	0.7	
3	<input type="checkbox"/>	1.000		563733.72		P	1.4	
4	<input type="checkbox"/>	1.000		556522.15		P	0.5	
5	<input type="checkbox"/>	1.000		560997.95		P	1.8	
6	<input type="checkbox"/>	1.000		547548.84		P	3.7	
7	<input type="checkbox"/>	1.000		557645.94		P	1.0	
8	<input type="checkbox"/>	1.000		568315.28		P	1.3	
9	<input type="checkbox"/>	1.000		581470.45		P	1.9	
10	<input type="checkbox"/>	1.000		581692.53		P	1.2	
11	<input type="checkbox"/>	1.000		559681.12		P	0.9	



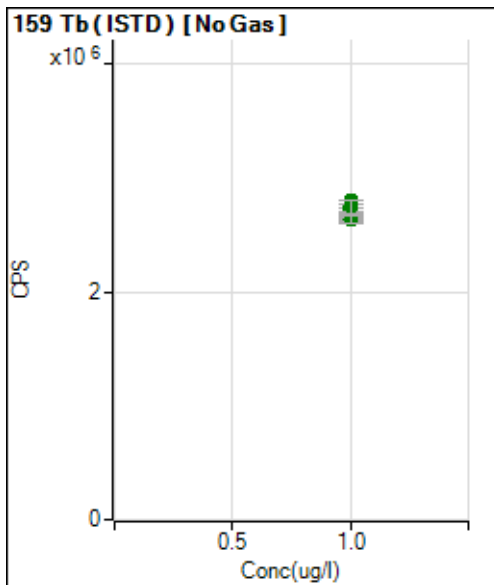
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		125536.13		P	1.7	
2	<input type="checkbox"/>	1.000		126389.23		P	1.5	
3	<input type="checkbox"/>	1.000		125001.80		P	1.3	
4	<input type="checkbox"/>	1.000		124107.40		P	1.4	
5	<input type="checkbox"/>	1.000		124125.72		P	0.4	
6	<input type="checkbox"/>	1.000		126262.14		P	0.9	
7	<input type="checkbox"/>	1.000		126306.61		P	1.7	
8	<input type="checkbox"/>	1.000		128246.28		P	0.7	
9	<input type="checkbox"/>	1.000		133297.62		P	0.8	
10	<input type="checkbox"/>	1.000		135847.94		P	2.3	
11	<input type="checkbox"/>	1.000		127267.10		P	1.2	



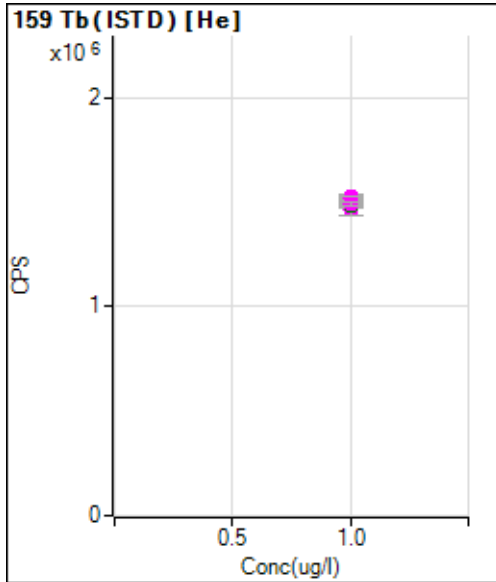
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		3075775.44		A	1.4	
2	<input type="checkbox"/>	1.000		3096029.17		A	1.9	
3	<input type="checkbox"/>	1.000		3104277.65		A	2.5	
4	<input type="checkbox"/>	1.000		3046566.86		A	1.3	
5	<input type="checkbox"/>	1.000		3016738.23		A	0.9	
6	<input type="checkbox"/>	1.000		3097899.70		A	2.3	
7	<input type="checkbox"/>	1.000		3020773.87		A	0.7	
8	<input type="checkbox"/>	1.000		2991815.75		A	0.9	
9	<input type="checkbox"/>	1.000		2986933.16		A	2.6	
10	<input type="checkbox"/>	1.000		3011807.21		A	1.9	
11	<input type="checkbox"/>	1.000		3170453.62		A	2.6	



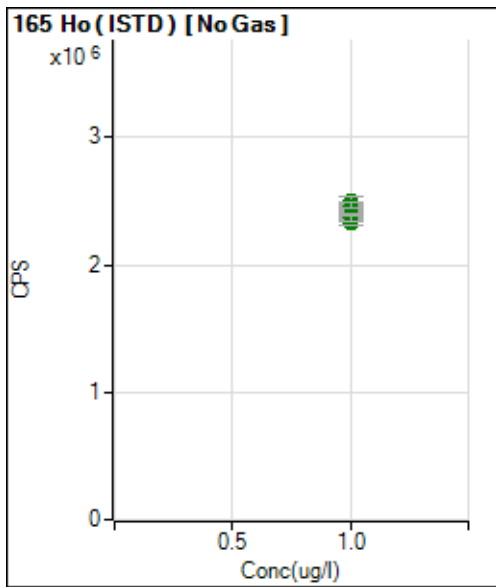
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		957731.18		P	0.3	
2	<input type="checkbox"/>	1.000		956292.92		P	0.8	
3	<input type="checkbox"/>	1.000		959018.55		P	0.9	
4	<input type="checkbox"/>	1.000		947145.11		P	1.5	
5	<input type="checkbox"/>	1.000		941831.22		P	0.4	
6	<input type="checkbox"/>	1.000		956460.37		P	0.5	
7	<input type="checkbox"/>	1.000		957654.49		P	0.9	
8	<input type="checkbox"/>	1.000		958834.89		P	0.2	
9	<input type="checkbox"/>	1.000		990207.61		P	0.7	
10	<input type="checkbox"/>	1.000		995757.12		P	1.1	
11	<input type="checkbox"/>	1.000		969744.27		P	0.8	



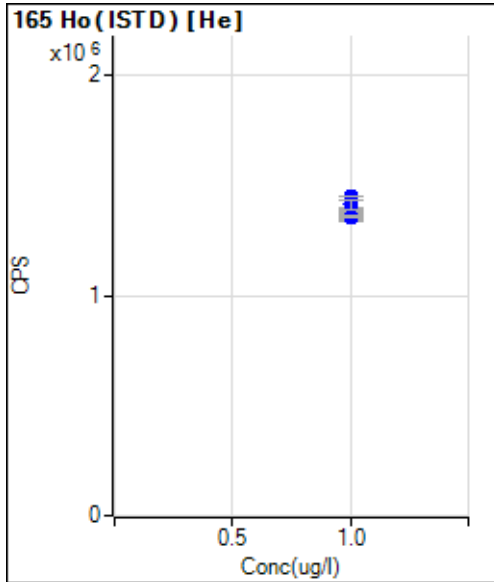
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2665356.67		A	1.4	
2	<input type="checkbox"/>	1.000		2716191.07		A	1.8	
3	<input type="checkbox"/>	1.000		2665772.60		A	0.4	
4	<input type="checkbox"/>	1.000		2627472.90		A	1.9	
5	<input type="checkbox"/>	1.000		2668219.38		A	0.1	
6	<input type="checkbox"/>	1.000		2645377.24		A	2.5	
7	<input type="checkbox"/>	1.000		2637677.43		A	0.6	
8	<input type="checkbox"/>	1.000		2642268.97		A	2.5	
9	<input type="checkbox"/>	1.000		2743846.30		A	2.6	
10	<input type="checkbox"/>	1.000		2804718.84		A	0.1	
11	<input type="checkbox"/>	1.000		2746743.21		A	3.8	



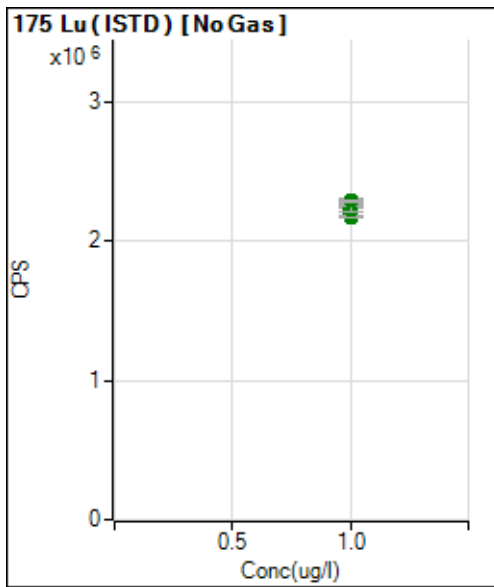
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1509876.09		A	2.1	
2	<input type="checkbox"/>	1.000		1477811.81		M	0.9	
3	<input type="checkbox"/>	1.000		1485491.19		M	2.2	
4	<input type="checkbox"/>	1.000		1460253.35		M	3.6	
5	<input type="checkbox"/>	1.000		1477710.58		P	0.7	
6	<input type="checkbox"/>	1.000		1512143.77		M	1.6	
7	<input type="checkbox"/>	1.000		1477230.02		A	0.6	
8	<input type="checkbox"/>	1.000		1503908.48		M	1.0	
9	<input type="checkbox"/>	1.000		1527026.14		M	1.7	
10	<input type="checkbox"/>	1.000		1518532.80		M	1.2	
11	<input type="checkbox"/>	1.000		1488306.98		M	1.3	



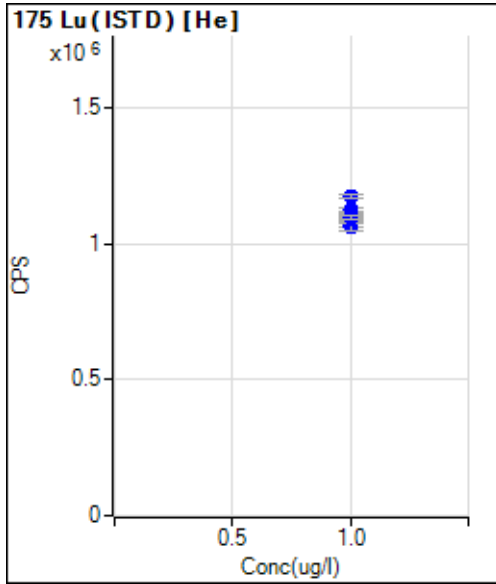
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2407332.30		A	2.1	
2	<input type="checkbox"/>	1.000		2471408.36		A	0.3	
3	<input type="checkbox"/>	1.000		2396248.53		A	3.4	
4	<input type="checkbox"/>	1.000		2332741.49		A	2.2	
5	<input type="checkbox"/>	1.000		2390827.75		A	2.0	
6	<input type="checkbox"/>	1.000		2395475.34		A	2.5	
7	<input type="checkbox"/>	1.000		2326159.12		A	0.8	
8	<input type="checkbox"/>	1.000		2363933.69		A	1.8	
9	<input type="checkbox"/>	1.000		2440562.45		A	3.4	
10	<input type="checkbox"/>	1.000		2507213.22		A	2.5	
11	<input type="checkbox"/>	1.000		2468940.91		A	1.8	



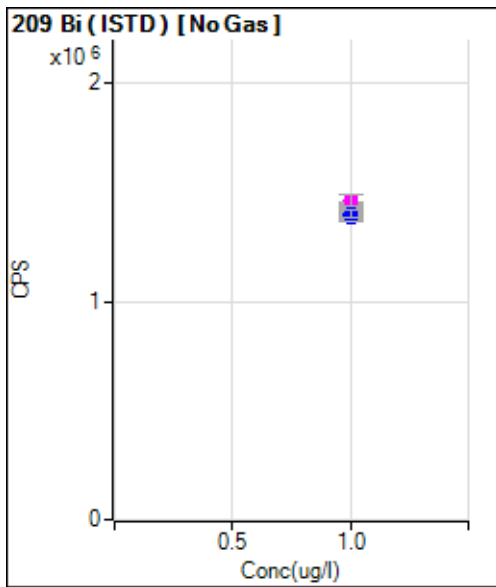
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1390306.01		P	1.0	
2	<input type="checkbox"/>	1.000		1362591.93		P	1.8	
3	<input type="checkbox"/>	1.000		1388626.12		P	2.0	
4	<input type="checkbox"/>	1.000		1370526.68		P	1.9	
5	<input type="checkbox"/>	1.000		1355370.97		P	1.2	
6	<input type="checkbox"/>	1.000		1356590.62		P	2.2	
7	<input type="checkbox"/>	1.000		1380542.54		P	1.6	
8	<input type="checkbox"/>	1.000		1368564.64		P	2.0	
9	<input type="checkbox"/>	1.000		1452273.58		P	0.4	
10	<input type="checkbox"/>	1.000		1416169.99		P	3.0	
11	<input type="checkbox"/>	1.000		1359179.21		P	0.9	



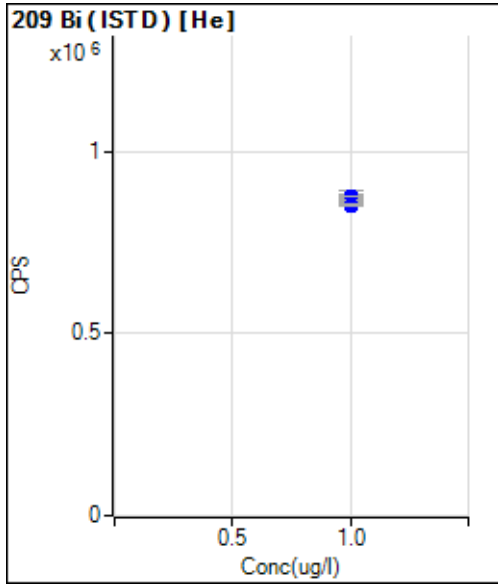
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2241602.49		A	2.6	
2	<input type="checkbox"/>	1.000		2247142.77		A	1.1	
3	<input type="checkbox"/>	1.000		2206022.69		A	2.6	
4	<input type="checkbox"/>	1.000		2197107.16		A	1.4	
5	<input type="checkbox"/>	1.000		2176868.12		A	0.8	
6	<input type="checkbox"/>	1.000		2222317.16		A	3.5	
7	<input type="checkbox"/>	1.000		2175339.27		A	0.7	
8	<input type="checkbox"/>	1.000		2236773.52		A	1.7	
9	<input type="checkbox"/>	1.000		2229734.40		A	1.9	
10	<input type="checkbox"/>	1.000		2295797.12		A	1.4	
11	<input type="checkbox"/>	1.000		2289466.26		A	0.5	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1088975.77		P	0.9	
2	<input type="checkbox"/>	1.000		1106415.92		P	1.1	
3	<input type="checkbox"/>	1.000		1122682.58		P	2.2	
4	<input type="checkbox"/>	1.000		1068844.94		P	1.3	
5	<input type="checkbox"/>	1.000		1060063.07		P	2.5	
6	<input type="checkbox"/>	1.000		1092250.05		P	2.7	
7	<input type="checkbox"/>	1.000		1118755.02		P	0.5	
8	<input type="checkbox"/>	1.000		1109200.93		P	0.5	
9	<input type="checkbox"/>	1.000		1175697.68		P	1.7	
10	<input type="checkbox"/>	1.000		1172841.85		P	1.1	
11	<input type="checkbox"/>	1.000		1098007.83		P	1.5	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1428906.69		M	2.5	
2	<input type="checkbox"/>	1.000		1446102.69		M	0.8	
3	<input type="checkbox"/>	1.000		1432557.11		P	3.6	
4	<input type="checkbox"/>	1.000		1412044.15		P	0.1	
5	<input type="checkbox"/>	1.000		1397601.04		P	3.4	
6	<input type="checkbox"/>	1.000		1401224.30		M	0.9	
7	<input type="checkbox"/>	1.000		1398154.83		P	1.5	
8	<input type="checkbox"/>	1.000		1389238.79		P	2.7	
9	<input type="checkbox"/>	1.000		1437926.99		P	1.3	
10	<input type="checkbox"/>	1.000		1402199.68		P	2.6	
11	<input type="checkbox"/>	1.000		1465498.11		M	3.7	

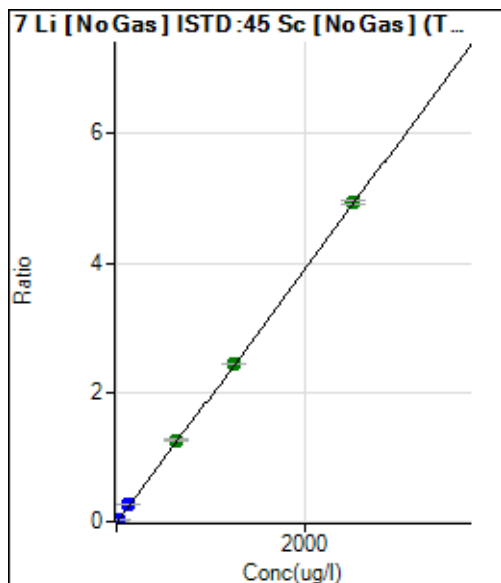


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		868118.45		P	2.1	
2	<input type="checkbox"/>	1.000		870654.71		P	2.7	
3	<input type="checkbox"/>	1.000		871938.20		P	0.8	
4	<input type="checkbox"/>	1.000		876329.67		P	3.4	
5	<input type="checkbox"/>	1.000		864237.61		P	1.0	
6	<input type="checkbox"/>	1.000		868179.66		P	1.3	
7	<input type="checkbox"/>	1.000		866387.70		P	1.7	
8	<input type="checkbox"/>	1.000		866055.27		P	0.5	
9	<input type="checkbox"/>	1.000		875625.30		P	0.1	
10	<input type="checkbox"/>	1.000		856639.64		P	1.9	
11	<input type="checkbox"/>	1.000		852129.65		P	1.1	

Calibration for 086CAL.S.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\220114ADoD.b\
 Analysis File: 220114ADoD.batch.bin
 DA Date-Time: 2022-01-14 20:54:04
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	076CALB.d	Cal Blk	2022-01-14 19:46:59
2	077CAL.S.d	0.025 ppb STD	2022-01-14 19:53:23
3	078CAL.S.d	0.05 ppb STD	2022-01-14 19:59:47
4	079CAL.S.d	0.10 ppb STD	2022-01-14 20:06:10
5	080CAL.S.d	0.5 ppb STD	2022-01-14 20:12:33
6	081CAL.S.d	1 ppb STD	2022-01-14 20:18:57
7	082CAL.S.d	10 ppb STD	2022-01-14 20:25:20
8	083CAL.S.d	50 ppb STD	2022-01-14 20:31:44
9	084CAL.S.d	100 ppb STD	2022-01-14 20:38:06
10	085CAL.S.d	1000 ppb STD	2022-01-14 20:44:32
11	086CAL.S.d	100 ppb Br STD	2022-01-14 20:50:56



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	5140.27	0.0025	P	3.4	
2	<input type="checkbox"/>	0.313	0.168	5802.78	0.0028	P	2.9	-46.1
3	<input type="checkbox"/>	0.625	0.537	7214.62	0.0035	P	1.3	-14.1
4	<input type="checkbox"/>	1.250	1.279	10192.84	0.0050	P	2.1	2.3
5	<input type="checkbox"/>	6.250	6.633	31666.92	0.0156	P	3.0	6.1
6	<input type="checkbox"/>	12.500	14.035	60824.73	0.0302	P	2.4	12.3
7	<input type="checkbox"/>	125.000	133.325	548248.78	0.2655	P	2.5	6.7
8	<input type="checkbox"/>	625.000	639.809	2539406.12	1.2645	A	0.7	2.4
9	<input type="checkbox"/>	1250.000	1234.251	5104373.22	2.4370	A	0.9	-1.3
10	<input type="checkbox"/>	2500.000	2503.747	11537467.72	4.9411	A	1.4	0.1
11	<input type="checkbox"/>			24366.55	0.0105	P	2.4	

$y = 0.0020 * x + 0.0025$

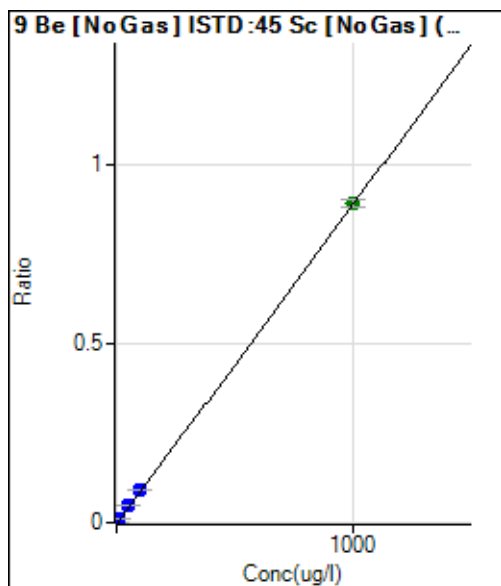
$R = 1.0000$

DL = 0.1269 ug/l

BEC = 1.26 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	36.66	0.0000	P	27.6	
2	<input type="checkbox"/>	0.025	0.025	82.31	0.0000	P	2.7	-0.7
3	<input type="checkbox"/>	0.050	0.057	140.64	0.0001	P	5.5	14.9
4	<input type="checkbox"/>	0.100	0.110	236.96	0.0001	P	3.6	10.5
5	<input type="checkbox"/>	0.500	0.522	983.50	0.0005	P	5.7	4.3
6	<input type="checkbox"/>	1.000	1.111	2036.40	0.0010	P	3.3	11.1
7	<input type="checkbox"/>	10.000	11.189	20691.65	0.0100	P	6.9	11.9
8	<input type="checkbox"/>	50.000	52.260	93779.98	0.0467	P	0.7	4.5
9	<input type="checkbox"/>	100.000	100.745	188494.32	0.0900	P	0.4	0.7
10	<input type="checkbox"/>	1000.000	999.800	2085065.98	0.8930	A	1.9	0.0
11	<input type="checkbox"/>			613.89	0.0003	P	7.8	

$y = 8.9317E-004 * x + 1.7779E-005$

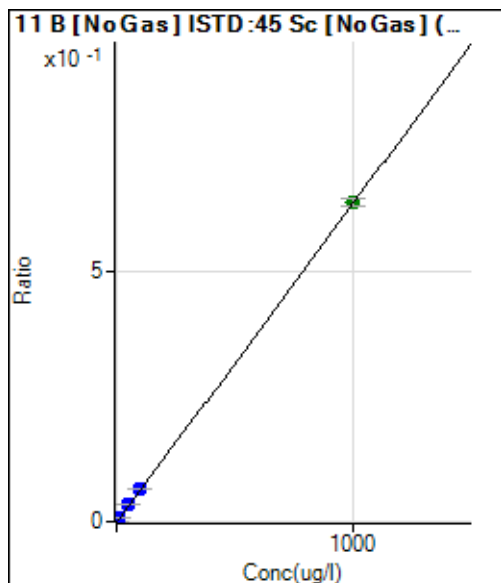
$R = 1.0000$

DL = 0.01647 ug/l

BEC = 0.01991 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	2721.34	0.0013	P	5.3	
2	<input type="checkbox"/>			2359.80	0.0011	P	2.4	
3	<input type="checkbox"/>	0.050	-0.421	2132.37	0.0010	P	4.0	-943.0
4	<input type="checkbox"/>	0.100	-0.613	1884.88	0.0009	P	2.1	-713.1
5	<input type="checkbox"/>	0.500	-0.300	2288.43	0.0011	P	3.8	-160.1
6	<input type="checkbox"/>	1.000	0.231	2950.81	0.0015	P	1.5	-76.9
7	<input type="checkbox"/>	10.000	9.623	15373.96	0.0074	P	2.5	-3.8
8	<input type="checkbox"/>	50.000	52.204	69388.62	0.0346	P	1.9	4.4
9	<input type="checkbox"/>	100.000	100.868	137253.80	0.0655	P	0.4	0.9
10	<input type="checkbox"/>	1000.000	999.808	1489240.23	0.6378	A	2.6	0.0
11	<input type="checkbox"/>			21338.87	0.0092	P	5.9	

$y = 6.3663E-004 * x + 0.0013$

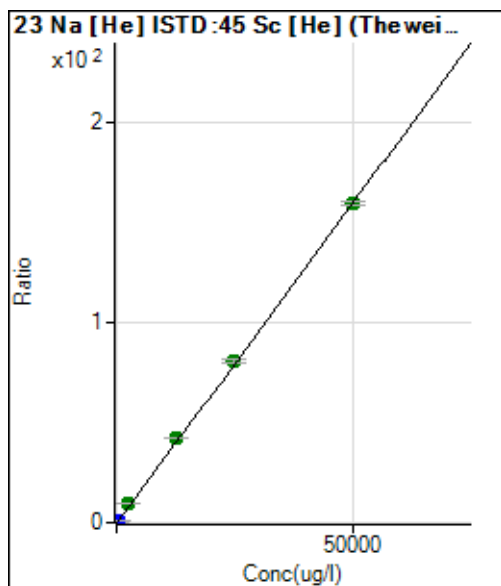
R = 1.0000

DL = 0.3292 ug/l

BEC = 2.067 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	59492.42	0.3711	P	2.0	
2	<input type="checkbox"/>	6.250	8.972	62362.83	0.3997	P	0.9	43.5
3	<input type="checkbox"/>	12.500	13.484	64064.37	0.4141	P	1.6	7.9
4	<input type="checkbox"/>	25.000	29.777	72660.94	0.4662	P	1.9	19.1
5	<input type="checkbox"/>	125.000	136.779	124770.85	0.8080	P	0.8	9.4
6	<input type="checkbox"/>	250.000	301.594	202507.38	1.3345	P	1.8	20.6
7	<input type="checkbox"/>	2500.000	2903.441	1497186.26	9.6459	A	0.7	16.1
8	<input type="checkbox"/>	12500.00	13100.71	6692418.09	42.2205	A	0.5	4.8
9	<input type="checkbox"/>	25000.00	25193.60	13896845.21	80.8505	A	2.9	0.8
10	<input type="checkbox"/>	50000.00	49732.55	31577335.64	159.238	A	1.7	-0.5
11	<input type="checkbox"/>			72161.88	0.4121	P	1.7	

$y = 0.0032 * x + 0.3711$

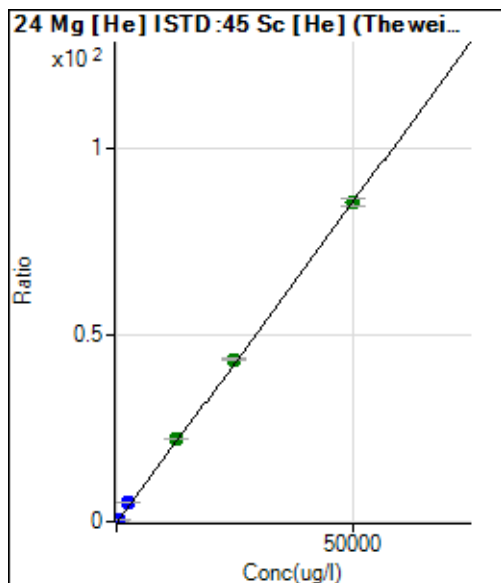
R = 0.9999

DL = 6.959 ug/l

BEC = 116.2 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1171.06	0.0073	P	7.4	
2	<input type="checkbox"/>	6.250	7.907	3267.21	0.0209	P	3.4	26.5
3	<input type="checkbox"/>	12.500	15.696	5317.07	0.0344	P	5.3	25.6
4	<input type="checkbox"/>	25.000	31.071	9487.56	0.0609	P	1.9	24.3
5	<input type="checkbox"/>	125.000	145.007	39727.04	0.2573	P	1.4	16.0
6	<input type="checkbox"/>	250.000	308.554	81833.37	0.5392	P	1.0	23.4
7	<input type="checkbox"/>	2500.000	2861.725	766741.68	4.9403	P	1.4	14.5
8	<input type="checkbox"/>	12500.00	12889.78	3522566.57	22.2266	A	2.0	3.1
9	<input type="checkbox"/>	25000.00	25305.82	7499840.72	43.6293	A	0.6	1.2
10	<input type="checkbox"/>	50000.00	49731.20	17000348.70	85.7337	A	2.3	-0.5
11	<input type="checkbox"/>			3912.78	0.0224	P	8.7	

$y = 0.0017 * x + 0.0073$

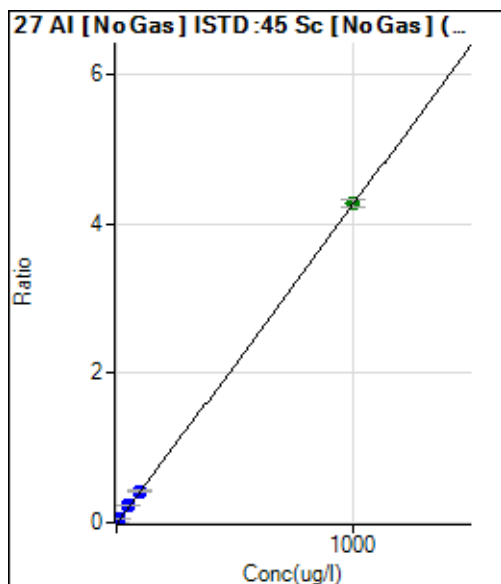
$R = 0.9999$

DL = 0.9366 ug/l

BEC = 4.24 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	4634.07	0.0022	P	0.8	
2	<input type="checkbox"/>			6448.09	0.0031	P	0.3	
3	<input type="checkbox"/>	0.050	0.111	5522.16	0.0027	P	3.6	121.2
4	<input type="checkbox"/>	0.100	0.172	6053.48	0.0030	P	4.0	71.7
5	<input type="checkbox"/>	0.500	0.641	10133.47	0.0050	P	0.3	28.2
6	<input type="checkbox"/>	1.000	1.254	15327.94	0.0076	P	3.6	25.4
7	<input type="checkbox"/>	10.000	10.767	99741.13	0.0483	P	2.4	7.7
8	<input type="checkbox"/>	50.000	52.017	451351.62	0.2247	P	0.7	4.0
9	<input type="checkbox"/>	100.000	98.791	889795.01	0.4248	P	1.3	-1.2
10	<input type="checkbox"/>	1000.000	1000.012	9993347.84	4.2796	A	2.3	0.0
11	<input type="checkbox"/>			9006.09	0.0039	P	1.9	

$y = 0.0043 * x + 0.0022$

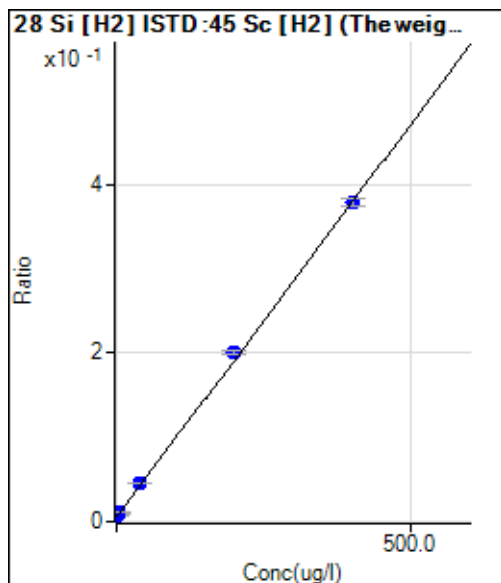
$R = 1.0000$

DL = 0.01283 ug/l

BEC = 0.5238 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	8836.17	0.0074	P	3.0	
2	<input type="checkbox"/>			8893.88	0.0076	P	8.9	
3	<input type="checkbox"/>	0.200	-0.451	8003.36	0.0070	P	1.0	-325.6
4	<input type="checkbox"/>	0.400	-0.654	7851.88	0.0068	P	0.3	-263.6
5	<input type="checkbox"/>	2.000	1.035	9549.56	0.0084	P	2.5	-48.2
6	<input type="checkbox"/>	4.000	3.281	11990.42	0.0105	P	2.0	-18.0
7	<input type="checkbox"/>	40.000	40.496	52755.74	0.0454	P	1.3	1.2
8	<input type="checkbox"/>	200.000	206.311	237605.14	0.2007	P	2.7	3.2
9	<input type="checkbox"/>	400.000	396.808	465592.01	0.3792	P	2.0	-0.8
10	<input type="checkbox"/>			10596.01	0.0079	P	3.2	
11	<input type="checkbox"/>			8480.48	0.0065	P	0.7	

$y = 9.3699E-004 * x + 0.0074$

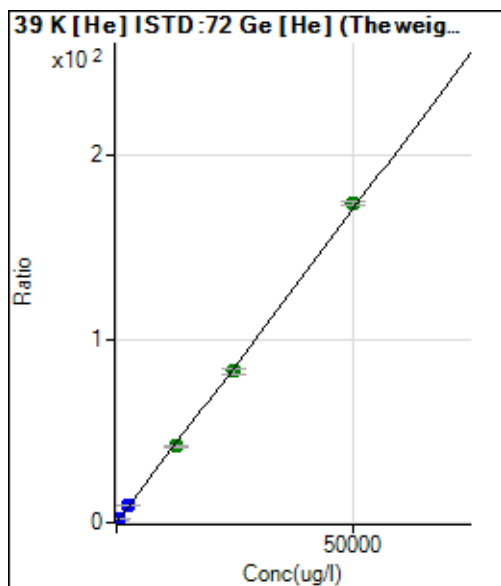
$R = 0.9998$

DL = 0.7154 ug/l

BEC = 7.926 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	107468.45	1.0909	P	1.5	
2	<input type="checkbox"/>	6.250	2.543	107548.30	1.0996	P	3.0	-59.3
3	<input type="checkbox"/>	12.500	4.350	108385.40	1.1057	P	0.4	-65.2
4	<input type="checkbox"/>	25.000	23.086	112371.23	1.1695	P	1.9	-7.7
5	<input type="checkbox"/>	125.000	119.415	144873.40	1.4976	P	2.8	-4.5
6	<input type="checkbox"/>	250.000	262.105	191464.38	1.9836	P	1.4	4.8
7	<input type="checkbox"/>	2500.000	2536.920	943646.12	9.7318	P	1.6	1.5
8	<input type="checkbox"/>	12500.00	11920.68	4081451.60	41.6933	A	1.7	-4.6
9	<input type="checkbox"/>	25000.00	23824.62	8610411.75	82.2387	A	3.2	-4.7
10	<input type="checkbox"/>	50000.00	50730.62	20263755.53	173.881	A	1.2	1.5
11	<input type="checkbox"/>			347513.38	3.2367	P	1.6	

$y = 0.0034 * x + 1.0909$

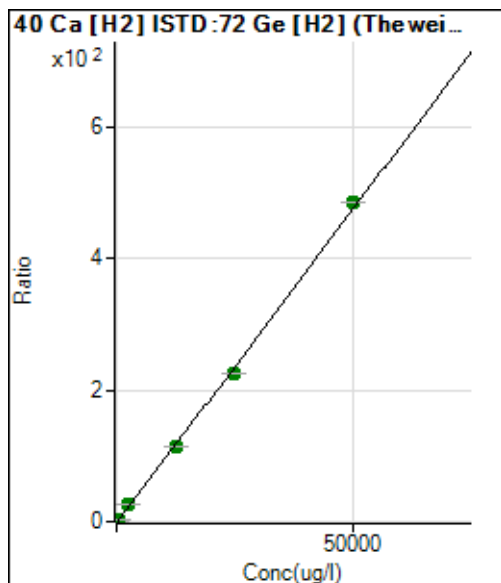
$R = 0.9996$

DL = 14.03 ug/l

BEC = 320.3 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	165201.24	0.3662	P	2.3	
2	<input type="checkbox"/>	6.250	9.545	204719.01	0.4571	P	1.4	52.7
3	<input type="checkbox"/>	12.500	14.320	224881.11	0.5025	P	1.7	14.6
4	<input type="checkbox"/>	25.000	29.069	286488.55	0.6430	P	1.1	16.3
5	<input type="checkbox"/>	125.000	133.648	726752.95	1.6390	P	2.6	6.9
6	<input type="checkbox"/>	250.000	274.137	1325136.09	2.9769	A	1.7	9.7
7	<input type="checkbox"/>	2500.000	2633.589	11310000.95	25.4472	A	1.2	5.3
8	<input type="checkbox"/>	12500.00	11889.68	52008717.72	113.597	A	1.5	-4.9
9	<input type="checkbox"/>	25000.00	23549.76	106407962.5	224.642	A	0.7	-5.8
10	<input type="checkbox"/>	50000.00	50870.87	248237235.1	484.835	A	0.4	1.7
11	<input type="checkbox"/>			229616.52	0.4717	P	1.9	

$$y = 0.0095 * x + 0.3662$$

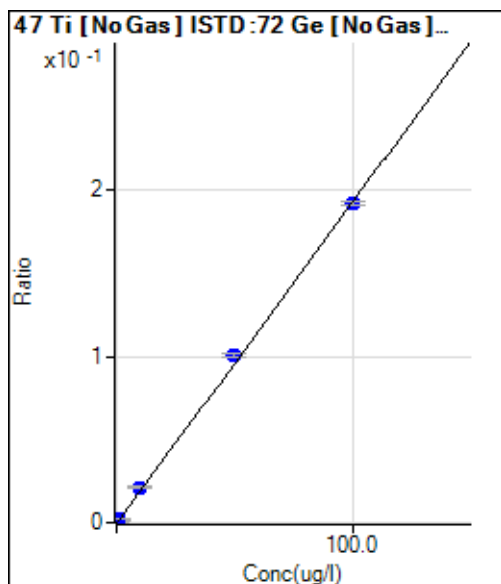
$$R = 0.9994$$

$$DL = 2.62 \text{ ug/l}$$

$$BEC = 38.45 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	216.89	0.0004	P	9.3	
2	<input type="checkbox"/>	0.025	0.097	316.99	0.0006	P	14.9	286.4
3	<input type="checkbox"/>	0.050	0.071	286.96	0.0006	P	11.1	41.2
4	<input type="checkbox"/>	0.100	0.144	358.70	0.0007	P	4.1	43.9
5	<input type="checkbox"/>	0.500	0.562	774.14	0.0015	P	1.9	12.4
6	<input type="checkbox"/>	1.000	1.221	1428.18	0.0028	P	3.6	22.1
7	<input type="checkbox"/>	10.000	10.821	11140.43	0.0214	P	1.3	8.2
8	<input type="checkbox"/>	50.000	51.707	53640.87	0.1006	P	2.9	3.4
9	<input type="checkbox"/>	100.000	99.062	105592.97	0.1923	P	0.7	-0.9
10	<input type="checkbox"/>			7365.95	0.0121	P	2.6	
11	<input type="checkbox"/>			428.77	0.0007	P	6.6	

$$y = 0.0019 * x + 4.1542E-004$$

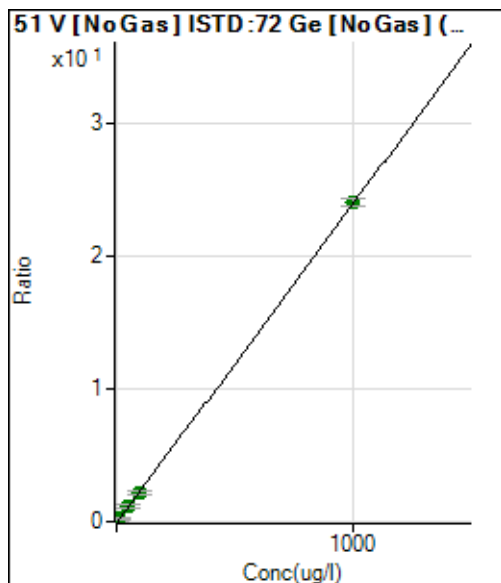
$$R = 0.9998$$

$$DL = 0.05964 \text{ ug/l}$$

$$BEC = 0.2145 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	-4665.52	-0.0089	A	-253.	
2	<input type="checkbox"/>	0.025	-0.455	-10342.04	-0.0198	A	-70.9	-1920.6
3	<input type="checkbox"/>	0.050	2.559	27517.98	0.0527	A	121.	5017.8
4	<input type="checkbox"/>	0.100	2.374	25048.73	0.0483	A	132.	2274.3
5	<input type="checkbox"/>	0.500	2.672	28568.47	0.0554	A	126.	434.4
6	<input type="checkbox"/>	1.000	1.260	10252.61	0.0215	A	616.	26.0
7	<input type="checkbox"/>	10.000	8.744	105038.92	0.2015	A	30.2	-12.6
8	<input type="checkbox"/>	50.000	47.475	604575.41	1.1333	A	16.2	-5.0
9	<input type="checkbox"/>	100.000	90.530	1189618.56	2.1692	A	8.1	-9.5
10	<input type="checkbox"/>	1000.000	1001.084	14603519.09	24.0756	A	1.9	0.1
11	<input type="checkbox"/>			41236.27	0.0685	A	39.7	

$y = 0.0241 * x - 0.0089$

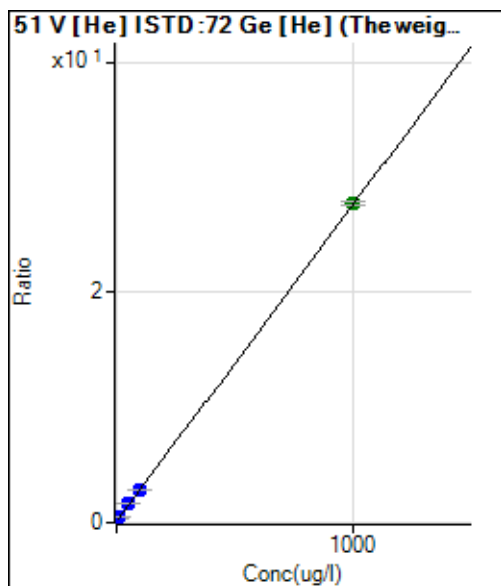
$R = 0.9999$

DL = 2.794 ug/l

BEC = -0.3679 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	25966.28	0.2635	P	2.8	
2	<input type="checkbox"/>	0.025	0.192	26291.31	0.2688	P	2.5	667.6
3	<input type="checkbox"/>	0.050	-0.061	25670.16	0.2618	P	2.6	-221.2
4	<input type="checkbox"/>	0.100	0.028	25388.61	0.2643	P	3.0	-72.5
5	<input type="checkbox"/>	0.500	0.224	26095.33	0.2697	P	0.3	-55.3
6	<input type="checkbox"/>	1.000	0.736	27388.84	0.2838	P	1.4	-26.4
7	<input type="checkbox"/>	10.000	10.168	52670.57	0.5432	P	2.5	1.7
8	<input type="checkbox"/>	50.000	51.166	163587.06	1.6710	P	1.0	2.3
9	<input type="checkbox"/>	100.000	96.324	305167.52	2.9132	P	0.9	-3.7
10	<input type="checkbox"/>	1000.000	1000.308	3236898.39	27.7797	A	1.4	0.0
11	<input type="checkbox"/>			26208.88	0.2441	P	0.9	

$y = 0.0275 * x + 0.2635$

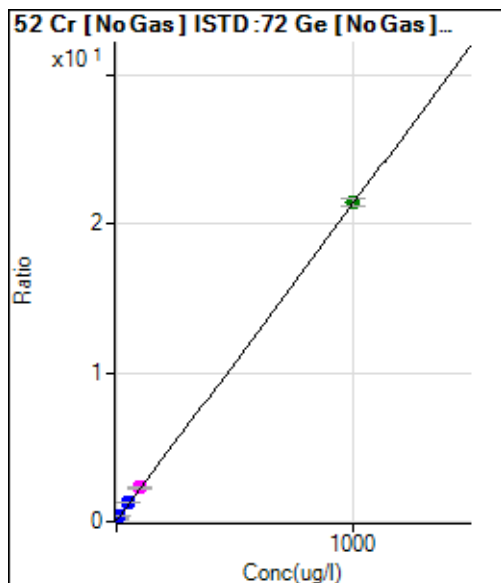
$R = 1.0000$

DL = 0.8165 ug/l

BEC = 9.58 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	87273.75	0.1674	P	3.8	
2	<input type="checkbox"/>	0.025	0.152	89696.80	0.1707	P	2.4	509.8
3	<input type="checkbox"/>	0.050	0.122	88308.18	0.1700	P	0.8	143.0
4	<input type="checkbox"/>	0.100	0.216	88849.67	0.1720	P	2.7	115.7
5	<input type="checkbox"/>	0.500	0.435	90968.85	0.1767	P	0.8	-13.0
6	<input type="checkbox"/>	1.000	1.100	97985.72	0.1908	P	3.9	10.0
7	<input type="checkbox"/>	10.000	10.544	204286.76	0.3920	P	2.5	5.4
8	<input type="checkbox"/>	50.000	52.029	680433.05	1.2757	P	0.3	4.1
9	<input type="checkbox"/>	100.000	99.091	1250425.40	2.2782	M	3.2	-0.9
10	<input type="checkbox"/>	1000.000	999.984	13016891.86	21.4681	A	2.4	0.0
11	<input type="checkbox"/>			104172.79	0.1733	P	1.5	

$y = 0.0213 * x + 0.1674$

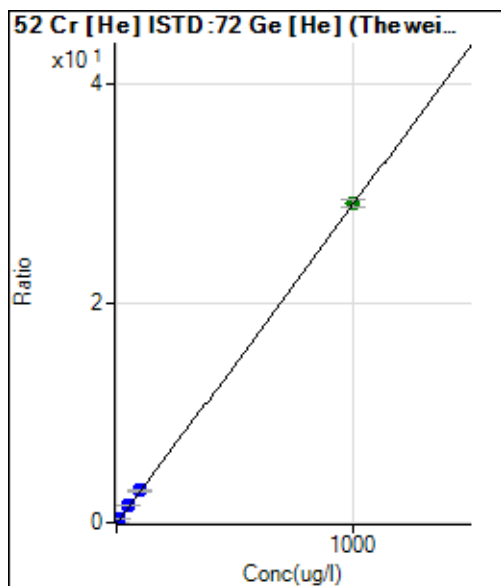
R = 1.0000

DL = 0.8914 ug/l

BEC = 7.859 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	4088.37	0.0415	P	4.1	
2	<input type="checkbox"/>	0.025	0.003	4068.37	0.0416	P	5.6	-87.7
3	<input type="checkbox"/>	0.050	0.062	4245.08	0.0433	P	0.7	23.2
4	<input type="checkbox"/>	0.100	0.131	4355.12	0.0453	P	3.7	31.5
5	<input type="checkbox"/>	0.500	0.493	5406.58	0.0559	P	1.7	-1.3
6	<input type="checkbox"/>	1.000	1.124	7167.34	0.0743	P	2.1	12.4
7	<input type="checkbox"/>	10.000	10.836	34646.38	0.3573	P	1.5	8.4
8	<input type="checkbox"/>	50.000	52.043	152510.61	1.5581	P	2.6	4.1
9	<input type="checkbox"/>	100.000	98.176	303959.53	2.9024	P	2.4	-1.8
10	<input type="checkbox"/>	1000.000	1000.072	3400152.69	29.1844	A	2.0	0.0
11	<input type="checkbox"/>			4640.75	0.0432	P	3.6	

$y = 0.0291 * x + 0.0415$

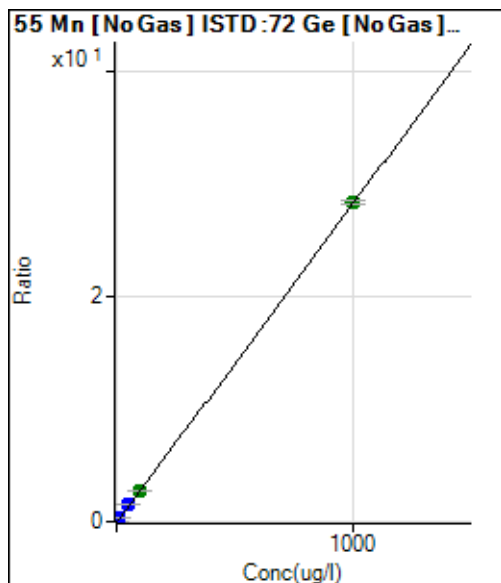
R = 1.0000

DL = 0.1768 ug/l

BEC = 1.424 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	14162.07	0.0272	P	5.1	
2	<input type="checkbox"/>	0.025	0.085	15544.09	0.0296	P	2.3	239.1
3	<input type="checkbox"/>	0.050	0.063	15034.57	0.0289	P	3.0	25.3
4	<input type="checkbox"/>	0.100	0.099	15480.80	0.0300	P	1.9	-1.3
5	<input type="checkbox"/>	0.500	0.555	22099.46	0.0429	P	0.3	11.1
6	<input type="checkbox"/>	1.000	1.184	31201.28	0.0608	P	2.4	18.4
7	<input type="checkbox"/>	10.000	11.053	177605.45	0.3408	P	2.0	10.5
8	<input type="checkbox"/>	50.000	51.101	787797.39	1.4770	P	2.5	2.2
9	<input type="checkbox"/>	100.000	98.389	1547827.78	2.8187	A	0.3	-1.6
10	<input type="checkbox"/>	1000.000	1000.095	17228366.21	28.4023	A	1.2	0.0
11	<input type="checkbox"/>			20313.70	0.0338	P	0.9	

$$y = 0.0284 * x + 0.0272$$

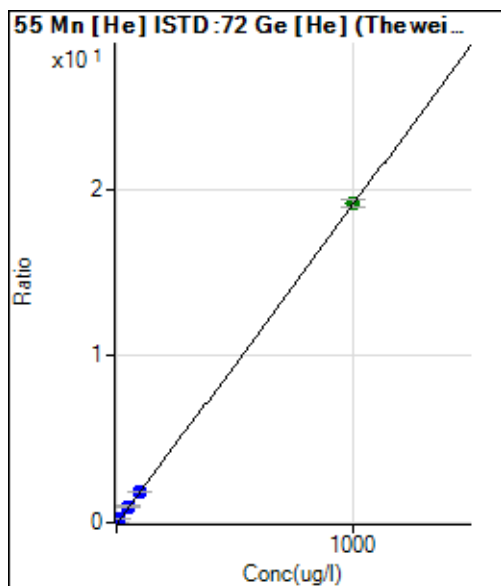
$$R = 1.0000$$

$$DL = 0.1458 \text{ ug/l}$$

$$BEC = 0.9575 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	247.95	0.0025	P	9.5	
2	<input type="checkbox"/>	0.025	0.025	293.94	0.0030	P	3.6	2.0
3	<input type="checkbox"/>	0.050	0.056	350.93	0.0036	P	4.5	11.1
4	<input type="checkbox"/>	0.100	0.112	447.92	0.0047	P	3.7	12.1
5	<input type="checkbox"/>	0.500	0.541	1245.80	0.0129	P	2.2	8.2
6	<input type="checkbox"/>	1.000	1.135	2341.39	0.0243	P	1.4	13.5
7	<input type="checkbox"/>	10.000	10.647	20015.25	0.2064	P	0.8	6.5
8	<input type="checkbox"/>	50.000	50.814	95503.78	0.9756	P	1.5	1.6
9	<input type="checkbox"/>	100.000	97.051	194882.72	1.8610	P	2.2	-2.9
10	<input type="checkbox"/>	1000.000	1000.248	2231928.00	19.1569	A	1.9	0.0
11	<input type="checkbox"/>			539.57	0.0050	P	1.2	

$$y = 0.0191 * x + 0.0025$$

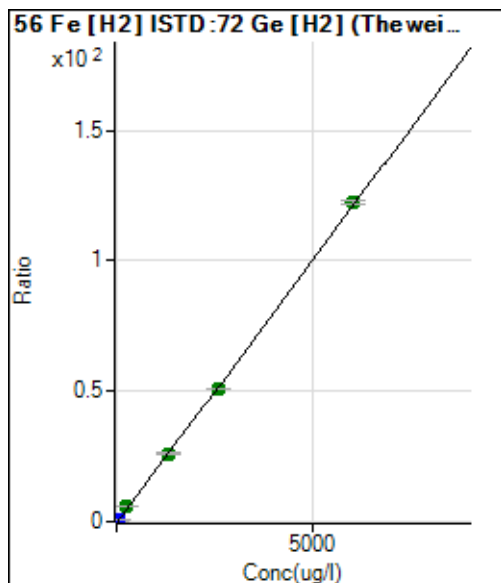
$$R = 1.0000$$

$$DL = 0.03742 \text{ ug/l}$$

$$BEC = 0.1314 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	19370.56	0.0429	P	2.0	
2	<input type="checkbox"/>	0.650	0.892	27337.79	0.0610	P	1.2	37.3
3	<input type="checkbox"/>	1.300	1.509	32904.77	0.0735	P	3.7	16.1
4	<input type="checkbox"/>	2.600	3.070	46859.86	0.1052	P	0.7	18.1
5	<input type="checkbox"/>	13.000	14.214	146812.21	0.3311	P	1.7	9.3
6	<input type="checkbox"/>	26.000	29.501	285297.80	0.6409	P	1.2	13.5
7	<input type="checkbox"/>	260.000	279.505	2536925.04	5.7084	A	2.2	7.5
8	<input type="checkbox"/>	1300.000	1280.955	11906879.48	26.0076	A	2.3	-1.5
9	<input type="checkbox"/>	2600.000	2513.469	24153215.07	50.9905	A	0.5	-3.3
10	<input type="checkbox"/>	6000.000	6040.760	62714577.37	122.487	A	1.0	0.7
11	<input type="checkbox"/>			29888.62	0.0614	P	1.4	

$$y = 0.0203 * x + 0.0429$$

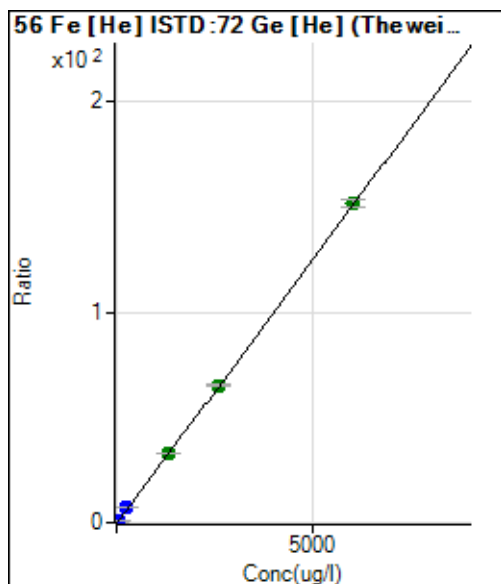
$$R = 0.9999$$

$$DL = 0.1242 \text{ ug/l}$$

$$BEC = 2.119 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	16123.39	0.1636	P	3.0	
2	<input type="checkbox"/>	0.650	0.750	17858.81	0.1826	P	1.2	15.3
3	<input type="checkbox"/>	1.300	1.445	19614.42	0.2001	P	0.8	11.1
4	<input type="checkbox"/>	2.600	3.086	23206.60	0.2415	P	2.1	18.7
5	<input type="checkbox"/>	13.000	13.731	49360.34	0.5103	P	2.6	5.6
6	<input type="checkbox"/>	26.000	29.248	87048.42	0.9019	P	1.7	12.5
7	<input type="checkbox"/>	260.000	276.654	692911.45	7.1471	P	3.2	6.4
8	<input type="checkbox"/>	1300.000	1296.933	3221398.84	32.9017	A	0.4	-0.2
9	<input type="checkbox"/>	2600.000	2580.070	6839534.50	65.2915	A	0.8	-0.8
10	<input type="checkbox"/>	6000.000	6008.563	17689179.81	151.835	A	2.2	0.1
11	<input type="checkbox"/>			19487.47	0.1815	P	0.7	

$$y = 0.0252 * x + 0.1636$$

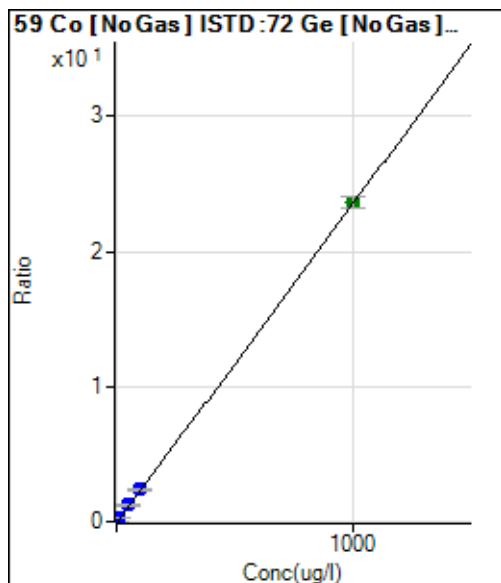
$$R = 1.0000$$

$$DL = 0.5931 \text{ ug/l}$$

$$BEC = 6.483 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	432.49	0.0008	P	1.0	
2	<input type="checkbox"/>	0.025	0.026	758.52	0.0014	P	3.6	3.8
3	<input type="checkbox"/>	0.050	0.059	1157.75	0.0022	P	14.3	18.2
4	<input type="checkbox"/>	0.100	0.116	1846.47	0.0036	P	14.0	16.2
5	<input type="checkbox"/>	0.500	0.546	7081.03	0.0138	P	4.3	9.3
6	<input type="checkbox"/>	1.000	1.181	14761.56	0.0288	P	4.0	18.1
7	<input type="checkbox"/>	10.000	11.188	138338.54	0.2654	P	2.0	11.9
8	<input type="checkbox"/>	50.000	51.714	652772.25	1.2239	P	2.3	3.4
9	<input type="checkbox"/>	100.000	99.445	1291746.32	2.3527	P	1.8	-0.6
10	<input type="checkbox"/>	1000.000	999.958	14335846.28	23.6499	A	3.4	0.0
11	<input type="checkbox"/>			2438.71	0.0041	P	14.6	

$$y = 0.0237 * x + 8.2917E-004$$

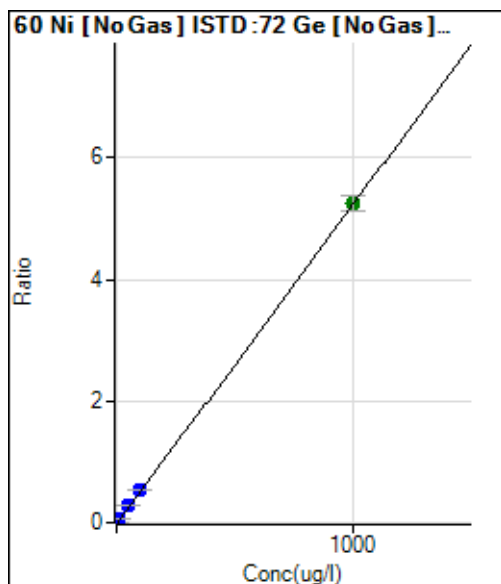
$$R = 1.0000$$

$$DL = 0.001034 \text{ ug/l}$$

$$BEC = 0.03506 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	515.65	0.0010	P	8.4	
2	<input type="checkbox"/>	0.025	0.034	615.46	0.0012	P	14.9	37.7
3	<input type="checkbox"/>	0.050	0.040	622.11	0.0012	P	10.6	-20.7
4	<input type="checkbox"/>	0.100	0.094	765.17	0.0015	P	12.5	-6.2
5	<input type="checkbox"/>	0.500	0.512	1893.04	0.0037	P	7.4	2.4
6	<input type="checkbox"/>	1.000	1.157	3626.61	0.0071	P	5.3	15.7
7	<input type="checkbox"/>	10.000	11.279	31384.77	0.0602	P	2.6	12.8
8	<input type="checkbox"/>	50.000	51.961	146082.01	0.2739	P	2.1	3.9
9	<input type="checkbox"/>	100.000	101.415	292847.95	0.5336	P	4.3	1.4
10	<input type="checkbox"/>	1000.000	999.748	3181837.48	5.2517	A	5.0	0.0
11	<input type="checkbox"/>			1314.12	0.0022	P	13.7	

$$y = 0.0053 * x + 9.8853E-004$$

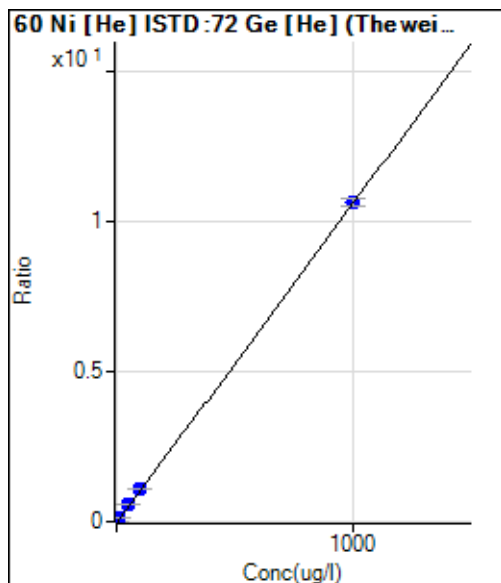
$$R = 1.0000$$

$$DL = 0.0473 \text{ ug/l}$$

$$BEC = 0.1882 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	312.23	0.0032	P	7.4	
2	<input type="checkbox"/>	0.025	0.048	360.01	0.0037	P	2.2	91.0
3	<input type="checkbox"/>	0.050	0.041	353.34	0.0036	P	11.3	-18.2
4	<input type="checkbox"/>	0.100	0.127	434.45	0.0045	P	11.0	27.0
5	<input type="checkbox"/>	0.500	0.572	897.81	0.0093	P	6.9	14.4
6	<input type="checkbox"/>	1.000	1.223	1564.53	0.0162	P	5.9	22.3
7	<input type="checkbox"/>	10.000	11.883	12593.23	0.1299	P	2.5	18.8
8	<input type="checkbox"/>	50.000	54.627	57339.96	0.5857	P	1.1	9.3
9	<input type="checkbox"/>	100.000	102.288	114555.74	1.0940	P	2.4	2.3
10	<input type="checkbox"/>	1000.000	999.521	1242162.72	10.6619	P	2.1	0.0
11	<input type="checkbox"/>			485.57	0.0045	P	7.7	

$y = 0.0107 * x + 0.0032$

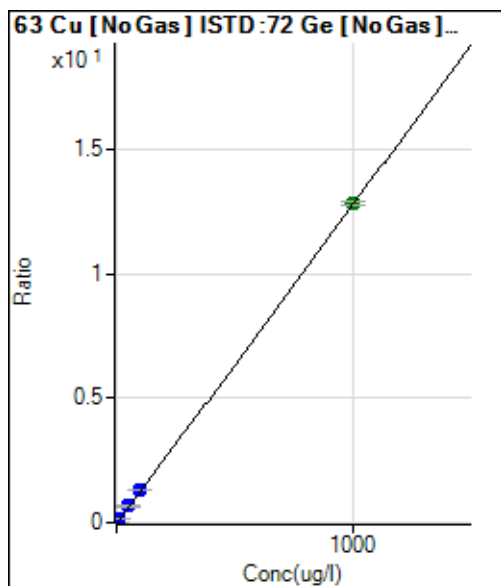
$R = 1.0000$

DL = 0.06617 ug/l

BEC = 0.2974 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1340.61	0.0026	P	3.9	
2	<input type="checkbox"/>	0.025	0.043	1645.42	0.0031	P	1.8	73.6
3	<input type="checkbox"/>	0.050	0.049	1664.10	0.0032	P	3.4	-1.6
4	<input type="checkbox"/>	0.100	0.112	2071.65	0.0040	P	3.7	11.9
5	<input type="checkbox"/>	0.500	0.574	5128.96	0.0100	P	2.9	14.9
6	<input type="checkbox"/>	1.000	1.208	9301.37	0.0181	P	3.6	20.8
7	<input type="checkbox"/>	10.000	11.305	77142.46	0.1480	P	0.5	13.1
8	<input type="checkbox"/>	50.000	51.539	355046.44	0.6657	P	2.3	3.1
9	<input type="checkbox"/>	100.000	101.184	716107.74	1.3044	P	1.9	1.2
10	<input type="checkbox"/>	1000.000	999.791	7805408.90	12.8658	A	1.0	0.0
11	<input type="checkbox"/>			3392.43	0.0056	P	2.5	

$y = 0.0129 * x + 0.0026$

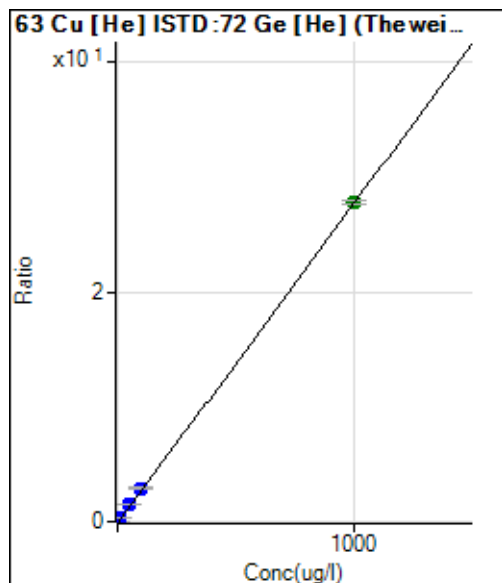
$R = 1.0000$

DL = 0.02355 ug/l

BEC = 0.1999 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	543.90	0.0055	P	2.5	
2	<input type="checkbox"/>	0.025	0.067	723.87	0.0074	P	0.1	170.0
3	<input type="checkbox"/>	0.050	0.064	714.88	0.0073	P	4.6	27.6
4	<input type="checkbox"/>	0.100	0.117	842.52	0.0088	P	3.3	16.5
5	<input type="checkbox"/>	0.500	0.600	2149.06	0.0222	P	2.1	20.0
6	<input type="checkbox"/>	1.000	1.244	3874.41	0.0401	P	1.4	24.4
7	<input type="checkbox"/>	10.000	12.009	32931.28	0.3396	P	1.1	20.1
8	<input type="checkbox"/>	50.000	55.466	151591.26	1.5486	P	1.8	10.9
9	<input type="checkbox"/>	100.000	104.634	305437.68	2.9164	P	1.9	4.6
10	<input type="checkbox"/>	1000.000	999.243	3239582.64	27.8044	A	1.6	-0.1
11	<input type="checkbox"/>			1162.48	0.0108	P	2.8	

$$y = 0.0278 * x + 0.0055$$

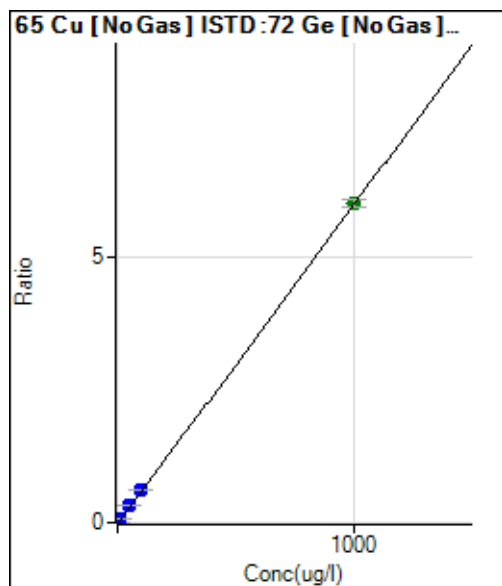
$$R = 1.0000$$

$$DL = 0.0151 \text{ ug/l}$$

$$BEC = 0.1985 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	559.57	0.0011	P	2.7	
2	<input type="checkbox"/>	0.025	0.044	702.97	0.0013	P	8.0	76.0
3	<input type="checkbox"/>	0.050	0.050	714.31	0.0014	P	4.5	0.8
4	<input type="checkbox"/>	0.100	0.097	853.71	0.0017	P	6.1	-3.3
5	<input type="checkbox"/>	0.500	0.553	2259.09	0.0044	P	5.1	10.5
6	<input type="checkbox"/>	1.000	1.207	4271.01	0.0083	P	3.4	20.7
7	<input type="checkbox"/>	10.000	11.402	36201.83	0.0695	P	0.2	14.0
8	<input type="checkbox"/>	50.000	52.544	168683.62	0.3163	P	1.1	5.1
9	<input type="checkbox"/>	100.000	100.662	332167.62	0.6049	P	1.1	0.7
10	<input type="checkbox"/>	1000.000	999.792	3637137.65	5.9983	A	2.4	0.0
11	<input type="checkbox"/>			1331.93	0.0022	P	3.2	

$$y = 0.0060 * x + 0.0011$$

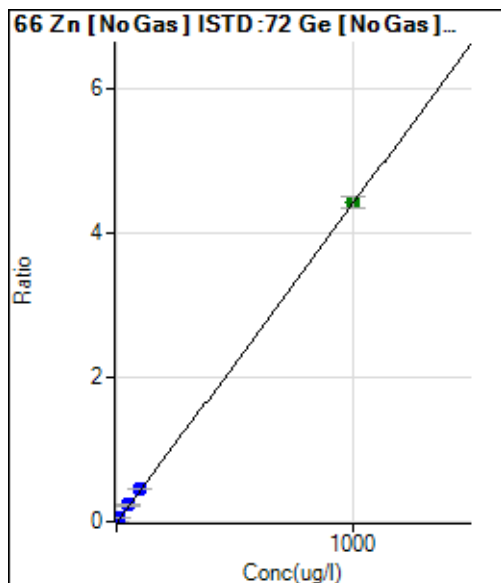
$$R = 1.0000$$

$$DL = 0.01432 \text{ ug/l}$$

$$BEC = 0.1789 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	627.12	0.0012	P	17.3	
2	<input type="checkbox"/>			2327.55	0.0044	P	13.3	
3	<input type="checkbox"/>	0.050	0.084	816.92	0.0016	P	13.8	67.1
4	<input type="checkbox"/>	0.100	0.111	873.48	0.0017	P	10.8	10.7
5	<input type="checkbox"/>	0.500	0.802	2447.08	0.0048	P	5.2	60.4
6	<input type="checkbox"/>	1.000	1.336	3654.85	0.0071	P	9.1	33.6
7	<input type="checkbox"/>	10.000	12.306	29027.59	0.0557	P	1.0	23.1
8	<input type="checkbox"/>	50.000	51.377	121997.52	0.2287	P	3.2	2.8
9	<input type="checkbox"/>	100.000	102.229	249203.11	0.4539	P	2.1	2.2
10	<input type="checkbox"/>	1000.000	999.685	2684493.56	4.4285	A	4.1	0.0
11	<input type="checkbox"/>			1332.31	0.0022	P	12.4	

$$y = 0.0044 * x + 0.0012$$

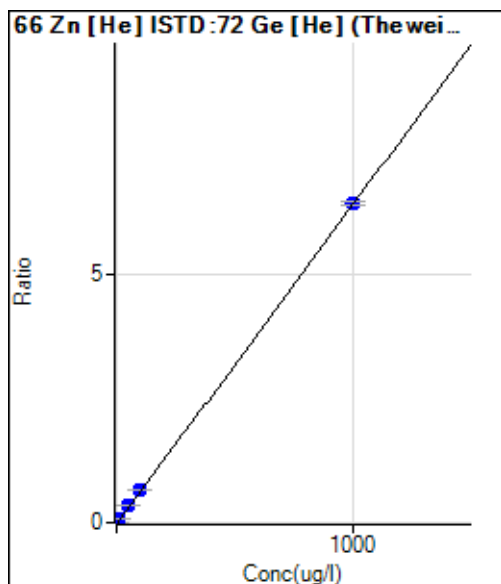
$$R = 1.0000$$

$$DL = 0.1405 \text{ ug/l}$$

$$BEC = 0.2713 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	130.00	0.0013	P	7.9	
2	<input type="checkbox"/>			583.35	0.0060	P	2.9	
3	<input type="checkbox"/>	0.050	0.103	194.45	0.0020	P	10.5	106.5
4	<input type="checkbox"/>	0.100	0.226	266.67	0.0028	P	18.0	126.4
5	<input type="checkbox"/>	0.500	0.858	660.02	0.0068	P	2.7	71.5
6	<input type="checkbox"/>	1.000	1.407	998.93	0.0103	P	3.8	40.7
7	<input type="checkbox"/>	10.000	12.198	7723.20	0.0796	P	3.5	22.0
8	<input type="checkbox"/>	50.000	54.316	34255.88	0.3499	P	1.8	8.6
9	<input type="checkbox"/>	100.000	101.519	68357.41	0.6529	P	3.7	1.5
10	<input type="checkbox"/>	1000.000	999.610	747852.81	6.4173	P	1.2	0.0
11	<input type="checkbox"/>			374.45	0.0035	P	1.5	

$$y = 0.0064 * x + 0.0013$$

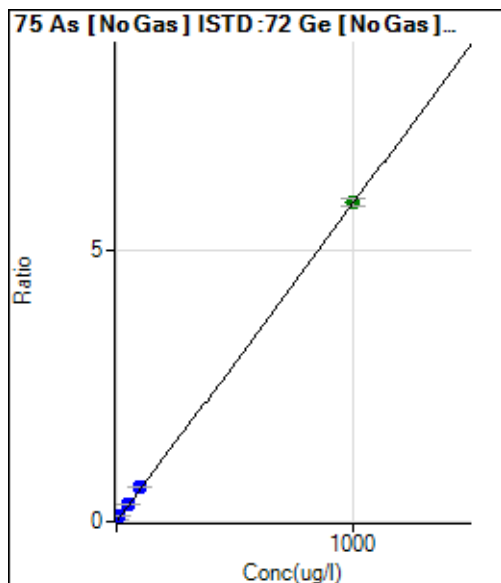
$$R = 1.0000$$

$$DL = 0.0488 \text{ ug/l}$$

$$BEC = 0.2053 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	15102.65	0.0289	P	51.6	
2	<input type="checkbox"/>	0.025	-0.529	13544.90	0.0258	P	22.6	-2217.3
3	<input type="checkbox"/>	0.050	-0.021	14901.95	0.0287	P	24.0	-141.9
4	<input type="checkbox"/>	0.100	0.414	16142.39	0.0313	P	38.4	314.1
5	<input type="checkbox"/>	0.500	2.122	21256.61	0.0413	P	24.3	324.3
6	<input type="checkbox"/>	1.000	2.285	21683.64	0.0422	P	31.1	128.5
7	<input type="checkbox"/>	10.000	11.846	51108.85	0.0981	P	2.5	18.5
8	<input type="checkbox"/>	50.000	51.392	175566.20	0.3292	P	0.6	2.8
9	<input type="checkbox"/>	100.000	105.092	352982.78	0.6429	P	1.8	5.1
10	<input type="checkbox"/>	1000.000	999.401	3558093.66	5.8687	A	2.8	-0.1
11	<input type="checkbox"/>			14082.99	0.0235	P	28.1	

$$y = 0.0058 * x + 0.0289$$

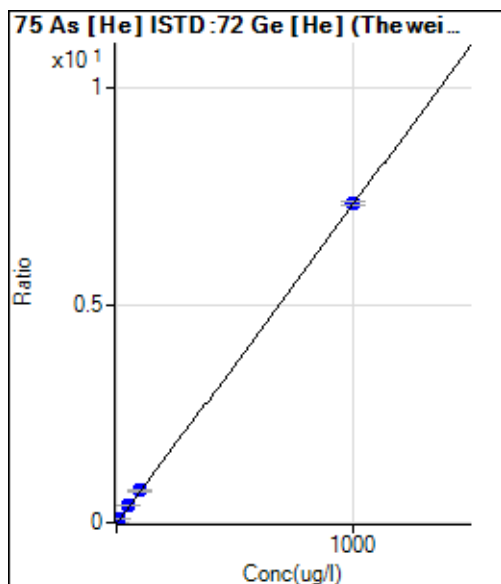
$$R = 1.0000$$

$$DL = 7.641 \text{ ug/l}$$

$$BEC = 4.938 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	802.74	0.0081	P	1.6	
2	<input type="checkbox"/>	0.025	0.058	838.81	0.0086	P	2.4	132.7
3	<input type="checkbox"/>	0.050	0.039	826.81	0.0084	P	0.7	-21.9
4	<input type="checkbox"/>	0.100	0.125	870.61	0.0091	P	3.1	24.6
5	<input type="checkbox"/>	0.500	0.526	1161.49	0.0120	P	0.9	5.2
6	<input type="checkbox"/>	1.000	1.107	1569.72	0.0163	P	0.9	10.7
7	<input type="checkbox"/>	10.000	10.645	8353.82	0.0862	P	1.9	6.4
8	<input type="checkbox"/>	50.000	51.609	37821.38	0.3864	P	1.5	3.2
9	<input type="checkbox"/>	100.000	99.119	76914.20	0.7345	P	2.5	-0.9
10	<input type="checkbox"/>	1000.000	1000.001	854845.49	7.3364	P	1.1	0.0
11	<input type="checkbox"/>			1175.22	0.0109	P	0.9	

$$y = 0.0073 * x + 0.0081$$

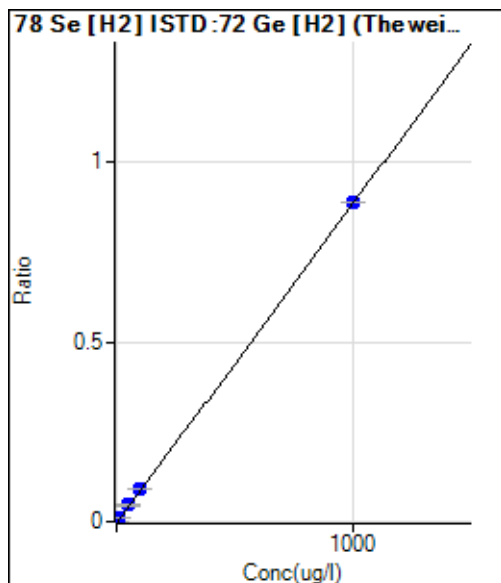
$$R = 1.0000$$

$$DL = 0.05477 \text{ ug/l}$$

$$BEC = 1.112 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	40.33	0.0001	P	11.2	
2	<input type="checkbox"/>	0.025	0.031	52.22	0.0001	P	2.8	22.2
3	<input type="checkbox"/>	0.050	0.057	62.55	0.0001	P	5.2	13.2
4	<input type="checkbox"/>	0.100	0.123	88.56	0.0002	P	3.4	22.9
5	<input type="checkbox"/>	0.500	0.524	246.34	0.0006	P	1.3	4.8
6	<input type="checkbox"/>	1.000	1.154	496.68	0.0011	P	2.6	15.4
7	<input type="checkbox"/>	10.000	10.922	4356.76	0.0098	P	1.8	9.2
8	<input type="checkbox"/>	50.000	51.390	20965.06	0.0458	P	1.3	2.8
9	<input type="checkbox"/>	100.000	100.350	42314.64	0.0893	P	0.6	0.3
10	<input type="checkbox"/>	1000.000	999.886	455323.57	0.8893	P	0.5	0.0
11	<input type="checkbox"/>			177.67	0.0004	P	13.6	

$$y = 8.8934E-004 * x + 8.9439E-005$$

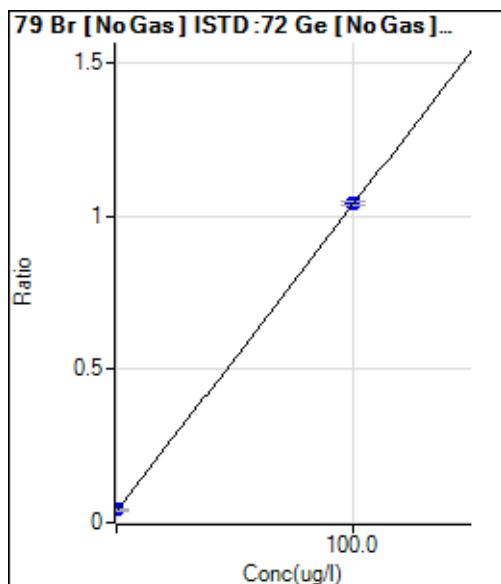
R = 1.0000

DL = 0.03391 ug/l

BEC = 0.1006 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	22173.13	0.0425	P	8.1	
2	<input type="checkbox"/>			65851.76	0.1253	P	2.1	
3	<input type="checkbox"/>			63195.97	0.1217	P	1.1	
4	<input type="checkbox"/>			65544.72	0.1269	P	1.7	
5	<input type="checkbox"/>			56601.44	0.1099	P	0.6	
6	<input type="checkbox"/>			63723.57	0.1240	P	1.9	
7	<input type="checkbox"/>			62296.83	0.1195	P	2.5	
8	<input type="checkbox"/>			22009.80	0.0413	P	4.8	
9	<input type="checkbox"/>			58562.45	0.1066	P	2.3	
10	<input type="checkbox"/>			61117.75	0.1009	P	5.7	
11	<input type="checkbox"/>	100.000	100.000	626854.83	1.0430	P	1.5	0.0

$$y = 0.0100 * x + 0.0425$$

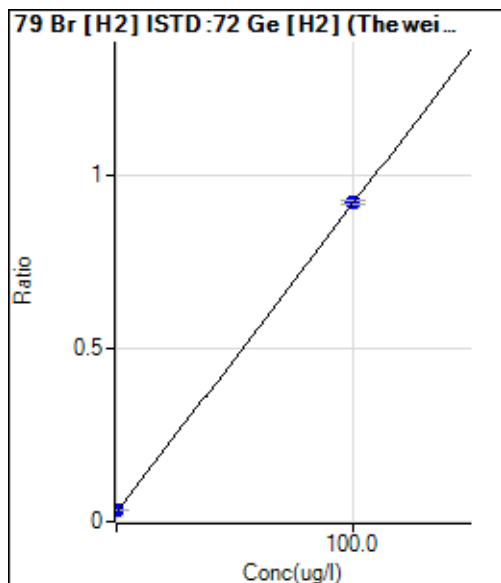
R = 1.0000

DL = 1.036 ug/l

BEC = 4.253 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	14335.39	0.0318	P	1.8	
2	<input type="checkbox"/>			47156.71	0.1053	P	1.6	
3	<input type="checkbox"/>			46308.85	0.1035	P	1.6	
4	<input type="checkbox"/>			48988.75	0.1100	P	3.5	
5	<input type="checkbox"/>			42721.64	0.0963	P	1.1	
6	<input type="checkbox"/>			46609.12	0.1047	P	0.1	
7	<input type="checkbox"/>			45961.63	0.1034	P	2.3	
8	<input type="checkbox"/>			14315.44	0.0313	P	2.3	
9	<input type="checkbox"/>			42941.73	0.0907	P	2.6	
10	<input type="checkbox"/>			55779.93	0.1089	P	1.9	
11	<input type="checkbox"/>	100.000	100.000	448682.22	0.9216	P	1.3	0.0

$y = 0.0089 * x + 0.0318$

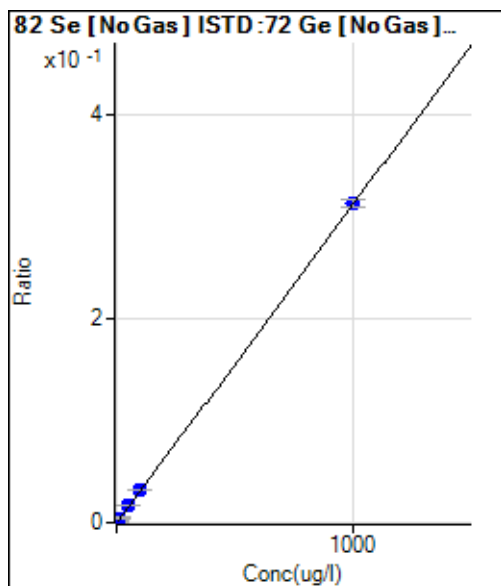
$R = 1.0000$

DL = 0.1978 ug/l

BEC = 3.571 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	529.28	0.0010	P	11.5	
2	<input type="checkbox"/>	0.025	-0.410	466.88	0.0009	P	14.0	-1741.2
3	<input type="checkbox"/>	0.050	0.982	687.55	0.0013	P	15.4	1864.7
4	<input type="checkbox"/>	0.100	0.561	615.28	0.0012	P	16.7	461.1
5	<input type="checkbox"/>	0.500	0.624	623.68	0.0012	P	21.4	24.9
6	<input type="checkbox"/>	1.000	1.518	763.81	0.0015	P	13.8	51.8
7	<input type="checkbox"/>	10.000	11.771	2445.54	0.0047	P	7.5	17.7
8	<input type="checkbox"/>	50.000	53.052	9385.86	0.0176	P	0.7	6.1
9	<input type="checkbox"/>	100.000	100.985	17887.26	0.0326	P	1.2	1.0
10	<input type="checkbox"/>	1000.000	999.731	190089.31	0.3135	P	2.2	0.0
11	<input type="checkbox"/>			934.49	0.0016	P	14.9	

$y = 3.1255E-004 * x + 0.0010$

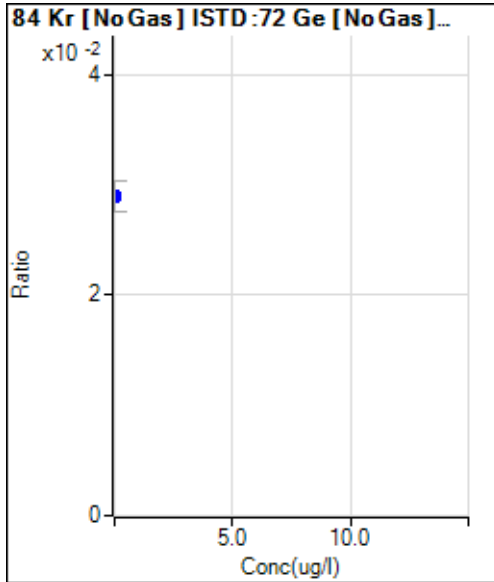
$R = 1.0000$

DL = 1.119 ug/l

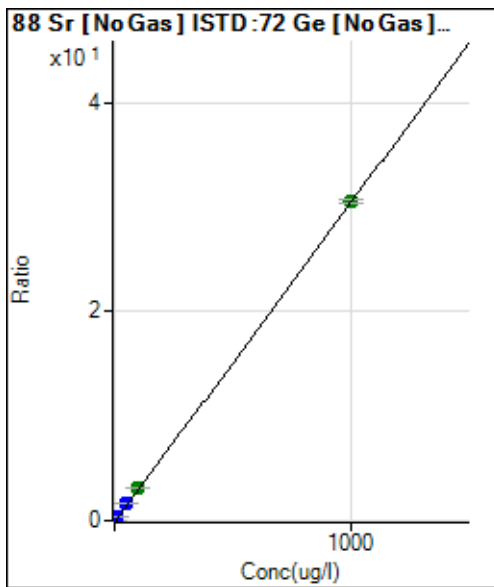
BEC = 3.249 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000		15104.67	0.0289	P	9.6	
2	<input type="checkbox"/>			14771.71	0.0281	P	10.1	
3	<input type="checkbox"/>			14884.88	0.0287	P	2.4	
4	<input type="checkbox"/>			14958.18	0.0290	P	4.1	
5	<input type="checkbox"/>			14944.88	0.0290	P	5.3	
6	<input type="checkbox"/>			14761.85	0.0288	P	7.4	
7	<input type="checkbox"/>			15784.08	0.0303	P	6.4	
8	<input type="checkbox"/>			20280.77	0.0380	P	5.3	
9	<input type="checkbox"/>			26688.56	0.0486	P	9.4	
10	<input type="checkbox"/>			137033.35	0.2259	P	1.5	
11	<input type="checkbox"/>			20231.03	0.0337	P	21.3	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	169.67	0.0003	P	19.3	
2	<input type="checkbox"/>	0.025	0.035	731.90	0.0014	P	11.3	39.3
3	<input type="checkbox"/>	0.050	0.056	1061.27	0.0020	P	9.4	12.2
4	<input type="checkbox"/>	0.100	0.125	2142.59	0.0041	P	8.9	25.0
5	<input type="checkbox"/>	0.500	0.574	9201.40	0.0179	P	3.3	14.7
6	<input type="checkbox"/>	1.000	1.195	18941.69	0.0369	P	3.6	19.5
7	<input type="checkbox"/>	10.000	11.248	179490.98	0.3444	P	1.4	12.5
8	<input type="checkbox"/>	50.000	51.958	847882.28	1.5897	P	1.9	3.9
9	<input type="checkbox"/>	100.000	100.416	1687227.56	3.0719	A	1.3	0.4
10	<input type="checkbox"/>	1000.000	999.848	18553573.33	30.5845	A	1.1	0.0
11	<input type="checkbox"/>			2794.75	0.0047	P	2.9	

$y = 0.0306 * x + 3.2601E-004$

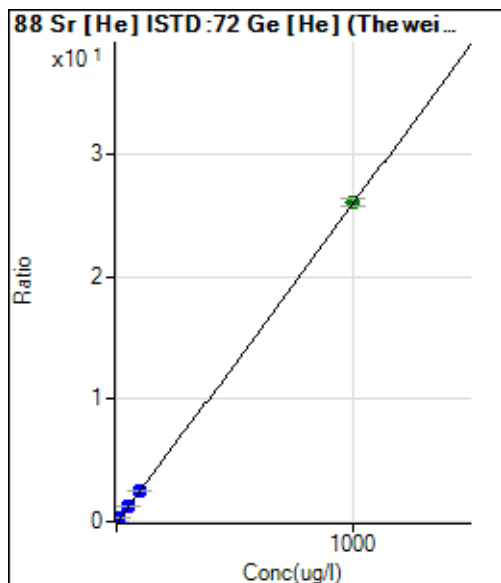
R = 1.0000

DL = 0.006176 ug/l

BEC = 0.01066 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	104.44	0.0011	P	23.8	
2	<input type="checkbox"/>	0.025	0.042	211.12	0.0022	P	14.7	67.8
3	<input type="checkbox"/>	0.050	0.054	241.11	0.0025	P	13.6	7.2
4	<input type="checkbox"/>	0.100	0.120	402.23	0.0042	P	10.6	19.9
5	<input type="checkbox"/>	0.500	0.528	1433.42	0.0148	P	8.0	5.5
6	<input type="checkbox"/>	1.000	1.099	2869.20	0.0297	P	2.1	9.9
7	<input type="checkbox"/>	10.000	10.640	27018.83	0.2786	P	0.9	6.4
8	<input type="checkbox"/>	50.000	50.482	129029.44	1.3179	P	1.3	1.0
9	<input type="checkbox"/>	100.000	96.186	262891.70	2.5101	P	2.1	-3.8
10	<input type="checkbox"/>	1000.000	1000.351	3039937.66	26.0954	A	2.7	0.0
11	<input type="checkbox"/>			437.79	0.0041	P	9.0	

$y = 0.0261 * x + 0.0011$

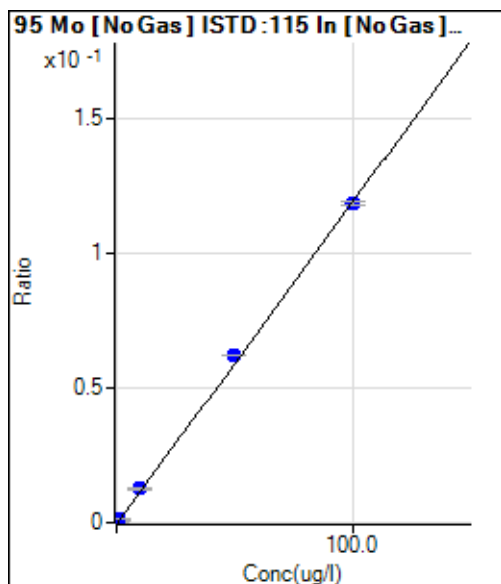
$R = 1.0000$

DL = 0.02907 ug/l

BEC = 0.04073 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	42.22	0.0000	P	55.5	
2	<input type="checkbox"/>	0.025	0.028	127.78	0.0000	P	5.6	12.2
3	<input type="checkbox"/>	0.050	0.049	190.00	0.0001	P	18.3	-2.7
4	<input type="checkbox"/>	0.100	0.102	348.89	0.0001	P	1.2	1.9
5	<input type="checkbox"/>	0.500	0.506	1595.66	0.0006	P	2.4	1.3
6	<input type="checkbox"/>	1.000	1.071	3285.96	0.0013	P	2.2	7.1
7	<input type="checkbox"/>	10.000	10.495	31721.88	0.0126	P	4.0	4.9
8	<input type="checkbox"/>	50.000	51.824	154859.77	0.0620	P	0.6	3.6
9	<input type="checkbox"/>	100.000	99.038	306251.84	0.1186	P	0.7	-1.0
10	<input type="checkbox"/>			326.67	0.0001	P	10.7	
11	<input type="checkbox"/>			91.11	0.0000	P	5.5	

$y = 0.0012 * x + 1.6036E-005$

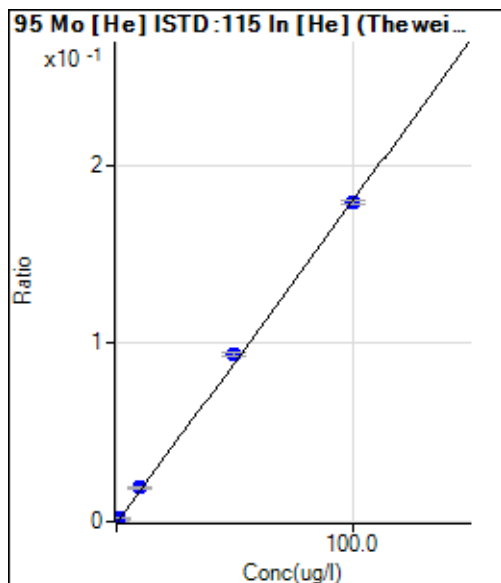
$R = 0.9998$

DL = 0.02229 ug/l

BEC = 0.0134 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	16.67	0.0000	P	72.3	
2	<input type="checkbox"/>	0.025	0.028	55.56	0.0001	P	20.8	10.2
3	<input type="checkbox"/>	0.050	0.037	67.78	0.0001	P	35.6	-26.4
4	<input type="checkbox"/>	0.100	0.125	191.11	0.0002	P	1.9	25.3
5	<input type="checkbox"/>	0.500	0.491	688.91	0.0009	P	3.5	-1.9
6	<input type="checkbox"/>	1.000	1.112	1551.21	0.0020	P	4.0	11.2
7	<input type="checkbox"/>	10.000	10.481	14678.73	0.0190	P	5.4	4.8
8	<input type="checkbox"/>	50.000	51.898	72322.68	0.0941	P	1.9	3.8
9	<input type="checkbox"/>	100.000	99.002	144694.92	0.1794	P	1.2	-1.0
10	<input type="checkbox"/>			130.00	0.0001	P	20.9	
11	<input type="checkbox"/>			27.78	0.0000	P	36.3	

$$y = 0.0018 * x + 2.1316E-005$$

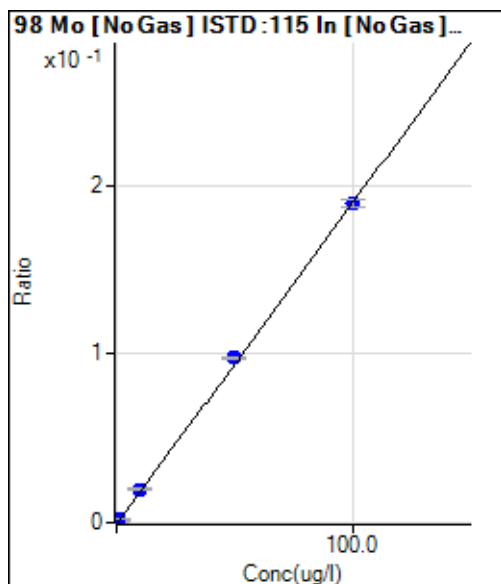
$$R = 0.9998$$

$$DL = 0.02552 \text{ ug/l}$$

$$BEC = 0.01176 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	41.39	0.0000	P	30.4	
2	<input type="checkbox"/>	0.025	0.028	179.03	0.0001	P	15.5	12.7
3	<input type="checkbox"/>	0.050	0.046	266.33	0.0001	P	1.9	-7.6
4	<input type="checkbox"/>	0.100	0.106	550.29	0.0002	P	4.2	5.8
5	<input type="checkbox"/>	0.500	0.500	2486.42	0.0010	P	5.0	0.0
6	<input type="checkbox"/>	1.000	1.077	5243.02	0.0021	P	2.3	7.7
7	<input type="checkbox"/>	10.000	10.388	50045.61	0.0198	P	3.3	3.9
8	<input type="checkbox"/>	50.000	51.255	244181.92	0.0978	P	1.6	2.5
9	<input type="checkbox"/>	100.000	99.333	489604.47	0.1896	P	2.2	-0.7
10	<input type="checkbox"/>			753.57	0.0003	P	3.6	
11	<input type="checkbox"/>			87.29	0.0000	P	13.0	

$$y = 0.0019 * x + 1.5724E-005$$

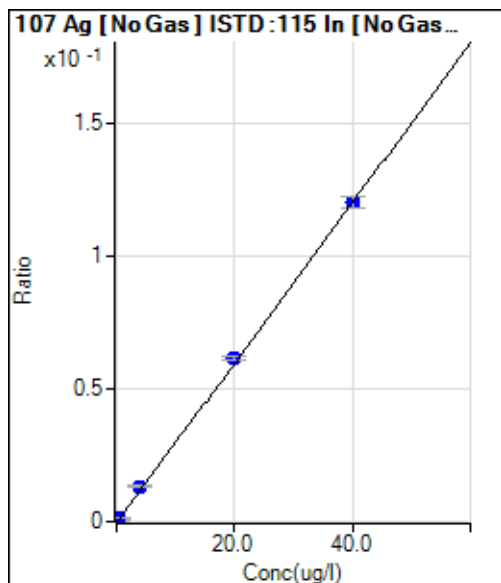
$$R = 0.9999$$

$$DL = 0.007511 \text{ ug/l}$$

$$BEC = 0.008239 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	546.90	0.0002	P	4.8	
2	<input type="checkbox"/>	0.010	0.022	702.97	0.0003	P	5.7	116.6
3	<input type="checkbox"/>	0.020	0.029	760.33	0.0003	P	2.2	47.4
4	<input type="checkbox"/>	0.040	0.056	951.09	0.0004	P	11.6	39.8
5	<input type="checkbox"/>	0.200	0.219	2230.41	0.0009	P	4.4	9.5
6	<input type="checkbox"/>	0.400	0.455	4010.19	0.0016	P	2.6	13.8
7	<input type="checkbox"/>	4.000	4.333	33573.77	0.0133	P	2.4	8.3
8	<input type="checkbox"/>	20.000	20.337	154024.36	0.0617	P	1.8	1.7
9	<input type="checkbox"/>	40.000	39.798	311225.60	0.1206	P	3.2	-0.5
10	<input type="checkbox"/>			3054399.31	1.0780	A	2.5	
11	<input type="checkbox"/>			1958.26	0.0007	P	3.2	

$y = 0.0030 * x + 2.0746E-004$

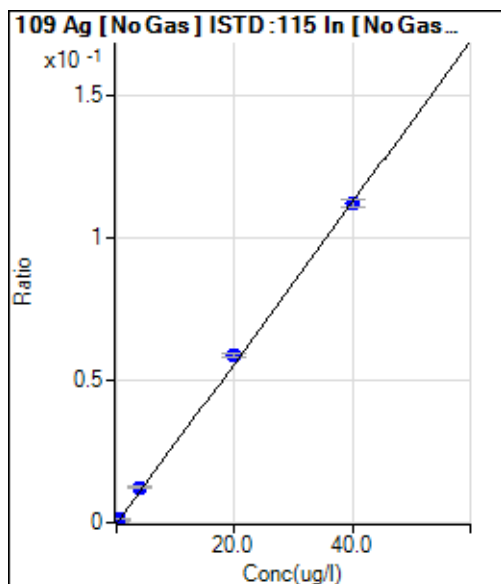
R = 0.9999

DL = 0.009833 ug/l

BEC = 0.0686 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	530.23	0.0002	P	5.5	
2	<input type="checkbox"/>	0.010	0.013	616.26	0.0002	P	3.1	34.6
3	<input type="checkbox"/>	0.020	0.024	690.96	0.0003	P	5.8	21.0
4	<input type="checkbox"/>	0.040	0.050	865.04	0.0003	P	6.6	24.6
5	<input type="checkbox"/>	0.200	0.215	2077.65	0.0008	P	1.2	7.6
6	<input type="checkbox"/>	0.400	0.449	3729.33	0.0015	P	4.4	12.3
7	<input type="checkbox"/>	4.000	4.311	31286.95	0.0124	P	2.0	7.8
8	<input type="checkbox"/>	20.000	20.774	147281.17	0.0590	P	2.0	3.9
9	<input type="checkbox"/>	40.000	39.581	289856.31	0.1122	P	2.7	-1.0
10	<input type="checkbox"/>			2917651.45	1.0299	A	1.9	
11	<input type="checkbox"/>			1803.51	0.0006	P	1.5	

$y = 0.0028 * x + 2.0115E-004$

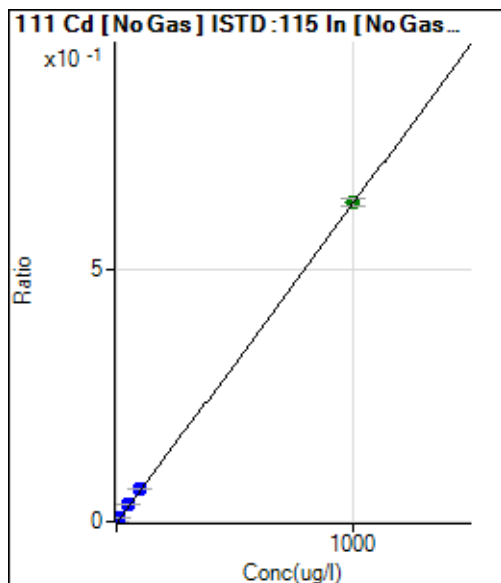
R = 0.9997

DL = 0.01163 ug/l

BEC = 0.07106 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	-7.52	0.0000	P	-122.	
2	<input type="checkbox"/>	0.025	0.044	64.53	0.0000	P	36.8	76.5
3	<input type="checkbox"/>	0.050	0.062	93.32	0.0000	P	26.5	23.9
4	<input type="checkbox"/>	0.100	0.137	211.77	0.0001	P	7.8	37.0
5	<input type="checkbox"/>	0.500	0.533	857.36	0.0003	P	6.2	6.6
6	<input type="checkbox"/>	1.000	1.150	1836.61	0.0007	P	5.0	15.0
7	<input type="checkbox"/>	10.000	10.694	17063.01	0.0068	P	1.9	6.9
8	<input type="checkbox"/>	50.000	52.169	82391.96	0.0330	P	1.3	4.3
9	<input type="checkbox"/>	100.000	100.703	164553.75	0.0637	P	1.9	0.7
10	<input type="checkbox"/>	1000.000	999.814	1792617.36	0.6327	A	1.8	0.0
11	<input type="checkbox"/>			241.01	0.0001	P	15.8	

$$y = 6.3285E-004 * x - 2.8640E-006$$

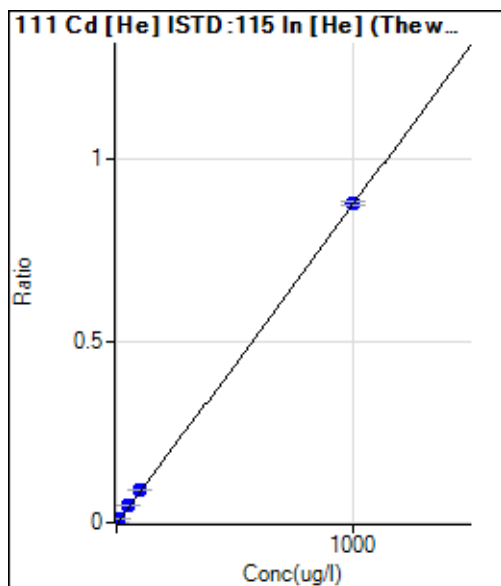
$$R = 1.0000$$

$$DL = 0.01666 \text{ ug/l}$$

$$BEC = -0.004525 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	6.89	0.0000	P	10.3	
2	<input type="checkbox"/>	0.025	0.033	29.67	0.0000	P	7.3	32.9
3	<input type="checkbox"/>	0.050	0.056	44.56	0.0001	P	14.4	11.4
4	<input type="checkbox"/>	0.100	0.122	89.55	0.0001	P	3.0	22.2
5	<input type="checkbox"/>	0.500	0.559	379.12	0.0005	P	2.0	11.8
6	<input type="checkbox"/>	1.000	1.160	785.13	0.0010	P	1.8	16.0
7	<input type="checkbox"/>	10.000	11.083	7540.78	0.0098	P	1.9	10.8
8	<input type="checkbox"/>	50.000	52.710	35683.02	0.0464	P	1.4	5.4
9	<input type="checkbox"/>	100.000	101.034	71735.93	0.0890	P	1.6	1.0
10	<input type="checkbox"/>	1000.000	999.750	772669.75	0.8801	P	1.1	0.0
11	<input type="checkbox"/>			116.67	0.0001	P	3.7	

$$y = 8.8032E-004 * x + 8.8113E-006$$

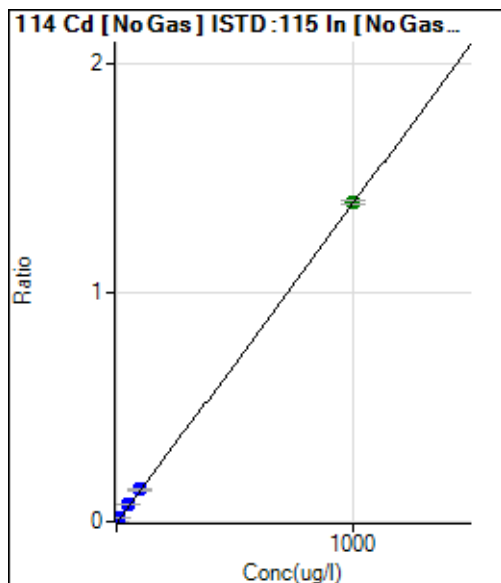
$$R = 1.0000$$

$$DL = 0.003108 \text{ ug/l}$$

$$BEC = 0.01001 \text{ ug/l}$$

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	-33.13	0.0000	P	-34.3	
2	<input type="checkbox"/>	0.025	0.034	89.43	0.0000	P	39.7	35.6
3	<input type="checkbox"/>	0.050	0.058	174.87	0.0001	P	13.5	16.0
4	<input type="checkbox"/>	0.100	0.107	346.64	0.0001	P	8.8	7.2
5	<input type="checkbox"/>	0.500	0.528	1857.00	0.0007	P	2.5	5.6
6	<input type="checkbox"/>	1.000	1.114	3902.59	0.0015	P	3.3	11.4
7	<input type="checkbox"/>	10.000	10.600	37266.15	0.0148	P	1.7	6.0
8	<input type="checkbox"/>	50.000	51.710	180001.57	0.0721	P	0.6	3.4
9	<input type="checkbox"/>	100.000	100.133	360667.96	0.1397	P	2.6	0.1
10	<input type="checkbox"/>	1000.000	999.895	3952634.96	1.3949	A	1.1	0.0
11	<input type="checkbox"/>			516.32	0.0002	P	6.2	

$$y = 0.0014 * x - 1.2593E-005$$

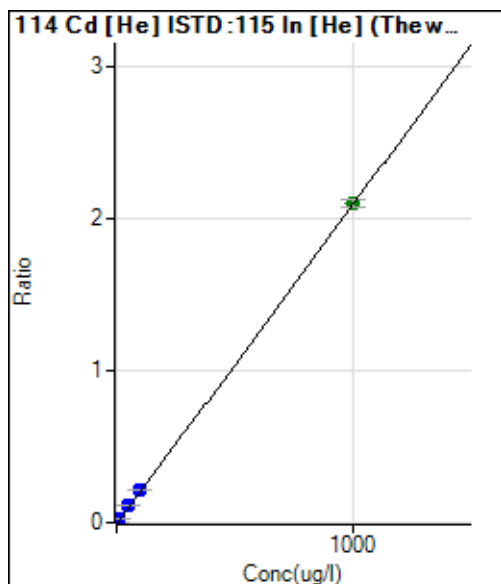
$$R = 1.0000$$

$$DL = 0.009278 \text{ ug/l}$$

$$BEC = -0.009027 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	14.57	0.0000	P	19.3	
2	<input type="checkbox"/>	0.025	0.031	65.39	0.0001	P	10.3	24.2
3	<input type="checkbox"/>	0.050	0.056	104.88	0.0001	P	8.7	11.9
4	<input type="checkbox"/>	0.100	0.113	196.58	0.0003	P	3.2	12.6
5	<input type="checkbox"/>	0.500	0.561	907.31	0.0012	P	0.8	12.3
6	<input type="checkbox"/>	1.000	1.160	1872.29	0.0025	P	1.8	16.0
7	<input type="checkbox"/>	10.000	11.225	18234.39	0.0236	P	1.6	12.2
8	<input type="checkbox"/>	50.000	52.867	85453.72	0.1111	P	0.6	5.7
9	<input type="checkbox"/>	100.000	101.511	172095.80	0.2134	P	1.5	1.5
10	<input type="checkbox"/>	1000.000	999.693	1844494.19	2.1013	A	2.0	0.0
11	<input type="checkbox"/>			236.28	0.0003	P	4.4	

$$y = 0.0021 * x + 1.8627E-005$$

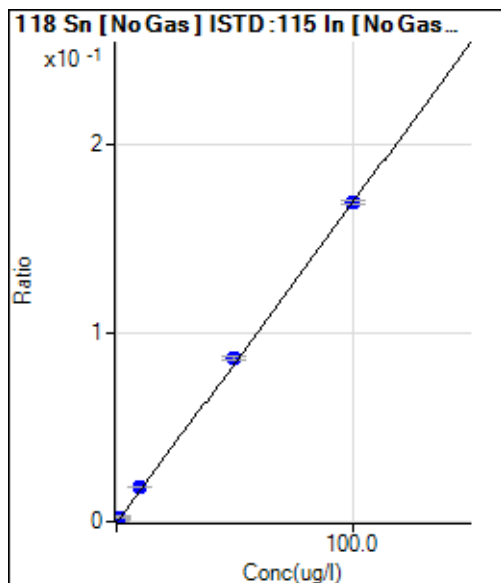
$$R = 1.0000$$

$$DL = 0.00513 \text{ ug/l}$$

$$BEC = 0.008862 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	612.14	0.0002	P	10.2	
2	<input type="checkbox"/>	0.025	0.156	1280.86	0.0005	P	5.2	522.4
3	<input type="checkbox"/>	0.050	0.258	1723.36	0.0007	P	4.0	416.9
4	<input type="checkbox"/>	0.100	0.346	2076.05	0.0008	P	3.4	245.7
5	<input type="checkbox"/>	0.500	0.735	3806.32	0.0015	P	7.7	47.1
6	<input type="checkbox"/>	1.000	1.362	6462.02	0.0026	P	3.2	36.2
7	<input type="checkbox"/>	10.000	10.693	46527.94	0.0184	P	0.4	6.9
8	<input type="checkbox"/>	50.000	50.800	216520.75	0.0868	P	2.4	1.6
9	<input type="checkbox"/>	100.000	99.526	438476.70	0.1697	P	1.1	-0.5
10	<input type="checkbox"/>			1992.86	0.0007	P	6.5	
11	<input type="checkbox"/>			27512.40	0.0097	P	1.0	

$$y = 0.0017 * x + 2.3233E-004$$

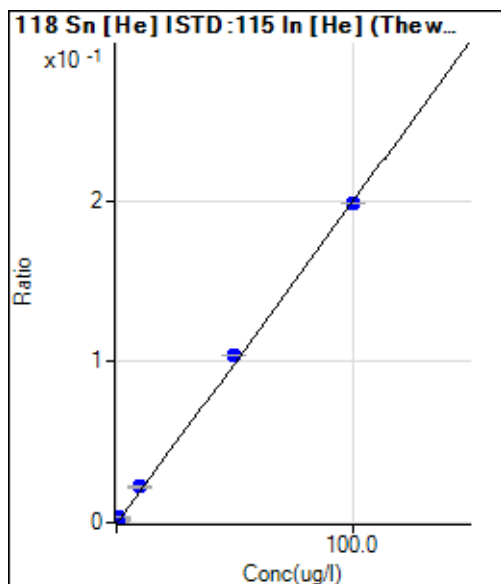
$$R = 1.0000$$

$$DL = 0.04166 \text{ ug/l}$$

$$BEC = 0.1364 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	230.00	0.0003	P	15.7	
2	<input type="checkbox"/>	0.025	0.155	471.12	0.0006	P	8.3	520.3
3	<input type="checkbox"/>	0.050	0.307	700.02	0.0009	P	8.4	514.0
4	<input type="checkbox"/>	0.100	0.353	768.91	0.0010	P	18.0	252.6
5	<input type="checkbox"/>	0.500	0.742	1347.85	0.0018	P	1.8	48.4
6	<input type="checkbox"/>	1.000	1.453	2442.45	0.0032	P	0.8	45.3
7	<input type="checkbox"/>	10.000	11.016	17271.79	0.0224	P	3.4	10.2
8	<input type="checkbox"/>	50.000	51.924	80233.52	0.1043	P	0.5	3.8
9	<input type="checkbox"/>	100.000	98.930	160144.37	0.1985	P	0.1	-1.1
10	<input type="checkbox"/>			728.91	0.0008	P	7.7	
11	<input type="checkbox"/>			9985.81	0.0121	P	1.5	

$$y = 0.0020 * x + 2.9396E-004$$

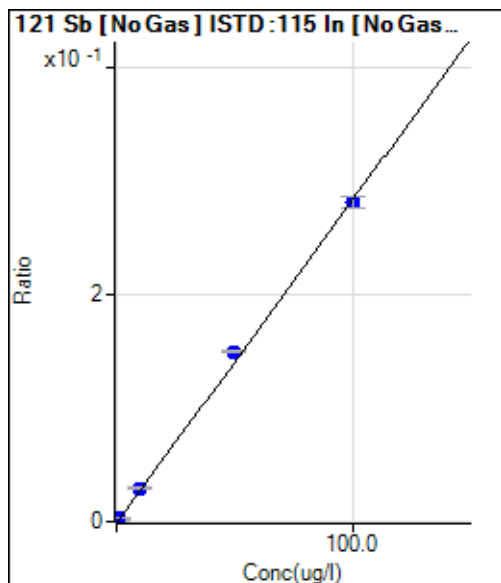
$$R = 0.9997$$

$$DL = 0.069 \text{ ug/l}$$

$$BEC = 0.1467 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	267.36	0.0001	P	4.5	
2	<input type="checkbox"/>	0.025	0.035	521.06	0.0002	P	8.1	41.8
3	<input type="checkbox"/>	0.050	0.042	569.74	0.0002	P	2.5	-15.1
4	<input type="checkbox"/>	0.100	0.099	968.47	0.0004	P	3.6	-1.1
5	<input type="checkbox"/>	0.500	0.482	3779.89	0.0015	P	1.3	-3.6
6	<input type="checkbox"/>	1.000	1.052	7840.64	0.0031	P	1.9	5.2
7	<input type="checkbox"/>	10.000	10.268	73992.70	0.0293	P	2.7	2.7
8	<input type="checkbox"/>	50.000	52.554	373661.57	0.1497	P	1.7	5.1
9	<input type="checkbox"/>	100.000	98.696	725719.74	0.2811	P	3.0	-1.3
10	<input type="checkbox"/>			1872.98	0.0007	P	3.4	
11	<input type="checkbox"/>			584.74	0.0002	P	3.1	

$$y = 0.0028 * x + 1.0142E-004$$

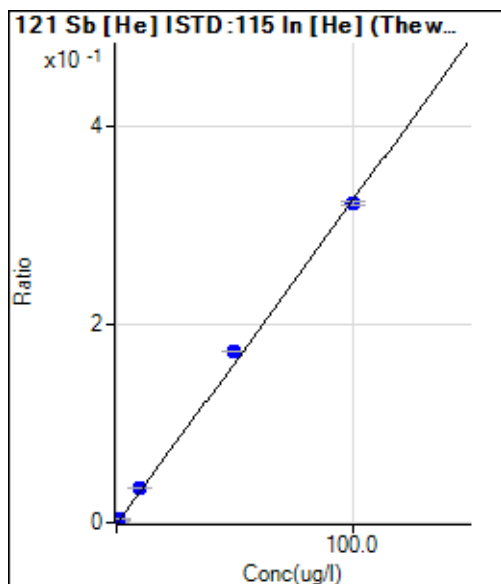
$$R = 0.9996$$

$$DL = 0.00484 \text{ ug/l}$$

$$BEC = 0.03563 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	94.68	0.0001	P	11.4	
2	<input type="checkbox"/>	0.025	0.035	183.02	0.0002	P	5.1	39.2
3	<input type="checkbox"/>	0.050	0.045	207.02	0.0003	P	10.8	-9.6
4	<input type="checkbox"/>	0.100	0.101	346.71	0.0005	P	8.1	0.7
5	<input type="checkbox"/>	0.500	0.517	1370.54	0.0018	P	2.4	3.3
6	<input type="checkbox"/>	1.000	1.073	2767.89	0.0036	P	1.5	7.3
7	<input type="checkbox"/>	10.000	10.481	26571.31	0.0344	P	1.9	4.8
8	<input type="checkbox"/>	50.000	52.779	132849.09	0.1728	P	0.9	5.6
9	<input type="checkbox"/>	100.000	98.562	260144.96	0.3226	P	1.4	-1.4
10	<input type="checkbox"/>			574.07	0.0007	P	5.4	
11	<input type="checkbox"/>			202.02	0.0002	P	6.1	

$$y = 0.0033 * x + 1.2101E-004$$

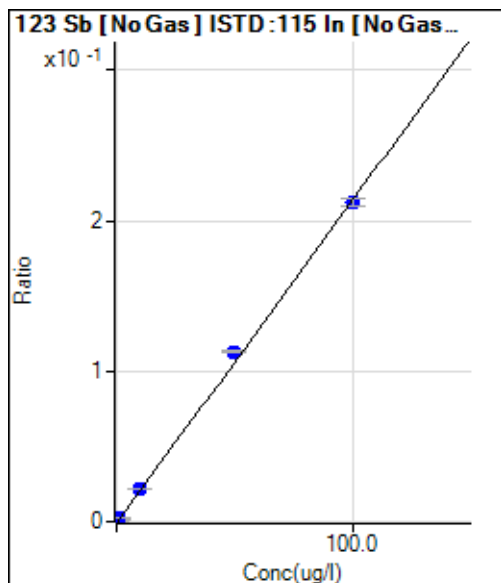
$$R = 0.9995$$

$$DL = 0.01261 \text{ ug/l}$$

$$BEC = 0.03699 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	210.35	0.0001	P	6.9	
2	<input type="checkbox"/>	0.025	0.040	424.72	0.0002	P	5.2	58.5
3	<input type="checkbox"/>	0.050	0.035	397.38	0.0002	P	4.2	-29.9
4	<input type="checkbox"/>	0.100	0.092	699.09	0.0003	P	8.1	-8.3
5	<input type="checkbox"/>	0.500	0.481	2850.91	0.0011	P	1.5	-3.9
6	<input type="checkbox"/>	1.000	1.033	5823.13	0.0023	P	1.8	3.3
7	<input type="checkbox"/>	10.000	10.244	55698.62	0.0221	P	1.9	2.4
8	<input type="checkbox"/>	50.000	52.468	281460.69	0.1128	P	1.1	4.9
9	<input type="checkbox"/>	100.000	98.741	548005.74	0.2122	P	2.3	-1.3
10	<input type="checkbox"/>			1495.23	0.0005	P	5.0	
11	<input type="checkbox"/>			444.39	0.0002	P	9.9	

$y = 0.0021 * x + 7.9787E-005$

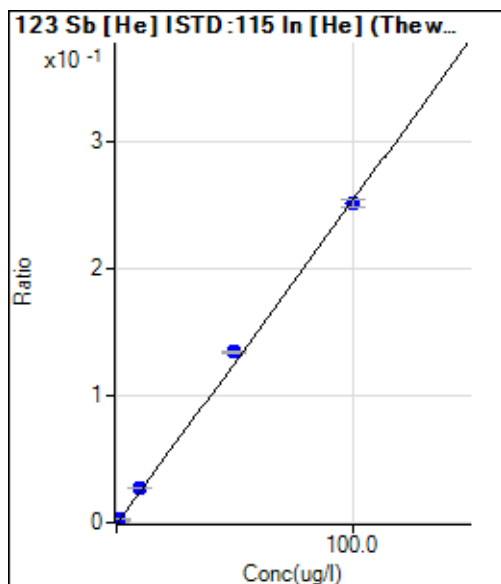
R = 0.9996

DL = 0.007689 ug/l

BEC = 0.03715 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	75.34	0.0001	P	8.8	
2	<input type="checkbox"/>	0.025	0.040	154.02	0.0002	P	4.1	58.6
3	<input type="checkbox"/>	0.050	0.053	179.35	0.0002	P	9.2	6.9
4	<input type="checkbox"/>	0.100	0.101	272.70	0.0004	P	1.8	1.0
5	<input type="checkbox"/>	0.500	0.526	1089.49	0.0014	P	2.1	5.2
6	<input type="checkbox"/>	1.000	1.101	2216.73	0.0029	P	3.5	10.1
7	<input type="checkbox"/>	10.000	10.542	20874.22	0.0270	P	1.2	5.4
8	<input type="checkbox"/>	50.000	52.739	103666.49	0.1348	P	1.5	5.5
9	<input type="checkbox"/>	100.000	98.575	203160.78	0.2519	P	2.1	-1.4
10	<input type="checkbox"/>			483.72	0.0006	P	8.3	
11	<input type="checkbox"/>			180.35	0.0002	P	15.5	

$y = 0.0026 * x + 9.6345E-005$

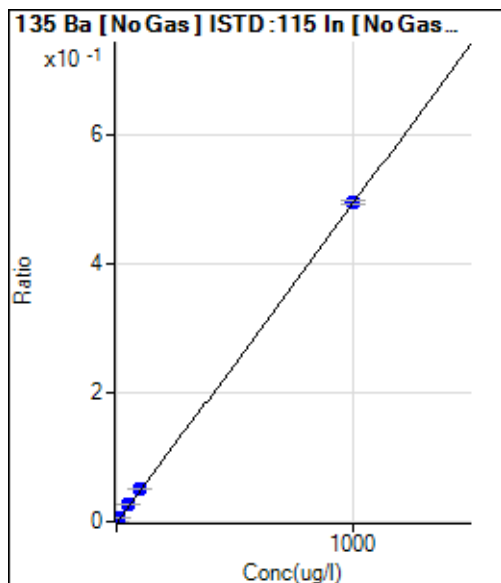
R = 0.9995

DL = 0.009922 ug/l

BEC = 0.03771 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	26.61	0.0000	P	42.6	
2	<input type="checkbox"/>	0.025	0.008	36.59	0.0000	P	79.2	-66.5
3	<input type="checkbox"/>	0.050	0.059	99.80	0.0000	P	62.3	17.2
4	<input type="checkbox"/>	0.100	0.126	182.97	0.0001	P	22.1	25.7
5	<input type="checkbox"/>	0.500	0.505	668.69	0.0003	P	8.1	1.0
6	<input type="checkbox"/>	1.000	1.067	1367.36	0.0005	P	5.2	6.7
7	<input type="checkbox"/>	10.000	10.555	13250.12	0.0053	P	1.6	5.6
8	<input type="checkbox"/>	50.000	52.821	65507.46	0.0262	P	2.2	5.6
9	<input type="checkbox"/>	100.000	102.211	131027.82	0.0508	P	4.8	2.2
10	<input type="checkbox"/>	1000.000	999.632	1407053.04	0.4965	P	0.8	0.0
11	<input type="checkbox"/>			219.57	0.0001	P	14.4	

$$y = 4.9668E-004 * x + 1.0081E-005$$

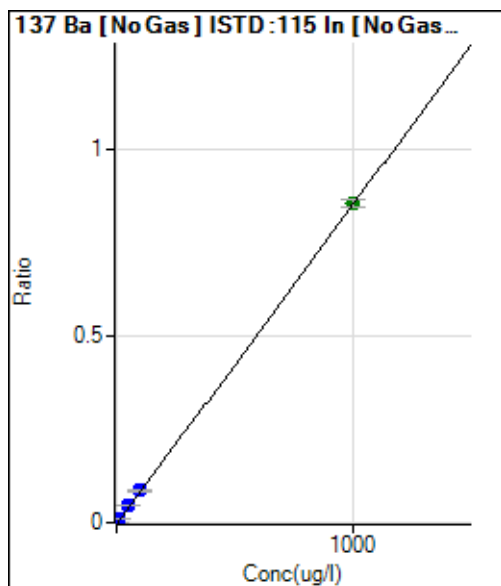
R = 1.0000

DL = 0.02595 ug/l

BEC = 0.0203 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	33.27	0.0000	P	16.7	
2	<input type="checkbox"/>	0.025	0.028	93.15	0.0000	P	22.5	10.0
3	<input type="checkbox"/>	0.050	0.055	153.03	0.0001	P	27.2	10.3
4	<input type="checkbox"/>	0.100	0.100	249.51	0.0001	P	13.9	0.4
5	<input type="checkbox"/>	0.500	0.499	1127.82	0.0004	P	7.3	-0.2
6	<input type="checkbox"/>	1.000	1.084	2382.17	0.0009	P	12.5	8.4
7	<input type="checkbox"/>	10.000	10.681	23106.76	0.0092	P	2.8	6.8
8	<input type="checkbox"/>	50.000	52.577	112416.23	0.0450	P	0.5	5.2
9	<input type="checkbox"/>	100.000	99.496	220129.35	0.0852	P	1.3	-0.5
10	<input type="checkbox"/>	1000.000	999.915	2425693.75	0.8564	A	3.0	0.0
11	<input type="checkbox"/>			359.30	0.0001	P	25.5	

$$y = 8.5649E-004 * x + 1.2614E-005$$

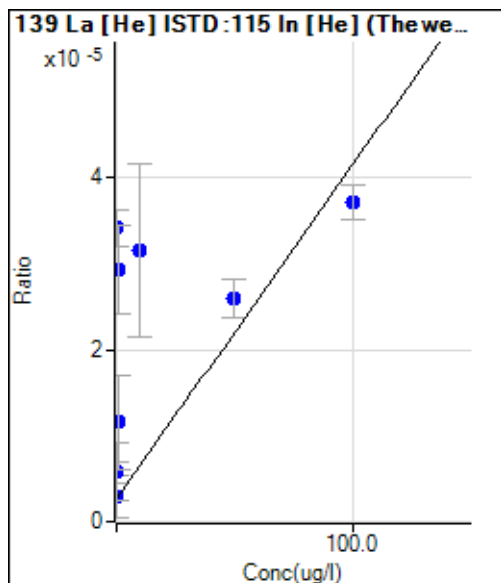
R = 1.0000

DL = 0.007366 ug/l

BEC = 0.01473 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	2.22	0.0000	P	173.	
2	<input type="checkbox"/>	0.025	80.637	26.67	0.0000	P	12.6	322446.
3	<input type="checkbox"/>	0.050	7.517	4.44	0.0000	P	114.	14934.3
4	<input type="checkbox"/>	0.100	7.494	4.44	0.0000	P	42.7	7393.5
5	<input type="checkbox"/>	0.500	68.133	22.22	0.0000	P	34.6	13526.6
6	<input type="checkbox"/>	1.000	22.394	8.89	0.0000	P	93.7	2139.4
7	<input type="checkbox"/>	10.000	73.867	24.45	0.0000	P	63.9	638.7
8	<input type="checkbox"/>	50.000	59.593	20.00	0.0000	P	17.5	19.2
9	<input type="checkbox"/>	100.000	88.234	30.00	0.0000	P	10.5	-11.8
10	<input type="checkbox"/>			120.00	0.0001	P	10.0	
11	<input type="checkbox"/>			3.33	0.0000	P	0.4	

$$y = 3.8909E-007 * x + 2.8488E-006$$

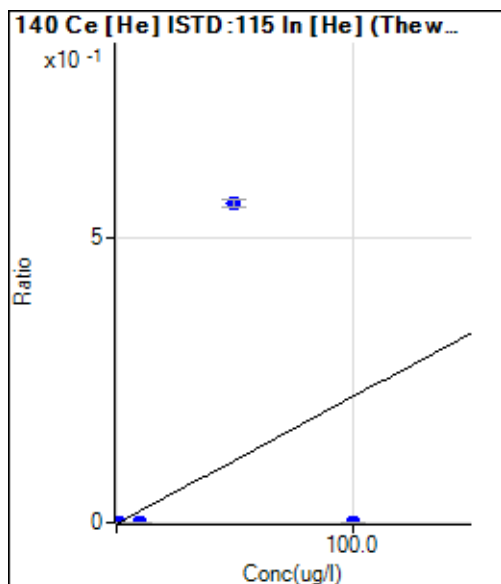
R = 0.5338

DL = 38.05 ug/l

BEC = 7.322 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	17.78	0.0000	P	28.2	
2	<input type="checkbox"/>	0.025	0.012	37.78	0.0000	P	5.0	-53.6
3	<input type="checkbox"/>	0.050	-0.002	13.33	0.0000	P	24.8	-104.9
4	<input type="checkbox"/>	0.100	0.002	21.11	0.0000	P	8.6	-97.9
5	<input type="checkbox"/>	0.500	0.003	22.22	0.0000	P	17.4	-99.4
6	<input type="checkbox"/>	1.000	0.005	26.67	0.0000	P	23.6	-99.5
7	<input type="checkbox"/>	10.000	0.010	34.44	0.0000	P	27.0	-99.9
8	<input type="checkbox"/>	50.000	251.982	430716.70	0.5602	P	2.1	404.0
9	<input type="checkbox"/>	100.000	0.021	55.55	0.0001	P	26.7	-100.0
10	<input type="checkbox"/>			248.89	0.0003	P	10.2	
11	<input type="checkbox"/>			15.56	0.0000	P	62.2	

$$y = 0.0022 * x + 2.2712E-005$$

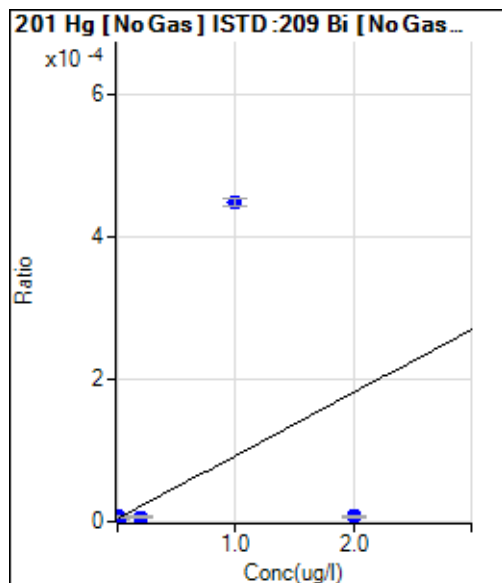
R = 0.3451

DL = 0.008629 ug/l

BEC = 0.01022 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	7.67	0.0000	P	32.5	
2	<input type="checkbox"/>			6.33	0.0000	P	40.5	
3	<input type="checkbox"/>	0.001	-0.016	5.67	0.0000	P	43.9	-1666.1
4	<input type="checkbox"/>	0.002	0.015	9.00	0.0000	P	40.6	631.7
5	<input type="checkbox"/>	0.010	0.010	8.33	0.0000	P	37.5	0.1
6	<input type="checkbox"/>	0.020	0.000	7.33	0.0000	P	45.1	-97.7
7	<input type="checkbox"/>	0.200	0.005	8.00	0.0000	P	47.4	-97.5
8	<input type="checkbox"/>	1.000	5.007	570.90	0.0004	P	2.3	400.7
9	<input type="checkbox"/>	2.000	0.016	9.33	0.0000	P	54.1	-99.2
10	<input type="checkbox"/>			9.67	0.0000	P	30.6	
11	<input type="checkbox"/>			12.00	0.0000	P	13.3	

$$y = 8.8549E-005 * x + 5.7687E-006$$

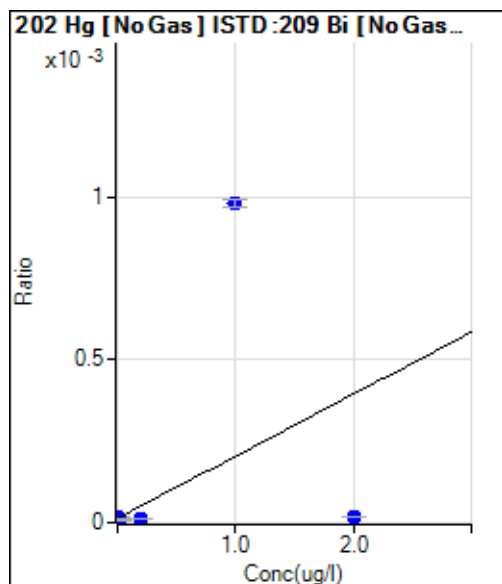
R = 0.3323

DL = 0.06342 ug/l

BEC = 0.06515 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	22.00	0.0000	P	41.2	
2	<input type="checkbox"/>			12.33	0.0000	P	21.0	
3	<input type="checkbox"/>	0.001	-0.023	15.67	0.0000	P	42.4	-2431.1
4	<input type="checkbox"/>	0.002	0.005	22.33	0.0000	P	33.2	145.5
5	<input type="checkbox"/>	0.010	-0.030	13.67	0.0000	P	7.6	-396.1
6	<input type="checkbox"/>	0.020	-0.040	11.33	0.0000	P	55.5	-301.3
7	<input type="checkbox"/>	0.200	-0.028	14.33	0.0000	P	14.3	-114.0
8	<input type="checkbox"/>	1.000	5.057	1245.14	0.0010	P	2.5	405.7
9	<input type="checkbox"/>	2.000	-0.005	20.33	0.0000	P	5.8	-100.2
10	<input type="checkbox"/>			23.00	0.0000	P	17.7	
11	<input type="checkbox"/>			21.33	0.0000	P	24.4	

$$y = 1.9043E-004 * x + 1.6578E-005$$

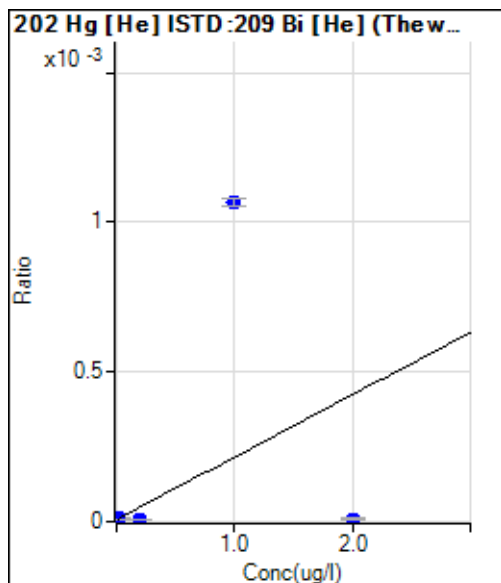
R = 0.3321

DL = 0.1076 ug/l

BEC = 0.08705 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	9.33	0.0000	P	29.4	
2	<input type="checkbox"/>			7.00	0.0000	P	37.6	
3	<input type="checkbox"/>	0.001	-0.028	4.33	0.0000	P	33.7	-2913.8
4	<input type="checkbox"/>	0.002	-0.013	7.00	0.0000	P	37.3	-770.0
5	<input type="checkbox"/>	0.010	-0.004	8.67	0.0000	P	56.6	-139.3
6	<input type="checkbox"/>	0.020	-0.028	4.33	0.0000	P	35.7	-239.5
7	<input type="checkbox"/>	0.200	-0.022	5.33	0.0000	P	45.1	-111.2
8	<input type="checkbox"/>	1.000	5.067	922.18	0.0011	P	2.7	406.7
9	<input type="checkbox"/>	2.000	-0.011	7.33	0.0000	P	41.6	-100.5
10	<input type="checkbox"/>			9.00	0.0000	P	24.4	
11	<input type="checkbox"/>			8.33	0.0000	P	55.2	

$y = 2.0852E-004 * x + 1.0797E-005$

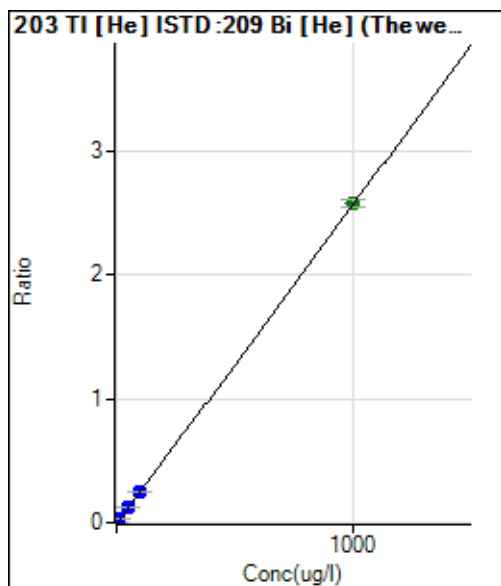
R = 0.3304

DL = 0.04564 ug/l

BEC = 0.05178 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	389.50	0.0004	P	7.4	
2	<input type="checkbox"/>	0.025	-0.025	339.48	0.0004	P	13.4	-200.4
3	<input type="checkbox"/>	0.050	-0.015	359.48	0.0004	P	3.4	-129.8
4	<input type="checkbox"/>	0.100	0.015	426.18	0.0005	P	4.4	-84.9
5	<input type="checkbox"/>	0.500	0.421	1329.94	0.0015	P	6.3	-15.9
6	<input type="checkbox"/>	1.000	0.953	2535.93	0.0029	P	0.9	-4.7
7	<input type="checkbox"/>	10.000	10.475	24063.27	0.0275	P	1.3	4.8
8	<input type="checkbox"/>	50.000	48.711	108911.54	0.1261	P	1.3	-2.6
9	<input type="checkbox"/>	100.000	97.893	216837.83	0.2530	P	1.8	-2.1
10	<input type="checkbox"/>	1000.000	1000.271	2170510.30	2.5807	A	2.4	0.0
11	<input type="checkbox"/>			1321.93	0.0015	P	1.6	

$y = 0.0026 * x + 4.4888E-004$

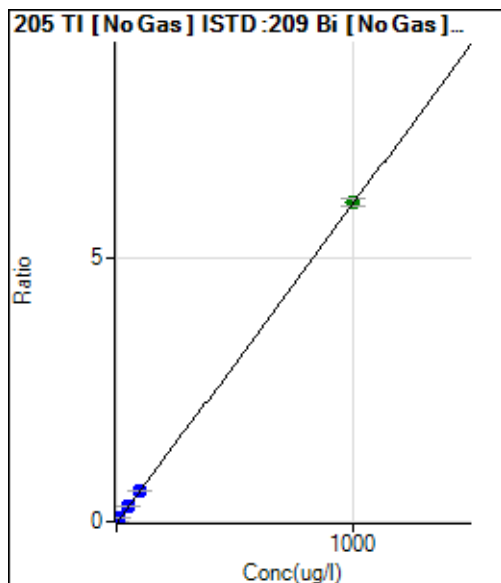
R = 1.0000

DL = 0.03839 ug/l

BEC = 0.174 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	1157.84	0.0009	P	28.0	
2	<input type="checkbox"/>	0.025	-0.042	788.92	0.0006	P	16.9	-268.2
3	<input type="checkbox"/>	0.050	-0.025	931.15	0.0007	P	15.9	-149.9
4	<input type="checkbox"/>	0.100	0.025	1312.30	0.0010	P	13.1	-74.9
5	<input type="checkbox"/>	0.500	0.447	4454.11	0.0036	P	8.1	-10.7
6	<input type="checkbox"/>	1.000	0.932	8232.60	0.0065	P	1.2	-6.8
7	<input type="checkbox"/>	10.000	10.037	78289.67	0.0615	P	3.7	0.4
8	<input type="checkbox"/>	50.000	46.850	360671.41	0.2837	P	2.1	-6.3
9	<input type="checkbox"/>	100.000	97.408	763251.17	0.5890	P	1.6	-2.6
10	<input type="checkbox"/>	1000.000	1000.416	8158848.42	6.0407	A	2.0	0.0
11	<input type="checkbox"/>			5137.71	0.0037	P	10.1	

$$y = 0.0060 * x + 8.7235E-004$$

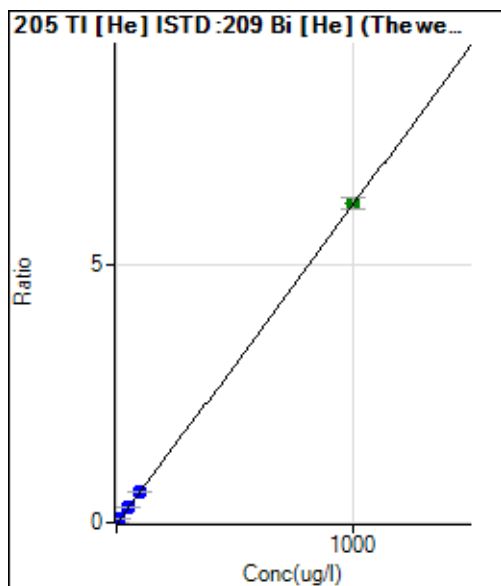
R = 1.0000

DL = 0.1212 ug/l

BEC = 0.1445 ug/l

Weight: 1/y

Min Conc: <None>



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	995.11	0.0011	P	8.6	
2	<input type="checkbox"/>	0.025	-0.038	807.02	0.0009	P	1.7	-251.4
3	<input type="checkbox"/>	0.050	-0.035	814.35	0.0009	P	4.1	-170.3
4	<input type="checkbox"/>	0.100	0.013	1071.14	0.0012	P	4.5	-87.3
5	<input type="checkbox"/>	0.500	0.416	3224.36	0.0037	P	1.4	-16.8
6	<input type="checkbox"/>	1.000	0.977	6268.01	0.0072	P	2.8	-2.3
7	<input type="checkbox"/>	10.000	10.384	57252.07	0.0654	P	1.4	3.8
8	<input type="checkbox"/>	50.000	47.790	256209.53	0.2967	P	2.6	-4.4
9	<input type="checkbox"/>	100.000	96.444	512173.97	0.5975	P	2.2	-3.6
10	<input type="checkbox"/>	1000.000	1000.462	5203226.71	6.1878	A	3.4	0.0
11	<input type="checkbox"/>			3215.68	0.0037	P	4.1	

$$y = 0.0062 * x + 0.0011$$

R = 1.0000

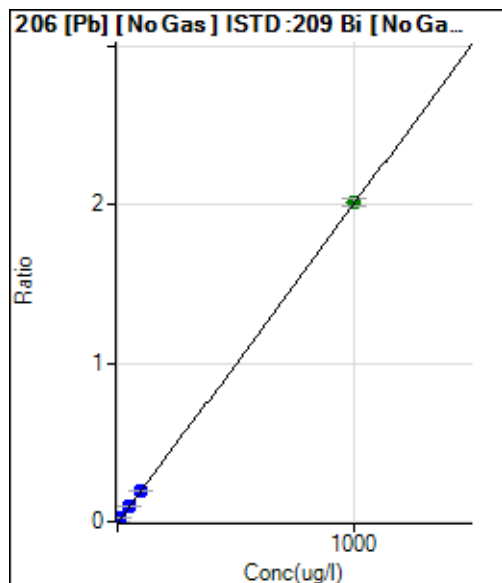
DL = 0.04792 ug/l

BEC = 0.1856 ug/l

Weight: 1/y

Min Conc: <None>

Calibration for 086CAL.S.d



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	85.56	0.0001	P	8.6	
2	<input type="checkbox"/>	0.025	0.023	142.22	0.0001	P	17.5	-6.8
3	<input type="checkbox"/>	0.050	0.052	218.89	0.0002	P	12.4	4.2
4	<input type="checkbox"/>	0.100	0.100	340.01	0.0003	P	13.3	-0.3
5	<input type="checkbox"/>	0.500	0.534	1424.53	0.0011	P	6.5	6.8
6	<input type="checkbox"/>	1.000	1.113	2921.45	0.0023	P	2.1	11.3
7	<input type="checkbox"/>	10.000	10.687	27520.77	0.0216	P	4.3	6.9
8	<input type="checkbox"/>	50.000	50.116	128542.29	0.1011	P	2.4	0.2
9	<input type="checkbox"/>	100.000	96.218	251490.93	0.1941	P	0.6	-3.8
10	<input type="checkbox"/>	1000.000	1000.365	2724462.91	2.0171	A	2.2	0.0
11	<input type="checkbox"/>			637.80	0.0005	P	12.3	

$$y = 0.0020 * x + 6.4422E-005$$

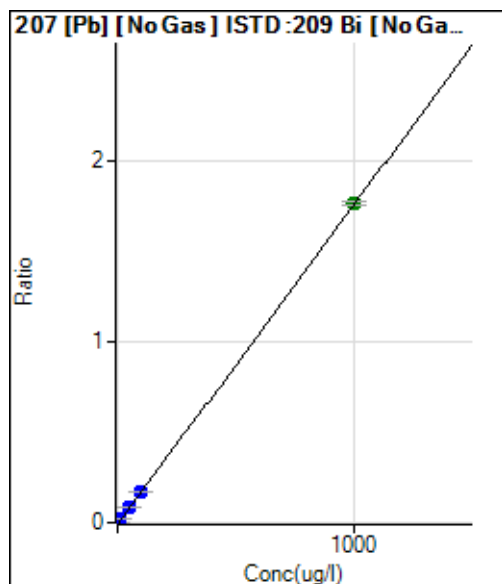
$$R = 1.0000$$

$$DL = 0.008273 \text{ ug/l}$$

$$BEC = 0.03195 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	67.78	0.0001	P	33.1	
2	<input type="checkbox"/>	0.025	0.036	146.67	0.0001	P	7.2	44.9
3	<input type="checkbox"/>	0.050	0.057	196.67	0.0002	P	8.4	14.9
4	<input type="checkbox"/>	0.100	0.099	290.01	0.0002	P	2.8	-0.6
5	<input type="checkbox"/>	0.500	0.509	1185.62	0.0010	P	7.6	1.8
6	<input type="checkbox"/>	1.000	1.065	2444.68	0.0019	P	2.3	6.5
7	<input type="checkbox"/>	10.000	10.189	22959.93	0.0180	P	6.6	1.9
8	<input type="checkbox"/>	50.000	49.869	111986.30	0.0881	P	4.3	-0.3
9	<input type="checkbox"/>	100.000	95.982	219676.54	0.1695	P	1.9	-4.0
10	<input type="checkbox"/>	1000.000	1000.406	2386230.94	1.7665	A	1.4	0.0
11	<input type="checkbox"/>			577.80	0.0004	P	2.9	

$$y = 0.0018 * x + 5.1013E-005$$

$$R = 1.0000$$

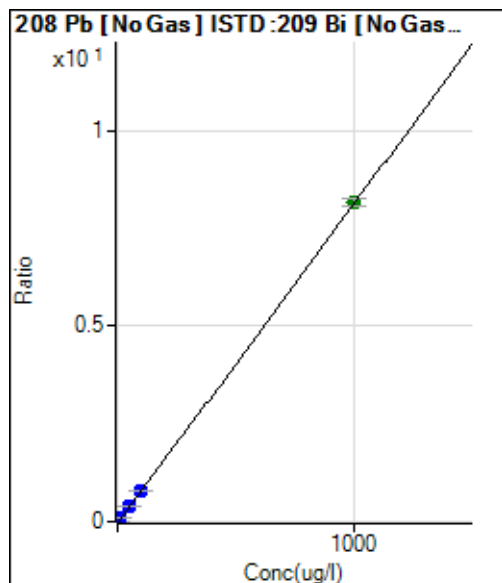
$$DL = 0.02871 \text{ ug/l}$$

$$BEC = 0.02889 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$

Calibration for 086CAL.S.d



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	303.34	0.0002	P	9.4	
2	<input type="checkbox"/>	0.025	0.032	624.45	0.0005	P	6.1	28.1
3	<input type="checkbox"/>	0.050	0.052	845.57	0.0007	P	7.6	4.6
4	<input type="checkbox"/>	0.100	0.107	1406.71	0.0011	P	7.6	6.8
5	<input type="checkbox"/>	0.500	0.524	5614.95	0.0045	P	6.2	4.7
6	<input type="checkbox"/>	1.000	1.089	11528.72	0.0091	P	1.1	8.9
7	<input type="checkbox"/>	10.000	10.405	108358.54	0.0851	P	3.7	4.0
8	<input type="checkbox"/>	50.000	48.857	506791.07	0.3987	P	2.1	-2.3
9	<input type="checkbox"/>	100.000	95.824	1012958.76	0.7817	P	2.1	-4.2
10	<input type="checkbox"/>	1000.000	1000.471	11021060.43	8.1592	A	2.3	0.0
11	<input type="checkbox"/>			2595.67	0.0019	P	3.0	

$$y = 0.0082 * x + 2.2840E-004$$

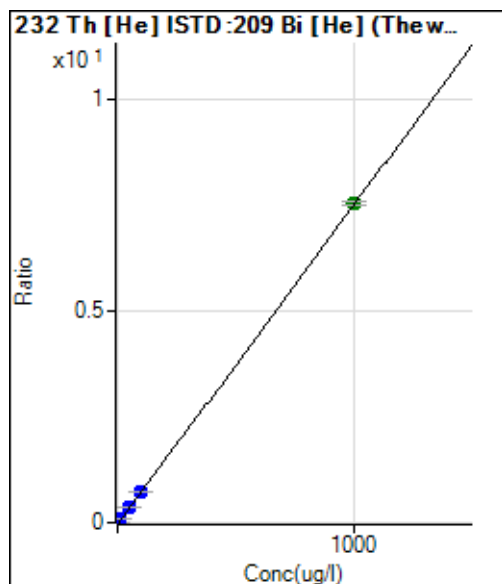
$$R = 1.0000$$

$$DL = 0.007863 \text{ ug/l}$$

$$BEC = 0.02801 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	78.03	0.0001	P	6.1	
2	<input type="checkbox"/>	0.025	0.015	176.74	0.0002	P	15.6	-41.7
3	<input type="checkbox"/>	0.050	0.031	282.12	0.0003	P	10.5	-38.6
4	<input type="checkbox"/>	0.100	0.074	564.24	0.0006	P	3.8	-26.4
5	<input type="checkbox"/>	0.500	0.450	3026.24	0.0035	P	3.2	-10.0
6	<input type="checkbox"/>	1.000	0.984	6564.29	0.0075	P	3.9	-1.6
7	<input type="checkbox"/>	10.000	10.052	66623.42	0.0761	P	2.0	0.5
8	<input type="checkbox"/>	50.000	48.650	317686.40	0.3678	P	1.3	-2.7
9	<input type="checkbox"/>	100.000	95.501	618808.80	0.7219	P	2.0	-4.5
10	<input type="checkbox"/>	1000.000	1000.517	6361401.16	7.5624	A	1.6	0.1
11	<input type="checkbox"/>			1500.69	0.0017	P	2.2	

$$y = 0.0076 * x + 8.9845E-005$$

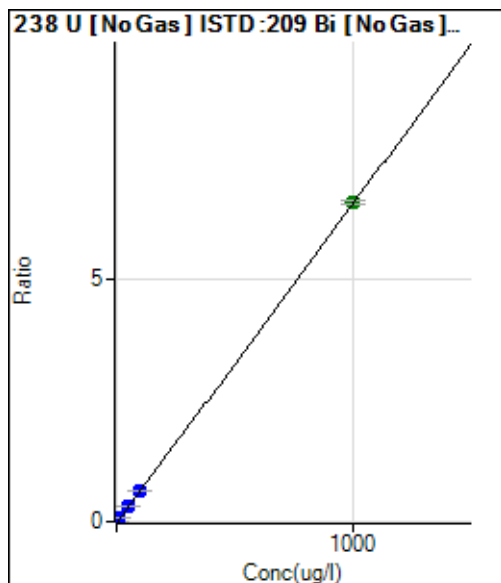
$$R = 1.0000$$

$$DL = 0.002193 \text{ ug/l}$$

$$BEC = 0.01189 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

$$\text{Min Conc: } <\text{None}>$$



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	0.000	0.000	15.67	0.0000	P	19.1	
2	<input type="checkbox"/>	0.025	0.031	278.95	0.0002	P	1.6	25.7
3	<input type="checkbox"/>	0.050	0.048	426.26	0.0003	P	6.5	-3.2
4	<input type="checkbox"/>	0.100	0.105	902.52	0.0007	P	5.2	5.4
5	<input type="checkbox"/>	0.500	0.508	4188.51	0.0034	P	3.4	1.6
6	<input type="checkbox"/>	1.000	1.029	8592.44	0.0068	P	1.8	2.9
7	<input type="checkbox"/>	10.000	9.991	83779.47	0.0658	P	3.2	-0.1
8	<input type="checkbox"/>	50.000	48.585	406533.63	0.3198	P	3.6	-2.8
9	<input type="checkbox"/>	100.000	96.445	822661.96	0.6348	P	2.0	-3.6
10	<input type="checkbox"/>	1000.000	1000.426	8895287.81	6.5852	A	1.6	0.0
11	<input type="checkbox"/>			1471.46	0.0011	P	3.7	

$$y = 0.0066 * x + 1.1793E-005$$

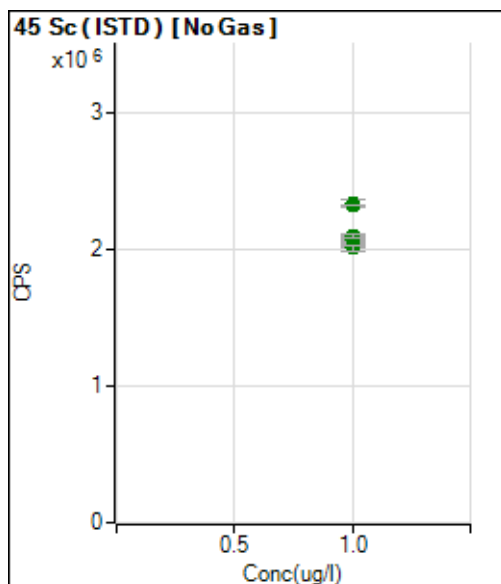
$$R = 1.0000$$

$$DL = 0.001026 \text{ ug/l}$$

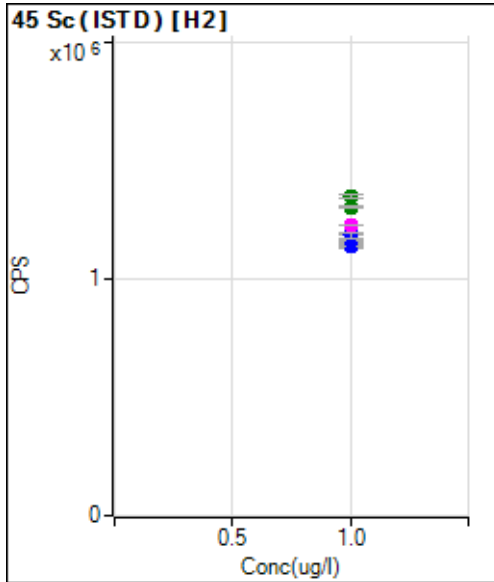
$$BEC = 0.001792 \text{ ug/l}$$

$$\text{Weight: } 1/y$$

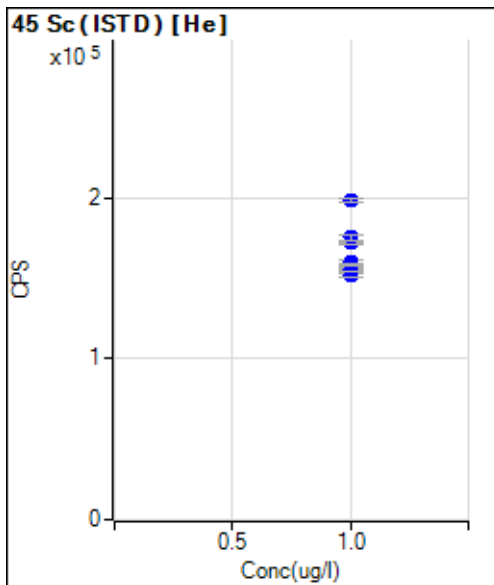
$$\text{Min Conc: } <\text{None}>$$



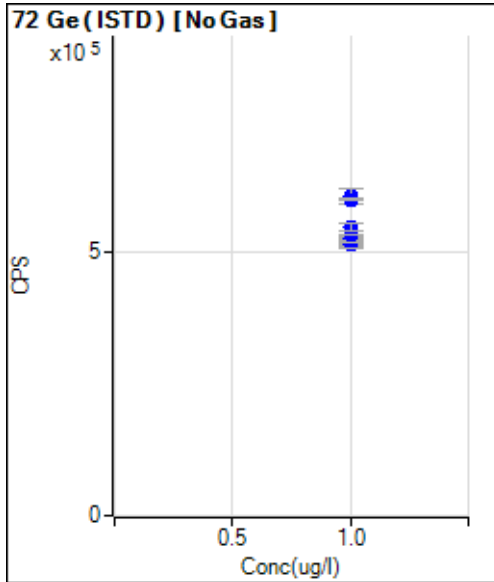
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2068667.98		A	1.8	
2	<input type="checkbox"/>	1.000		2059743.25		A	1.3	
3	<input type="checkbox"/>	1.000		2035550.88		A	0.9	
4	<input type="checkbox"/>	1.000		2035685.79		A	1.5	
5	<input type="checkbox"/>	1.000		2034217.25		A	0.8	
6	<input type="checkbox"/>	1.000		2016275.10		A	0.8	
7	<input type="checkbox"/>	1.000		2065999.46		A	2.3	
8	<input type="checkbox"/>	1.000		2008407.32		A	1.9	
9	<input type="checkbox"/>	1.000		2094437.77		A	1.3	
10	<input type="checkbox"/>	1.000		2335007.05		A	1.9	
11	<input type="checkbox"/>	1.000		2323527.30		A	0.1	



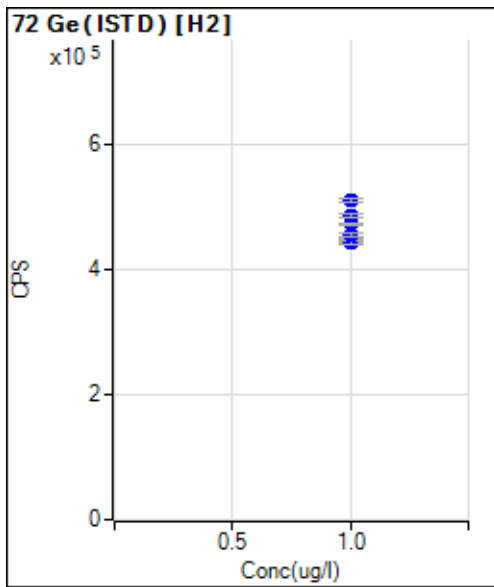
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1189905.24		P	0.4	
2	<input type="checkbox"/>	1.000		1165813.92		P	0.3	
3	<input type="checkbox"/>	1.000		1142781.24		P	1.6	
4	<input type="checkbox"/>	1.000		1152416.04		P	1.0	
5	<input type="checkbox"/>	1.000		1137332.00		P	0.5	
6	<input type="checkbox"/>	1.000		1141888.27		P	0.3	
7	<input type="checkbox"/>	1.000		1162750.41		P	0.6	
8	<input type="checkbox"/>	1.000		1183650.08		P	1.8	
9	<input type="checkbox"/>	1.000		1227785.35		M	0.4	
10	<input type="checkbox"/>	1.000		1349415.07		A	1.2	
11	<input type="checkbox"/>	1.000		1304182.79		A	0.7	



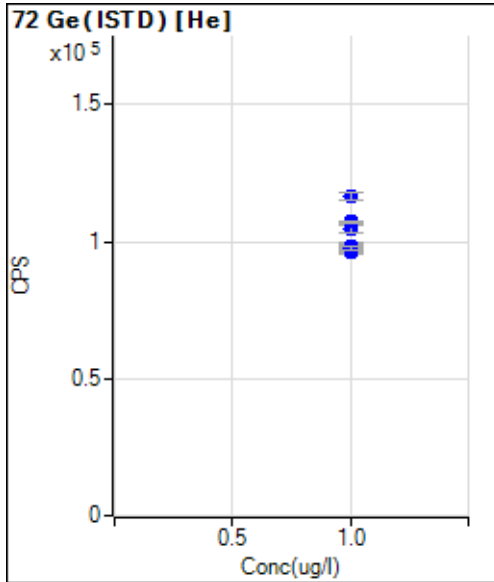
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		160349.18		P	1.5	
2	<input type="checkbox"/>	1.000		156019.87		P	0.8	
3	<input type="checkbox"/>	1.000		154719.38		P	1.8	
4	<input type="checkbox"/>	1.000		155878.83		P	1.0	
5	<input type="checkbox"/>	1.000		154427.88		P	1.0	
6	<input type="checkbox"/>	1.000		151773.80		P	1.4	
7	<input type="checkbox"/>	1.000		155208.95		P	0.9	
8	<input type="checkbox"/>	1.000		158509.61		P	1.2	
9	<input type="checkbox"/>	1.000		171902.54		P	0.6	
10	<input type="checkbox"/>	1.000		198323.39		P	1.1	
11	<input type="checkbox"/>	1.000		175138.82		P	1.8	



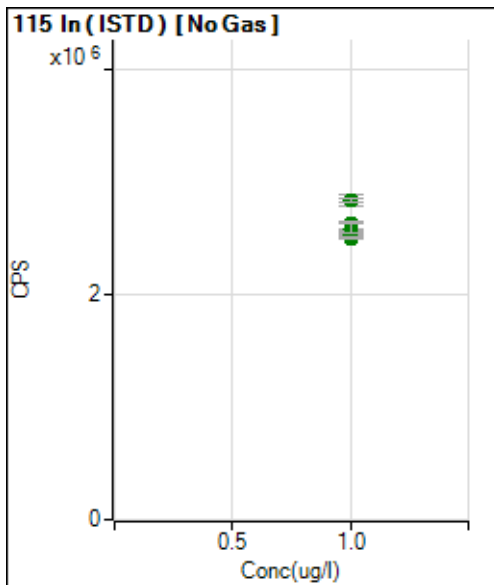
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		521531.55		P	1.7	
2	<input type="checkbox"/>	1.000		525703.20		P	1.4	
3	<input type="checkbox"/>	1.000		519443.01		P	1.0	
4	<input type="checkbox"/>	1.000		516632.31		P	1.2	
5	<input type="checkbox"/>	1.000		514882.00		P	0.5	
6	<input type="checkbox"/>	1.000		513739.69		P	2.2	
7	<input type="checkbox"/>	1.000		521145.54		P	0.7	
8	<input type="checkbox"/>	1.000		533384.81		P	0.3	
9	<input type="checkbox"/>	1.000		549154.97		P	2.7	
10	<input type="checkbox"/>	1.000		606781.68		P	4.5	
11	<input type="checkbox"/>	1.000		601069.08		P	1.0	



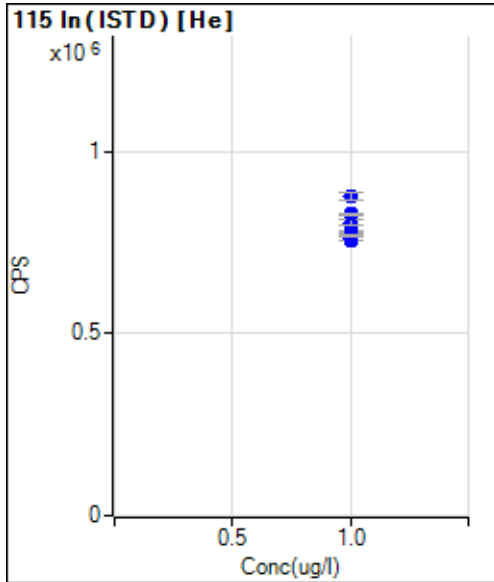
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		451143.21		P	1.1	
2	<input type="checkbox"/>	1.000		447956.35		P	1.3	
3	<input type="checkbox"/>	1.000		447515.45		P	1.1	
4	<input type="checkbox"/>	1.000		445578.31		P	1.3	
5	<input type="checkbox"/>	1.000		443542.66		P	1.8	
6	<input type="checkbox"/>	1.000		445137.43		P	0.2	
7	<input type="checkbox"/>	1.000		444488.67		P	1.1	
8	<input type="checkbox"/>	1.000		457876.78		P	1.3	
9	<input type="checkbox"/>	1.000		473681.01		P	0.8	
10	<input type="checkbox"/>	1.000		512000.42		P	1.0	
11	<input type="checkbox"/>	1.000		486838.25		P	1.0	



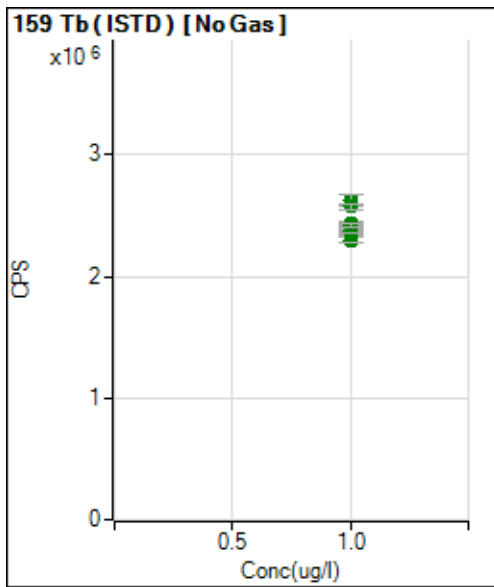
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		98531.66		P	2.4	
2	<input type="checkbox"/>	1.000		97823.23		P	0.7	
3	<input type="checkbox"/>	1.000		98025.95		P	2.3	
4	<input type="checkbox"/>	1.000		96095.18		P	1.6	
5	<input type="checkbox"/>	1.000		96774.37		P	2.2	
6	<input type="checkbox"/>	1.000		96517.95		P	0.8	
7	<input type="checkbox"/>	1.000		96979.81		P	1.5	
8	<input type="checkbox"/>	1.000		97906.35		P	1.4	
9	<input type="checkbox"/>	1.000		104765.08		P	2.9	
10	<input type="checkbox"/>	1.000		116539.84		P	2.3	
11	<input type="checkbox"/>	1.000		107372.95		P	0.7	



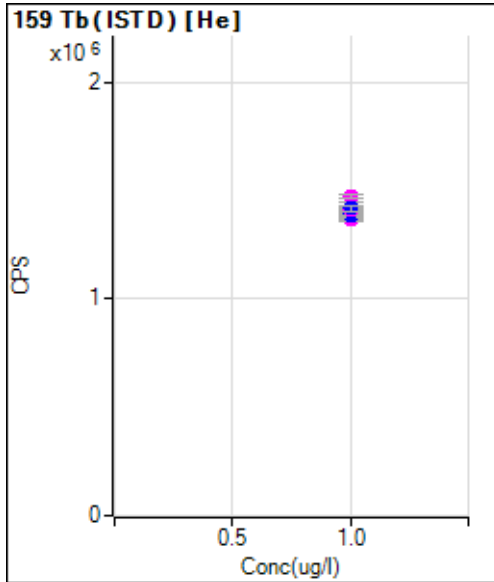
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2635561.48		A	0.7	
2	<input type="checkbox"/>	1.000		2575760.82		A	0.5	
3	<input type="checkbox"/>	1.000		2562954.62		A	1.6	
4	<input type="checkbox"/>	1.000		2528783.12		A	1.8	
5	<input type="checkbox"/>	1.000		2564062.50		A	0.7	
6	<input type="checkbox"/>	1.000		2532414.53		A	0.4	
7	<input type="checkbox"/>	1.000		2522553.61		A	1.1	
8	<input type="checkbox"/>	1.000		2495749.26		A	0.9	
9	<input type="checkbox"/>	1.000		2583273.78		A	3.5	
10	<input type="checkbox"/>	1.000		2834318.18		A	4.1	
11	<input type="checkbox"/>	1.000		2829943.33		A	1.5	



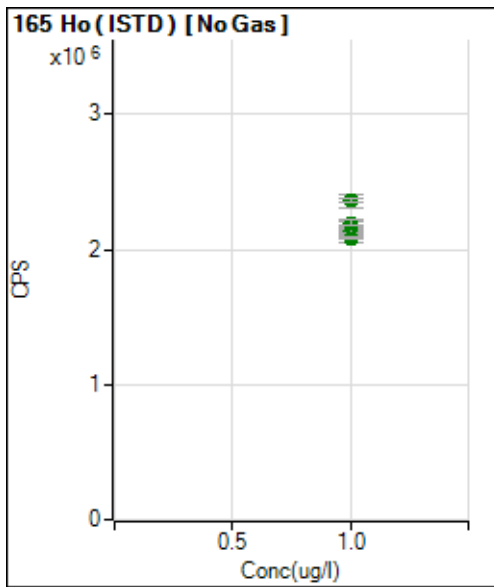
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		782074.17		P	0.5	
2	<input type="checkbox"/>	1.000		779267.92		P	0.5	
3	<input type="checkbox"/>	1.000		770047.73		P	0.3	
4	<input type="checkbox"/>	1.000		769581.03		P	1.2	
5	<input type="checkbox"/>	1.000		756871.73		P	0.3	
6	<input type="checkbox"/>	1.000		762053.93		P	1.7	
7	<input type="checkbox"/>	1.000		772375.52		P	1.6	
8	<input type="checkbox"/>	1.000		768914.36		P	0.8	
9	<input type="checkbox"/>	1.000		806587.31		P	1.6	
10	<input type="checkbox"/>	1.000		878069.80		P	2.3	
11	<input type="checkbox"/>	1.000		827985.39		P	0.4	



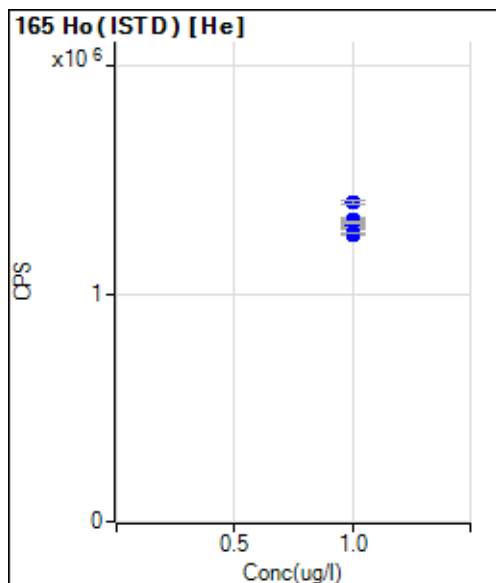
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2435285.69		A	1.7	
2	<input type="checkbox"/>	1.000		2352630.12		A	1.8	
3	<input type="checkbox"/>	1.000		2340122.85		A	0.6	
4	<input type="checkbox"/>	1.000		2300947.82		A	1.6	
5	<input type="checkbox"/>	1.000		2362560.76		A	0.7	
6	<input type="checkbox"/>	1.000		2349087.02		A	2.6	
7	<input type="checkbox"/>	1.000		2341429.50		A	0.5	
8	<input type="checkbox"/>	1.000		2373279.11		A	1.6	
9	<input type="checkbox"/>	1.000		2423685.40		A	0.9	
10	<input type="checkbox"/>	1.000		2626459.05		A	3.0	
11	<input type="checkbox"/>	1.000		2572473.61		A	2.1	



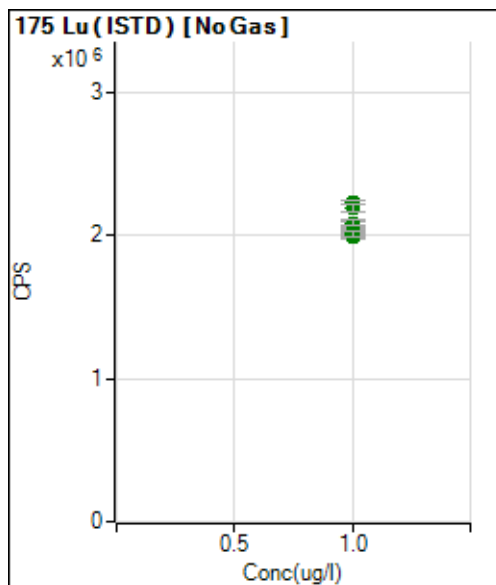
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1422846.50		M	2.9	
2	<input type="checkbox"/>	1.000		1402272.47		P	1.5	
3	<input type="checkbox"/>	1.000		1390496.76		P	1.2	
4	<input type="checkbox"/>	1.000		1379549.11		P	1.7	
5	<input type="checkbox"/>	1.000		1393606.51		P	0.9	
6	<input type="checkbox"/>	1.000		1365882.17		M	0.8	
7	<input type="checkbox"/>	1.000		1389547.40		P	2.0	
8	<input type="checkbox"/>	1.000		1404749.63		P	3.1	
9	<input type="checkbox"/>	1.000		1410681.85		M	1.6	
10	<input type="checkbox"/>	1.000		1474125.05		M	1.1	
11	<input type="checkbox"/>	1.000		1418006.67		P	1.6	



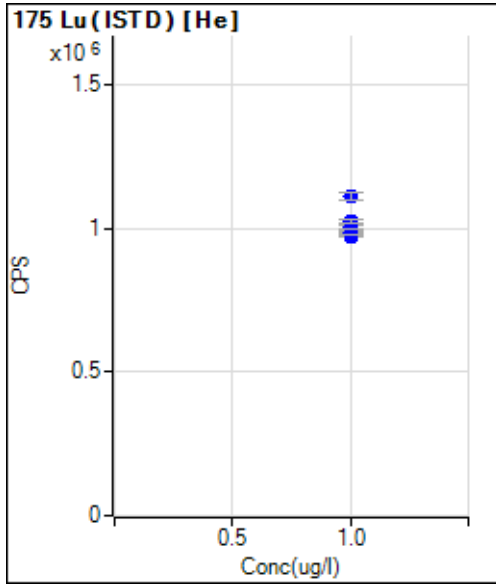
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2197283.51		A	1.3	
2	<input type="checkbox"/>	1.000		2117921.00		A	0.9	
3	<input type="checkbox"/>	1.000		2146303.03		A	2.0	
4	<input type="checkbox"/>	1.000		2097490.83		A	0.6	
5	<input type="checkbox"/>	1.000		2132643.06		A	1.4	
6	<input type="checkbox"/>	1.000		2096261.96		A	4.5	
7	<input type="checkbox"/>	1.000		2140610.82		A	2.1	
8	<input type="checkbox"/>	1.000		2084743.11		A	0.7	
9	<input type="checkbox"/>	1.000		2198585.23		A	2.0	
10	<input type="checkbox"/>	1.000		2358590.41		A	4.0	
11	<input type="checkbox"/>	1.000		2365023.48		A	1.4	



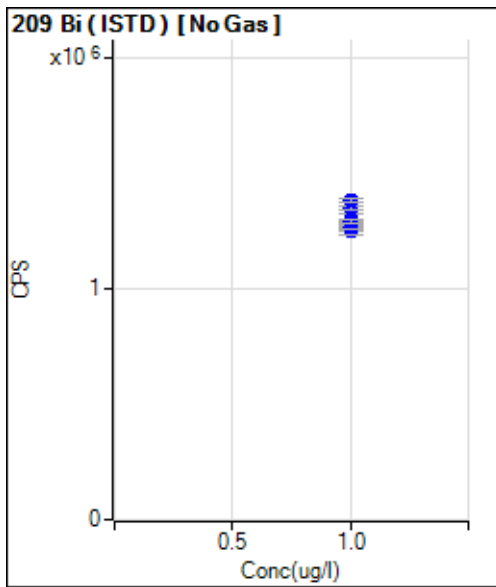
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1325688.31		P	1.8	
2	<input type="checkbox"/>	1.000		1297599.34		P	0.9	
3	<input type="checkbox"/>	1.000		1267907.94		P	0.2	
4	<input type="checkbox"/>	1.000		1291914.07		P	1.6	
5	<input type="checkbox"/>	1.000		1260896.58		P	0.2	
6	<input type="checkbox"/>	1.000		1267607.89		P	0.6	
7	<input type="checkbox"/>	1.000		1302241.94		P	1.7	
8	<input type="checkbox"/>	1.000		1300160.63		P	0.9	
9	<input type="checkbox"/>	1.000		1312902.70		P	2.7	
10	<input type="checkbox"/>	1.000		1403052.73		P	1.3	
11	<input type="checkbox"/>	1.000		1315077.78		P	1.0	



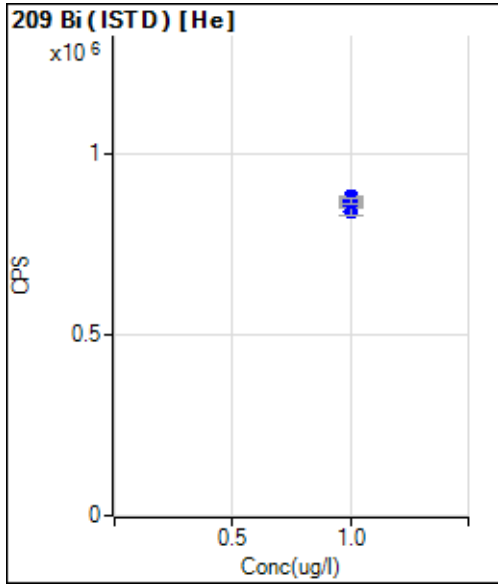
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		2076898.98		A	1.6	
2	<input type="checkbox"/>	1.000		2035711.63		A	2.7	
3	<input type="checkbox"/>	1.000		2024356.49		A	3.1	
4	<input type="checkbox"/>	1.000		1987994.97		A	1.9	
5	<input type="checkbox"/>	1.000		2020686.98		A	2.2	
6	<input type="checkbox"/>	1.000		2005374.26		A	1.4	
7	<input type="checkbox"/>	1.000		2011065.81		A	1.6	
8	<input type="checkbox"/>	1.000		2006837.31		A	1.9	
9	<input type="checkbox"/>	1.000		2084312.10		A	1.9	
10	<input type="checkbox"/>	1.000		2230724.48		A	1.4	
11	<input type="checkbox"/>	1.000		2189272.87		A	2.7	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1024798.97		P	1.1	
2	<input type="checkbox"/>	1.000		983366.75		P	1.3	
3	<input type="checkbox"/>	1.000		973096.50		P	0.3	
4	<input type="checkbox"/>	1.000		994577.50		P	0.7	
5	<input type="checkbox"/>	1.000		982067.13		P	1.2	
6	<input type="checkbox"/>	1.000		989054.73		P	1.3	
7	<input type="checkbox"/>	1.000		1004876.57		P	1.3	
8	<input type="checkbox"/>	1.000		1005803.13		P	0.9	
9	<input type="checkbox"/>	1.000		1025921.26		P	2.0	
10	<input type="checkbox"/>	1.000		1113864.96		P	2.1	
11	<input type="checkbox"/>	1.000		1028465.85		P	1.5	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		1327778.70		P	0.4	
2	<input type="checkbox"/>	1.000		1275304.18		P	0.8	
3	<input type="checkbox"/>	1.000		1290635.87		P	0.7	
4	<input type="checkbox"/>	1.000		1280464.37		P	2.0	
5	<input type="checkbox"/>	1.000		1248831.50		P	1.6	
6	<input type="checkbox"/>	1.000		1266208.09		P	1.6	
7	<input type="checkbox"/>	1.000		1274867.88		P	4.2	
8	<input type="checkbox"/>	1.000		1271458.67		P	1.3	
9	<input type="checkbox"/>	1.000		1295837.46		P	1.0	
10	<input type="checkbox"/>	1.000		1350715.63		P	1.0	
11	<input type="checkbox"/>	1.000		1385388.84		P	1.6	



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD	%RE
1	<input type="checkbox"/>	1.000		868427.28		P	2.4	
2	<input type="checkbox"/>	1.000		883553.00		P	0.3	
3	<input type="checkbox"/>	1.000		875911.99		P	1.7	
4	<input type="checkbox"/>	1.000		873596.20		P	0.6	
5	<input type="checkbox"/>	1.000		866921.11		P	0.6	
6	<input type="checkbox"/>	1.000		872104.28		P	2.3	
7	<input type="checkbox"/>	1.000		876065.98		P	1.7	
8	<input type="checkbox"/>	1.000		863780.75		P	1.3	
9	<input type="checkbox"/>	1.000		857339.51		P	1.6	
10	<input type="checkbox"/>	1.000		841415.30		P	2.8	
11	<input type="checkbox"/>	1.000		869500.61		P	1.8	

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 001BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 11:54:19
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas		ug/l	13147.61
Be	9	45	1	No Gas		ug/l	259.95
B	11	45	1	No Gas		ug/l	2345.80
Na	23	45	3	He		ug/l	57310.82
Mg	24	45	3	He		ug/l	1423.91
Al	27	45	1	No Gas		ug/l	9966.68
Si	28	45	2	H2		ug/l	41719.18
K	39	72	3	He		ug/l	162919.73
Ca	40	72	2	H2		ug/l	236199.53
Ti	47	72	1	No Gas		ug/l	744.11
V	51	72	1	No Gas		ug/l	-81706.48
V	51	72	3	He		ug/l	30569.46
Cr	52	72	1	No Gas		ug/l	93479.31
Cr	52	72	3	He		ug/l	4948.63
Mn	55	72	1	No Gas		ug/l	9271.24
Mn	55	72	3	He		ug/l	367.60
Fe	56	72	2	H2		ug/l	20461.45
Fe	56	72	3	He		ug/l	19672.93
Co	59	72	1	No Gas		ug/l	711.94
Ni	60	72	1	No Gas		ug/l	835.04
Ni	60	72	3	He		ug/l	335.56
Cu	63	72	1	No Gas		ug/l	1934.91
Cu	63	72	3	He		ug/l	586.90
Cu	65	72	1	No Gas		ug/l	761.00
Zn	66	72	1	No Gas		ug/l	644.02
Zn	66	72	3	He		ug/l	165.56
As	75	72	1	No Gas		ug/l	10023.66
As	75	72	3	He		ug/l	1186.89
Se	78	72	2	H2		ug/l	51.33
Br	79	72	1	No Gas		ug/l	19900.96
Br	79	72	2	H2		ug/l	13203.21
Se	82	72	1	No Gas		ug/l	739.95
Kr	84	72	1	No Gas		ug/l	19661.10
Sr	88	72	1	No Gas		ug/l	266.14
Sr	88	72	3	He		ug/l	108.89
Mo	95	115	1	No Gas		ug/l	26.67
Mo	95	115	3	He		ug/l	7.78
Mo	98	115	1	No Gas		ug/l	24.52
Ag	107	115	1	No Gas		ug/l	626.94
Ag	109	115	1	No Gas		ug/l	626.26
Cd	111	115	1	No Gas		ug/l	1.24

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He		ug/l	9.22
Cd	114	115	1	No Gas		ug/l	-43.36
Cd	114	115	3	He		ug/l	16.42
Sn	118	115	1	No Gas		ug/l	914.88
Sn	118	115	3	He		ug/l	330.01
Sb	121	115	1	No Gas		ug/l	151.69
Sb	121	115	3	He		ug/l	71.34
Sb	123	115	1	No Gas		ug/l	116.01
Sb	123	115	3	He		ug/l	45.34
Ba	135	115	1	No Gas		ug/l	26.61
Ba	137	115	1	No Gas		ug/l	26.61
La	139	115	3	He		ug/l	11.11
Ce	140	115	3	He		ug/l	7.78
Hg	201	209	1	No Gas		ug/l	8.00
Hg	202	209	1	No Gas		ug/l	15.67
Hg	202	209	3	He		ug/l	4.00
Tl	203	209	3	He		ug/l	88.04
Tl	205	209	1	No Gas		ug/l	374.45
Tl	205	209	3	He		ug/l	242.10
[Pb]	206	209	1	No Gas		ug/l	140.00
[Pb]	207	209	1	No Gas		ug/l	118.89
Pb	208	209	1	No Gas		ug/l	513.34
Th	232	209	3	He		ug/l	52.69
U	238	209	1	No Gas		ug/l	139.07

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2558648.37	
Sc	45	2	H2	1560972.31	
Sc	45	3	He	231703.19	
Ge	72	1	No Gas	649219.86	
Ge	72	2	H2	568626.18	
Ge	72	3	He	126540.64	
In	115	1	No Gas	2900347.66	
In	115	3	He	956042.66	
Tb	159	1	No Gas	2508902.51	
Tb	159	3	He	1463568.60	
Ho	165	1	No Gas	2210568.98	
Ho	165	3	He	1339409.36	
Lu	175	1	No Gas	2068559.29	
Lu	175	3	He	1087976.01	
Bi	209	1	No Gas	1435653.51	
Bi	209	3	He	855213.30	

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 002BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:00:34
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas		ug/l	11778.61
Be	9	45	1	No Gas		ug/l	250.62
B	11	45	1	No Gas		ug/l	2203.05
Na	23	45	3	He		ug/l	57004.01
Mg	24	45	3	He		ug/l	1510.42
Al	27	45	1	No Gas		ug/l	9756.55
Si	28	45	2	H2		ug/l	36629.31
K	39	72	3	He		ug/l	160742.98
Ca	40	72	2	H2		ug/l	236932.09
Ti	47	72	1	No Gas		ug/l	674.03
V	51	72	1	No Gas		ug/l	-81874.72
V	51	72	3	He		ug/l	31132.89
Cr	52	72	1	No Gas		ug/l	95173.89
Cr	52	72	3	He		ug/l	4861.93
Mn	55	72	1	No Gas		ug/l	10253.26
Mn	55	72	3	He		ug/l	346.27
Fe	56	72	2	H2		ug/l	20847.37
Fe	56	72	3	He		ug/l	19726.38
Co	59	72	1	No Gas		ug/l	788.46
Ni	60	72	1	No Gas		ug/l	861.66
Ni	60	72	3	He		ug/l	347.78
Cu	63	72	1	No Gas		ug/l	1970.93
Cu	63	72	3	He		ug/l	592.23
Cu	65	72	1	No Gas		ug/l	727.64
Zn	66	72	1	No Gas		ug/l	703.82
Zn	66	72	3	He		ug/l	170.00
As	75	72	1	No Gas		ug/l	17009.16
As	75	72	3	He		ug/l	1189.22
Se	78	72	2	H2		ug/l	41.22
Br	79	72	1	No Gas		ug/l	22662.96
Br	79	72	2	H2		ug/l	14791.59
Se	82	72	1	No Gas		ug/l	612.21
Kr	84	72	1	No Gas		ug/l	18541.79
Sr	88	72	1	No Gas		ug/l	252.84
Sr	88	72	3	He		ug/l	121.11
Mo	95	115	1	No Gas		ug/l	22.22
Mo	95	115	3	He		ug/l	15.56
Mo	98	115	1	No Gas		ug/l	23.75
Ag	107	115	1	No Gas		ug/l	634.94
Ag	109	115	1	No Gas		ug/l	624.93
Cd	111	115	1	No Gas		ug/l	-9.85

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He		ug/l	7.00
Cd	114	115	1	No Gas		ug/l	-53.12
Cd	114	115	3	He		ug/l	16.79
Sn	118	115	1	No Gas		ug/l	948.16
Sn	118	115	3	He		ug/l	353.34
Sb	121	115	1	No Gas		ug/l	129.01
Sb	121	115	3	He		ug/l	52.01
Sb	123	115	1	No Gas		ug/l	110.01
Sb	123	115	3	He		ug/l	44.67
Ba	135	115	1	No Gas		ug/l	13.31
Ba	137	115	1	No Gas		ug/l	39.92
La	139	115	3	He		ug/l	6.67
Ce	140	115	3	He		ug/l	14.44
Hg	201	209	1	No Gas		ug/l	14.33
Hg	202	209	1	No Gas		ug/l	17.00
Hg	202	209	3	He		ug/l	7.00
Tl	203	209	3	He		ug/l	102.71
Tl	205	209	1	No Gas		ug/l	320.01
Tl	205	209	3	He		ug/l	205.42
[Pb]	206	209	1	No Gas		ug/l	112.22
[Pb]	207	209	1	No Gas		ug/l	85.56
Pb	208	209	1	No Gas		ug/l	402.23
Th	232	209	3	He		ug/l	55.35
U	238	209	1	No Gas		ug/l	19.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2615061.77	
Sc	45	2	H2	1548116.63	
Sc	45	3	He	227748.41	
Ge	72	1	No Gas	629573.77	
Ge	72	2	H2	574255.98	
Ge	72	3	He	127436.13	
In	115	1	No Gas	2876529.11	
In	115	3	He	958520.30	
Tb	159	1	No Gas	2518786.69	
Tb	159	3	He	1462787.10	
Ho	165	1	No Gas	2229789.03	
Ho	165	3	He	1353724.50	
Lu	175	1	No Gas	2079360.36	
Lu	175	3	He	1086137.45	
Bi	209	1	No Gas	1364677.18	
Bi	209	3	He	868773.75	

ICPMS207-B Analytical Data

Sample Name Cal Blk
File Name 003CALB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:06:48
Sample Type CalBlk
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.000	ug/l	11522.31
Be	9	45	1	No Gas	0.000	ug/l	257.95
B	11	45	1	No Gas	0.000	ug/l	2137.68
Na	23	45	3	He	0.000	ug/l	56864.77
Mg	24	45	3	He	0.000	ug/l	1533.70
Al	27	45	1	No Gas	0.000	ug/l	9684.28
Si	28	45	2	H2	0.000	ug/l	31551.76
K	39	72	3	He	0.000	ug/l	159548.52
Ca	40	72	2	H2	0.000	ug/l	229028.24
Ti	47	72	1	No Gas	0.000	ug/l	655.68
V	51	72	1	No Gas	0.000	ug/l	-59286.33
V	51	72	3	He	0.000	ug/l	30965.80
Cr	52	72	1	No Gas	0.000	ug/l	94580.85
Cr	52	72	3	He	0.000	ug/l	4969.75
Mn	55	72	1	No Gas	0.000	ug/l	9690.64
Mn	55	72	3	He	0.000	ug/l	346.27
Fe	56	72	2	H2	0.000	ug/l	20810.64
Fe	56	72	3	He	0.000	ug/l	19206.84
Co	59	72	1	No Gas	0.000	ug/l	721.92
Ni	60	72	1	No Gas	0.000	ug/l	808.43
Ni	60	72	3	He	0.000	ug/l	296.67
Cu	63	72	1	No Gas	0.000	ug/l	1861.54
Cu	63	72	3	He	0.000	ug/l	594.23
Cu	65	72	1	No Gas	0.000	ug/l	656.28
Zn	66	72	1	No Gas	0.000	ug/l	763.77
Zn	66	72	3	He	0.000	ug/l	186.67
As	75	72	1	No Gas	0.000	ug/l	18715.51
As	75	72	3	He	0.000	ug/l	1163.55
Se	78	72	2	H2	0.000	ug/l	45.22
Br	79	72	1	No Gas	0.000	ug/l	23762.60
Br	79	72	2	H2	0.000	ug/l	16133.71
Se	82	72	1	No Gas	0.000	ug/l	725.55
Kr	84	72	1	No Gas		ug/l	20140.86
Sr	88	72	1	No Gas	0.000	ug/l	226.22
Sr	88	72	3	He	0.000	ug/l	121.11
Mo	95	115	1	No Gas	0.000	ug/l	20.00
Mo	95	115	3	He	0.000	ug/l	8.89
Mo	98	115	1	No Gas	0.000	ug/l	32.78
Ag	107	115	1	No Gas	0.000	ug/l	658.95
Ag	109	115	1	No Gas	0.000	ug/l	588.92
Cd	111	115	1	No Gas	0.000	ug/l	10.47

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.000	ug/l	8.56
Cd	114	115	1	No Gas	0.000	ug/l	-40.78
Cd	114	115	3	He	0.000	ug/l	14.38
Sn	118	115	1	No Gas	0.000	ug/l	1011.38
Sn	118	115	3	He	0.000	ug/l	352.23
Sb	121	115	1	No Gas	0.000	ug/l	108.01
Sb	121	115	3	He	0.000	ug/l	59.68
Sb	123	115	1	No Gas	0.000	ug/l	81.68
Sb	123	115	3	He	0.000	ug/l	41.00
Ba	135	115	1	No Gas	0.000	ug/l	16.63
Ba	137	115	1	No Gas	0.000	ug/l	49.90
La	139	115	3	He	0.000	ug/l	11.11
Ce	140	115	3	He	0.000	ug/l	7.78
Hg	201	209	1	No Gas	0.000	ug/l	9.67
Hg	202	209	1	No Gas	0.000	ug/l	19.33
Hg	202	209	3	He	0.000	ug/l	4.33
Tl	203	209	3	He	0.000	ug/l	79.37
Tl	205	209	1	No Gas	0.000	ug/l	298.89
Tl	205	209	3	He	0.000	ug/l	174.07
[Pb]	206	209	1	No Gas	0.000	ug/l	120.00
[Pb]	207	209	1	No Gas	0.000	ug/l	91.11
Pb	208	209	1	No Gas	0.000	ug/l	418.89
Th	232	209	3	He	0.000	ug/l	42.68
U	238	209	1	No Gas	0.000	ug/l	24.00

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2690306.33	100.0
Sc	45	2	H2	1594616.03	100.0
Sc	45	3	He	226047.03	100.0
Ge	72	1	No Gas	652390.19	100.0
Ge	72	2	H2	556125.38	100.0
Ge	72	3	He	125536.13	100.0
In	115	1	No Gas	3075775.44	100.0
In	115	3	He	957731.18	100.0
Tb	159	1	No Gas	2665356.67	100.0
Tb	159	3	He	1509876.09	100.0
Ho	165	1	No Gas	2407332.30	100.0
Ho	165	3	He	1390306.01	100.0
Lu	175	1	No Gas	2241602.49	100.0
Lu	175	3	He	1088975.77	100.0
Bi	209	1	No Gas	1428906.69	100.0
Bi	209	3	He	868118.45	100.0

ICPMS207-B Analytical Data

Sample Name 0.025 ppb STD
File Name 004CAL5.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:13:32
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.104	ug/l	12237.17
Be	9	45	1	No Gas	0.023	ug/l	318.61
B	11	45	1	No Gas	-0.131	ug/l	1952.92
Na	23	45	3	He	7.403	ug/l	62623.95
Mg	24	45	3	He	7.237	ug/l	4328.72
Al	27	45	1	No Gas	0.174	ug/l	11995.95
Si	28	45	2	H2	-0.438	ug/l	30448.35
K	39	72	3	He	3.925	ug/l	162565.33
Ca	40	72	2	H2	9.883	ug/l	283875.38
Ti	47	72	1	No Gas	0.013	ug/l	674.03
V	51	72	1	No Gas	2.666	ug/l	-14072.09
V	51	72	3	He	0.372	ug/l	32453.45
Cr	52	72	1	No Gas	0.025	ug/l	95076.48
Cr	52	72	3	He	-0.049	ug/l	4828.59
Mn	55	72	1	No Gas	0.046	ug/l	10569.56
Mn	55	72	3	He	0.032	ug/l	426.25
Fe	56	72	2	H2	0.942	ug/l	31316.33
Fe	56	72	3	He	0.952	ug/l	22334.38
Co	59	72	1	No Gas	0.026	ug/l	1144.44
Ni	60	72	1	No Gas	0.076	ug/l	1091.22
Ni	60	72	3	He	0.099	ug/l	426.68
Cu	63	72	1	No Gas	0.059	ug/l	2381.15
Cu	63	72	3	He	0.067	ug/l	815.86
Cu	65	72	1	No Gas	0.081	ug/l	989.10
Zn	66	72	1	No Gas	0.785	ug/l	3069.55
Zn	66	72	3	He	0.744	ug/l	772.25
As	75	72	1	No Gas	0.572	ug/l	21030.29
As	75	72	3	He	0.049	ug/l	1216.76
Se	78	72	2	H2	0.029	ug/l	59.00
Br	79	72	1	No Gas	5.543	ug/l	61322.05
Br	79	72	2	H2	4.699	ug/l	38745.06
Se	82	72	1	No Gas	-0.375	ug/l	648.08
Kr	84	72	1	No Gas		ug/l	19344.76
Sr	88	72	1	No Gas	0.031	ug/l	841.70
Sr	88	72	3	He	0.020	ug/l	188.89
Mo	95	115	1	No Gas	0.039	ug/l	174.45
Mo	95	115	3	He	0.035	ug/l	65.55
Mo	98	115	1	No Gas	0.032	ug/l	232.16
Ag	107	115	1	No Gas	0.015	ug/l	812.35
Ag	109	115	1	No Gas	0.019	ug/l	760.33
Cd	111	115	1	No Gas	0.015	ug/l	40.65

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.031	ug/l	33.33
Cd	114	115	1	No Gas	0.014	ug/l	18.61
Cd	114	115	3	He	0.031	ug/l	71.73
Sn	118	115	1	No Gas	0.121	ug/l	1653.50
Sn	118	115	3	He	0.164	ug/l	647.79
Sb	121	115	1	No Gas	0.044	ug/l	511.39
Sb	121	115	3	He	0.041	ug/l	183.69
Sb	123	115	1	No Gas	0.044	ug/l	378.71
Sb	123	115	3	He	0.038	ug/l	129.01
Ba	135	115	1	No Gas	0.039	ug/l	76.51
Ba	137	115	1	No Gas	0.020	ug/l	103.13
La	139	115	3	He	48.363	ug/l	34.44
Ce	140	115	3	He	0.018	ug/l	43.33
Hg	201	209	1	No Gas	0.000	ug/l	9.67
Hg	202	209	1	No Gas	-0.023	ug/l	13.33
Hg	202	209	3	He	0.000	ug/l	4.33
Tl	203	209	3	He	0.026	ug/l	134.72
Tl	205	209	1	No Gas	0.027	ug/l	530.02
Tl	205	209	3	He	0.027	ug/l	315.46
[Pb]	206	209	1	No Gas	0.024	ug/l	188.89
[Pb]	207	209	1	No Gas	0.038	ug/l	181.12
Pb	208	209	1	No Gas	0.034	ug/l	804.46
Th	232	209	3	He	0.016	ug/l	143.39
U	238	209	1	No Gas	0.028	ug/l	286.28

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2730650.41	101.5
Sc	45	2	H2	1573224.53	98.7
Sc	45	3	He	228380.71	101.0
Ge	72	1	No Gas	653083.50	100.1
Ge	72	2	H2	551883.16	99.2
Ge	72	3	He	126389.23	100.7
In	115	1	No Gas	3096029.17	100.7
In	115	3	He	956292.92	99.8
Tb	159	1	No Gas	2716191.07	101.9
Tb	159	3	He	1477811.81	97.9
Ho	165	1	No Gas	2471408.36	102.7
Ho	165	3	He	1362591.93	98.0
Lu	175	1	No Gas	2247142.77	100.2
Lu	175	3	He	1106415.92	101.6
Bi	209	1	No Gas	1446102.69	101.2
Bi	209	3	He	870654.71	100.3

ICPMS207-B Analytical Data

Sample Name 0.05 ppb STD
File Name 005CAL5.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:20:10
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.370	ug/l	13647.59
Be	9	45	1	No Gas	0.045	ug/l	373.26
B	11	45	1	No Gas	-0.132	ug/l	1954.25
Na	23	45	3	He	13.601	ug/l	65847.59
Mg	24	45	3	He	14.748	ug/l	7094.28
Al	27	45	1	No Gas	0.065	ug/l	10652.72
Si	28	45	2	H2	-1.918	ug/l	28361.45
K	39	72	3	He	12.965	ug/l	165002.73
Ca	40	72	2	H2	13.555	ug/l	311430.75
Ti	47	72	1	No Gas	0.012	ug/l	659.01
V	51	72	1	No Gas	2.138	ug/l	-21932.94
V	51	72	3	He	0.503	ug/l	32529.18
Cr	52	72	1	No Gas	0.364	ug/l	98117.31
Cr	52	72	3	He	-0.013	ug/l	4901.95
Mn	55	72	1	No Gas	0.078	ug/l	10939.07
Mn	55	72	3	He	0.056	ug/l	479.58
Fe	56	72	2	H2	1.407	ug/l	37353.18
Fe	56	72	3	He	1.688	ug/l	24374.67
Co	59	72	1	No Gas	0.051	ug/l	1527.05
Ni	60	72	1	No Gas	0.076	ug/l	1071.25
Ni	60	72	3	He	0.071	ug/l	385.56
Cu	63	72	1	No Gas	0.054	ug/l	2291.10
Cu	63	72	3	He	0.054	ug/l	763.54
Cu	65	72	1	No Gas	0.079	ug/l	960.42
Zn	66	72	1	No Gas	0.118	ug/l	1089.86
Zn	66	72	3	He	0.133	ug/l	288.89
As	75	72	1	No Gas	-0.235	ug/l	17460.33
As	75	72	3	He	0.100	ug/l	1248.50
Se	78	72	2	H2	0.053	ug/l	72.22
Br	79	72	1	No Gas	5.613	ug/l	60533.07
Br	79	72	2	H2	4.891	ug/l	40526.20
Se	82	72	1	No Gas	0.185	ug/l	747.82
Kr	84	72	1	No Gas		ug/l	18924.94
Sr	88	72	1	No Gas	0.057	ug/l	1334.09
Sr	88	72	3	He	0.065	ug/l	334.45
Mo	95	115	1	No Gas	0.053	ug/l	232.23
Mo	95	115	3	He	0.045	ug/l	82.22
Mo	98	115	1	No Gas	0.050	ug/l	348.00
Ag	107	115	1	No Gas	0.020	ug/l	857.71
Ag	109	115	1	No Gas	0.028	ug/l	846.36
Cd	111	115	1	No Gas	0.045	ug/l	99.51

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.055	ug/l	52.00
Cd	114	115	1	No Gas	0.045	ug/l	154.60
Cd	114	115	3	He	0.055	ug/l	116.72
Sn	118	115	1	No Gas	0.248	ug/l	2325.59
Sn	118	115	3	He	0.265	ug/l	833.36
Sb	121	115	1	No Gas	0.051	ug/l	573.74
Sb	121	115	3	He	0.047	ug/l	202.69
Sb	123	115	1	No Gas	0.052	ug/l	435.38
Sb	123	115	3	He	0.056	ug/l	171.69
Ba	135	115	1	No Gas	0.062	ug/l	113.11
Ba	137	115	1	No Gas	0.041	ug/l	159.68
La	139	115	3	He	-2.392	ug/l	10.00
Ce	140	115	3	He	-0.001	ug/l	6.66
Hg	201	209	1	No Gas	0.000	ug/l	9.67
Hg	202	209	1	No Gas	-0.008	ug/l	17.33
Hg	202	209	3	He	0.024	ug/l	8.33
Tl	203	209	3	He	0.060	ug/l	210.09
Tl	205	209	1	No Gas	0.050	ug/l	714.47
Tl	205	209	3	He	0.059	ug/l	481.54
[Pb]	206	209	1	No Gas	0.039	ug/l	228.89
[Pb]	207	209	1	No Gas	0.037	ug/l	178.89
Pb	208	209	1	No Gas	0.041	ug/l	868.91
Th	232	209	3	He	0.031	ug/l	234.76
U	238	209	1	No Gas	0.050	ug/l	492.25

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2735614.86	101.7
Sc	45	2	H2	1585207.90	99.4
Sc	45	3	He	224552.89	99.3
Ge	72	1	No Gas	639602.89	98.0
Ge	72	2	H2	563733.72	101.4
Ge	72	3	He	125001.80	99.6
In	115	1	No Gas	3104277.65	100.9
In	115	3	He	959018.55	100.1
Tb	159	1	No Gas	2665772.60	100.0
Tb	159	3	He	1485491.19	98.4
Ho	165	1	No Gas	2396248.53	99.5
Ho	165	3	He	1388626.12	99.9
Lu	175	1	No Gas	2206022.69	98.4
Lu	175	3	He	1122682.58	103.1
Bi	209	1	No Gas	1432557.11	100.3
Bi	209	3	He	871938.20	100.4

ICPMS207-B Analytical Data

Sample Name 0.10 ppb STD
File Name 006CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:26:48
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.997	ug/l	16866.09
Be	9	45	1	No Gas	0.160	ug/l	659.00
B	11	45	1	No Gas	-0.158	ug/l	1905.55
Na	23	45	3	He	28.328	ug/l	76067.56
Mg	24	45	3	He	29.481	ug/l	12680.22
Al	27	45	1	No Gas	0.099	ug/l	11038.55
Si	28	45	2	H2	-2.960	ug/l	26344.31
K	39	72	3	He	25.454	ug/l	169695.52
Ca	40	72	2	H2	28.574	ug/l	394221.99
Ti	47	72	1	No Gas	0.044	ug/l	724.08
V	51	72	1	No Gas	0.684	ug/l	-47402.43
V	51	72	3	He	0.528	ug/l	32377.78
Cr	52	72	1	No Gas	0.221	ug/l	98953.40
Cr	52	72	3	He	0.079	ug/l	5193.16
Mn	55	72	1	No Gas	0.114	ug/l	11957.82
Mn	55	72	3	He	0.099	ug/l	579.90
Fe	56	72	2	H2	2.952	ug/l	54520.20
Fe	56	72	3	He	3.423	ug/l	29565.95
Co	59	72	1	No Gas	0.103	ug/l	2425.40
Ni	60	72	1	No Gas	0.100	ug/l	1194.35
Ni	60	72	3	He	0.124	ug/l	450.01
Cu	63	72	1	No Gas	0.105	ug/l	2816.07
Cu	63	72	3	He	0.121	ug/l	972.51
Cu	65	72	1	No Gas	0.116	ug/l	1141.84
Zn	66	72	1	No Gas	0.122	ug/l	1132.88
Zn	66	72	3	He	0.152	ug/l	301.12
As	75	72	1	No Gas	0.023	ug/l	19011.03
As	75	72	3	He	0.149	ug/l	1282.83
Se	78	72	2	H2	0.098	ug/l	93.45
Br	79	72	1	No Gas	6.120	ug/l	65872.37
Br	79	72	2	H2	5.955	ug/l	45200.60
Se	82	72	1	No Gas	0.454	ug/l	828.62
Kr	84	72	1	No Gas		ug/l	19491.29
Sr	88	72	1	No Gas	0.110	ug/l	2432.06
Sr	88	72	3	He	0.115	ug/l	497.79
Mo	95	115	1	No Gas	0.108	ug/l	445.57
Mo	95	115	3	He	0.132	ug/l	222.22
Mo	98	115	1	No Gas	0.108	ug/l	700.58
Ag	107	115	1	No Gas	0.052	ug/l	1147.84
Ag	109	115	1	No Gas	0.048	ug/l	1007.78
Cd	111	115	1	No Gas	0.101	ug/l	205.76

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.109	ug/l	94.44
Cd	114	115	1	No Gas	0.105	ug/l	407.74
Cd	114	115	3	He	0.117	ug/l	230.62
Sn	118	115	1	No Gas	0.328	ug/l	2701.58
Sn	118	115	3	He	0.317	ug/l	915.59
Sb	121	115	1	No Gas	0.103	ug/l	1025.81
Sb	121	115	3	He	0.108	ug/l	381.38
Sb	123	115	1	No Gas	0.103	ug/l	764.43
Sb	123	115	3	He	0.110	ug/l	295.36
Ba	135	115	1	No Gas	0.098	ug/l	166.34
Ba	137	115	1	No Gas	0.099	ug/l	306.06
La	139	115	3	He	0.243	ug/l	11.11
Ce	140	115	3	He	0.002	ug/l	11.11
Hg	201	209	1	No Gas	-0.007	ug/l	8.67
Hg	202	209	1	No Gas	-0.012	ug/l	16.00
Hg	202	209	3	He	0.014	ug/l	6.67
Tl	203	209	3	He	0.105	ug/l	308.80
Tl	205	209	1	No Gas	0.106	ug/l	1160.06
Tl	205	209	3	He	0.108	ug/l	735.65
[Pb]	206	209	1	No Gas	0.112	ug/l	427.79
[Pb]	207	209	1	No Gas	0.110	ug/l	344.45
Pb	208	209	1	No Gas	0.109	ug/l	1601.16
Th	232	209	3	He	0.074	ug/l	506.88
U	238	209	1	No Gas	0.109	ug/l	1035.50

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2725670.27	101.3
Sc	45	2	H2	1562112.50	98.0
Sc	45	3	He	224813.66	99.5
Ge	72	1	No Gas	659170.20	101.0
Ge	72	2	H2	556522.15	100.1
Ge	72	3	He	124107.40	98.9
In	115	1	No Gas	3046566.86	99.1
In	115	3	He	947145.11	98.9
Tb	159	1	No Gas	2627472.90	98.6
Tb	159	3	He	1460253.35	96.7
Ho	165	1	No Gas	2332741.49	96.9
Ho	165	3	He	1370526.68	98.6
Lu	175	1	No Gas	2197107.16	98.0
Lu	175	3	He	1068844.94	98.2
Bi	209	1	No Gas	1412044.15	98.8
Bi	209	3	He	876329.67	100.9

ICPMS207-B Analytical Data

Sample Name 0.5 ppb STD
File Name 007CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:33:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	6.487	ug/l	45794.92
Be	9	45	1	No Gas	0.523	ug/l	1568.77
B	11	45	1	No Gas	0.183	ug/l	2489.21
Na	23	45	3	He	140.184	ug/l	151767.61
Mg	24	45	3	He	145.713	ug/l	56186.65
Al	27	45	1	No Gas	0.554	ug/l	16822.83
Si	28	45	2	H2	-2.597	ug/l	26949.63
K	39	72	3	He	131.226	ug/l	219400.05
Ca	40	72	2	H2	132.753	ug/l	1003815.44
Ti	47	72	1	No Gas	0.629	ug/l	1496.69
V	51	72	1	No Gas	1.492	ug/l	-31445.07
V	51	72	3	He	1.100	ug/l	34290.84
Cr	52	72	1	No Gas	0.825	ug/l	105506.06
Cr	52	72	3	He	0.539	ug/l	6818.27
Mn	55	72	1	No Gas	0.599	ug/l	20596.97
Mn	55	72	3	He	0.564	ug/l	1692.09
Fe	56	72	2	H2	14.047	ug/l	182578.38
Fe	56	72	3	He	14.686	ug/l	64404.99
Co	59	72	1	No Gas	0.583	ug/l	10116.80
Ni	60	72	1	No Gas	0.594	ug/l	2974.43
Ni	60	72	3	He	0.571	ug/l	1015.60
Cu	63	72	1	No Gas	0.592	ug/l	6973.14
Cu	63	72	3	He	0.616	ug/l	2550.38
Cu	65	72	1	No Gas	0.614	ug/l	3119.60
Zn	66	72	1	No Gas	0.804	ug/l	3076.01
Zn	66	72	3	He	0.805	ug/l	805.58
As	75	72	1	No Gas	0.994	ug/l	22427.46
As	75	72	3	He	0.612	ug/l	1694.67
Se	78	72	2	H2	0.516	ug/l	300.11
Br	79	72	1	No Gas	5.962	ug/l	63222.32
Br	79	72	2	H2	5.624	ug/l	43926.02
Se	82	72	1	No Gas	1.359	ug/l	994.24
Kr	84	72	1	No Gas		ug/l	20580.53
Sr	88	72	1	No Gas	0.569	ug/l	11371.99
Sr	88	72	3	He	0.544	ug/l	1902.36
Mo	95	115	1	No Gas	0.496	ug/l	1953.48
Mo	95	115	3	He	0.506	ug/l	823.36
Mo	98	115	1	No Gas	0.504	ug/l	3125.23
Ag	107	115	1	No Gas	0.214	ug/l	2676.00
Ag	109	115	1	No Gas	0.222	ug/l	2537.92
Cd	111	115	1	No Gas	0.530	ug/l	1030.14

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.554	ug/l	441.89
Cd	114	115	1	No Gas	0.535	ug/l	2220.13
Cd	114	115	3	He	0.548	ug/l	1021.79
Sn	118	115	1	No Gas	0.670	ug/l	4431.94
Sn	118	115	3	He	0.741	ug/l	1667.89
Sb	121	115	1	No Gas	0.503	ug/l	4544.86
Sb	121	115	3	He	0.508	ug/l	1568.92
Sb	123	115	1	No Gas	0.502	ug/l	3381.08
Sb	123	115	3	He	0.514	ug/l	1226.51
Ba	135	115	1	No Gas	0.565	ug/l	868.31
Ba	137	115	1	No Gas	0.517	ug/l	1384.00
La	139	115	3	He	2.750	ug/l	12.22
Ce	140	115	3	He	0.013	ug/l	33.33
Hg	201	209	1	No Gas	0.002	ug/l	9.67
Hg	202	209	1	No Gas	-0.011	ug/l	16.00
Hg	202	209	3	He	-0.004	ug/l	3.67
Tl	203	209	3	He	0.504	ug/l	1161.19
Tl	205	209	1	No Gas	0.499	ug/l	4320.73
Tl	205	209	3	He	0.538	ug/l	2930.17
[Pb]	206	209	1	No Gas	0.529	ug/l	1560.10
[Pb]	207	209	1	No Gas	0.558	ug/l	1368.97
Pb	208	209	1	No Gas	0.543	ug/l	6232.84
Th	232	209	3	He	0.450	ug/l	2842.79
U	238	209	1	No Gas	0.504	ug/l	4644.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2746339.45	102.1
Sc	45	2	H2	1564634.98	98.1
Sc	45	3	He	222936.91	98.6
Ge	72	1	No Gas	643242.58	98.6
Ge	72	2	H2	560997.95	100.9
Ge	72	3	He	124125.72	98.9
In	115	1	No Gas	3016738.23	98.1
In	115	3	He	941831.22	98.3
Tb	159	1	No Gas	2668219.38	100.1
Tb	159	3	He	1477710.58	97.9
Ho	165	1	No Gas	2390827.75	99.3
Ho	165	3	He	1355370.97	97.5
Lu	175	1	No Gas	2176868.12	97.1
Lu	175	3	He	1060063.07	97.3
Bi	209	1	No Gas	1397601.04	97.8
Bi	209	3	He	864237.61	99.6

ICPMS207-B Analytical Data

Sample Name 1 ppb STD
File Name 008CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:40:03
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	13.913	ug/l	85307.13
Be	9	45	1	No Gas	1.086	ug/l	2991.37
B	11	45	1	No Gas	0.752	ug/l	3462.46
Na	23	45	3	He	292.012	ug/l	259057.08
Mg	24	45	3	He	291.494	ug/l	112462.17
Al	27	45	1	No Gas	1.142	ug/l	24337.60
Si	28	45	2	H2	-0.017	ug/l	30181.76
K	39	72	3	He	279.960	ug/l	294159.72
Ca	40	72	2	H2	284.713	ug/l	1841654.42
Ti	47	72	1	No Gas	1.101	ug/l	2149.00
V	51	72	1	No Gas	2.197	ug/l	-21884.92
V	51	72	3	He	2.004	ug/l	37937.58
Cr	52	72	1	No Gas	1.602	ug/l	117728.13
Cr	52	72	3	He	1.159	ug/l	9159.55
Mn	55	72	1	No Gas	1.172	ug/l	31377.88
Mn	55	72	3	He	1.160	ug/l	3173.05
Fe	56	72	2	H2	30.257	ug/l	359971.15
Fe	56	72	3	He	30.198	ug/l	114311.00
Co	59	72	1	No Gas	1.192	ug/l	20063.95
Ni	60	72	1	No Gas	1.175	ug/l	5150.81
Ni	60	72	3	He	1.242	ug/l	1895.69
Cu	63	72	1	No Gas	1.220	ug/l	12493.70
Cu	63	72	3	He	1.281	ug/l	4750.83
Cu	65	72	1	No Gas	1.223	ug/l	5606.67
Zn	66	72	1	No Gas	1.382	ug/l	4769.29
Zn	66	72	3	He	1.430	ug/l	1308.96
As	75	72	1	No Gas	1.422	ug/l	24201.96
As	75	72	3	He	1.225	ug/l	2277.26
Se	78	72	2	H2	1.142	ug/l	594.35
Br	79	72	1	No Gas	6.340	ug/l	66069.87
Br	79	72	2	H2	6.051	ug/l	44880.48
Se	82	72	1	No Gas	1.329	ug/l	995.71
Kr	84	72	1	No Gas		ug/l	20457.20
Sr	88	72	1	No Gas	1.151	ug/l	22926.33
Sr	88	72	3	He	1.155	ug/l	3969.46
Mo	95	115	1	No Gas	1.058	ug/l	4256.22
Mo	95	115	3	He	1.107	ug/l	1819.02
Mo	98	115	1	No Gas	1.010	ug/l	6397.73
Ag	107	115	1	No Gas	0.426	ug/l	4805.42
Ag	109	115	1	No Gas	0.431	ug/l	4505.19
Cd	111	115	1	No Gas	1.059	ug/l	2102.98

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	1.136	ug/l	911.59
Cd	114	115	1	No Gas	1.049	ug/l	4513.20
Cd	114	115	3	He	1.127	ug/l	2117.81
Sn	118	115	1	No Gas	1.363	ug/l	8209.48
Sn	118	115	3	He	1.375	ug/l	2840.31
Sb	121	115	1	No Gas	1.038	ug/l	9509.17
Sb	121	115	3	He	1.070	ug/l	3288.05
Sb	123	115	1	No Gas	1.039	ug/l	7103.51
Sb	123	115	3	He	1.076	ug/l	2560.83
Ba	135	115	1	No Gas	1.015	ug/l	1590.28
Ba	137	115	1	No Gas	1.075	ug/l	2901.23
La	139	115	3	He	48.327	ug/l	34.44
Ce	140	115	3	He	0.019	ug/l	44.44
Hg	201	209	1	No Gas	-0.009	ug/l	8.33
Hg	202	209	1	No Gas	-0.004	ug/l	18.00
Hg	202	209	3	He	0.014	ug/l	6.67
Tl	203	209	3	He	1.088	ug/l	2423.87
Tl	205	209	1	No Gas	1.095	ug/l	9168.77
Tl	205	209	3	He	1.119	ug/l	5933.05
[Pb]	206	209	1	No Gas	1.084	ug/l	3087.05
[Pb]	207	209	1	No Gas	1.116	ug/l	2653.62
Pb	208	209	1	No Gas	1.106	ug/l	12316.81
Th	232	209	3	He	0.962	ug/l	6055.19
U	238	209	1	No Gas	1.057	ug/l	9738.69

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2765097.35	102.8
Sc	45	2	H2	1533026.70	96.1
Sc	45	3	He	226104.60	100.0
Ge	72	1	No Gas	647200.50	99.2
Ge	72	2	H2	547548.84	98.5
Ge	72	3	He	126262.14	100.6
In	115	1	No Gas	3097899.70	100.7
In	115	3	He	956460.37	99.9
Tb	159	1	No Gas	2645377.24	99.3
Tb	159	3	He	1512143.77	100.2
Ho	165	1	No Gas	2395475.34	99.5
Ho	165	3	He	1356590.62	97.6
Lu	175	1	No Gas	2222317.16	99.1
Lu	175	3	He	1092250.05	100.3
Bi	209	1	No Gas	1401224.30	98.1
Bi	209	3	He	868179.66	100.0

ICPMS207-B Analytical Data

Sample Name 10 ppb STD
File Name 009CAL5.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:46:40
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	140.381	ug/l	743548.63
Be	9	45	1	No Gas	10.934	ug/l	27359.09
B	11	45	1	No Gas	10.712	ug/l	19947.10
Na	23	45	3	He	2825.859	ug/l	2025778.48
Mg	24	45	3	He	2804.210	ug/l	1075493.32
Al	27	45	1	No Gas	11.007	ug/l	146846.20
Si	28	45	2	H2	36.674	ug/l	88203.16
K	39	72	3	He	2722.951	ug/l	1460755.45
Ca	40	72	2	H2	2660.536	ug/l	15628843.71
Ti	47	72	1	No Gas	10.945	ug/l	15797.66
V	51	72	1	No Gas	13.754	ug/l	174005.68
V	51	72	3	He	12.485	ug/l	73392.77
Cr	52	72	1	No Gas	11.538	ug/l	270572.80
Cr	52	72	3	He	11.305	ug/l	45601.49
Mn	55	72	1	No Gas	11.329	ug/l	223602.40
Mn	55	72	3	He	11.363	ug/l	28019.99
Fe	56	72	2	H2	285.685	ug/l	3287925.49
Fe	56	72	3	He	288.712	ug/l	927473.73
Co	59	72	1	No Gas	11.274	ug/l	186749.13
Ni	60	72	1	No Gas	11.087	ug/l	42513.90
Ni	60	72	3	He	11.885	ug/l	15585.01
Cu	63	72	1	No Gas	11.513	ug/l	104069.80
Cu	63	72	3	He	12.115	ug/l	39876.05
Cu	65	72	1	No Gas	11.558	ug/l	48294.97
Zn	66	72	1	No Gas	12.263	ug/l	37018.61
Zn	66	72	3	He	12.383	ug/l	9898.95
As	75	72	1	No Gas	12.752	ug/l	69808.64
As	75	72	3	He	11.197	ug/l	11286.26
Se	78	72	2	H2	10.946	ug/l	5416.79
Br	79	72	1	No Gas	6.083	ug/l	65494.52
Br	79	72	2	H2	5.836	ug/l	44713.53
Se	82	72	1	No Gas	11.177	ug/l	3080.83
Kr	84	72	1	No Gas		ug/l	21020.27
Sr	88	72	1	No Gas	11.279	ug/l	226346.46
Sr	88	72	3	He	11.168	ug/l	37326.29
Mo	95	115	1	No Gas	10.363	ug/l	40464.95
Mo	95	115	3	He	10.515	ug/l	17224.88
Mo	98	115	1	No Gas	10.111	ug/l	62141.30
Ag	107	115	1	No Gas	4.258	ug/l	41011.44
Ag	109	115	1	No Gas	4.184	ug/l	37608.80
Cd	111	115	1	No Gas	10.783	ug/l	20782.32

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	10.941	ug/l	8714.67
Cd	114	115	1	No Gas	10.571	ug/l	44711.34
Cd	114	115	3	He	11.146	ug/l	20852.52
Sn	118	115	1	No Gas	10.851	ug/l	56805.38
Sn	118	115	3	He	11.191	ug/l	20638.58
Sb	121	115	1	No Gas	10.299	ug/l	91070.11
Sb	121	115	3	He	10.545	ug/l	31930.93
Sb	123	115	1	No Gas	10.352	ug/l	68305.48
Sb	123	115	3	He	10.619	ug/l	24933.17
Ba	135	115	1	No Gas	10.420	ug/l	15761.10
Ba	137	115	1	No Gas	10.767	ug/l	27896.09
La	139	115	3	He	34.187	ug/l	27.78
Ce	140	115	3	He	0.019	ug/l	45.56
Hg	201	209	1	No Gas	-0.011	ug/l	8.00
Hg	202	209	1	No Gas	-0.016	ug/l	14.67
Hg	202	209	3	He	0.002	ug/l	4.67
Tl	203	209	3	He	10.693	ug/l	23071.16
Tl	205	209	1	No Gas	10.601	ug/l	86054.39
Tl	205	209	3	He	10.703	ug/l	55130.98
[Pb]	206	209	1	No Gas	10.819	ug/l	29683.30
[Pb]	207	209	1	No Gas	11.089	ug/l	25521.29
Pb	208	209	1	No Gas	10.817	ug/l	116596.18
Th	232	209	3	He	10.213	ug/l	63736.55
U	238	209	1	No Gas	10.372	ug/l	95159.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2727190.40	101.4
Sc	45	2	H2	1575307.89	98.8
Sc	45	3	He	227532.86	100.7
Ge	72	1	No Gas	658134.74	100.9
Ge	72	2	H2	557645.94	100.3
Ge	72	3	He	126306.61	100.6
In	115	1	No Gas	3020773.87	98.2
In	115	3	He	957654.49	100.0
Tb	159	1	No Gas	2637677.43	99.0
Tb	159	3	He	1477230.02	97.8
Ho	165	1	No Gas	2326159.12	96.6
Ho	165	3	He	1380542.54	99.3
Lu	175	1	No Gas	2175339.27	97.0
Lu	175	3	He	1118755.02	102.7
Bi	209	1	No Gas	1398154.83	97.8
Bi	209	3	He	866387.70	99.8

ICPMS207-B Analytical Data

Sample Name 50 ppb STD
File Name 010CAL5.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:53:18
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	633.873	ug/l	3356148.13
Be	9	45	1	No Gas	51.895	ug/l	130420.64
B	11	45	1	No Gas	52.271	ug/l	89993.40
Na	23	45	3	He	12784.352	ug/l	9121495.28
Mg	24	45	3	He	12619.348	ug/l	4918861.36
Al	27	45	1	No Gas	51.980	ug/l	664815.85
Si	28	45	2	H2	207.830	ug/l	355779.86
K	39	72	3	He	12539.441	ug/l	6243851.72
Ca	40	72	2	H2	12348.503	ug/l	73075119.21
Ti	47	72	1	No Gas	52.289	ug/l	74047.10
V	51	72	1	No Gas	57.282	ug/l	929548.73
V	51	72	3	He	52.793	ug/l	213010.75
Cr	52	72	1	No Gas	53.974	ug/l	927755.71
Cr	52	72	3	He	53.241	ug/l	199230.66
Mn	55	72	1	No Gas	53.764	ug/l	1039267.31
Mn	55	72	3	He	53.543	ug/l	132760.05
Fe	56	72	2	H2	1311.044	ug/l	15301744.12
Fe	56	72	3	He	1341.179	ug/l	4304447.37
Co	59	72	1	No Gas	53.391	ug/l	894454.06
Ni	60	72	1	No Gas	52.523	ug/l	201158.54
Ni	60	72	3	He	55.014	ug/l	72145.88
Cu	63	72	1	No Gas	54.545	ug/l	492974.58
Cu	63	72	3	He	55.428	ug/l	183114.15
Cu	65	72	1	No Gas	54.371	ug/l	227962.32
Zn	66	72	1	No Gas	53.863	ug/l	162290.84
Zn	66	72	3	He	54.096	ug/l	43270.66
As	75	72	1	No Gas	55.829	ug/l	244870.97
As	75	72	3	He	52.921	ug/l	49739.06
Se	78	72	2	H2	52.590	ug/l	26344.67
Br	79	72	1	No Gas	-0.190	ug/l	23019.42
Br	79	72	2	H2	-0.128	ug/l	15847.31
Se	82	72	1	No Gas	52.702	ug/l	11979.15
Kr	84	72	1	No Gas		ug/l	28238.24
Sr	88	72	1	No Gas	53.906	ug/l	1096476.48
Sr	88	72	3	He	53.315	ug/l	180514.74
Mo	95	115	1	No Gas	51.539	ug/l	199215.56
Mo	95	115	3	He	51.641	ug/l	84675.16
Mo	98	115	1	No Gas	51.260	ug/l	311853.56
Ag	107	115	1	No Gas	20.467	ug/l	192789.69
Ag	109	115	1	No Gas	20.301	ug/l	178513.05
Cd	111	115	1	No Gas	52.395	ug/l	99955.11

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	53.209	ug/l	42401.81
Cd	114	115	1	No Gas	51.541	ug/l	216030.96
Cd	114	115	3	He	53.308	ug/l	99802.06
Sn	118	115	1	No Gas	51.968	ug/l	265722.53
Sn	118	115	3	He	53.321	ug/l	97127.46
Sb	121	115	1	No Gas	51.034	ug/l	446439.80
Sb	121	115	3	He	52.421	ug/l	158704.95
Sb	123	115	1	No Gas	51.446	ug/l	335835.43
Sb	123	115	3	He	52.460	ug/l	123175.12
Ba	135	115	1	No Gas	52.522	ug/l	78591.97
Ba	137	115	1	No Gas	52.230	ug/l	133800.92
La	139	115	3	He	45.875	ug/l	33.33
Ce	140	115	3	He	251.970	ug/l	491550.64
Hg	201	209	1	No Gas	4.990	ug/l	611.89
Hg	202	209	1	No Gas	5.034	ug/l	1362.47
Hg	202	209	3	He	4.984	ug/l	814.20
Tl	203	209	3	He	50.608	ug/l	108865.63
Tl	205	209	1	No Gas	50.720	ug/l	407993.88
Tl	205	209	3	He	50.286	ug/l	258345.87
[Pb]	206	209	1	No Gas	51.375	ug/l	139591.95
[Pb]	207	209	1	No Gas	52.672	ug/l	120078.61
Pb	208	209	1	No Gas	52.342	ug/l	558928.30
Th	232	209	3	He	49.677	ug/l	309754.92
U	238	209	1	No Gas	50.311	ug/l	458616.95

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2761072.98	102.6
Sc	45	2	H2	1581497.89	99.2
Sc	45	3	He	231524.73	102.4
Ge	72	1	No Gas	667458.80	102.3
Ge	72	2	H2	568315.28	102.2
Ge	72	3	He	128246.28	102.2
In	115	1	No Gas	2991815.75	97.3
In	115	3	He	958834.89	100.1
Tb	159	1	No Gas	2642268.97	99.1
Tb	159	3	He	1503908.48	99.6
Ho	165	1	No Gas	2363933.69	98.2
Ho	165	3	He	1368564.64	98.4
Lu	175	1	No Gas	2236773.52	99.8
Lu	175	3	He	1109200.93	101.9
Bi	209	1	No Gas	1389238.79	97.2
Bi	209	3	He	866055.27	99.8

ICPMS207-B Analytical Data

Sample Name 100 ppb STD
File Name 011CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 12:59:53
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	1206.130	ug/l	6593815.04
Be	9	45	1	No Gas	99.195	ug/l	257565.88
B	11	45	1	No Gas	98.864	ug/l	174015.26
Na	23	45	3	He	24738.301	ug/l	18406175.01
Mg	24	45	3	He	24201.891	ug/l	9866473.76
Al	27	45	1	No Gas	96.666	ug/l	1269836.27
Si	28	45	2	H2	396.485	ug/l	656406.80
K	39	72	3	He	24464.288	ug/l	12501164.82
Ca	40	72	2	H2	23622.295	ug/l	142774869.84
Ti	47	72	1	No Gas	98.760	ug/l	143402.24
V	51	72	1	No Gas	96.978	ug/l	1664219.01
V	51	72	3	He	99.272	ug/l	387360.02
Cr	52	72	1	No Gas	98.720	ug/l	1664723.97
Cr	52	72	3	He	100.643	ug/l	386742.28
Mn	55	72	1	No Gas	99.435	ug/l	1970705.46
Mn	55	72	3	He	102.719	ug/l	264381.91
Fe	56	72	2	H2	2534.091	ug/l	30228892.00
Fe	56	72	3	He	2555.936	ug/l	8507403.57
Co	59	72	1	No Gas	97.279	ug/l	1677814.26
Ni	60	72	1	No Gas	99.230	ug/l	390640.16
Ni	60	72	3	He	103.854	ug/l	141281.86
Cu	63	72	1	No Gas	101.858	ug/l	946355.75
Cu	63	72	3	He	104.811	ug/l	359314.72
Cu	65	72	1	No Gas	103.415	ug/l	445894.32
Zn	66	72	1	No Gas	100.047	ug/l	309732.75
Zn	66	72	3	He	103.774	ug/l	86097.34
As	75	72	1	No Gas	104.593	ug/l	455206.98
As	75	72	3	He	100.980	ug/l	97524.45
Se	78	72	2	H2	100.104	ug/l	51256.68
Br	79	72	1	No Gas	6.007	ug/l	67844.07
Br	79	72	2	H2	6.154	ug/l	48211.42
Se	82	72	1	No Gas	100.898	ug/l	22913.46
Kr	84	72	1	No Gas		ug/l	36413.66
Sr	88	72	1	No Gas	99.036	ug/l	2074356.26
Sr	88	72	3	He	100.020	ug/l	351891.45
Mo	95	115	1	No Gas	99.194	ug/l	382705.13
Mo	95	115	3	He	99.127	ug/l	167837.74
Mo	98	115	1	No Gas	99.359	ug/l	603249.32
Ag	107	115	1	No Gas	39.740	ug/l	373052.10
Ag	109	115	1	No Gas	39.831	ug/l	349155.54
Cd	111	115	1	No Gas	102.476	ug/l	195143.80

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	99.941	ug/l	82240.53
Cd	114	115	1	No Gas	101.160	ug/l	423273.32
Cd	114	115	3	He	101.222	ug/l	195685.36
Sn	118	115	1	No Gas	98.926	ug/l	504018.22
Sn	118	115	3	He	98.215	ug/l	184449.08
Sb	121	115	1	No Gas	99.453	ug/l	868522.21
Sb	121	115	3	He	98.734	ug/l	308631.40
Sb	123	115	1	No Gas	99.241	ug/l	646649.98
Sb	123	115	3	He	98.707	ug/l	239300.18
Ba	135	115	1	No Gas	102.837	ug/l	153582.04
Ba	137	115	1	No Gas	102.732	ug/l	262681.94
La	139	115	3	He	99.148	ug/l	61.11
Ce	140	115	3	He	0.025	ug/l	58.89
Hg	201	209	1	No Gas	0.027	ug/l	13.00
Hg	202	209	1	No Gas	0.005	ug/l	21.00
Hg	202	209	3	He	0.028	ug/l	9.00
Tl	203	209	3	He	98.676	ug/l	214540.00
Tl	205	209	1	No Gas	97.236	ug/l	809393.44
Tl	205	209	3	He	98.075	ug/l	509264.79
[Pb]	206	209	1	No Gas	99.230	ug/l	279084.52
[Pb]	207	209	1	No Gas	98.554	ug/l	232589.43
Pb	208	209	1	No Gas	98.746	ug/l	1091318.27
Th	232	209	3	He	97.307	ug/l	613399.42
U	238	209	1	No Gas	96.382	ug/l	909491.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2854473.42	106.1
Sc	45	2	H2	1596282.96	100.1
Sc	45	3	He	242170.30	107.1
Ge	72	1	No Gas	687244.99	105.3
Ge	72	2	H2	581470.45	104.6
Ge	72	3	He	133297.62	106.2
In	115	1	No Gas	2986933.16	97.1
In	115	3	He	990207.61	103.4
Tb	159	1	No Gas	2743846.30	102.9
Tb	159	3	He	1527026.14	101.1
Ho	165	1	No Gas	2440562.45	101.4
Ho	165	3	He	1452273.58	104.5
Lu	175	1	No Gas	2229734.40	99.5
Lu	175	3	He	1175697.68	108.0
Bi	209	1	No Gas	1437926.99	100.6
Bi	209	3	He	875625.30	100.9

ICPMS207-B Analytical Data

Sample Name 1000 ppb STD
File Name 012CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:06:27
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-Cal
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2518.940	ug/l	13650989.75
Be	9	45	1	No Gas	999.976	ug/l	2573861.10
B	11	45	1	No Gas	999.993	ug/l	1725846.82
Na	23	45	3	He	50043.218	ug/l	37225520.00
Mg	24	45	3	He	50353.745	ug/l	20551957.86
Al	27	45	1	No Gas	1000.224	ug/l	12941835.92
Si	28	45	2	H2	-3.956	ug/l	25576.03
K	39	72	3	He	50246.683	ug/l	25970737.95
Ca	40	72	2	H2	50718.505	ug/l	306459695.57
Ti	47	72	1	No Gas	5.065	ug/l	7995.22
V	51	72	1	No Gas	999.899	ug/l	17705149.21
V	51	72	3	He	999.907	ug/l	3670955.53
Cr	52	72	1	No Gas	999.913	ug/l	15923141.11
Cr	52	72	3	He	999.760	ug/l	3866820.74
Mn	55	72	1	No Gas	999.855	ug/l	19681919.17
Mn	55	72	3	He	999.537	ug/l	2618074.67
Fe	56	72	2	H2	6025.034	ug/l	71895992.63
Fe	56	72	3	He	6008.906	ug/l	20354555.92
Co	59	72	1	No Gas	1000.090	ug/l	17203619.04
Ni	60	72	1	No Gas	999.940	ug/l	3920666.11
Ni	60	72	3	He	999.345	ug/l	1382334.65
Cu	63	72	1	No Gas	999.572	ug/l	9250481.07
Cu	63	72	3	He	999.226	ug/l	3484734.35
Cu	65	72	1	No Gas	999.424	ug/l	4294676.14
Zn	66	72	1	No Gas	999.779	ug/l	3081804.58
Zn	66	72	3	He	999.393	ug/l	843020.07
As	75	72	1	No Gas	999.221	ug/l	4170928.02
As	75	72	3	He	999.744	ug/l	972559.48
Se	78	72	2	H2	999.850	ug/l	511824.83
Br	79	72	1	No Gas	5.941	ug/l	67249.15
Br	79	72	2	H2	8.625	ug/l	60857.42
Se	82	72	1	No Gas	999.763	ug/l	219801.32
Kr	84	72	1	No Gas		ug/l	158408.03
Sr	88	72	1	No Gas	999.888	ug/l	20898842.43
Sr	88	72	3	He	999.820	ug/l	3581989.32
Mo	95	115	1	No Gas	0.081	ug/l	334.45
Mo	95	115	3	He	0.060	ug/l	111.11
Mo	98	115	1	No Gas	0.141	ug/l	895.66
Ag	107	115	1	No Gas	360.004	ug/l	3403787.27
Ag	109	115	1	No Gas	364.886	ug/l	3220014.33
Cd	111	115	1	No Gas	999.625	ug/l	1919560.10

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	999.836	ug/l	827287.30
Cd	114	115	1	No Gas	999.801	ug/l	4219437.31
Cd	114	115	3	He	999.701	ug/l	1943350.44
Sn	118	115	1	No Gas	0.280	ug/l	2425.40
Sn	118	115	3	He	0.253	ug/l	843.36
Sb	121	115	1	No Gas	0.195	ug/l	1823.30
Sb	121	115	3	He	0.174	ug/l	608.74
Sb	123	115	1	No Gas	0.219	ug/l	1515.57
Sb	123	115	3	He	0.182	ug/l	485.06
Ba	135	115	1	No Gas	999.586	ug/l	1505792.07
Ba	137	115	1	No Gas	999.608	ug/l	2577647.69
La	139	115	3	He	239.896	ug/l	132.22
Ce	140	115	3	He	0.118	ug/l	246.67
Hg	201	209	1	No Gas	-0.009	ug/l	8.33
Hg	202	209	1	No Gas	0.003	ug/l	20.00
Hg	202	209	3	He	0.015	ug/l	6.67
Tl	203	209	3	He	1000.095	ug/l	2126095.93
Tl	205	209	1	No Gas	1000.234	ug/l	8111810.78
Tl	205	209	3	He	1000.171	ug/l	5078330.80
[Pb]	206	209	1	No Gas	1006.420	ug/l	2756455.58
[Pb]	207	209	1	No Gas	1022.033	ug/l	2348972.62
Pb	208	209	1	No Gas	1025.346	ug/l	11037827.98
Th	232	209	3	He	1000.283	ug/l	6167763.47
U	238	209	1	No Gas	1000.343	ug/l	9199341.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2832563.67	105.3
Sc	45	2	H2	1610607.16	101.0
Sc	45	3	He	242551.26	107.3
Ge	72	1	No Gas	685964.70	105.1
Ge	72	2	H2	581692.53	104.6
Ge	72	3	He	135847.94	108.2
In	115	1	No Gas	3011807.21	97.9
In	115	3	He	995757.12	104.0
Tb	159	1	No Gas	2804718.84	105.2
Tb	159	3	He	1518532.80	100.6
Ho	165	1	No Gas	2507213.22	104.1
Ho	165	3	He	1416169.99	101.9
Lu	175	1	No Gas	2295797.12	102.4
Lu	175	3	He	1172841.85	107.7
Bi	209	1	No Gas	1402199.68	98.1
Bi	209	3	He	856639.64	98.7

ICPMS207-B Analytical Data

Sample Name 100 ppb Br STD
File Name 013CAL.S.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:12:59
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2.660	ug/l	26038.65
Be	9	45	1	No Gas	0.084	ug/l	477.58
B	11	45	1	No Gas	12.690	ug/l	23679.97
Na	23	45	3	He	28.864	ug/l	79174.46
Mg	24	45	3	He	6.384	ug/l	4082.47
Al	27	45	1	No Gas	0.254	ug/l	13226.99
Si	28	45	2	H2	-6.444	ug/l	21626.24
K	39	72	3	He	686.549	ug/l	492145.06
Ca	40	72	2	H2	12.164	ug/l	301327.75
Ti	47	72	1	No Gas	-0.070	ug/l	582.27
V	51	72	1	No Gas	2.215	ug/l	-21884.16
V	51	72	3	He	-0.656	ug/l	29169.96
Cr	52	72	1	No Gas	1.522	ug/l	122267.13
Cr	52	72	3	He	0.107	ug/l	5425.47
Mn	55	72	1	No Gas	0.471	ug/l	19264.45
Mn	55	72	3	He	0.121	ug/l	647.88
Fe	56	72	2	H2	0.990	ug/l	32309.47
Fe	56	72	3	He	1.679	ug/l	24790.77
Co	59	72	1	No Gas	0.125	ug/l	2874.59
Ni	60	72	1	No Gas	0.195	ug/l	1596.92
Ni	60	72	3	He	0.149	ug/l	494.46
Cu	63	72	1	No Gas	0.249	ug/l	4221.64
Cu	63	72	3	He	0.198	ug/l	1248.14
Cu	65	72	1	No Gas	0.222	ug/l	1626.75
Zn	66	72	1	No Gas	0.265	ug/l	1601.96
Zn	66	72	3	He	0.276	ug/l	407.78
As	75	72	1	No Gas	1.063	ug/l	23867.53
As	75	72	3	He	0.409	ug/l	1551.92
Se	78	72	2	H2	0.261	ug/l	173.89
Br	79	72	1	No Gas	100.000	ug/l	728682.54
Br	79	72	2	H2	100.000	ug/l	506852.35
Se	82	72	1	No Gas	2.036	ug/l	1196.80
Kr	84	72	1	No Gas		ug/l	21769.88
Sr	88	72	1	No Gas	0.172	ug/l	3775.87
Sr	88	72	3	He	0.136	ug/l	580.01
Mo	95	115	1	No Gas	0.027	ug/l	131.11
Mo	95	115	3	He	0.010	ug/l	25.56
Mo	98	115	1	No Gas	0.014	ug/l	122.64
Ag	107	115	1	No Gas	0.150	ug/l	2168.37
Ag	109	115	1	No Gas	0.152	ug/l	2014.29
Cd	111	115	1	No Gas	0.149	ug/l	312.33

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.142	ug/l	123.45
Cd	114	115	1	No Gas	0.141	ug/l	584.06
Cd	114	115	3	He	0.141	ug/l	280.86
Sn	118	115	1	No Gas	5.519	ug/l	30819.37
Sn	118	115	3	He	5.900	ug/l	11186.71
Sb	121	115	1	No Gas	0.050	ug/l	570.40
Sb	121	115	3	He	0.045	ug/l	198.02
Sb	123	115	1	No Gas	0.049	ug/l	426.05
Sb	123	115	3	He	0.049	ug/l	157.02
Ba	135	115	1	No Gas	0.143	ug/l	242.86
Ba	137	115	1	No Gas	0.111	ug/l	352.64
La	139	115	3	He	4.256	ug/l	13.33
Ce	140	115	3	He	0.007	ug/l	21.11
Hg	201	209	1	No Gas	-0.004	ug/l	9.33
Hg	202	209	1	No Gas	0.001	ug/l	20.00
Hg	202	209	3	He	0.017	ug/l	7.00
Tl	203	209	3	He	0.276	ug/l	661.62
Tl	205	209	1	No Gas	0.335	ug/l	3143.72
Tl	205	209	3	He	0.262	ug/l	1492.02
[Pb]	206	209	1	No Gas	0.204	ug/l	707.80
[Pb]	207	209	1	No Gas	0.216	ug/l	612.24
Pb	208	209	1	No Gas	0.208	ug/l	2772.36
Th	232	209	3	He	0.227	ug/l	1433.99
U	238	209	1	No Gas	0.139	ug/l	1360.47

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2778431.51	103.3
Sc	45	2	H2	1611272.76	101.0
Sc	45	3	He	232851.77	103.0
Ge	72	1	No Gas	678842.70	104.1
Ge	72	2	H2	559681.12	100.6
Ge	72	3	He	127267.10	101.4
In	115	1	No Gas	3170453.62	103.1
In	115	3	He	969744.27	101.3
Tb	159	1	No Gas	2746743.21	103.1
Tb	159	3	He	1488306.98	98.6
Ho	165	1	No Gas	2468940.91	102.6
Ho	165	3	He	1359179.21	97.8
Lu	175	1	No Gas	2289466.26	102.1
Lu	175	3	He	1098007.83	100.8
Bi	209	1	No Gas	1465498.11	102.6
Bi	209	3	He	852129.65	98.2

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 014BLKV.d
Data Path Name D:\Agilent\ICPMH1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:19:23
Sample Type BkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.123	ug/l	11163.91
Be	9	45	1	No Gas	-0.049	ug/l	142.30
B	11	45	1	No Gas	5.477	ug/l	11385.51
Na	23	45	3	He	-0.556	ug/l	57385.43
Mg	24	45	3	He	0.825	ug/l	1876.40
Al	27	45	1	No Gas	0.827	ug/l	20324.95
Si	28	45	2	H2	-7.860	ug/l	19050.51
K	39	72	3	He	50.454	ug/l	184411.89
Ca	40	72	2	H2	2.698	ug/l	242353.35
Ti	47	72	1	No Gas	-0.174	ug/l	425.43
V	51	72	1	No Gas	2.393	ug/l	-19254.94
V	51	72	3	He	-1.724	ug/l	25307.32
Cr	52	72	1	No Gas	0.243	ug/l	100135.85
Cr	52	72	3	He	-0.059	ug/l	4784.14
Mn	55	72	1	No Gas	0.224	ug/l	14165.45
Mn	55	72	3	He	-0.013	ug/l	317.61
Fe	56	72	2	H2	0.815	ug/l	29779.77
Fe	56	72	3	He	0.585	ug/l	21139.75
Co	59	72	1	No Gas	-0.008	ug/l	608.81
Ni	60	72	1	No Gas	0.062	ug/l	1057.95
Ni	60	72	3	He	0.019	ug/l	323.34
Cu	63	72	1	No Gas	0.038	ug/l	2235.74
Cu	63	72	3	He	0.032	ug/l	701.88
Cu	65	72	1	No Gas	0.037	ug/l	823.69
Zn	66	72	1	No Gas	-0.027	ug/l	697.38
Zn	66	72	3	He	-0.008	ug/l	181.12
As	75	72	1	No Gas	-0.565	ug/l	16850.73
As	75	72	3	He	0.020	ug/l	1187.43
Se	78	72	2	H2	0.054	ug/l	71.00
Br	79	72	1	No Gas	1.625	ug/l	35477.03
Br	79	72	2	H2	1.178	ug/l	21679.98
Se	82	72	1	No Gas	0.929	ug/l	937.97
Kr	84	72	1	No Gas		ug/l	21473.42
Sr	88	72	1	No Gas	0.005	ug/l	329.35
Sr	88	72	3	He	0.002	ug/l	130.00
Mo	95	115	1	No Gas	0.003	ug/l	32.22
Mo	95	115	3	He	0.006	ug/l	17.78
Mo	98	115	1	No Gas	0.001	ug/l	40.07
Ag	107	115	1	No Gas	0.005	ug/l	700.97
Ag	109	115	1	No Gas	0.001	ug/l	589.58
Cd	111	115	1	No Gas	0.010	ug/l	31.00

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.009	ug/l	15.45
Cd	114	115	1	No Gas	0.009	ug/l	-1.46
Cd	114	115	3	He	0.013	ug/l	37.14
Sn	118	115	1	No Gas	1.735	ug/l	10000.46
Sn	118	115	3	He	1.817	ug/l	3562.70
Sb	121	115	1	No Gas	0.020	ug/l	282.70
Sb	121	115	3	He	0.022	ug/l	122.68
Sb	123	115	1	No Gas	0.021	ug/l	218.69
Sb	123	115	3	He	0.024	ug/l	94.68
Ba	135	115	1	No Gas	0.002	ug/l	19.96
Ba	137	115	1	No Gas	-0.004	ug/l	39.92
La	139	115	3	He	-13.561	ug/l	4.45
Ce	140	115	3	He	0.008	ug/l	23.33
Hg	201	209	1	No Gas	0.015	ug/l	11.33
Hg	202	209	1	No Gas	-0.005	ug/l	17.67
Hg	202	209	3	He	0.004	ug/l	4.67
Tl	203	209	3	He	0.045	ug/l	167.40
Tl	205	209	1	No Gas	0.049	ug/l	691.13
Tl	205	209	3	He	0.047	ug/l	394.83
[Pb]	206	209	1	No Gas	0.015	ug/l	158.89
[Pb]	207	209	1	No Gas	0.021	ug/l	136.67
Pb	208	209	1	No Gas	0.021	ug/l	641.12
Th	232	209	3	He	0.020	ug/l	161.40
U	238	209	1	No Gas	0.006	ug/l	80.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2757730.78	102.5
Sc	45	2	H2	1583870.06	99.3
Sc	45	3	He	229654.18	101.6
Ge	72	1	No Gas	665126.71	102.0
Ge	72	2	H2	551057.86	99.1
Ge	72	3	He	126157.18	100.5
In	115	1	No Gas	3045752.31	99.0
In	115	3	He	935853.15	97.7
Tb	159	1	No Gas	2678892.97	100.5
Tb	159	3	He	1439309.89	95.3
Ho	165	1	No Gas	2389965.84	99.3
Ho	165	3	He	1331490.81	95.8
Lu	175	1	No Gas	2219127.38	99.0
Lu	175	3	He	1062149.50	97.5
Bi	209	1	No Gas	1404242.16	98.3
Bi	209	3	He	823932.19	94.9

ICPMS207-B Analytical Data

Sample Name QCS
File Name 015_QC1.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:25:36
Sample Type QC1
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	52.560	ug/l	285858.66
Be	9	45	1	No Gas	24.931	ug/l	62094.60
B	11	45	1	No Gas	56.741	ug/l	96419.61
Na	23	45	3	He	2621.877	ug/l	1929011.46
Mg	24	45	3	He	2644.738	ug/l	1038605.52
Al	27	45	1	No Gas	261.295	ug/l	3264929.26
Si	28	45	2	H2	503.187	ug/l	808905.74
K	39	72	3	He	2558.017	ug/l	1428984.04
Ca	40	72	2	H2	2492.239	ug/l	14922008.04
Ti	47	72	1	No Gas	48.831	ug/l	68565.45
V	51	72	1	No Gas	46.905	ug/l	743916.53
V	51	72	3	He	48.240	ug/l	200929.71
Cr	52	72	1	No Gas	51.762	ug/l	885682.32
Cr	52	72	3	He	50.631	ug/l	193153.85
Mn	55	72	1	No Gas	258.740	ug/l	4918826.33
Mn	55	72	3	He	258.382	ug/l	650883.79
Fe	56	72	2	H2	253.627	ug/l	2975218.68
Fe	56	72	3	He	253.792	ug/l	845424.23
Co	59	72	1	No Gas	51.151	ug/l	849166.65
Ni	60	72	1	No Gas	50.823	ug/l	192916.20
Ni	60	72	3	He	52.724	ug/l	70406.20
Cu	63	72	1	No Gas	53.192	ug/l	476464.88
Cu	63	72	3	He	53.944	ug/l	181449.73
Cu	65	72	1	No Gas	53.657	ug/l	222965.55
Zn	66	72	1	No Gas	51.258	ug/l	153091.55
Zn	66	72	3	He	51.146	ug/l	41658.28
As	75	72	1	No Gas	52.606	ug/l	229747.45
As	75	72	3	He	49.383	ug/l	47332.54
Se	78	72	2	H2	50.343	ug/l	25203.54
Br	79	72	1	No Gas	8.019	ug/l	79104.77
Br	79	72	2	H2	7.915	ug/l	55883.49
Se	82	72	1	No Gas	51.113	ug/l	11532.68
Kr	84	72	1	No Gas		ug/l	28861.98
Sr	88	72	1	No Gas	52.811	ug/l	1064500.55
Sr	88	72	3	He	50.000	ug/l	172359.90
Mo	95	115	1	No Gas	46.595	ug/l	183448.68
Mo	95	115	3	He	47.852	ug/l	79486.44
Mo	98	115	1	No Gas	46.654	ug/l	289183.84
Ag	107	115	1	No Gas	24.477	ug/l	234864.03
Ag	109	115	1	No Gas	24.388	ug/l	218456.49
Cd	111	115	1	No Gas	24.771	ug/l	48163.34

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	25.074	ug/l	20248.26
Cd	114	115	1	No Gas	24.558	ug/l	104851.47
Cd	114	115	3	He	25.379	ug/l	48146.64
Sn	118	115	1	No Gas	48.100	ug/l	250702.82
Sn	118	115	3	He	49.415	ug/l	91219.39
Sb	121	115	1	No Gas	46.488	ug/l	414642.57
Sb	121	115	3	He	48.142	ug/l	147655.67
Sb	123	115	1	No Gas	46.756	ug/l	311185.48
Sb	123	115	3	He	48.177	ug/l	114606.42
Ba	135	115	1	No Gas	49.077	ug/l	74866.03
Ba	137	115	1	No Gas	48.481	ug/l	126608.34
La	139	115	3	He	974307.925	ug/l	478583.73
Ce	140	115	3	He	252.189	ug/l	498427.48
Hg	201	209	1	No Gas	4.624	ug/l	589.23
Hg	202	209	1	No Gas	4.817	ug/l	1352.80
Hg	202	209	3	He	5.349	ug/l	876.52
Tl	203	209	3	He	49.019	ug/l	105798.36
Tl	205	209	1	No Gas	48.359	ug/l	403746.06
Tl	205	209	3	He	49.270	ug/l	253966.71
[Pb]	206	209	1	No Gas	47.942	ug/l	135230.53
[Pb]	207	209	1	No Gas	50.303	ug/l	119019.40
Pb	208	209	1	No Gas	49.056	ug/l	543636.17
Th	232	209	3	He	47.609	ug/l	297835.02
U	238	209	1	No Gas	50.079	ug/l	473681.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2729808.61	101.5
Sc	45	2	H2	1565962.97	98.2
Sc	45	3	He	232982.23	103.1
Ge	72	1	No Gas	661320.04	101.4
Ge	72	2	H2	567917.11	102.1
Ge	72	3	He	130567.30	104.0
In	115	1	No Gas	3049036.82	99.1
In	115	3	He	971413.78	101.4
Tb	159	1	No Gas	2671942.24	100.2
Tb	159	3	He	1479988.34	98.0
Ho	165	1	No Gas	2352796.57	97.7
Ho	165	3	He	1353687.52	97.4
Lu	175	1	No Gas	2163460.36	96.5
Lu	175	3	He	1093137.19	100.4
Bi	209	1	No Gas	1441320.71	100.9
Bi	209	3	He	868884.39	100.1

ICPMS207-B Analytical Data

Sample Name CCV
File Name 016_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:32:57
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	635.029	ug/l	3353577.19
Be	9	45	1	No Gas	51.648	ug/l	129464.07
B	11	45	1	No Gas	55.816	ug/l	95703.74
Na	23	45	3	He	12893.441	ug/l	9064655.42
Mg	24	45	3	He	12700.857	ug/l	4879128.69
Al	27	45	1	No Gas	52.480	ug/l	669351.36
Si	28	45	2	H2	203.543	ug/l	346105.83
K	39	72	3	He	12862.405	ug/l	6286496.16
Ca	40	72	2	H2	12364.780	ug/l	71821020.99
Ti	47	72	1	No Gas	51.684	ug/l	72955.85
V	51	72	1	No Gas	50.729	ug/l	814481.90
V	51	72	3	He	52.256	ug/l	207410.64
Cr	52	72	1	No Gas	52.723	ug/l	905476.47
Cr	52	72	3	He	54.611	ug/l	200616.19
Mn	55	72	1	No Gas	53.993	ug/l	1040022.24
Mn	55	72	3	He	54.645	ug/l	133073.86
Fe	56	72	2	H2	1321.392	ug/l	15140386.93
Fe	56	72	3	He	1347.291	ug/l	4247565.33
Co	59	72	1	No Gas	52.931	ug/l	883739.41
Ni	60	72	1	No Gas	52.332	ug/l	199755.97
Ni	60	72	3	He	54.551	ug/l	70261.97
Cu	63	72	1	No Gas	53.512	ug/l	482052.38
Cu	63	72	3	He	55.961	ug/l	181584.37
Cu	65	72	1	No Gas	54.596	ug/l	228154.52
Zn	66	72	1	No Gas	53.572	ug/l	160874.18
Zn	66	72	3	He	54.441	ug/l	42767.03
As	75	72	1	No Gas	55.459	ug/l	242469.91
As	75	72	3	He	52.999	ug/l	48924.47
Se	78	72	2	H2	52.363	ug/l	25751.05
Br	79	72	1	No Gas	0.296	ug/l	26328.66
Br	79	72	2	H2	0.125	ug/l	16789.91
Se	82	72	1	No Gas	52.543	ug/l	11903.43
Kr	84	72	1	No Gas		ug/l	30515.41
Sr	88	72	1	No Gas	52.935	ug/l	1073191.07
Sr	88	72	3	He	52.833	ug/l	175696.60
Mo	95	115	1	No Gas	51.176	ug/l	197830.51
Mo	95	115	3	He	52.280	ug/l	83736.15
Mo	98	115	1	No Gas	50.068	ug/l	304682.45
Ag	107	115	1	No Gas	19.987	ug/l	188335.53
Ag	109	115	1	No Gas	19.997	ug/l	175877.39
Cd	111	115	1	No Gas	51.235	ug/l	97768.30

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	52.869	ug/l	41156.73
Cd	114	115	1	No Gas	51.037	ug/l	213968.85
Cd	114	115	3	He	53.307	ug/l	97489.92
Sn	118	115	1	No Gas	51.600	ug/l	263911.29
Sn	118	115	3	He	52.428	ug/l	93299.94
Sb	121	115	1	No Gas	50.013	ug/l	437643.57
Sb	121	115	3	He	52.149	ug/l	154226.20
Sb	123	115	1	No Gas	50.530	ug/l	329933.85
Sb	123	115	3	He	52.934	ug/l	121410.71
Ba	135	115	1	No Gas	51.724	ug/l	77421.26
Ba	137	115	1	No Gas	51.410	ug/l	131742.75
La	139	115	3	He	49.856	ug/l	34.44
Ce	140	115	3	He	252.348	ug/l	480883.38
Hg	201	209	1	No Gas	4.943	ug/l	603.56
Hg	202	209	1	No Gas	5.093	ug/l	1371.13
Hg	202	209	3	He	5.216	ug/l	825.86
Tl	203	209	3	He	50.790	ug/l	105921.64
Tl	205	209	1	No Gas	50.677	ug/l	405677.66
Tl	205	209	3	He	50.301	ug/l	250533.74
[Pb]	206	209	1	No Gas	51.062	ug/l	138130.81
[Pb]	207	209	1	No Gas	52.840	ug/l	119896.62
Pb	208	209	1	No Gas	51.502	ug/l	547370.33
Th	232	209	3	He	49.871	ug/l	301464.19
U	238	209	1	No Gas	49.945	ug/l	453166.89

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2753008.07	102.3
Sc	45	2	H2	1568162.93	98.3
Sc	45	3	He	228177.99	100.9
Ge	72	1	No Gas	665355.85	102.0
Ge	72	2	H2	557902.16	100.3
Ge	72	3	He	125988.16	100.4
In	115	1	No Gas	2992929.81	97.3
In	115	3	He	936673.31	97.8
Tb	159	1	No Gas	2615306.81	98.1
Tb	159	3	He	1455618.57	96.4
Ho	165	1	No Gas	2331846.66	96.9
Ho	165	3	He	1361977.75	98.0
Lu	175	1	No Gas	2157019.62	96.2
Lu	175	3	He	1092324.74	100.3
Bi	209	1	No Gas	1382921.34	96.8
Bi	209	3	He	839605.38	96.7

ICPMS207-B Analytical Data

Sample Name CCB
File Name 017_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:39:11
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.190	ug/l	12793.18
Be	9	45	1	No Gas	-0.065	ug/l	100.98
B	11	45	1	No Gas	2.984	ug/l	7185.93
Na	23	45	3	He	-1.095	ug/l	56758.70
Mg	24	45	3	He	-0.186	ug/l	1480.48
Al	27	45	1	No Gas	0.394	ug/l	14954.38
Si	28	45	2	H2	-8.179	ug/l	18154.25
K	39	72	3	He	48.405	ug/l	181676.36
Ca	40	72	2	H2	0.416	ug/l	228656.96
Ti	47	72	1	No Gas	-0.172	ug/l	418.76
V	51	72	1	No Gas	2.072	ug/l	-23390.76
V	51	72	3	He	-0.433	ug/l	29374.82
Cr	52	72	1	No Gas	1.098	ug/l	111012.78
Cr	52	72	3	He	-0.029	ug/l	4843.05
Mn	55	72	1	No Gas	0.203	ug/l	13472.80
Mn	55	72	3	He	-0.015	ug/l	308.94
Fe	56	72	2	H2	0.129	ug/l	22020.28
Fe	56	72	3	He	0.937	ug/l	22028.65
Co	59	72	1	No Gas	-0.008	ug/l	592.17
Ni	60	72	1	No Gas	0.012	ug/l	851.67
Ni	60	72	3	He	-0.014	ug/l	277.78
Cu	63	72	1	No Gas	0.013	ug/l	1970.93
Cu	63	72	3	He	0.018	ug/l	649.22
Cu	65	72	1	No Gas	0.017	ug/l	725.65
Zn	66	72	1	No Gas	0.008	ug/l	786.95
Zn	66	72	3	He	0.018	ug/l	200.00
As	75	72	1	No Gas	-1.104	ug/l	14378.90
As	75	72	3	He	0.113	ug/l	1259.83
Se	78	72	2	H2	0.036	ug/l	62.33
Br	79	72	1	No Gas	0.241	ug/l	25385.37
Br	79	72	2	H2	0.054	ug/l	16203.64
Se	82	72	1	No Gas	0.076	ug/l	739.81
Kr	84	72	1	No Gas		ug/l	19844.39
Sr	88	72	1	No Gas	0.001	ug/l	252.84
Sr	88	72	3	He	0.000	ug/l	121.11
Mo	95	115	1	No Gas	0.024	ug/l	113.34
Mo	95	115	3	He	0.013	ug/l	30.00
Mo	98	115	1	No Gas	0.019	ug/l	148.34
Ag	107	115	1	No Gas	0.005	ug/l	694.96
Ag	109	115	1	No Gas	0.007	ug/l	634.94
Cd	111	115	1	No Gas	-0.014	ug/l	-16.61

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.003	ug/l	10.56
Cd	114	115	1	No Gas	-0.001	ug/l	-43.97
Cd	114	115	3	He	0.005	ug/l	23.77
Sn	118	115	1	No Gas	0.001	ug/l	994.74
Sn	118	115	3	He	0.042	ug/l	420.01
Sb	121	115	1	No Gas	0.181	ug/l	1709.89
Sb	121	115	3	He	0.073	ug/l	273.70
Sb	123	115	1	No Gas	0.082	ug/l	622.08
Sb	123	115	3	He	0.077	ug/l	216.69
Ba	135	115	1	No Gas	0.013	ug/l	36.59
Ba	137	115	1	No Gas	-0.009	ug/l	26.61
La	139	115	3	He	-8.875	ug/l	6.66
Ce	140	115	3	He	0.007	ug/l	21.11
Hg	201	209	1	No Gas	0.049	ug/l	15.00
Hg	202	209	1	No Gas	0.023	ug/l	24.66
Hg	202	209	3	He	0.046	ug/l	11.33
Tl	203	209	3	He	0.120	ug/l	324.14
Tl	205	209	1	No Gas	0.113	ug/l	1181.17
Tl	205	209	3	He	0.115	ug/l	736.32
[Pb]	206	209	1	No Gas	0.012	ug/l	147.78
[Pb]	207	209	1	No Gas	0.005	ug/l	97.78
Pb	208	209	1	No Gas	0.010	ug/l	511.12
Th	232	209	3	He	0.022	ug/l	172.74
U	238	209	1	No Gas	0.003	ug/l	46.99

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2752689.98	102.3
Sc	45	2	H2	1550126.77	97.2
Sc	45	3	He	228676.51	101.2
Ge	72	1	No Gas	651548.72	99.9
Ge	72	2	H2	549539.04	98.8
Ge	72	3	He	124945.92	99.5
In	115	1	No Gas	3015302.20	98.0
In	115	3	He	939265.67	98.1
Tb	159	1	No Gas	2636025.10	98.9
Tb	159	3	He	1466452.01	97.1
Ho	165	1	No Gas	2351975.64	97.7
Ho	165	3	He	1347139.87	96.9
Lu	175	1	No Gas	2138425.46	95.4
Lu	175	3	He	1078233.73	99.0
Bi	209	1	No Gas	1369908.48	95.9
Bi	209	3	He	833634.94	96.0

ICPMS207-B Analytical Data

Sample Name LRB
File Name 018MBLK.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:45:26
Sample Type MBLK
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.613	ug/l	8453.08
Be	9	45	1	No Gas	-0.064	ug/l	102.98
B	11	45	1	No Gas	2.117	ug/l	5658.67
Na	23	45	3	He	6.699	ug/l	60478.59
Mg	24	45	3	He	0.692	ug/l	1766.60
Al	27	45	1	No Gas	0.115	ug/l	11212.01
Si	28	45	2	H2	-7.735	ug/l	18619.68
K	39	72	3	He	52.354	ug/l	178914.77
Ca	40	72	2	H2	5.003	ug/l	252933.60
Ti	47	72	1	No Gas	-0.105	ug/l	512.19
V	51	72	1	No Gas	0.206	ug/l	-55261.88
V	51	72	3	He	0.360	ug/l	31226.31
Cr	52	72	1	No Gas	1.451	ug/l	116500.02
Cr	52	72	3	He	0.044	ug/l	4974.21
Mn	55	72	1	No Gas	0.195	ug/l	13346.26
Mn	55	72	3	He	-0.004	ug/l	327.27
Fe	56	72	2	H2	0.181	ug/l	22441.32
Fe	56	72	3	He	0.831	ug/l	21148.13
Co	59	72	1	No Gas	-0.006	ug/l	625.44
Ni	60	72	1	No Gas	0.002	ug/l	815.08
Ni	60	72	3	He	-0.006	ug/l	281.12
Cu	63	72	1	No Gas	0.034	ug/l	2161.03
Cu	63	72	3	He	0.043	ug/l	709.88
Cu	65	72	1	No Gas	0.047	ug/l	849.04
Zn	66	72	1	No Gas	0.331	ug/l	1735.15
Zn	66	72	3	He	0.440	ug/l	514.46
As	75	72	1	No Gas	-0.809	ug/l	15545.68
As	75	72	3	He	0.253	ug/l	1349.37
Se	78	72	2	H2	0.030	ug/l	58.78
Br	79	72	1	No Gas	-0.854	ug/l	18005.57
Br	79	72	2	H2	-0.767	ug/l	12157.68
Se	82	72	1	No Gas	0.361	ug/l	800.88
Kr	84	72	1	No Gas		ug/l	21480.24
Sr	88	72	1	No Gas	0.014	ug/l	512.33
Sr	88	72	3	He	0.007	ug/l	141.11
Mo	95	115	1	No Gas	0.008	ug/l	51.11
Mo	95	115	3	He	0.008	ug/l	21.11
Mo	98	115	1	No Gas	0.006	ug/l	68.89
Ag	107	115	1	No Gas	-0.064	ug/l	37.35
Ag	109	115	1	No Gas	-0.061	ug/l	35.35
Cd	111	115	1	No Gas	0.008	ug/l	26.19

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.001	ug/l	9.22
Cd	114	115	1	No Gas	0.020	ug/l	44.40
Cd	114	115	3	He	0.004	ug/l	20.43
Sn	118	115	1	No Gas	0.027	ug/l	1117.83
Sn	118	115	3	He	0.023	ug/l	383.34
Sb	121	115	1	No Gas	0.035	ug/l	410.38
Sb	121	115	3	He	0.040	ug/l	177.35
Sb	123	115	1	No Gas	0.040	ug/l	337.71
Sb	123	115	3	He	0.045	ug/l	143.68
Ba	135	115	1	No Gas	0.029	ug/l	59.88
Ba	137	115	1	No Gas	0.010	ug/l	73.19
La	139	115	3	He	-6.431	ug/l	7.78
Ce	140	115	3	He	0.006	ug/l	18.89
Hg	201	209	1	No Gas	0.022	ug/l	12.00
Hg	202	209	1	No Gas	0.007	ug/l	20.66
Hg	202	209	3	He	0.018	ug/l	7.00
Tl	203	209	3	He	0.041	ug/l	161.40
Tl	205	209	1	No Gas	0.035	ug/l	566.68
Tl	205	209	3	He	0.045	ug/l	391.50
[Pb]	206	209	1	No Gas	-0.002	ug/l	110.00
[Pb]	207	209	1	No Gas	0.009	ug/l	107.78
Pb	208	209	1	No Gas	0.003	ug/l	438.90
Th	232	209	3	He	0.013	ug/l	121.38
U	238	209	1	No Gas	0.000	ug/l	24.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2716656.65	101.0
Sc	45	2	H2	1532507.37	96.1
Sc	45	3	He	222244.28	98.3
Ge	72	1	No Gas	652632.28	100.0
Ge	72	2	H2	545529.54	98.1
Ge	72	3	He	121775.16	97.0
In	115	1	No Gas	2988944.06	97.2
In	115	3	He	932710.64	97.4
Tb	159	1	No Gas	2655236.57	99.6
Tb	159	3	He	1453116.20	96.2
Ho	165	1	No Gas	2317559.22	96.3
Ho	165	3	He	1308533.91	94.1
Lu	175	1	No Gas	2123101.36	94.7
Lu	175	3	He	1061729.31	97.5
Bi	209	1	No Gas	1385497.78	97.0
Bi	209	3	He	833262.00	96.0

ICPMS207-B Analytical Data

Sample Name LFB
File Name 019_LFB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:51:41
Sample Type LFB
Total Dilution 1.0300
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2545.448	ug/l	12623731.95
Be	9	45	1	No Gas	50.024	ug/l	118078.26
B	11	45	1	No Gas	52.908	ug/l	85577.37
Na	23	45	3	He	50545.516	ug/l	33818716.44
Mg	24	45	3	He	50865.130	ug/l	18678692.47
Al	27	45	1	No Gas	49.461	ug/l	594800.07
Si	28	45	2	H2	195.250	ug/l	316771.27
K	39	72	3	He	50187.068	ug/l	23112418.27
Ca	40	72	2	H2	48115.847	ug/l	268887711.57
Ti	47	72	1	No Gas	51.153	ug/l	70632.26
V	51	72	1	No Gas	47.748	ug/l	743831.06
V	51	72	3	He	52.414	ug/l	200571.59
Cr	52	72	1	No Gas	52.544	ug/l	885510.42
Cr	52	72	3	He	50.732	ug/l	179420.87
Mn	55	72	1	No Gas	47.959	ug/l	904822.37
Mn	55	72	3	He	50.553	ug/l	118253.58
Fe	56	72	2	H2	4997.771	ug/l	55163281.76
Fe	56	72	3	He	5163.980	ug/l	15578272.52
Co	59	72	1	No Gas	47.938	ug/l	782951.20
Ni	60	72	1	No Gas	47.648	ug/l	178001.28
Ni	60	72	3	He	50.916	ug/l	63001.77
Cu	63	72	1	No Gas	48.604	ug/l	428416.14
Cu	63	72	3	He	52.404	ug/l	163319.28
Cu	65	72	1	No Gas	49.331	ug/l	201675.25
Zn	66	72	1	No Gas	48.783	ug/l	143354.70
Zn	66	72	3	He	50.946	ug/l	38440.65
As	75	72	1	No Gas	52.393	ug/l	225689.93
As	75	72	3	He	51.014	ug/l	45289.92
Se	78	72	2	H2	49.386	ug/l	23423.36
Br	79	72	1	No Gas	-0.558	ug/l	20634.01
Br	79	72	2	H2	-0.463	ug/l	13892.46
Se	82	72	1	No Gas	48.193	ug/l	10759.74
Kr	84	72	1	No Gas		ug/l	25382.28
Sr	88	72	1	No Gas	48.387	ug/l	959585.63
Sr	88	72	3	He	50.041	ug/l	159790.97
Mo	95	115	1	No Gas	48.920	ug/l	174461.03
Mo	95	115	3	He	48.750	ug/l	74559.21
Mo	98	115	1	No Gas	48.124	ug/l	270273.63
Ag	107	115	1	No Gas	19.779	ug/l	171969.66
Ag	109	115	1	No Gas	19.934	ug/l	161837.01
Cd	111	115	1	No Gas	49.791	ug/l	87686.50

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	50.167	ug/l	37286.01
Cd	114	115	1	No Gas	49.392	ug/l	191090.84
Cd	114	115	3	He	50.590	ug/l	88336.13
Sn	118	115	1	No Gas	49.378	ug/l	233193.09
Sn	118	115	3	He	50.418	ug/l	85688.69
Sb	121	115	1	No Gas	43.992	ug/l	355319.67
Sb	121	115	3	He	45.680	ug/l	128985.06
Sb	123	115	1	No Gas	44.414	ug/l	267655.59
Sb	123	115	3	He	46.109	ug/l	100981.08
Ba	135	115	1	No Gas	49.539	ug/l	68445.22
Ba	137	115	1	No Gas	49.093	ug/l	116156.89
La	139	115	3	He	128.619	ug/l	68.89
Ce	140	115	3	He	256.165	ug/l	466093.92
Hg	201	209	1	No Gas	5.361	ug/l	603.56
Hg	202	209	1	No Gas	5.118	ug/l	1270.14
Hg	202	209	3	He	5.464	ug/l	813.20
Tl	203	209	3	He	50.093	ug/l	98189.74
Tl	205	209	1	No Gas	49.147	ug/l	362659.64
Tl	205	209	3	He	49.459	ug/l	231530.35
[Pb]	206	209	1	No Gas	50.895	ug/l	126898.09
[Pb]	207	209	1	No Gas	50.825	ug/l	106319.51
Pb	208	209	1	No Gas	51.038	ug/l	500110.05
Th	232	209	3	He	49.867	ug/l	283313.38
U	238	209	1	No Gas	49.062	ug/l	410340.77

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2669503.54	99.2
Sc	45	2	H2	1530950.52	96.0
Sc	45	3	He	224694.81	99.4
Ge	72	1	No Gas	669981.88	102.7
Ge	72	2	H2	554069.71	99.6
Ge	72	3	He	124586.62	99.2
In	115	1	No Gas	2844604.76	92.5
In	115	3	He	921221.87	96.2
Tb	159	1	No Gas	2620056.21	98.3
Tb	159	3	He	1469406.02	97.3
Ho	165	1	No Gas	2331435.68	96.8
Ho	165	3	He	1359821.30	97.8
Lu	175	1	No Gas	2147852.34	95.8
Lu	175	3	He	1089634.47	100.1
Bi	209	1	No Gas	1313254.20	91.9
Bi	209	3	He	812794.95	93.6

ICPMS207-B Analytical Data

Sample Name ICSA
File Name 020ICSA.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 13:57:57
Sample Type ICSA
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2.801	ug/l	26156.21
Be	9	45	1	No Gas	0.111	ug/l	530.47
B	11	45	1	No Gas	1.999	ug/l	5459.18
Na	23	45	3	He	101675.104	ug/l	68176232.87
Mg	24	45	3	He	41932.055	ug/l	15442076.35
Al	27	45	1	No Gas	39411.258	ug/l	488285419.39
Si	28	45	2	H2	-7.559	ug/l	18912.21
K	39	72	3	He	39997.243	ug/l	18795935.83
Ca	40	72	2	H2	119008.729	ug/l	672335004.65
Ti	47	72	1	No Gas	794.772	ug/l	1126682.42
V	51	72	1	No Gas	4.155	ug/l	11933.91
V	51	72	3	He	-6.754	ug/l	8115.61
Cr	52	72	1	No Gas	-1.152	ug/l	79776.71
Cr	52	72	3	He	0.794	ug/l	7664.25
Mn	55	72	1	No Gas	0.505	ug/l	19767.44
Mn	55	72	3	He	0.201	ug/l	816.86
Fe	56	72	2	H2	102416.946	ug/l	1142684003.75
Fe	56	72	3	He	104709.906	ug/l	321489568.24
Co	59	72	1	No Gas	0.294	ug/l	5709.80
Ni	60	72	1	No Gas	0.855	ug/l	4125.75
Ni	60	72	3	He	0.181	ug/l	518.90
Cu	63	72	1	No Gas	1.112	ug/l	12030.43
Cu	63	72	3	He	0.068	ug/l	797.20
Cu	65	72	1	No Gas	0.828	ug/l	4174.95
Zn	66	72	1	No Gas	0.953	ug/l	3674.13
Zn	66	72	3	He	0.583	ug/l	628.91
As	75	72	1	No Gas	0.112	ug/l	19805.69
As	75	72	3	He	-0.416	ug/l	775.74
Se	78	72	2	H2	0.098	ug/l	91.33
Br	79	72	1	No Gas	17.970	ug/l	150078.43
Br	79	72	2	H2	17.104	ug/l	97355.46
Se	82	72	1	No Gas	0.049	ug/l	758.61
Kr	84	72	1	No Gas		ug/l	19151.40
Sr	88	72	1	No Gas	1.259	ug/l	26078.62
Sr	88	72	3	He	1.230	ug/l	4117.28
Mo	95	115	1	No Gas	768.565	ug/l	2982477.04
Mo	95	115	3	He	817.428	ug/l	1272688.18
Mo	98	115	1	No Gas	782.026	ug/l	4776832.05
Ag	107	115	1	No Gas	0.005	ug/l	694.30
Ag	109	115	1	No Gas	0.011	ug/l	670.28
Cd	111	115	1	No Gas	0.025	ug/l	58.06

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.282	ug/l	221.12
Cd	114	115	1	No Gas	0.056	ug/l	196.21
Cd	114	115	3	He	0.202	ug/l	373.27
Sn	118	115	1	No Gas	0.084	ug/l	1417.27
Sn	118	115	3	He	0.139	ug/l	574.46
Sb	121	115	1	No Gas	0.618	ug/l	5529.98
Sb	121	115	3	He	0.559	ug/l	1664.27
Sb	123	115	1	No Gas	0.633	ug/l	4229.40
Sb	123	115	3	He	0.566	ug/l	1300.86
Ba	135	115	1	No Gas	0.075	ug/l	129.74
Ba	137	115	1	No Gas	0.060	ug/l	202.93
La	139	115	3	He	187.214	ug/l	96.67
Ce	140	115	3	He	0.013	ug/l	32.22
Hg	201	209	1	No Gas	0.048	ug/l	15.33
Hg	202	209	1	No Gas	0.024	ug/l	25.66
Hg	202	209	3	He	0.033	ug/l	9.33
Tl	203	209	3	He	0.059	ug/l	196.08
Tl	205	209	1	No Gas	0.049	ug/l	692.25
Tl	205	209	3	He	0.050	ug/l	412.84
[Pb]	206	209	1	No Gas	0.017	ug/l	166.67
[Pb]	207	209	1	No Gas	0.029	ug/l	156.67
Pb	208	209	1	No Gas	0.027	ug/l	706.68
Th	232	209	3	He	0.040	ug/l	278.78
U	238	209	1	No Gas	0.004	ug/l	61.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2714030.00	100.9
Sc	45	2	H2	1534563.23	96.2
Sc	45	3	He	218806.64	96.8
Ge	72	1	No Gas	673767.44	103.3
Ge	72	2	H2	544052.21	97.8
Ge	72	3	He	123256.12	98.2
In	115	1	No Gas	3003904.42	97.7
In	115	3	He	910570.25	95.1
Tb	159	1	No Gas	2744093.29	103.0
Tb	159	3	He	1490634.87	98.7
Ho	165	1	No Gas	2499937.14	103.8
Ho	165	3	He	1353342.13	97.3
Lu	175	1	No Gas	2324953.26	103.7
Lu	175	3	He	1098520.11	100.9
Bi	209	1	No Gas	1411949.02	98.8
Bi	209	3	He	827401.56	95.3

ICPMS207-B Analytical Data

Sample Name ICSAB
File Name 021ICSB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:04:14
Sample Type ICSAB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.822	ug/l	15311.82
Be	9	45	1	No Gas	-0.078	ug/l	64.32
B	11	45	1	No Gas	1.403	ug/l	4314.35
Na	23	45	3	He	104865.914	ug/l	66141815.13
Mg	24	45	3	He	42373.759	ug/l	14680128.66
Al	27	45	1	No Gas	38818.345	ug/l	463520379.76
Si	28	45	2	H2	-8.525	ug/l	17023.91
K	39	72	3	He	38206.653	ug/l	17717937.10
Ca	40	72	2	H2	116427.334	ug/l	651241391.78
Ti	47	72	1	No Gas	794.765	ug/l	1076416.99
V	51	72	1	No Gas	23.736	ug/l	337988.56
V	51	72	3	He	12.592	ug/l	71013.68
Cr	52	72	1	No Gas	17.231	ug/l	349267.45
Cr	52	72	3	He	20.602	ug/l	76048.55
Mn	55	72	1	No Gas	20.654	ug/l	390999.96
Mn	55	72	3	He	19.929	ug/l	47057.02
Fe	56	72	2	H2	100769.106	ug/l	1113415189.30
Fe	56	72	3	He	103589.459	ug/l	313784843.79
Co	59	72	1	No Gas	20.347	ug/l	329234.54
Ni	60	72	1	No Gas	20.924	ug/l	77781.26
Ni	60	72	3	He	20.785	ug/l	26016.49
Cu	63	72	1	No Gas	21.031	ug/l	184482.99
Cu	63	72	3	He	21.413	ug/l	67420.32
Cu	65	72	1	No Gas	21.175	ug/l	86039.01
Zn	66	72	1	No Gas	10.746	ug/l	31836.50
Zn	66	72	3	He	10.365	ug/l	8007.80
As	75	72	1	No Gas	8.542	ug/l	51809.67
As	75	72	3	He	9.416	ug/l	9316.12
Se	78	72	2	H2	10.066	ug/l	4815.91
Br	79	72	1	No Gas	20.301	ug/l	158998.97
Br	79	72	2	H2	18.474	ug/l	102872.13
Se	82	72	1	No Gas	10.271	ug/l	2827.58
Kr	84	72	1	No Gas		ug/l	19567.75
Sr	88	72	1	No Gas	1.248	ug/l	24709.13
Sr	88	72	3	He	1.186	ug/l	3921.67
Mo	95	115	1	No Gas	751.394	ug/l	2895824.16
Mo	95	115	3	He	819.150	ug/l	1246662.22
Mo	98	115	1	No Gas	777.137	ug/l	4715246.88
Ag	107	115	1	No Gas	4.788	ug/l	45468.12
Ag	109	115	1	No Gas	4.895	ug/l	43363.43
Cd	111	115	1	No Gas	9.811	ug/l	18675.24

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	10.666	ug/l	7897.08
Cd	114	115	1	No Gas	9.714	ug/l	40576.06
Cd	114	115	3	He	10.701	ug/l	18608.73
Sn	118	115	1	No Gas	0.008	ug/l	1021.35
Sn	118	115	3	He	0.028	ug/l	374.45
Sb	121	115	1	No Gas	0.176	ug/l	1641.93
Sb	121	115	3	He	0.164	ug/l	517.39
Sb	123	115	1	No Gas	0.178	ug/l	1236.51
Sb	123	115	3	He	0.183	ug/l	435.72
Ba	135	115	1	No Gas	0.058	ug/l	103.13
Ba	137	115	1	No Gas	0.079	ug/l	249.51
La	139	115	3	He	211.734	ug/l	105.56
Ce	140	115	3	He	0.018	ug/l	40.00
Hg	201	209	1	No Gas	0.010	ug/l	10.33
Hg	202	209	1	No Gas	0.018	ug/l	23.00
Hg	202	209	3	He	0.017	ug/l	7.00
Tl	203	209	3	He	0.027	ug/l	134.05
Tl	205	209	1	No Gas	0.016	ug/l	407.79
Tl	205	209	3	He	0.026	ug/l	301.46
[Pb]	206	209	1	No Gas	0.006	ug/l	130.00
[Pb]	207	209	1	No Gas	0.021	ug/l	131.11
Pb	208	209	1	No Gas	0.016	ug/l	563.34
Th	232	209	3	He	0.023	ug/l	183.41
U	238	209	1	No Gas	0.001	ug/l	31.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2616994.93	97.3
Sc	45	2	H2	1497156.34	93.9
Sc	45	3	He	205849.61	91.1
Ge	72	1	No Gas	643749.54	98.7
Ge	72	2	H2	538750.48	96.9
Ge	72	3	He	121597.34	96.9
In	115	1	No Gas	2983695.82	97.0
In	115	3	He	890242.06	93.0
Tb	159	1	No Gas	2692997.04	101.0
Tb	159	3	He	1503815.06	99.6
Ho	165	1	No Gas	2411851.58	100.2
Ho	165	3	He	1347566.18	96.9
Lu	175	1	No Gas	2258599.98	100.8
Lu	175	3	He	1068654.36	98.1
Bi	209	1	No Gas	1349812.92	94.5
Bi	209	3	He	848209.78	97.7

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 022BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:10:31
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.272	ug/l	12787.83
Be	9	45	1	No Gas	-0.078	ug/l	67.32
B	11	45	1	No Gas	0.517	ug/l	2956.15
Na	23	45	3	He	25.391	ug/l	70424.83
Mg	24	45	3	He	1.525	ug/l	1999.51
Al	27	45	1	No Gas	1.599	ug/l	29070.64
Si	28	45	2	H2	-11.056	ug/l	13333.94
K	39	72	3	He	35.352	ug/l	168012.68
Ca	40	72	2	H2	2.593	ug/l	234494.22
Ti	47	72	1	No Gas	-0.131	ug/l	457.14
V	51	72	1	No Gas	2.237	ug/l	-20041.91
V	51	72	3	He	-6.635	ug/l	8261.24
Cr	52	72	1	No Gas	-3.348	ug/l	42513.72
Cr	52	72	3	He	-0.146	ug/l	4237.30
Mn	55	72	1	No Gas	0.357	ug/l	15753.85
Mn	55	72	3	He	-0.024	ug/l	275.62
Fe	56	72	2	H2	1.571	ug/l	37222.63
Fe	56	72	3	He	1.164	ug/l	21759.64
Co	59	72	1	No Gas	-0.013	ug/l	489.04
Ni	60	72	1	No Gas	0.095	ug/l	1117.83
Ni	60	72	3	He	0.021	ug/l	308.89
Cu	63	72	1	No Gas	0.069	ug/l	2378.48
Cu	63	72	3	He	0.015	ug/l	613.22
Cu	65	72	1	No Gas	0.064	ug/l	885.05
Zn	66	72	1	No Gas	-0.003	ug/l	724.82
Zn	66	72	3	He	0.016	ug/l	190.00
As	75	72	1	No Gas	-1.522	ug/l	12210.89
As	75	72	3	He	-0.553	ug/l	635.40
Se	78	72	2	H2	-0.010	ug/l	38.89
Br	79	72	1	No Gas	0.435	ug/l	25712.17
Br	79	72	2	H2	-0.088	ug/l	15097.97
Se	82	72	1	No Gas	0.978	ug/l	893.16
Kr	84	72	1	No Gas		ug/l	22079.80
Sr	88	72	1	No Gas	0.001	ug/l	236.20
Sr	88	72	3	He	-0.003	ug/l	106.67
Mo	95	115	1	No Gas	0.157	ug/l	640.02
Mo	95	115	3	He	0.118	ug/l	193.34
Mo	98	115	1	No Gas	0.158	ug/l	1015.68
Ag	107	115	1	No Gas	-0.003	ug/l	624.93
Ag	109	115	1	No Gas	0.004	ug/l	619.60
Cd	111	115	1	No Gas	-0.008	ug/l	-4.32

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.002	ug/l	9.56
Cd	114	115	1	No Gas	-0.003	ug/l	-52.02
Cd	114	115	3	He	0.000	ug/l	14.20
Sn	118	115	1	No Gas	1.669	ug/l	9710.78
Sn	118	115	3	He	1.829	ug/l	3507.12
Sb	121	115	1	No Gas	0.051	ug/l	565.74
Sb	121	115	3	He	0.049	ug/l	198.69
Sb	123	115	1	No Gas	0.054	ug/l	439.05
Sb	123	115	3	He	0.047	ug/l	144.35
Ba	135	115	1	No Gas	-0.004	ug/l	9.98
Ba	137	115	1	No Gas	-0.005	ug/l	36.59
La	139	115	3	He	-8.559	ug/l	6.67
Ce	140	115	3	He	0.009	ug/l	23.34
Hg	201	209	1	No Gas	0.007	ug/l	10.00
Hg	202	209	1	No Gas	-0.011	ug/l	16.00
Hg	202	209	3	He	0.016	ug/l	6.67
Tl	203	209	3	He	0.015	ug/l	106.05
Tl	205	209	1	No Gas	0.007	ug/l	347.79
Tl	205	209	3	He	0.011	ug/l	222.76
[Pb]	206	209	1	No Gas	-0.008	ug/l	93.33
[Pb]	207	209	1	No Gas	-0.002	ug/l	83.33
Pb	208	209	1	No Gas	-0.008	ug/l	320.00
Th	232	209	3	He	0.012	ug/l	110.06
U	238	209	1	No Gas	0.000	ug/l	24.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2664177.94	99.0
Sc	45	2	H2	1503037.03	94.3
Sc	45	3	He	213815.46	94.6
Ge	72	1	No Gas	627177.13	96.1
Ge	72	2	H2	534457.17	96.1
Ge	72	3	He	119612.19	95.3
In	115	1	No Gas	3061593.29	99.5
In	115	3	He	915816.37	95.6
Tb	159	1	No Gas	2671959.55	100.2
Tb	159	3	He	1462774.29	96.9
Ho	165	1	No Gas	2382044.72	98.9
Ho	165	3	He	1315536.49	94.6
Lu	175	1	No Gas	2168621.93	96.7
Lu	175	3	He	1066126.76	97.9
Bi	209	1	No Gas	1378380.55	96.5
Bi	209	3	He	830114.15	95.6

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 023BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:16:44
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.391	ug/l	13132.30
Be	9	45	1	No Gas	-0.081	ug/l	57.32
B	11	45	1	No Gas	0.262	ug/l	2491.88
Na	23	45	3	He	15.677	ug/l	63504.34
Mg	24	45	3	He	0.866	ug/l	1746.64
Al	27	45	1	No Gas	1.023	ug/l	21611.23
Si	28	45	2	H2	-11.347	ug/l	12706.48
K	39	72	3	He	28.055	ug/l	163038.42
Ca	40	72	2	H2	2.458	ug/l	229440.49
Ti	47	72	1	No Gas	-0.187	ug/l	372.05
V	51	72	1	No Gas	4.916	ug/l	22675.53
V	51	72	3	He	-6.197	ug/l	9562.05
Cr	52	72	1	No Gas	-2.915	ug/l	47268.35
Cr	52	72	3	He	-0.116	ug/l	4296.20
Mn	55	72	1	No Gas	0.341	ug/l	14987.93
Mn	55	72	3	He	-0.027	ug/l	265.95
Fe	56	72	2	H2	0.568	ug/l	25745.02
Fe	56	72	3	He	0.383	ug/l	19241.89
Co	59	72	1	No Gas	-0.009	ug/l	535.62
Ni	60	72	1	No Gas	0.063	ug/l	971.45
Ni	60	72	3	He	0.021	ug/l	305.56
Cu	63	72	1	No Gas	0.014	ug/l	1849.53
Cu	63	72	3	He	0.003	ug/l	568.90
Cu	65	72	1	No Gas	0.033	ug/l	738.32
Zn	66	72	1	No Gas	-0.033	ug/l	621.68
Zn	66	72	3	He	0.031	ug/l	198.89
As	75	72	1	No Gas	-2.179	ug/l	9407.02
As	75	72	3	He	-0.521	ug/l	656.07
Se	78	72	2	H2	-0.011	ug/l	37.56
Br	79	72	1	No Gas	0.382	ug/l	24579.10
Br	79	72	2	H2	-0.012	ug/l	15167.91
Se	82	72	1	No Gas	-0.347	ug/l	609.80
Kr	84	72	1	No Gas		ug/l	18745.09
Sr	88	72	1	No Gas	0.003	ug/l	262.82
Sr	88	72	3	He	-0.003	ug/l	103.33
Mo	95	115	1	No Gas	0.042	ug/l	176.67
Mo	95	115	3	He	0.034	ug/l	60.00
Mo	98	115	1	No Gas	0.037	ug/l	250.70
Ag	107	115	1	No Gas	-0.003	ug/l	598.92
Ag	109	115	1	No Gas	0.003	ug/l	582.25
Cd	111	115	1	No Gas	-0.008	ug/l	-4.73

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	-0.001	ug/l	7.33
Cd	114	115	1	No Gas	-0.001	ug/l	-42.83
Cd	114	115	3	He	-0.004	ug/l	6.89
Sn	118	115	1	No Gas	1.696	ug/l	9381.19
Sn	118	115	3	He	1.782	ug/l	3370.43
Sb	121	115	1	No Gas	0.025	ug/l	317.37
Sb	121	115	3	He	0.028	ug/l	136.35
Sb	123	115	1	No Gas	0.030	ug/l	265.36
Sb	123	115	3	He	0.032	ug/l	109.34
Ba	135	115	1	No Gas	0.005	ug/l	23.29
Ba	137	115	1	No Gas	-0.006	ug/l	33.27
La	139	115	3	He	-3.532	ug/l	8.89
Ce	140	115	3	He	0.008	ug/l	22.22
Hg	201	209	1	No Gas	0.007	ug/l	10.00
Hg	202	209	1	No Gas	-0.001	ug/l	18.33
Hg	202	209	3	He	0.020	ug/l	7.33
Tl	203	209	3	He	0.012	ug/l	100.71
Tl	205	209	1	No Gas	0.004	ug/l	320.01
Tl	205	209	3	He	0.015	ug/l	240.10
[Pb]	206	209	1	No Gas	-0.015	ug/l	75.55
[Pb]	207	209	1	No Gas	0.001	ug/l	87.78
Pb	208	209	1	No Gas	-0.007	ug/l	322.22
Th	232	209	3	He	0.005	ug/l	68.03
U	238	209	1	No Gas	0.000	ug/l	23.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2612647.38	97.1
Sc	45	2	H2	1480214.11	92.8
Sc	45	3	He	211945.08	93.8
Ge	72	1	No Gas	607996.64	93.2
Ge	72	2	H2	524639.09	94.3
Ge	72	3	He	118399.02	94.3
In	115	1	No Gas	2917370.53	94.8
In	115	3	He	901271.47	94.1
Tb	159	1	No Gas	2603764.04	97.7
Tb	159	3	He	1415067.77	93.7
Ho	165	1	No Gas	2313115.38	96.1
Ho	165	3	He	1317909.78	94.8
Lu	175	1	No Gas	2145175.46	95.7
Lu	175	3	He	1041314.27	95.6
Bi	209	1	No Gas	1360783.79	95.2
Bi	209	3	He	833984.24	96.1

ICPMS207-B Analytical Data

Sample Name CCV
File Name 024_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:22:58
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	629.991	ug/l	3057319.46
Be	9	45	1	No Gas	50.583	ug/l	116507.84
B	11	45	1	No Gas	53.353	ug/l	84150.52
Na	23	45	3	He	12876.187	ug/l	8199826.75
Mg	24	45	3	He	12819.367	ug/l	4460424.06
Al	27	45	1	No Gas	50.832	ug/l	596005.25
Si	28	45	2	H2	193.445	ug/l	303768.04
K	39	72	3	He	12319.614	ug/l	5644682.69
Ca	40	72	2	H2	12126.592	ug/l	65881677.69
Ti	47	72	1	No Gas	50.704	ug/l	65899.13
V	51	72	1	No Gas	52.653	ug/l	780217.86
V	51	72	3	He	46.953	ug/l	177452.99
Cr	52	72	1	No Gas	49.269	ug/l	784722.25
Cr	52	72	3	He	52.353	ug/l	180272.49
Mn	55	72	1	No Gas	53.976	ug/l	957304.69
Mn	55	72	3	He	52.295	ug/l	119263.65
Fe	56	72	2	H2	1288.602	ug/l	13810951.09
Fe	56	72	3	He	1320.705	ug/l	3898951.08
Co	59	72	1	No Gas	52.615	ug/l	808654.16
Ni	60	72	1	No Gas	51.951	ug/l	182566.94
Ni	60	72	3	He	54.520	ug/l	65759.44
Cu	63	72	1	No Gas	53.653	ug/l	444960.25
Cu	63	72	3	He	56.447	ug/l	171495.78
Cu	65	72	1	No Gas	53.387	ug/l	205399.10
Zn	66	72	1	No Gas	54.202	ug/l	149844.40
Zn	66	72	3	He	53.801	ug/l	39579.15
As	75	72	1	No Gas	54.098	ug/l	218213.76
As	75	72	3	He	51.384	ug/l	44448.64
Se	78	72	2	H2	52.327	ug/l	24068.63
Br	79	72	1	No Gas	0.305	ug/l	24255.70
Br	79	72	2	H2	0.244	ug/l	16260.31
Se	82	72	1	No Gas	52.121	ug/l	10875.25
Kr	84	72	1	No Gas		ug/l	25641.99
Sr	88	72	1	No Gas	53.380	ug/l	996397.45
Sr	88	72	3	He	50.863	ug/l	158409.49
Mo	95	115	1	No Gas	49.566	ug/l	179191.56
Mo	95	115	3	He	52.810	ug/l	77953.97
Mo	98	115	1	No Gas	49.707	ug/l	282869.58
Ag	107	115	1	No Gas	19.748	ug/l	173983.23
Ag	109	115	1	No Gas	19.838	ug/l	163163.52
Cd	111	115	1	No Gas	50.801	ug/l	90646.70

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	53.062	ug/l	38064.94
Cd	114	115	1	No Gas	50.470	ug/l	197869.87
Cd	114	115	3	He	53.944	ug/l	90915.46
Sn	118	115	1	No Gas	51.047	ug/l	244124.66
Sn	118	115	3	He	53.180	ug/l	87205.46
Sb	121	115	1	No Gas	49.658	ug/l	406317.52
Sb	121	115	3	He	52.678	ug/l	143565.58
Sb	123	115	1	No Gas	49.899	ug/l	304638.50
Sb	123	115	3	He	52.387	ug/l	110725.11
Ba	135	115	1	No Gas	50.112	ug/l	70137.47
Ba	137	115	1	No Gas	49.959	ug/l	119731.52
La	139	115	3	He	17.947	ug/l	17.78
Ce	140	115	3	He	257.427	ug/l	452085.34
Hg	201	209	1	No Gas	4.991	ug/l	550.24
Hg	202	209	1	No Gas	5.052	ug/l	1229.15
Hg	202	209	3	He	5.319	ug/l	796.20
Tl	203	209	3	He	50.972	ug/l	100517.83
Tl	205	209	1	No Gas	51.836	ug/l	374957.71
Tl	205	209	3	He	50.540	ug/l	238031.96
[Pb]	206	209	1	No Gas	50.646	ug/l	123742.22
[Pb]	207	209	1	No Gas	52.356	ug/l	107346.41
Pb	208	209	1	No Gas	51.639	ug/l	495784.55
Th	232	209	3	He	50.032	ug/l	285961.34
U	238	209	1	No Gas	49.641	ug/l	406899.34

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2529831.91	94.0
Sc	45	2	H2	1441420.22	90.4
Sc	45	3	He	206661.39	91.4
Ge	72	1	No Gas	612398.32	93.9
Ge	72	2	H2	521829.31	93.8
Ge	72	3	He	117950.73	94.0
In	115	1	No Gas	2798464.99	91.0
In	115	3	He	863209.75	90.1
Tb	159	1	No Gas	2404048.16	90.2
Tb	159	3	He	1412458.10	93.5
Ho	165	1	No Gas	2199989.03	91.4
Ho	165	3	He	1269727.32	91.3
Lu	175	1	No Gas	2043773.36	91.2
Lu	175	3	He	1010226.47	92.8
Bi	209	1	No Gas	1249084.14	87.4
Bi	209	3	He	794076.56	91.5

ICPMS207-B Analytical Data

Sample Name CCB
File Name 025_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:29:12
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.293	ug/l	12021.57
Be	9	45	1	No Gas	-0.075	ug/l	67.99
B	11	45	1	No Gas	0.625	ug/l	2917.22
Na	23	45	3	He	14.887	ug/l	59365.26
Mg	24	45	3	He	-0.608	ug/l	1151.10
Al	27	45	1	No Gas	-0.052	ug/l	8343.47
Si	28	45	2	H2	-11.309	ug/l	12204.55
K	39	72	3	He	32.965	ug/l	156756.60
Ca	40	72	2	H2	2.085	ug/l	220945.07
Ti	47	72	1	No Gas	-0.196	ug/l	350.36
V	51	72	1	No Gas	3.622	ug/l	2289.50
V	51	72	3	He	-5.042	ug/l	12546.49
Cr	52	72	1	No Gas	-2.250	ug/l	55019.68
Cr	52	72	3	He	0.024	ug/l	4520.72
Mn	55	72	1	No Gas	0.414	ug/l	15800.50
Mn	55	72	3	He	-0.008	ug/l	291.94
Fe	56	72	2	H2	0.367	ug/l	22912.49
Fe	56	72	3	He	0.943	ug/l	19818.26
Co	59	72	1	No Gas	-0.004	ug/l	592.18
Ni	60	72	1	No Gas	0.008	ug/l	758.52
Ni	60	72	3	He	0.023	ug/l	292.22
Cu	63	72	1	No Gas	-0.009	ug/l	1616.74
Cu	63	72	3	He	-0.006	ug/l	515.24
Cu	65	72	1	No Gas	0.003	ug/l	604.26
Zn	66	72	1	No Gas	-0.039	ug/l	588.25
Zn	66	72	3	He	-0.020	ug/l	153.34
As	75	72	1	No Gas	-2.620	ug/l	7571.16
As	75	72	3	He	-0.426	ug/l	699.13
Se	78	72	2	H2	-0.001	ug/l	41.11
Br	79	72	1	No Gas	0.389	ug/l	23922.59
Br	79	72	2	H2	0.005	ug/l	14808.23
Se	82	72	1	No Gas	0.293	ug/l	712.08
Kr	84	72	1	No Gas		ug/l	19404.73
Sr	88	72	1	No Gas	-0.001	ug/l	189.63
Sr	88	72	3	He	0.000	ug/l	108.89
Mo	95	115	1	No Gas	0.036	ug/l	146.67
Mo	95	115	3	He	0.018	ug/l	34.44
Mo	98	115	1	No Gas	0.025	ug/l	172.64
Ag	107	115	1	No Gas	0.004	ug/l	626.27
Ag	109	115	1	No Gas	0.007	ug/l	583.58
Cd	111	115	1	No Gas	0.011	ug/l	28.08

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.001	ug/l	8.33
Cd	114	115	1	No Gas	0.002	ug/l	-28.71
Cd	114	115	3	He	0.002	ug/l	15.71
Sn	118	115	1	No Gas	-0.019	ug/l	818.41
Sn	118	115	3	He	0.007	ug/l	323.34
Sb	121	115	1	No Gas	0.059	ug/l	569.40
Sb	121	115	3	He	0.049	ug/l	183.69
Sb	123	115	1	No Gas	0.057	ug/l	414.72
Sb	123	115	3	He	0.047	ug/l	134.68
Ba	135	115	1	No Gas	0.001	ug/l	16.63
Ba	137	115	1	No Gas	-0.005	ug/l	33.27
La	139	115	3	He	-4.835	ug/l	7.78
Ce	140	115	3	He	0.006	ug/l	16.67
Hg	201	209	1	No Gas	0.030	ug/l	11.67
Hg	202	209	1	No Gas	0.015	ug/l	20.67
Hg	202	209	3	He	0.013	ug/l	6.00
Tl	203	209	3	He	0.104	ug/l	276.78
Tl	205	209	1	No Gas	0.099	ug/l	975.60
Tl	205	209	3	He	0.112	ug/l	685.63
[Pb]	206	209	1	No Gas	-0.006	ug/l	92.22
[Pb]	207	209	1	No Gas	-0.004	ug/l	72.22
Pb	208	209	1	No Gas	-0.001	ug/l	355.56
Th	232	209	3	He	0.016	ug/l	130.05
U	238	209	1	No Gas	0.002	ug/l	35.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2481970.55	92.3
Sc	45	2	H2	1415729.74	88.8
Sc	45	3	He	199754.73	88.4
Ge	72	1	No Gas	590818.04	90.6
Ge	72	2	H2	509709.00	91.7
Ge	72	3	He	112316.24	89.5
In	115	1	No Gas	2760116.30	89.7
In	115	3	He	849799.50	88.7
Tb	159	1	No Gas	2424092.76	90.9
Tb	159	3	He	1380193.00	91.4
Ho	165	1	No Gas	2190573.86	91.0
Ho	165	3	He	1250318.67	89.9
Lu	175	1	No Gas	2014882.98	89.9
Lu	175	3	He	975841.70	89.6
Bi	209	1	No Gas	1254602.89	87.8
Bi	209	3	He	793978.39	91.5

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 026BLKV.d
Data Path Name D:\Agilent\ICPMH1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:35:26
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.400	ug/l	8683.30
Be	9	45	1	No Gas	-0.081	ug/l	54.99
B	11	45	1	No Gas	0.007	ug/l	1972.26
Na	23	45	3	He	12.204	ug/l	56818.87
Mg	24	45	3	He	1.381	ug/l	1789.90
Al	27	45	1	No Gas	0.974	ug/l	19860.96
Si	28	45	2	H2	-12.000	ug/l	11175.99
K	39	72	3	He	18.428	ug/l	151075.11
Ca	40	72	2	H2	2.818	ug/l	223238.42
Ti	47	72	1	No Gas	-0.237	ug/l	295.30
V	51	72	1	No Gas	4.955	ug/l	22038.11
V	51	72	3	He	-5.523	ug/l	11134.25
Cr	52	72	1	No Gas	-2.308	ug/l	53644.46
Cr	52	72	3	He	0.025	ug/l	4539.61
Mn	55	72	1	No Gas	0.419	ug/l	15713.97
Mn	55	72	3	He	-0.019	ug/l	270.62
Fe	56	72	2	H2	0.304	ug/l	22097.09
Fe	56	72	3	He	0.562	ug/l	18814.26
Co	59	72	1	No Gas	-0.011	ug/l	492.37
Ni	60	72	1	No Gas	-0.017	ug/l	665.37
Ni	60	72	3	He	0.005	ug/l	272.23
Cu	63	72	1	No Gas	-0.017	ug/l	1536.04
Cu	63	72	3	He	-0.010	ug/l	503.91
Cu	65	72	1	No Gas	-0.009	ug/l	553.57
Zn	66	72	1	No Gas	-0.049	ug/l	555.06
Zn	66	72	3	He	-0.048	ug/l	134.45
As	75	72	1	No Gas	-0.805	ug/l	13975.03
As	75	72	3	He	-0.476	ug/l	661.20
Se	78	72	2	H2	-0.020	ug/l	32.22
Br	79	72	1	No Gas	0.654	ug/l	25305.55
Br	79	72	2	H2	0.294	ug/l	15987.16
Se	82	72	1	No Gas	0.192	ug/l	689.82
Kr	84	72	1	No Gas		ug/l	19015.13
Sr	88	72	1	No Gas	0.002	ug/l	229.55
Sr	88	72	3	He	-0.001	ug/l	104.44
Mo	95	115	1	No Gas	0.010	ug/l	53.33
Mo	95	115	3	He	0.008	ug/l	18.89
Mo	98	115	1	No Gas	0.012	ug/l	98.34
Ag	107	115	1	No Gas	-0.007	ug/l	540.23
Ag	109	115	1	No Gas	0.003	ug/l	556.90
Cd	111	115	1	No Gas	0.016	ug/l	38.97

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	-0.002	ug/l	6.33
Cd	114	115	1	No Gas	0.001	ug/l	-33.20
Cd	114	115	3	He	-0.002	ug/l	8.68
Sn	118	115	1	No Gas	1.727	ug/l	9131.58
Sn	118	115	3	He	1.796	ug/l	3168.16
Sb	121	115	1	No Gas	0.018	ug/l	248.03
Sb	121	115	3	He	0.019	ug/l	102.68
Sb	123	115	1	No Gas	0.020	ug/l	195.69
Sb	123	115	3	He	0.016	ug/l	69.01
Ba	135	115	1	No Gas	0.008	ug/l	26.61
Ba	137	115	1	No Gas	-0.008	ug/l	26.61
La	139	115	3	He	-9.874	ug/l	5.56
Ce	140	115	3	He	0.006	ug/l	16.67
Hg	201	209	1	No Gas	0.039	ug/l	12.67
Hg	202	209	1	No Gas	-0.011	ug/l	14.33
Hg	202	209	3	He	0.042	ug/l	10.00
Tl	203	209	3	He	0.038	ug/l	144.73
Tl	205	209	1	No Gas	0.020	ug/l	407.79
Tl	205	209	3	He	0.032	ug/l	306.13
[Pb]	206	209	1	No Gas	-0.017	ug/l	65.56
[Pb]	207	209	1	No Gas	-0.004	ug/l	71.11
Pb	208	209	1	No Gas	-0.009	ug/l	285.56
Th	232	209	3	He	0.007	ug/l	79.36
U	238	209	1	No Gas	0.000	ug/l	22.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2468321.24	91.7
Sc	45	2	H2	1407583.48	88.3
Sc	45	3	He	196654.44	87.0
Ge	72	1	No Gas	584453.27	89.6
Ge	72	2	H2	506135.12	91.0
Ge	72	3	He	112666.78	89.7
In	115	1	No Gas	2793834.21	90.8
In	115	3	He	841280.58	87.8
Tb	159	1	No Gas	2417265.23	90.7
Tb	159	3	He	1341061.41	88.8
Ho	165	1	No Gas	2174914.40	90.3
Ho	165	3	He	1221427.30	87.9
Lu	175	1	No Gas	2003899.25	89.4
Lu	175	3	He	975486.22	89.6
Bi	209	1	No Gas	1262427.71	88.3
Bi	209	3	He	782077.64	90.1

ICPMS207-B Analytical Data

Sample Name B22010212-001A
File Name 027SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:41:40
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.093	ug/l	12965.39
Be	9	45	1	No Gas	-0.086	ug/l	50.99
B	11	45	1	No Gas	42.777	ug/l	77983.88
Na	23	45	3	He	39425.088	ug/l	28131725.97
Mg	24	45	3	He	18152.647	ug/l	7104334.28
Al	27	45	1	No Gas	1.896	ug/l	35617.82
Si	28	45	2	H2	26537.728	ug/l	42796726.37
K	39	72	3	He	4978.164	ug/l	2574736.45
Ca	40	72	2	H2	15638.289	ug/l	93181460.68
Ti	47	72	1	No Gas	1.062	ug/l	2154.00
V	51	72	1	No Gas	12.047	ug/l	147736.56
V	51	72	3	He	0.164	ug/l	32184.01
Cr	52	72	1	No Gas	-1.886	ug/l	67519.85
Cr	52	72	3	He	0.733	ug/l	7745.40
Mn	55	72	1	No Gas	6.805	ug/l	139722.56
Mn	55	72	3	He	6.775	ug/l	17091.82
Fe	56	72	2	H2	0.646	ug/l	29021.01
Fe	56	72	3	He	0.388	ug/l	20840.73
Co	59	72	1	No Gas	0.033	ug/l	1290.84
Ni	60	72	1	No Gas	1.270	ug/l	5653.24
Ni	60	72	3	He	1.312	ug/l	2015.71
Cu	63	72	1	No Gas	1.276	ug/l	13352.79
Cu	63	72	3	He	1.153	ug/l	4400.12
Cu	65	72	1	No Gas	1.195	ug/l	5650.04
Zn	66	72	1	No Gas	2.548	ug/l	8393.95
Zn	66	72	3	He	2.951	ug/l	2538.02
As	75	72	1	No Gas	-2.137	ug/l	10490.71
As	75	72	3	He	-0.894	ug/l	368.80
Se	78	72	2	H2	0.203	ug/l	148.89
Br	79	72	1	No Gas	11.645	ug/l	104561.39
Br	79	72	2	H2	11.942	ug/l	76559.46
Se	82	72	1	No Gas	-0.259	ug/l	684.08
Kr	84	72	1	No Gas		ug/l	40936.61
Sr	88	72	1	No Gas	177.154	ug/l	3590289.12
Sr	88	72	3	He	169.425	ug/l	572841.89
Mo	95	115	1	No Gas	1.585	ug/l	6318.10
Mo	95	115	3	He	1.697	ug/l	2744.72
Mo	98	115	1	No Gas	1.622	ug/l	10180.01
Ag	107	115	1	No Gas	-0.062	ug/l	58.02
Ag	109	115	1	No Gas	-0.058	ug/l	62.03
Cd	111	115	1	No Gas	0.027	ug/l	63.52

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.030	ug/l	31.78
Cd	114	115	1	No Gas	0.040	ug/l	130.23
Cd	114	115	3	He	0.034	ug/l	76.76
Sn	118	115	1	No Gas	-0.034	ug/l	831.71
Sn	118	115	3	He	-0.012	ug/l	325.56
Sb	121	115	1	No Gas	0.068	ug/l	715.42
Sb	121	115	3	He	0.068	ug/l	261.36
Sb	123	115	1	No Gas	0.073	ug/l	569.40
Sb	123	115	3	He	0.074	ug/l	211.35
Ba	135	115	1	No Gas	4.173	ug/l	6435.42
Ba	137	115	1	No Gas	4.021	ug/l	10636.39
La	139	115	3	He	9.896	ug/l	15.56
Ce	140	115	3	He	0.016	ug/l	38.89
Hg	201	209	1	No Gas	0.006	ug/l	10.00
Hg	202	209	1	No Gas	0.023	ug/l	24.66
Hg	202	209	3	He	0.027	ug/l	8.33
Tl	203	209	3	He	0.039	ug/l	156.07
Tl	205	209	1	No Gas	0.028	ug/l	507.79
Tl	205	209	3	He	0.037	ug/l	348.15
[Pb]	206	209	1	No Gas	0.007	ug/l	134.44
[Pb]	207	209	1	No Gas	0.011	ug/l	112.22
Pb	208	209	1	No Gas	0.006	ug/l	464.45
Th	232	209	3	He	0.003	ug/l	58.02
U	238	209	1	No Gas	0.013	ug/l	138.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2907312.90	108.1
Sc	45	2	H2	1632341.42	102.4
Sc	45	3	He	232542.48	102.9
Ge	72	1	No Gas	665070.76	101.9
Ge	72	2	H2	572739.91	103.0
Ge	72	3	He	128129.42	102.1
In	115	1	No Gas	3076811.77	100.0
In	115	3	He	943297.63	98.5
Tb	159	1	No Gas	2704720.04	101.5
Tb	159	3	He	1490095.80	98.7
Ho	165	1	No Gas	2462187.67	102.3
Ho	165	3	He	1335710.41	96.1
Lu	175	1	No Gas	2242369.74	100.0
Lu	175	3	He	1103340.02	101.3
Bi	209	1	No Gas	1367651.29	95.7
Bi	209	3	He	831889.56	95.8

ICPMS207-B Analytical Data

Sample Name B22010212-001ADIL
File Name 028ARef.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:47:53
Sample Type AIRRef
Total Dilution 5.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-1.033	ug/l	9401.35
Be	9	45	1	No Gas	-0.382	ug/l	63.99
B	11	45	1	No Gas	49.958	ug/l	16627.11
Na	23	45	3	He	41603.900	ug/l	4986221.63
Mg	24	45	3	He	18434.812	ug/l	1203808.12
Al	27	45	1	No Gas	7.406	ug/l	25053.23
Si	28	45	2	H2	26676.971	ug/l	7294713.72
K	39	72	3	He	4768.732	ug/l	537814.51
Ca	40	72	2	H2	15848.332	ug/l	16337703.58
Ti	47	72	1	No Gas	0.504	ug/l	695.72
V	51	72	1	No Gas	23.886	ug/l	19470.83
V	51	72	3	He	-1.449	ug/l	26361.39
Cr	52	72	1	No Gas	-3.306	ug/l	74178.67
Cr	52	72	3	He	1.244	ug/l	5146.48
Mn	55	72	1	No Gas	9.880	ug/l	40898.75
Mn	55	72	3	He	7.068	ug/l	3310.05
Fe	56	72	2	H2	6.563	ug/l	31557.16
Fe	56	72	3	He	8.290	ug/l	21428.80
Co	59	72	1	No Gas	0.003	ug/l	642.07
Ni	60	72	1	No Gas	1.648	ug/l	1786.58
Ni	60	72	3	He	1.984	ug/l	706.69
Cu	63	72	1	No Gas	2.138	ug/l	4928.15
Cu	63	72	3	He	1.979	ug/l	1643.10
Cu	65	72	1	No Gas	1.971	ug/l	1986.94
Zn	66	72	1	No Gas	8.574	ug/l	5072.82
Zn	66	72	3	He	8.377	ug/l	1311.18
As	75	72	1	No Gas	-2.812	ug/l	14445.20
As	75	72	3	He	-1.039	ug/l	858.54
Se	78	72	2	H2	0.216	ug/l	58.56
Br	79	72	1	No Gas	11.527	ug/l	34492.96
Br	79	72	2	H2	8.934	ug/l	21913.14
Se	82	72	1	No Gas	-0.590	ug/l	614.60
Kr	84	72	1	No Gas		ug/l	22850.05
Sr	88	72	1	No Gas	180.115	ug/l	627685.03
Sr	88	72	3	He	168.329	ug/l	98043.80
Mo	95	115	1	No Gas	1.708	ug/l	1220.06
Mo	95	115	3	He	1.814	ug/l	527.79
Mo	98	115	1	No Gas	1.748	ug/l	1966.47
Ag	107	115	1	No Gas	-0.319	ug/l	38.02
Ag	109	115	1	No Gas	-0.313	ug/l	22.68
Cd	111	115	1	No Gas	0.118	ug/l	50.59

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.091	ug/l	20.22
Cd	114	115	1	No Gas	0.187	ug/l	106.58
Cd	114	115	3	He	0.112	ug/l	49.33
Sn	118	115	1	No Gas	0.172	ug/l	1054.62
Sn	118	115	3	He	0.224	ug/l	378.90
Sb	121	115	1	No Gas	0.121	ug/l	289.03
Sb	121	115	3	He	0.129	ug/l	120.34
Sb	123	115	1	No Gas	0.120	ug/l	215.02
Sb	123	115	3	He	0.107	ug/l	80.01
Ba	135	115	1	No Gas	4.547	ug/l	1254.24
Ba	137	115	1	No Gas	5.014	ug/l	2385.48
La	139	115	3	He	135.000	ug/l	21.11
Ce	140	115	3	He	0.126	ug/l	50.00
Hg	201	209	1	No Gas	0.066	ug/l	9.67
Hg	202	209	1	No Gas	0.125	ug/l	22.67
Hg	202	209	3	He	0.072	ug/l	6.00
Tl	203	209	3	He	0.028	ug/l	82.03
Tl	205	209	1	No Gas	0.010	ug/l	271.12
Tl	205	209	3	He	0.021	ug/l	176.07
[Pb]	206	209	1	No Gas	0.285	ug/l	241.11
[Pb]	207	209	1	No Gas	0.324	ug/l	208.89
Pb	208	209	1	No Gas	0.284	ug/l	897.79
Th	232	209	3	He	0.042	ug/l	85.37
U	238	209	1	No Gas	0.019	ug/l	50.99

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2418519.67	89.9
Sc	45	2	H2	1379968.35	86.5
Sc	45	3	He	193775.18	85.7
Ge	72	1	No Gas	571610.22	87.6
Ge	72	2	H2	490487.79	88.2
Ge	72	3	He	110293.92	87.9
In	115	1	No Gas	2724997.13	88.6
In	115	3	He	838114.13	87.5
Tb	159	1	No Gas	2454272.60	92.1
Tb	159	3	He	1362912.44	90.3
Ho	165	1	No Gas	2147962.89	89.2
Ho	165	3	He	1231168.90	88.6
Lu	175	1	No Gas	2000811.08	89.3
Lu	175	3	He	974696.48	89.5
Bi	209	1	No Gas	1232882.67	86.3
Bi	209	3	He	778398.63	89.7

ICPMS207-B Analytical Data

Sample Name B22010212-001AMS
File Name 029MS.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 14:54:06
Sample Type MS
Total Dilution 1.0300
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2371.025	ug/l	11306005.72
Be	9	45	1	No Gas	46.151	ug/l	104750.57
B	11	45	1	No Gas	93.985	ug/l	144572.96
Na	23	45	3	He	87557.550	ug/l	53326415.32
Mg	24	45	3	He	66566.238	ug/l	22263270.08
Al	27	45	1	No Gas	46.989	ug/l	543758.57
Si	28	45	2	H2	26440.255	ug/l	36597057.98
K	39	72	3	He	50038.587	ug/l	21532496.90
Ca	40	72	2	H2	59457.736	ug/l	315721700.58
Ti	47	72	1	No Gas	52.265	ug/l	65093.10
V	51	72	1	No Gas	54.472	ug/l	773351.02
V	51	72	3	He	55.733	ug/l	197446.79
Cr	52	72	1	No Gas	49.475	ug/l	757648.10
Cr	52	72	3	He	50.530	ug/l	167020.67
Mn	55	72	1	No Gas	55.379	ug/l	941251.20
Mn	55	72	3	He	54.508	ug/l	119104.80
Fe	56	72	2	H2	4766.543	ug/l	49999885.63
Fe	56	72	3	He	4951.744	ug/l	13958935.11
Co	59	72	1	No Gas	47.335	ug/l	697328.35
Ni	60	72	1	No Gas	48.610	ug/l	163779.86
Ni	60	72	3	He	51.698	ug/l	59765.97
Cu	63	72	1	No Gas	49.869	ug/l	396598.47
Cu	63	72	3	He	53.176	ug/l	154864.48
Cu	65	72	1	No Gas	49.753	ug/l	183520.01
Zn	66	72	1	No Gas	50.382	ug/l	133530.89
Zn	66	72	3	He	51.486	ug/l	36300.64
As	75	72	1	No Gas	51.198	ug/l	199396.68
As	75	72	3	He	48.926	ug/l	40636.17
Se	78	72	2	H2	48.089	ug/l	21677.22
Br	79	72	1	No Gas	14.110	ug/l	107962.83
Br	79	72	2	H2	13.869	ug/l	77425.95
Se	82	72	1	No Gas	48.326	ug/l	9733.95
Kr	84	72	1	No Gas		ug/l	44466.84
Sr	88	72	1	No Gas	219.735	ug/l	3928799.51
Sr	88	72	3	He	212.560	ug/l	634011.42
Mo	95	115	1	No Gas	48.333	ug/l	165943.57
Mo	95	115	3	He	50.895	ug/l	72136.95
Mo	98	115	1	No Gas	47.730	ug/l	257925.00
Ag	107	115	1	No Gas	19.241	ug/l	161024.31
Ag	109	115	1	No Gas	19.353	ug/l	151198.90
Cd	111	115	1	No Gas	48.388	ug/l	81994.18

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	50.077	ug/l	34497.89
Cd	114	115	1	No Gas	47.809	ug/l	177977.96
Cd	114	115	3	He	50.572	ug/l	81847.51
Sn	118	115	1	No Gas	47.527	ug/l	215958.42
Sn	118	115	3	He	48.877	ug/l	76999.22
Sb	121	115	1	No Gas	40.086	ug/l	311490.66
Sb	121	115	3	He	41.962	ug/l	109833.03
Sb	123	115	1	No Gas	40.256	ug/l	233417.92
Sb	123	115	3	He	42.298	ug/l	85862.04
Ba	135	115	1	No Gas	52.991	ug/l	70427.82
Ba	137	115	1	No Gas	52.651	ug/l	119809.86
La	139	115	3	He	196.510	ug/l	92.22
Ce	140	115	3	He	255.531	ug/l	430939.08
Hg	201	209	1	No Gas	4.974	ug/l	533.57
Hg	202	209	1	No Gas	5.138	ug/l	1215.15
Hg	202	209	3	He	5.327	ug/l	762.20
Tl	203	209	3	He	47.892	ug/l	90233.19
Tl	205	209	1	No Gas	47.944	ug/l	337207.94
Tl	205	209	3	He	47.822	ug/l	215208.09
[Pb]	206	209	1	No Gas	49.625	ug/l	117894.58
[Pb]	207	209	1	No Gas	50.125	ug/l	99921.60
Pb	208	209	1	No Gas	49.628	ug/l	463312.16
Th	232	209	3	He	48.037	ug/l	262296.58
U	238	209	1	No Gas	48.271	ug/l	384655.28

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2567233.00	95.4
Sc	45	2	H2	1442989.78	90.5
Sc	45	3	He	204663.05	90.5
Ge	72	1	No Gas	605154.48	92.8
Ge	72	2	H2	526593.05	94.7
Ge	72	3	He	116446.64	92.8
In	115	1	No Gas	2736611.27	89.0
In	115	3	He	853738.06	89.1
Tb	159	1	No Gas	2527986.94	94.8
Tb	159	3	He	1433790.07	95.0
Ho	165	1	No Gas	2250983.92	93.5
Ho	165	3	He	1313250.36	94.5
Lu	175	1	No Gas	2081696.39	92.9
Lu	175	3	He	1050477.16	96.5
Bi	209	1	No Gas	1250609.12	87.5
Bi	209	3	He	781331.33	90.0

ICPMS207-B Analytical Data

Sample Name B22010212-001AMSD
File Name 030MSD.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:00:21
Sample Type MSD
Total Dilution 1.0300
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2368.883	ug/l	11568218.69
Be	9	45	1	No Gas	46.169	ug/l	107323.98
B	11	45	1	No Gas	94.214	ug/l	148425.86
Na	23	45	3	He	87430.187	ug/l	55197520.84
Mg	24	45	3	He	65866.105	ug/l	22838045.75
Al	27	45	1	No Gas	47.534	ug/l	563201.93
Si	28	45	2	H2	28578.198	ug/l	37606971.59
K	39	72	3	He	50676.507	ug/l	22484545.50
Ca	40	72	2	H2	65411.285	ug/l	331578850.50
Ti	47	72	1	No Gas	51.315	ug/l	66738.42
V	51	72	1	No Gas	54.873	ug/l	813959.47
V	51	72	3	He	55.266	ug/l	202155.30
Cr	52	72	1	No Gas	48.256	ug/l	773645.48
Cr	52	72	3	He	49.532	ug/l	168914.19
Mn	55	72	1	No Gas	55.489	ug/l	985116.38
Mn	55	72	3	He	54.649	ug/l	123139.42
Fe	56	72	2	H2	5213.590	ug/l	52208942.52
Fe	56	72	3	He	5000.842	ug/l	14536813.80
Co	59	72	1	No Gas	47.484	ug/l	730548.71
Ni	60	72	1	No Gas	47.436	ug/l	166879.68
Ni	60	72	3	He	51.125	ug/l	60953.12
Cu	63	72	1	No Gas	50.076	ug/l	415777.72
Cu	63	72	3	He	52.730	ug/l	158344.81
Cu	65	72	1	No Gas	49.901	ug/l	192212.70
Zn	66	72	1	No Gas	51.155	ug/l	141606.06
Zn	66	72	3	He	51.176	ug/l	37211.94
As	75	72	1	No Gas	50.978	ug/l	207497.01
As	75	72	3	He	49.146	ug/l	42085.24
Se	78	72	2	H2	52.183	ug/l	22454.73
Br	79	72	1	No Gas	14.119	ug/l	112706.55
Br	79	72	2	H2	15.556	ug/l	81162.07
Se	82	72	1	No Gas	48.947	ug/l	10283.47
Kr	84	72	1	No Gas		ug/l	45434.61
Sr	88	72	1	No Gas	220.063	ug/l	4110101.93
Sr	88	72	3	He	212.919	ug/l	654741.59
Mo	95	115	1	No Gas	47.771	ug/l	171189.47
Mo	95	115	3	He	51.018	ug/l	74081.21
Mo	98	115	1	No Gas	47.631	ug/l	268616.31
Ag	107	115	1	No Gas	19.150	ug/l	167309.62
Ag	109	115	1	No Gas	19.361	ug/l	157893.31
Cd	111	115	1	No Gas	48.759	ug/l	86259.05

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	50.269	ug/l	35476.50
Cd	114	115	1	No Gas	48.172	ug/l	187194.81
Cd	114	115	3	He	50.513	ug/l	83748.92
Sn	118	115	1	No Gas	47.188	ug/l	223840.84
Sn	118	115	3	He	49.516	ug/l	79911.24
Sb	121	115	1	No Gas	41.132	ug/l	333645.41
Sb	121	115	3	He	43.035	ug/l	115391.93
Sb	123	115	1	No Gas	41.483	ug/l	251039.84
Sb	123	115	3	He	43.701	ug/l	90876.69
Ba	135	115	1	No Gas	53.671	ug/l	74440.73
Ba	137	115	1	No Gas	52.691	ug/l	125118.56
La	139	115	3	He	566.355	ug/l	253.34
Ce	140	115	3	He	255.052	ug/l	440645.41
Hg	201	209	1	No Gas	5.091	ug/l	565.90
Hg	202	209	1	No Gas	5.141	ug/l	1261.47
Hg	202	209	3	He	5.470	ug/l	798.20
Tl	203	209	3	He	47.930	ug/l	92063.84
Tl	205	209	1	No Gas	48.342	ug/l	352547.47
Tl	205	209	3	He	48.268	ug/l	221412.95
[Pb]	206	209	1	No Gas	50.007	ug/l	123187.24
[Pb]	207	209	1	No Gas	50.638	ug/l	104669.83
Pb	208	209	1	No Gas	50.306	ug/l	486983.12
Th	232	209	3	He	47.809	ug/l	266284.87
U	238	209	1	No Gas	48.505	ug/l	400788.23

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2629906.04	97.8
Sc	45	2	H2	1372620.91	86.1
Sc	45	3	He	212172.54	93.9
Ge	72	1	No Gas	631449.97	96.8
Ge	72	2	H2	502821.98	90.4
Ge	72	3	He	120045.69	95.6
In	115	1	No Gas	2858417.62	92.9
In	115	3	He	874606.38	91.3
Tb	159	1	No Gas	2615719.30	98.1
Tb	159	3	He	1436603.38	95.1
Ho	165	1	No Gas	2360591.42	98.1
Ho	165	3	He	1346467.98	96.8
Lu	175	1	No Gas	2195019.34	97.9
Lu	175	3	He	1098515.53	100.9
Bi	209	1	No Gas	1297208.41	90.8
Bi	209	3	He	797276.88	91.8

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 031BLKV.d
Data Path Name D:\Agilent\ICPMH1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:06:35
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	3.529	ug/l	27360.83
Be	9	45	1	No Gas	-0.087	ug/l	42.66
B	11	45	1	No Gas	0.934	ug/l	3381.74
Na	23	45	3	He	31.736	ug/l	68770.51
Mg	24	45	3	He	3.508	ug/l	2501.92
Al	27	45	1	No Gas	0.915	ug/l	19288.02
Si	28	45	2	H2	-10.428	ug/l	13121.68
K	39	72	3	He	31.713	ug/l	156127.58
Ca	40	72	2	H2	6.433	ug/l	241361.07
Ti	47	72	1	No Gas	0.157	ug/l	804.57
V	51	72	1	No Gas	3.912	ug/l	6918.10
V	51	72	3	He	0.321	ug/l	28663.39
Cr	52	72	1	No Gas	-0.220	ug/l	83878.02
Cr	52	72	3	He	-0.003	ug/l	4434.02
Mn	55	72	1	No Gas	0.566	ug/l	18651.51
Mn	55	72	3	He	-0.003	ug/l	304.27
Fe	56	72	2	H2	0.356	ug/l	22553.34
Fe	56	72	3	He	0.811	ug/l	19440.72
Co	59	72	1	No Gas	-0.006	ug/l	572.22
Ni	60	72	1	No Gas	0.075	ug/l	998.06
Ni	60	72	3	He	0.028	ug/l	297.78
Cu	63	72	1	No Gas	-0.002	ug/l	1690.78
Cu	63	72	3	He	-0.019	ug/l	475.91
Cu	65	72	1	No Gas	-0.022	ug/l	519.56
Zn	66	72	1	No Gas	-0.055	ug/l	554.25
Zn	66	72	3	He	-0.038	ug/l	141.11
As	75	72	1	No Gas	-0.912	ug/l	13939.89
As	75	72	3	He	0.005	ug/l	1044.62
Se	78	72	2	H2	0.028	ug/l	53.33
Br	79	72	1	No Gas	0.444	ug/l	24589.26
Br	79	72	2	H2	0.122	ug/l	15171.23
Se	82	72	1	No Gas	0.262	ug/l	717.94
Kr	84	72	1	No Gas		ug/l	19088.25
Sr	88	72	1	No Gas	0.011	ug/l	402.54
Sr	88	72	3	He	0.002	ug/l	114.45
Mo	95	115	1	No Gas	0.047	ug/l	182.23
Mo	95	115	3	He	0.037	ug/l	61.11
Mo	98	115	1	No Gas	0.043	ug/l	267.09
Ag	107	115	1	No Gas	0.002	ug/l	596.92
Ag	109	115	1	No Gas	0.000	ug/l	525.55
Cd	111	115	1	No Gas	0.008	ug/l	22.22

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.000	ug/l	7.45
Cd	114	115	1	No Gas	0.006	ug/l	-12.53
Cd	114	115	3	He	0.003	ug/l	16.97
Sn	118	115	1	No Gas	1.768	ug/l	9101.64
Sn	118	115	3	He	1.776	ug/l	3165.94
Sb	121	115	1	No Gas	0.784	ug/l	6341.74
Sb	121	115	3	He	0.740	ug/l	2034.69
Sb	123	115	1	No Gas	0.808	ug/l	4874.34
Sb	123	115	3	He	0.752	ug/l	1599.92
Ba	135	115	1	No Gas	0.016	ug/l	36.59
Ba	137	115	1	No Gas	-0.008	ug/l	26.61
La	139	115	3	He	-4.829	ug/l	7.78
Ce	140	115	3	He	0.009	ug/l	22.22
Hg	201	209	1	No Gas	0.024	ug/l	11.33
Hg	202	209	1	No Gas	0.013	ug/l	20.67
Hg	202	209	3	He	0.044	ug/l	10.67
Tl	203	209	3	He	0.060	ug/l	194.08
Tl	205	209	1	No Gas	0.051	ug/l	641.13
Tl	205	209	3	He	0.062	ug/l	457.53
[Pb]	206	209	1	No Gas	0.001	ug/l	111.11
[Pb]	207	209	1	No Gas	0.000	ug/l	82.22
Pb	208	209	1	No Gas	0.000	ug/l	373.34
Th	232	209	3	He	0.019	ug/l	148.06
U	238	209	1	No Gas	0.003	ug/l	44.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2480415.77	92.2
Sc	45	2	H2	1382584.86	86.7
Sc	45	3	He	197163.99	87.2
Ge	72	1	No Gas	599368.31	91.9
Ge	72	2	H2	504305.61	90.7
Ge	72	3	He	112242.81	89.4
In	115	1	No Gas	2725567.08	88.6
In	115	3	He	849048.75	88.7
Tb	159	1	No Gas	2448883.64	91.9
Tb	159	3	He	1366604.33	90.5
Ho	165	1	No Gas	2220584.44	92.2
Ho	165	3	He	1271471.27	91.5
Lu	175	1	No Gas	2049232.86	91.4
Lu	175	3	He	989121.07	90.8
Bi	209	1	No Gas	1281621.06	89.7
Bi	209	3	He	807508.10	93.0

ICPMS207-B Analytical Data

Sample Name B22010213-003A
File Name 032SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:12:48
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.214	ug/l	10814.18
Be	9	45	1	No Gas	-0.087	ug/l	45.99
B	11	45	1	No Gas	103.124	ug/l	177254.13
Na	23	45	3	He	51149.189	ug/l	35160048.92
Mg	24	45	3	He	21463.826	ug/l	8097805.64
Al	27	45	1	No Gas	1.315	ug/l	26782.85
Si	28	45	2	H2	19891.510	ug/l	30841338.83
K	39	72	3	He	2368.226	ug/l	1293924.22
Ca	40	72	2	H2	21385.176	ug/l	124059848.81
Ti	47	72	1	No Gas	0.784	ug/l	1715.17
V	51	72	1	No Gas	14.527	ug/l	185098.66
V	51	72	3	He	4.145	ug/l	45272.63
Cr	52	72	1	No Gas	-2.244	ug/l	60276.56
Cr	52	72	3	He	0.453	ug/l	6640.42
Mn	55	72	1	No Gas	64.075	ug/l	1197918.39
Mn	55	72	3	He	62.042	ug/l	151715.82
Fe	56	72	2	H2	10.404	ug/l	139920.53
Fe	56	72	3	He	10.490	ug/l	52422.24
Co	59	72	1	No Gas	0.115	ug/l	2581.79
Ni	60	72	1	No Gas	3.870	ug/l	15097.94
Ni	60	72	3	He	3.928	ug/l	5357.68
Cu	63	72	1	No Gas	3.679	ug/l	33929.49
Cu	63	72	3	He	3.553	ug/l	12138.93
Cu	65	72	1	No Gas	3.630	ug/l	15350.91
Zn	66	72	1	No Gas	10.769	ug/l	32037.54
Zn	66	72	3	He	10.918	ug/l	8766.00
As	75	72	1	No Gas	-1.930	ug/l	11009.78
As	75	72	3	He	-0.942	ug/l	320.80
Se	78	72	2	H2	0.521	ug/l	301.00
Br	79	72	1	No Gas	45.373	ug/l	327875.81
Br	79	72	2	H2	48.774	ug/l	254697.84
Se	82	72	1	No Gas	1.349	ug/l	998.24
Kr	84	72	1	No Gas		ug/l	41937.78
Sr	88	72	1	No Gas	174.057	ug/l	3429070.31
Sr	88	72	3	He	162.577	ug/l	542813.15
Mo	95	115	1	No Gas	0.240	ug/l	968.93
Mo	95	115	3	He	0.262	ug/l	420.01
Mo	98	115	1	No Gas	0.242	ug/l	1536.90
Ag	107	115	1	No Gas	-0.063	ug/l	46.02
Ag	109	115	1	No Gas	-0.061	ug/l	42.02
Cd	111	115	1	No Gas	0.039	ug/l	87.14

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.047	ug/l	44.00
Cd	114	115	1	No Gas	0.053	ug/l	186.65
Cd	114	115	3	He	0.053	ug/l	109.23
Sn	118	115	1	No Gas	-0.120	ug/l	379.25
Sn	118	115	3	He	-0.099	ug/l	164.45
Sb	121	115	1	No Gas	0.241	ug/l	2260.75
Sb	121	115	3	He	0.234	ug/l	735.43
Sb	123	115	1	No Gas	0.248	ug/l	1735.28
Sb	123	115	3	He	0.240	ug/l	578.40
Ba	135	115	1	No Gas	11.380	ug/l	17426.39
Ba	137	115	1	No Gas	11.267	ug/l	29552.77
La	139	115	3	He	13.121	ug/l	16.67
Ce	140	115	3	He	0.024	ug/l	52.22
Hg	201	209	1	No Gas	0.061	ug/l	16.67
Hg	202	209	1	No Gas	0.007	ug/l	21.00
Hg	202	209	3	He	0.051	ug/l	12.00
Tl	203	209	3	He	0.050	ug/l	177.41
Tl	205	209	1	No Gas	0.023	ug/l	475.57
Tl	205	209	3	He	0.050	ug/l	409.51
[Pb]	206	209	1	No Gas	0.163	ug/l	562.24
[Pb]	207	209	1	No Gas	0.153	ug/l	438.90
Pb	208	209	1	No Gas	0.160	ug/l	2128.97
Th	232	209	3	He	0.006	ug/l	75.37
U	238	209	1	No Gas	0.029	ug/l	290.28

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2790140.96	103.7
Sc	45	2	H2	1569105.86	98.4
Sc	45	3	He	224105.99	99.1
Ge	72	1	No Gas	646475.98	99.1
Ge	72	2	H2	557895.15	100.3
Ge	72	3	He	126533.66	100.8
In	115	1	No Gas	3058790.84	99.4
In	115	3	He	916765.84	95.7
Tb	159	1	No Gas	2772333.10	104.0
Tb	159	3	He	1489203.60	98.6
Ho	165	1	No Gas	2477766.59	102.9
Ho	165	3	He	1376440.57	99.0
Lu	175	1	No Gas	2313204.43	103.2
Lu	175	3	He	1106169.19	101.6
Bi	209	1	No Gas	1398352.45	97.9
Bi	209	3	He	826835.84	95.2

ICPMS207-B Analytical Data

Sample Name B22010214-001A
File Name 033SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:19:01
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.746	ug/l	7819.16
Be	9	45	1	No Gas	-0.092	ug/l	32.99
B	11	45	1	No Gas	71.640	ug/l	121412.76
Na	23	45	3	He	35193.722	ug/l	23652270.48
Mg	24	45	3	He	8459.559	ug/l	3119162.62
Al	27	45	1	No Gas	1.502	ug/l	28606.17
Si	28	45	2	H2	22368.335	ug/l	34193365.89
K	39	72	3	He	1701.189	ug/l	948188.66
Ca	40	72	2	H2	7355.469	ug/l	42379079.25
Ti	47	72	1	No Gas	0.911	ug/l	1830.30
V	51	72	1	No Gas	23.807	ug/l	329721.28
V	51	72	3	He	12.499	ug/l	71579.94
Cr	52	72	1	No Gas	-0.256	ug/l	87153.60
Cr	52	72	3	He	2.877	ug/l	14943.17
Mn	55	72	1	No Gas	0.737	ug/l	22552.54
Mn	55	72	3	He	0.463	ug/l	1438.45
Fe	56	72	2	H2	0.985	ug/l	31809.60
Fe	56	72	3	He	0.999	ug/l	21893.25
Co	59	72	1	No Gas	-0.007	ug/l	575.54
Ni	60	72	1	No Gas	0.189	ug/l	1453.87
Ni	60	72	3	He	0.250	ug/l	604.46
Cu	63	72	1	No Gas	2.776	ug/l	25244.48
Cu	63	72	3	He	2.720	ug/l	9180.04
Cu	65	72	1	No Gas	2.646	ug/l	11007.25
Zn	66	72	1	No Gas	10.598	ug/l	30560.31
Zn	66	72	3	He	10.850	ug/l	8474.75
As	75	72	1	No Gas	-1.626	ug/l	11825.20
As	75	72	3	He	-0.932	ug/l	320.67
Se	78	72	2	H2	0.128	ug/l	107.00
Br	79	72	1	No Gas	12.034	ug/l	100990.21
Br	79	72	2	H2	12.101	ug/l	74576.40
Se	82	72	1	No Gas	1.027	ug/l	901.03
Kr	84	72	1	No Gas		ug/l	26911.84
Sr	88	72	1	No Gas	60.807	ug/l	1160600.25
Sr	88	72	3	He	56.858	ug/l	184759.00
Mo	95	115	1	No Gas	1.039	ug/l	4090.61
Mo	95	115	3	He	1.126	ug/l	1766.79
Mo	98	115	1	No Gas	1.064	ug/l	6591.83
Ag	107	115	1	No Gas	-0.064	ug/l	44.02
Ag	109	115	1	No Gas	-0.062	ug/l	32.68
Cd	111	115	1	No Gas	0.027	ug/l	61.73

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.021	ug/l	24.22
Cd	114	115	1	No Gas	0.036	ug/l	110.93
Cd	114	115	3	He	0.022	ug/l	53.43
Sn	118	115	1	No Gas	-0.115	ug/l	402.54
Sn	118	115	3	He	-0.084	ug/l	190.00
Sb	121	115	1	No Gas	0.127	ug/l	1228.51
Sb	121	115	3	He	0.117	ug/l	394.38
Sb	123	115	1	No Gas	0.125	ug/l	905.79
Sb	123	115	3	He	0.129	ug/l	326.71
Ba	135	115	1	No Gas	1.908	ug/l	2911.21
Ba	137	115	1	No Gas	1.848	ug/l	4847.94
La	139	115	3	He	-8.479	ug/l	6.67
Ce	140	115	3	He	0.007	ug/l	21.11
Hg	201	209	1	No Gas	0.009	ug/l	10.67
Hg	202	209	1	No Gas	0.064	ug/l	36.99
Hg	202	209	3	He	0.095	ug/l	19.33
Tl	203	209	3	He	0.013	ug/l	104.04
Tl	205	209	1	No Gas	0.008	ug/l	364.45
Tl	205	209	3	He	0.016	ug/l	250.11
[Pb]	206	209	1	No Gas	0.137	ug/l	501.12
[Pb]	207	209	1	No Gas	0.135	ug/l	406.68
Pb	208	209	1	No Gas	0.136	ug/l	1913.40
Th	232	209	3	He	0.008	ug/l	89.37
U	238	209	1	No Gas	0.006	ug/l	84.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2736658.19	101.7
Sc	45	2	H2	1547092.72	97.0
Sc	45	3	He	218955.05	96.9
Ge	72	1	No Gas	626410.89	96.0
Ge	72	2	H2	552121.77	99.3
Ge	72	3	He	123088.55	98.1
In	115	1	No Gas	3032924.70	98.6
In	115	3	He	912986.07	95.3
Tb	159	1	No Gas	2747117.00	103.1
Tb	159	3	He	1485150.01	98.4
Ho	165	1	No Gas	2470573.56	102.6
Ho	165	3	He	1347033.57	96.9
Lu	175	1	No Gas	2321667.13	103.6
Lu	175	3	He	1081860.66	99.3
Bi	209	1	No Gas	1426203.06	99.8
Bi	209	3	He	848696.47	97.8

ICPMS207-B Analytical Data

Sample Name B22010219-001A
File Name 034SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:25:15
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.798	ug/l	7438.14
Be	9	45	1	No Gas	-0.092	ug/l	32.66
B	11	45	1	No Gas	94.937	ug/l	157913.39
Na	23	45	3	He	58672.158	ug/l	39214187.47
Mg	24	45	3	He	31545.177	ug/l	11573409.52
Al	27	45	1	No Gas	2.654	ug/l	42376.30
Si	28	45	2	H2	17589.982	ug/l	26461266.90
K	39	72	3	He	2939.216	ug/l	1531432.03
Ca	40	72	2	H2	27510.211	ug/l	155494003.53
Ti	47	72	1	No Gas	0.761	ug/l	1655.10
V	51	72	1	No Gas	11.026	ug/l	124379.40
V	51	72	3	He	0.332	ug/l	31612.79
Cr	52	72	1	No Gas	-3.109	ug/l	46577.54
Cr	52	72	3	He	-0.109	ug/l	4512.94
Mn	55	72	1	No Gas	257.709	ug/l	4707021.55
Mn	55	72	3	He	248.579	ug/l	593001.60
Fe	56	72	2	H2	4.750	ug/l	73326.87
Fe	56	72	3	He	4.632	ug/l	33185.66
Co	59	72	1	No Gas	0.427	ug/l	7513.71
Ni	60	72	1	No Gas	2.557	ug/l	10073.49
Ni	60	72	3	He	2.585	ug/l	3547.12
Cu	63	72	1	No Gas	0.607	ug/l	7017.18
Cu	63	72	3	He	0.345	ug/l	1680.76
Cu	65	72	1	No Gas	0.442	ug/l	2399.16
Zn	66	72	1	No Gas	1.465	ug/l	4925.92
Zn	66	72	3	He	1.529	ug/l	1357.85
As	75	72	1	No Gas	-1.175	ug/l	13733.04
As	75	72	3	He	-0.330	ug/l	854.74
Se	78	72	2	H2	0.053	ug/l	69.78
Br	79	72	1	No Gas	42.424	ug/l	302736.57
Br	79	72	2	H2	43.357	ug/l	222446.46
Se	82	72	1	No Gas	0.626	ug/l	833.16
Kr	84	72	1	No Gas		ug/l	48014.62
Sr	88	72	1	No Gas	235.622	ug/l	4562033.55
Sr	88	72	3	He	220.989	ug/l	721025.05
Mo	95	115	1	No Gas	12.231	ug/l	47189.95
Mo	95	115	3	He	13.354	ug/l	20486.98
Mo	98	115	1	No Gas	12.306	ug/l	74736.38
Ag	107	115	1	No Gas	-0.065	ug/l	32.68
Ag	109	115	1	No Gas	-0.062	ug/l	30.68
Cd	111	115	1	No Gas	0.021	ug/l	49.57

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.028	ug/l	28.55
Cd	114	115	1	No Gas	0.031	ug/l	91.85
Cd	114	115	3	He	0.029	ug/l	63.49
Sn	118	115	1	No Gas	-0.033	ug/l	811.75
Sn	118	115	3	He	-0.011	ug/l	311.12
Sb	121	115	1	No Gas	0.333	ug/l	3013.29
Sb	121	115	3	He	0.354	ug/l	1057.15
Sb	123	115	1	No Gas	0.346	ug/l	2332.43
Sb	123	115	3	He	0.356	ug/l	820.11
Ba	135	115	1	No Gas	4.028	ug/l	6029.39
Ba	137	115	1	No Gas	4.231	ug/l	10862.75
La	139	115	3	He	-8.250	ug/l	6.67
Ce	140	115	3	He	0.017	ug/l	37.78
Hg	201	209	1	No Gas	0.013	ug/l	11.00
Hg	202	209	1	No Gas	0.159	ug/l	61.66
Hg	202	209	3	He	0.196	ug/l	33.66
Tl	203	209	3	He	0.018	ug/l	108.71
Tl	205	209	1	No Gas	0.003	ug/l	317.78
Tl	205	209	3	He	0.019	ug/l	252.77
[Pb]	206	209	1	No Gas	-0.004	ug/l	105.55
[Pb]	207	209	1	No Gas	0.004	ug/l	97.78
Pb	208	209	1	No Gas	0.003	ug/l	445.56
Th	232	209	3	He	0.002	ug/l	50.02
U	238	209	1	No Gas	0.077	ug/l	729.54

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2697295.09	100.3
Sc	45	2	H2	1522139.93	95.5
Sc	45	3	He	217945.94	96.4
Ge	72	1	No Gas	635384.57	97.4
Ge	72	2	H2	543837.77	97.8
Ge	72	3	He	123644.11	98.5
In	115	1	No Gas	2985199.82	97.1
In	115	3	He	896845.06	93.6
Tb	159	1	No Gas	2755231.75	103.4
Tb	159	3	He	1456099.21	96.4
Ho	165	1	No Gas	2473729.58	102.8
Ho	165	3	He	1350438.36	97.1
Lu	175	1	No Gas	2258263.18	100.7
Lu	175	3	He	1063811.72	97.7
Bi	209	1	No Gas	1396876.47	97.8
Bi	209	3	He	807149.74	93.0

ICPMS207-B Analytical Data

Sample Name B22010366-001A
File Name 035SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:31:29
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.099	ug/l	12037.58
Be	9	45	1	No Gas	-0.094	ug/l	28.33
B	11	45	1	No Gas	68.958	ug/l	115074.85
Na	23	45	3	He	39236.135	ug/l	26284920.16
Mg	24	45	3	He	10097.663	ug/l	3711702.39
Al	27	45	1	No Gas	4.713	ug/l	67581.68
Si	28	45	2	H2	27579.492	ug/l	42048124.61
K	39	72	3	He	1959.321	ug/l	1085656.95
Ca	40	72	2	H2	9760.133	ug/l	55649501.71
Ti	47	72	1	No Gas	1.656	ug/l	2794.75
V	51	72	1	No Gas	3.817	ug/l	5569.01
V	51	72	3	He	-6.674	ug/l	8509.17
Cr	52	72	1	No Gas	-2.869	ug/l	49090.64
Cr	52	72	3	He	-0.190	ug/l	4276.21
Mn	55	72	1	No Gas	536.759	ug/l	9598438.58
Mn	55	72	3	He	499.035	ug/l	1203825.60
Fe	56	72	2	H2	354.128	ug/l	3994341.60
Fe	56	72	3	He	352.433	ug/l	1117244.95
Co	59	72	1	No Gas	0.500	ug/l	8492.33
Ni	60	72	1	No Gas	0.985	ug/l	4278.83
Ni	60	72	3	He	1.022	ug/l	1597.88
Cu	63	72	1	No Gas	0.466	ug/l	5693.41
Cu	63	72	3	He	0.282	ug/l	1497.78
Cu	65	72	1	No Gas	0.327	ug/l	1900.89
Zn	66	72	1	No Gas	1.551	ug/l	5069.18
Zn	66	72	3	He	1.509	ug/l	1357.85
As	75	72	1	No Gas	-1.152	ug/l	13537.90
As	75	72	3	He	-0.124	ug/l	1048.49
Se	78	72	2	H2	-0.035	ug/l	27.67
Br	79	72	1	No Gas	10.206	ug/l	88607.96
Br	79	72	2	H2	10.135	ug/l	64482.29
Se	82	72	1	No Gas	1.180	ug/l	927.02
Kr	84	72	1	No Gas		ug/l	27668.52
Sr	88	72	1	No Gas	75.665	ug/l	1435904.78
Sr	88	72	3	He	68.718	ug/l	226864.99
Mo	95	115	1	No Gas	0.393	ug/l	1567.87
Mo	95	115	3	He	0.453	ug/l	708.92
Mo	98	115	1	No Gas	0.408	ug/l	2557.05
Ag	107	115	1	No Gas	-0.065	ug/l	35.35
Ag	109	115	1	No Gas	-0.061	ug/l	40.02
Cd	111	115	1	No Gas	0.012	ug/l	33.31

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.014	ug/l	18.56
Cd	114	115	1	No Gas	0.026	ug/l	70.03
Cd	114	115	3	He	0.020	ug/l	49.22
Sn	118	115	1	No Gas	-0.082	ug/l	575.54
Sn	118	115	3	He	-0.065	ug/l	222.23
Sb	121	115	1	No Gas	0.208	ug/l	1956.34
Sb	121	115	3	He	0.222	ug/l	690.09
Sb	123	115	1	No Gas	0.207	ug/l	1459.23
Sb	123	115	3	He	0.235	ug/l	559.07
Ba	135	115	1	No Gas	3.569	ug/l	5453.62
Ba	137	115	1	No Gas	3.580	ug/l	9387.94
La	139	115	3	He	59.559	ug/l	37.78
Ce	140	115	3	He	0.124	ug/l	235.56
Hg	201	209	1	No Gas	0.065	ug/l	18.00
Hg	202	209	1	No Gas	1.194	ug/l	353.94
Hg	202	209	3	He	1.134	ug/l	184.96
Tl	203	209	3	He	0.007	ug/l	93.37
Tl	205	209	1	No Gas	-0.009	ug/l	231.12
Tl	205	209	3	He	0.005	ug/l	196.08
[Pb]	206	209	1	No Gas	0.002	ug/l	128.89
[Pb]	207	209	1	No Gas	0.009	ug/l	113.33
Pb	208	209	1	No Gas	0.011	ug/l	553.34
Th	232	209	3	He	0.003	ug/l	58.69
U	238	209	1	No Gas	0.014	ug/l	154.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2691313.41	100.0
Sc	45	2	H2	1543316.86	96.8
Sc	45	3	He	218315.94	96.6
Ge	72	1	No Gas	622679.50	95.4
Ge	72	2	H2	547148.60	98.4
Ge	72	3	He	125076.03	99.6
In	115	1	No Gas	3046409.75	99.0
In	115	3	He	905159.37	94.5
Tb	159	1	No Gas	2659003.70	99.8
Tb	159	3	He	1490024.84	98.7
Ho	165	1	No Gas	2389625.09	99.3
Ho	165	3	He	1383877.42	99.5
Lu	175	1	No Gas	2299384.80	102.6
Lu	175	3	He	1095731.87	100.6
Bi	209	1	No Gas	1457573.01	102.0
Bi	209	3	He	849992.86	97.9

ICPMS207-B Analytical Data

Sample Name B22010369-001A
File Name 036SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:37:42
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.026	ug/l	11355.46
Be	9	45	1	No Gas	-0.092	ug/l	33.99
B	11	45	1	No Gas	208.450	ug/l	342457.48
Na	23	45	3	He	95524.713	ug/l	62481595.18
Mg	24	45	3	He	8624.163	ug/l	3099288.01
Al	27	45	1	No Gas	1.535	ug/l	28448.12
Si	28	45	2	H2	30699.242	ug/l	45856146.74
K	39	72	3	He	3147.867	ug/l	1593496.97
Ca	40	72	2	H2	5069.408	ug/l	28634583.16
Ti	47	72	1	No Gas	1.606	ug/l	2729.67
V	51	72	1	No Gas	47.112	ug/l	703686.22
V	51	72	3	He	36.543	ug/l	148241.75
Cr	52	72	1	No Gas	0.272	ug/l	94209.17
Cr	52	72	3	He	3.575	ug/l	17087.73
Mn	55	72	1	No Gas	0.233	ug/l	13419.52
Mn	55	72	3	He	0.007	ug/l	348.60
Fe	56	72	2	H2	0.300	ug/l	23529.07
Fe	56	72	3	He	0.036	ug/l	18613.81
Co	59	72	1	No Gas	-0.007	ug/l	575.54
Ni	60	72	1	No Gas	0.094	ug/l	1104.52
Ni	60	72	3	He	0.082	ug/l	387.78
Cu	63	72	1	No Gas	0.629	ug/l	7055.87
Cu	63	72	3	He	0.195	ug/l	1177.15
Cu	65	72	1	No Gas	0.284	ug/l	1735.47
Zn	66	72	1	No Gas	0.234	ug/l	1385.37
Zn	66	72	3	He	0.226	ug/l	350.01
As	75	72	1	No Gas	-1.204	ug/l	13335.42
As	75	72	3	He	-0.781	ug/l	445.67
Se	78	72	2	H2	0.305	ug/l	188.89
Br	79	72	1	No Gas	27.355	ug/l	199361.41
Br	79	72	2	H2	27.365	ug/l	145194.80
Se	82	72	1	No Gas	0.730	ug/l	837.69
Kr	84	72	1	No Gas		ug/l	24938.90
Sr	88	72	1	No Gas	53.725	ug/l	1019520.10
Sr	88	72	3	He	50.022	ug/l	159734.46
Mo	95	115	1	No Gas	0.541	ug/l	2061.27
Mo	95	115	3	He	0.621	ug/l	944.48
Mo	98	115	1	No Gas	0.535	ug/l	3206.70
Ag	107	115	1	No Gas	-0.065	ug/l	29.35
Ag	109	115	1	No Gas	-0.062	ug/l	30.68
Cd	111	115	1	No Gas	0.017	ug/l	41.59

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.013	ug/l	17.56
Cd	114	115	1	No Gas	0.029	ug/l	77.87
Cd	114	115	3	He	0.018	ug/l	43.75
Sn	118	115	1	No Gas	-0.115	ug/l	389.23
Sn	118	115	3	He	-0.120	ug/l	124.44
Sb	121	115	1	No Gas	0.114	ug/l	1077.82
Sb	121	115	3	He	0.119	ug/l	385.38
Sb	123	115	1	No Gas	0.120	ug/l	838.78
Sb	123	115	3	He	0.124	ug/l	305.04
Ba	135	115	1	No Gas	4.873	ug/l	7131.07
Ba	137	115	1	No Gas	4.899	ug/l	12294.46
La	139	115	3	He	-2.963	ug/l	8.89
Ce	140	115	3	He	0.008	ug/l	21.11
Hg	201	209	1	No Gas	0.035	ug/l	13.33
Hg	202	209	1	No Gas	0.014	ug/l	22.33
Hg	202	209	3	He	0.044	ug/l	11.00
Tl	203	209	3	He	0.004	ug/l	84.03
Tl	205	209	1	No Gas	-0.001	ug/l	278.89
Tl	205	209	3	He	0.005	ug/l	190.08
[Pb]	206	209	1	No Gas	-0.015	ug/l	74.45
[Pb]	207	209	1	No Gas	-0.007	ug/l	71.11
Pb	208	209	1	No Gas	-0.011	ug/l	282.23
Th	232	209	3	He	0.001	ug/l	46.69
U	238	209	1	No Gas	0.014	ug/l	145.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2682747.21	99.7
Sc	45	2	H2	1512186.47	94.8
Sc	45	3	He	213411.80	94.4
Ge	72	1	No Gas	622743.67	95.5
Ge	72	2	H2	539978.46	97.1
Ge	72	3	He	120979.74	96.4
In	115	1	No Gas	2919383.14	94.9
In	115	3	He	881458.88	92.0
Tb	159	1	No Gas	2663377.29	99.9
Tb	159	3	He	1447562.97	95.9
Ho	165	1	No Gas	2383521.38	99.0
Ho	165	3	He	1339871.09	96.4
Lu	175	1	No Gas	2220102.45	99.0
Lu	175	3	He	1073199.23	98.6
Bi	209	1	No Gas	1373241.57	96.1
Bi	209	3	He	832238.95	95.9

ICPMS207-B Analytical Data

Sample Name B22010403-001A
File Name 037SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:43:56
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.635	ug/l	8095.40
Be	9	45	1	No Gas	-0.094	ug/l	27.66
B	11	45	1	No Gas	96.096	ug/l	156353.82
Na	23	45	3	He	51135.372	ug/l	33576128.94
Mg	24	45	3	He	12295.634	ug/l	4431488.34
Al	27	45	1	No Gas	1.814	ug/l	31323.01
Si	28	45	2	H2	23869.058	ug/l	35723603.95
K	39	72	3	He	1792.403	ug/l	981211.81
Ca	40	72	2	H2	9929.185	ug/l	55690158.62
Ti	47	72	1	No Gas	1.066	ug/l	1987.14
V	51	72	1	No Gas	27.459	ug/l	380151.74
V	51	72	3	He	15.088	ug/l	79352.33
Cr	52	72	1	No Gas	-1.258	ug/l	70982.79
Cr	52	72	3	He	1.645	ug/l	10530.48
Mn	55	72	1	No Gas	0.812	ug/l	23358.84
Mn	55	72	3	He	0.581	ug/l	1701.76
Fe	56	72	2	H2	3.134	ug/l	54736.77
Fe	56	72	3	He	2.879	ug/l	27393.01
Co	59	72	1	No Gas	0.029	ug/l	1127.81
Ni	60	72	1	No Gas	1.254	ug/l	5144.05
Ni	60	72	3	He	1.184	ug/l	1757.90
Cu	63	72	1	No Gas	1.879	ug/l	17260.42
Cu	63	72	3	He	1.665	ug/l	5788.66
Cu	65	72	1	No Gas	1.732	ug/l	7254.05
Zn	66	72	1	No Gas	5.146	ug/l	14866.47
Zn	66	72	3	He	4.988	ug/l	3957.23
As	75	72	1	No Gas	-1.383	ug/l	12454.46
As	75	72	3	He	-0.935	ug/l	315.07
Se	78	72	2	H2	0.310	ug/l	190.78
Br	79	72	1	No Gas	16.363	ug/l	126146.54
Br	79	72	2	H2	15.971	ug/l	90990.71
Se	82	72	1	No Gas	0.487	ug/l	775.29
Kr	84	72	1	No Gas		ug/l	27855.04
Sr	88	72	1	No Gas	75.936	ug/l	1416069.79
Sr	88	72	3	He	68.891	ug/l	221686.35
Mo	95	115	1	No Gas	0.888	ug/l	3361.53
Mo	95	115	3	He	0.914	ug/l	1400.08
Mo	98	115	1	No Gas	0.898	ug/l	5352.28
Ag	107	115	1	No Gas	-0.059	ug/l	83.37
Ag	109	115	1	No Gas	-0.058	ug/l	64.70
Cd	111	115	1	No Gas	0.011	ug/l	29.85

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.013	ug/l	17.67
Cd	114	115	1	No Gas	0.024	ug/l	61.22
Cd	114	115	3	He	0.017	ug/l	42.87
Sn	118	115	1	No Gas	-0.116	ug/l	379.26
Sn	118	115	3	He	-0.123	ug/l	120.00
Sb	121	115	1	No Gas	0.042	ug/l	456.39
Sb	121	115	3	He	0.034	ug/l	151.69
Sb	123	115	1	No Gas	0.038	ug/l	316.37
Sb	123	115	3	He	0.041	ug/l	127.35
Ba	135	115	1	No Gas	4.064	ug/l	5936.17
Ba	137	115	1	No Gas	3.781	ug/l	9477.80
La	139	115	3	He	36.349	ug/l	26.67
Ce	140	115	3	He	0.017	ug/l	38.89
Hg	201	209	1	No Gas	0.010	ug/l	10.67
Hg	202	209	1	No Gas	0.059	ug/l	34.66
Hg	202	209	3	He	0.052	ug/l	12.33
Tl	203	209	3	He	0.004	ug/l	85.37
Tl	205	209	1	No Gas	-0.005	ug/l	253.34
Tl	205	209	3	He	0.003	ug/l	181.41
[Pb]	206	209	1	No Gas	-0.004	ug/l	106.67
[Pb]	207	209	1	No Gas	-0.003	ug/l	81.11
Pb	208	209	1	No Gas	-0.002	ug/l	386.67
Th	232	209	3	He	0.001	ug/l	45.35
U	238	209	1	No Gas	0.017	ug/l	174.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2638401.78	98.1
Sc	45	2	H2	1514758.60	95.0
Sc	45	3	He	214065.92	94.7
Ge	72	1	No Gas	611909.35	93.8
Ge	72	2	H2	538282.87	96.8
Ge	72	3	He	121902.25	97.1
In	115	1	No Gas	2912897.78	94.7
In	115	3	He	890873.99	93.0
Tb	159	1	No Gas	2640472.02	99.1
Tb	159	3	He	1447587.31	95.9
Ho	165	1	No Gas	2398740.63	99.6
Ho	165	3	He	1322992.56	95.2
Lu	175	1	No Gas	2275298.01	101.5
Lu	175	3	He	1053978.25	96.8
Bi	209	1	No Gas	1395916.20	97.7
Bi	209	3	He	835096.19	96.2

ICPMS207-B Analytical Data

Sample Name CCV
File Name 038_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:50:09
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	677.733	ug/l	2823078.27
Be	9	45	1	No Gas	54.554	ug/l	107884.65
B	11	45	1	No Gas	61.835	ug/l	83469.05
Na	23	45	3	He	13388.447	ug/l	7487447.18
Mg	24	45	3	He	13172.538	ug/l	4024754.68
Al	27	45	1	No Gas	50.835	ug/l	511936.83
Si	28	45	2	H2	198.483	ug/l	279785.20
K	39	72	3	He	11762.616	ug/l	4785267.71
Ca	40	72	2	H2	11491.859	ug/l	58145814.60
Ti	47	72	1	No Gas	50.476	ug/l	58624.60
V	51	72	1	No Gas	55.489	ug/l	737066.34
V	51	72	3	He	55.663	ug/l	181738.62
Cr	52	72	1	No Gas	53.889	ug/l	759593.89
Cr	52	72	3	He	55.083	ug/l	167966.64
Mn	55	72	1	No Gas	53.713	ug/l	851313.31
Mn	55	72	3	He	52.765	ug/l	106710.15
Fe	56	72	2	H2	1271.589	ug/l	12688018.61
Fe	56	72	3	He	1357.630	ug/l	3553134.86
Co	59	72	1	No Gas	51.600	ug/l	708649.01
Ni	60	72	1	No Gas	51.115	ug/l	160489.11
Ni	60	72	3	He	57.276	ug/l	61246.39
Cu	63	72	1	No Gas	52.825	ug/l	391435.54
Cu	63	72	3	He	59.480	ug/l	160222.75
Cu	65	72	1	No Gas	53.089	ug/l	182489.08
Zn	66	72	1	No Gas	53.720	ug/l	132706.87
Zn	66	72	3	He	57.134	ug/l	37260.88
As	75	72	1	No Gas	56.664	ug/l	203473.55
As	75	72	3	He	54.336	ug/l	41622.47
Se	78	72	2	H2	53.142	ug/l	22756.97
Br	79	72	1	No Gas	0.392	ug/l	22159.70
Br	79	72	2	H2	0.252	ug/l	15171.20
Se	82	72	1	No Gas	53.969	ug/l	10039.40
Kr	84	72	1	No Gas		ug/l	23039.45
Sr	88	72	1	No Gas	52.816	ug/l	880698.30
Sr	88	72	3	He	51.785	ug/l	142983.01
Mo	95	115	1	No Gas	49.796	ug/l	158949.41
Mo	95	115	3	He	53.520	ug/l	73490.10
Mo	98	115	1	No Gas	49.626	ug/l	249312.28
Ag	107	115	1	No Gas	19.999	ug/l	155574.23
Ag	109	115	1	No Gas	20.472	ug/l	148671.83
Cd	111	115	1	No Gas	52.447	ug/l	82629.05

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	55.429	ug/l	36989.91
Cd	114	115	1	No Gas	52.081	ug/l	180269.09
Cd	114	115	3	He	56.308	ug/l	88279.75
Sn	118	115	1	No Gas	51.622	ug/l	217965.32
Sn	118	115	3	He	53.899	ug/l	82215.28
Sb	121	115	1	No Gas	51.341	ug/l	370860.90
Sb	121	115	3	He	53.992	ug/l	136880.45
Sb	123	115	1	No Gas	51.693	ug/l	278660.75
Sb	123	115	3	He	54.114	ug/l	106404.22
Ba	135	115	1	No Gas	51.446	ug/l	63592.65
Ba	137	115	1	No Gas	52.850	ug/l	111842.93
La	139	115	3	He	31.817	ug/l	22.22
Ce	140	115	3	He	267.171	ug/l	436497.88
Hg	201	209	1	No Gas	4.960	ug/l	517.57
Hg	202	209	1	No Gas	5.077	ug/l	1169.16
Hg	202	209	3	He	5.354	ug/l	821.86
Tl	203	209	3	He	51.505	ug/l	104121.88
Tl	205	209	1	No Gas	49.447	ug/l	338739.59
Tl	205	209	3	He	51.219	ug/l	247298.26
[Pb]	206	209	1	No Gas	51.724	ug/l	119710.70
[Pb]	207	209	1	No Gas	52.559	ug/l	102041.17
Pb	208	209	1	No Gas	52.188	ug/l	474645.00
Th	232	209	3	He	50.187	ug/l	294081.65
U	238	209	1	No Gas	48.739	ug/l	378298.70

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2172258.09	80.7
Sc	45	2	H2	1296933.17	81.3
Sc	45	3	He	181541.10	80.3
Ge	72	1	No Gas	547117.28	83.9
Ge	72	2	H2	485860.81	87.4
Ge	72	3	He	104601.09	83.3
In	115	1	No Gas	2470376.63	80.3
In	115	3	He	802992.59	83.8
Tb	159	1	No Gas	2257519.29	84.7
Tb	159	3	He	1361724.96	90.2
Ho	165	1	No Gas	2040818.14	84.8
Ho	165	3	He	1262870.93	90.8
Lu	175	1	No Gas	1916481.57	85.5
Lu	175	3	He	973563.75	89.4
Bi	209	1	No Gas	1183717.94	82.8
Bi	209	3	He	814302.89	93.8

ICPMS207-B Analytical Data

Sample Name CCB
File Name 039_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 15:56:24
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.640	ug/l	12733.10
Be	9	45	1	No Gas	-0.082	ug/l	49.99
B	11	45	1	No Gas	5.563	ug/l	9666.30
Na	23	45	3	He	34.037	ug/l	64270.80
Mg	24	45	3	He	-0.158	ug/l	1177.72
Al	27	45	1	No Gas	-0.198	ug/l	6236.94
Si	28	45	2	H2	-9.598	ug/l	13493.51
K	39	72	3	He	-2.234	ug/l	133554.16
Ca	40	72	2	H2	-1.910	ug/l	192033.27
Ti	47	72	1	No Gas	-0.194	ug/l	347.02
V	51	72	1	No Gas	2.429	ug/l	-15409.91
V	51	72	3	He	2.185	ug/l	32292.05
Cr	52	72	1	No Gas	2.056	ug/l	111960.03
Cr	52	72	3	He	0.067	ug/l	4390.68
Mn	55	72	1	No Gas	0.535	ug/l	17569.05
Mn	55	72	3	He	0.003	ug/l	297.94
Fe	56	72	2	H2	0.348	ug/l	21834.83
Fe	56	72	3	He	0.719	ug/l	18077.59
Co	59	72	1	No Gas	-0.001	ug/l	632.10
Ni	60	72	1	No Gas	-0.006	ug/l	701.97
Ni	60	72	3	He	0.014	ug/l	265.56
Cu	63	72	1	No Gas	-0.021	ug/l	1494.01
Cu	63	72	3	He	-0.014	ug/l	463.58
Cu	65	72	1	No Gas	-0.031	ug/l	474.20
Zn	66	72	1	No Gas	-0.082	ug/l	467.29
Zn	66	72	3	He	0.007	ug/l	162.23
As	75	72	1	No Gas	1.178	ug/l	20914.11
As	75	72	3	He	0.164	ug/l	1104.35
Se	78	72	2	H2	0.036	ug/l	55.44
Br	79	72	1	No Gas	0.299	ug/l	23006.09
Br	79	72	2	H2	0.122	ug/l	14741.66
Se	82	72	1	No Gas	0.231	ug/l	690.08
Kr	84	72	1	No Gas		ug/l	17432.70
Sr	88	72	1	No Gas	0.004	ug/l	279.45
Sr	88	72	3	He	0.008	ug/l	125.56
Mo	95	115	1	No Gas	0.033	ug/l	131.11
Mo	95	115	3	He	0.022	ug/l	38.89
Mo	98	115	1	No Gas	0.022	ug/l	150.28
Ag	107	115	1	No Gas	0.001	ug/l	586.92
Ag	109	115	1	No Gas	0.005	ug/l	558.90
Cd	111	115	1	No Gas	0.006	ug/l	20.03

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	-0.001	ug/l	6.89
Cd	114	115	1	No Gas	0.001	ug/l	-32.48
Cd	114	115	3	He	0.002	ug/l	15.17
Sn	118	115	1	No Gas	0.073	ug/l	1220.97
Sn	118	115	3	He	0.075	ug/l	430.01
Sb	121	115	1	No Gas	0.103	ug/l	910.12
Sb	121	115	3	He	0.106	ug/l	333.71
Sb	123	115	1	No Gas	0.107	ug/l	700.42
Sb	123	115	3	He	0.106	ug/l	255.36
Ba	135	115	1	No Gas	0.011	ug/l	29.94
Ba	137	115	1	No Gas	-0.005	ug/l	33.27
La	139	115	3	He	-2.107	ug/l	8.89
Ce	140	115	3	He	0.001	ug/l	7.78
Hg	201	209	1	No Gas	0.029	ug/l	12.00
Hg	202	209	1	No Gas	0.028	ug/l	24.66
Hg	202	209	3	He	0.040	ug/l	11.00
Tl	203	209	3	He	0.198	ug/l	514.22
Tl	205	209	1	No Gas	0.164	ug/l	1512.32
Tl	205	209	3	He	0.183	ug/l	1132.51
[Pb]	206	209	1	No Gas	-0.003	ug/l	102.22
[Pb]	207	209	1	No Gas	-0.004	ug/l	74.45
Pb	208	209	1	No Gas	-0.004	ug/l	341.12
Th	232	209	3	He	0.022	ug/l	180.07
U	238	209	1	No Gas	0.002	ug/l	38.99

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2312471.91	86.0
Sc	45	2	H2	1308642.90	82.1
Sc	45	3	He	180616.33	79.9
Ge	72	1	No Gas	581842.71	89.2
Ge	72	2	H2	489936.06	88.1
Ge	72	3	He	105766.82	84.3
In	115	1	No Gas	2700245.58	87.8
In	115	3	He	843914.29	88.1
Tb	159	1	No Gas	2450767.19	91.9
Tb	159	3	He	1453078.16	96.2
Ho	165	1	No Gas	2187419.89	90.9
Ho	165	3	He	1328187.61	95.5
Lu	175	1	No Gas	2089183.56	93.2
Lu	175	3	He	1041787.53	95.7
Bi	209	1	No Gas	1301414.09	91.1
Bi	209	3	He	881938.89	101.6

ICPMS207-B Analytical Data

Sample Name B22010406-001A
File Name 040SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:02:37
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.572	ug/l	8902.18
Be	9	45	1	No Gas	-0.089	ug/l	41.66
B	11	45	1	No Gas	43.201	ug/l	75565.91
Na	23	45	3	He	33660.587	ug/l	22473716.33
Mg	24	45	3	He	15360.169	ug/l	5625329.59
Al	27	45	1	No Gas	2.057	ug/l	36244.81
Si	28	45	2	H2	24577.437	ug/l	38459391.54
K	39	72	3	He	1724.801	ug/l	989057.63
Ca	40	72	2	H2	13213.435	ug/l	78833775.17
Ti	47	72	1	No Gas	1.163	ug/l	2262.46
V	51	72	1	No Gas	21.456	ug/l	305660.81
V	51	72	3	He	12.379	ug/l	73393.01
Cr	52	72	1	No Gas	-0.195	ug/l	92220.32
Cr	52	72	3	He	2.129	ug/l	12705.53
Mn	55	72	1	No Gas	2.326	ug/l	53524.33
Mn	55	72	3	He	1.986	ug/l	5209.22
Fe	56	72	2	H2	3.452	ug/l	62030.77
Fe	56	72	3	He	3.068	ug/l	29117.96
Co	59	72	1	No Gas	0.012	ug/l	918.21
Ni	60	72	1	No Gas	0.196	ug/l	1547.02
Ni	60	72	3	He	0.230	ug/l	597.80
Cu	63	72	1	No Gas	0.367	ug/l	5118.96
Cu	63	72	3	He	0.250	ug/l	1416.79
Cu	65	72	1	No Gas	0.315	ug/l	1953.72
Zn	66	72	1	No Gas	8.671	ug/l	26323.17
Zn	66	72	3	He	8.768	ug/l	7098.43
As	75	72	1	No Gas	-2.225	ug/l	9977.24
As	75	72	3	He	-0.884	ug/l	374.07
Se	78	72	2	H2	0.143	ug/l	118.78
Br	79	72	1	No Gas	15.142	ug/l	126975.52
Br	79	72	2	H2	15.214	ug/l	93070.09
Se	82	72	1	No Gas	0.768	ug/l	890.63
Kr	84	72	1	No Gas		ug/l	31595.31
Sr	88	72	1	No Gas	94.273	ug/l	1885321.56
Sr	88	72	3	He	86.164	ug/l	288626.04
Mo	95	115	1	No Gas	0.123	ug/l	536.68
Mo	95	115	3	He	0.144	ug/l	247.78
Mo	98	115	1	No Gas	0.124	ug/l	853.02
Ag	107	115	1	No Gas	-0.063	ug/l	56.69
Ag	109	115	1	No Gas	-0.061	ug/l	38.01
Cd	111	115	1	No Gas	0.013	ug/l	38.86

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.016	ug/l	21.55
Cd	114	115	1	No Gas	0.026	ug/l	76.66
Cd	114	115	3	He	0.020	ug/l	51.59
Sn	118	115	1	No Gas	-0.025	ug/l	934.85
Sn	118	115	3	He	-0.045	ug/l	274.45
Sb	121	115	1	No Gas	1.048	ug/l	10096.97
Sb	121	115	3	He	1.141	ug/l	3554.81
Sb	123	115	1	No Gas	1.046	ug/l	7521.43
Sb	123	115	3	He	1.095	ug/l	2641.52
Ba	135	115	1	No Gas	3.695	ug/l	6036.04
Ba	137	115	1	No Gas	3.501	ug/l	9817.37
La	139	115	3	He	24.520	ug/l	23.34
Ce	140	115	3	He	0.017	ug/l	41.11
Hg	201	209	1	No Gas	0.008	ug/l	11.67
Hg	202	209	1	No Gas	-0.006	ug/l	19.33
Hg	202	209	3	He	0.038	ug/l	11.67
Tl	203	209	3	He	0.108	ug/l	344.14
Tl	205	209	1	No Gas	0.073	ug/l	984.49
Tl	205	209	3	He	0.107	ug/l	801.01
[Pb]	206	209	1	No Gas	0.010	ug/l	163.34
[Pb]	207	209	1	No Gas	0.012	ug/l	130.00
Pb	208	209	1	No Gas	0.013	ug/l	615.57
Th	232	209	3	He	0.006	ug/l	86.70
U	238	209	1	No Gas	0.010	ug/l	133.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2790792.81	103.7
Sc	45	2	H2	1584025.16	99.3
Sc	45	3	He	217516.36	96.2
Ge	72	1	No Gas	656292.51	100.6
Ge	72	2	H2	573178.68	103.1
Ge	72	3	He	126918.73	101.1
In	115	1	No Gas	3259422.40	106.0
In	115	3	He	970463.32	101.3
Tb	159	1	No Gas	2970094.63	111.4
Tb	159	3	He	1650572.22	109.3
Ho	165	1	No Gas	2724565.80	113.2
Ho	165	3	He	1499812.74	107.9
Lu	175	1	No Gas	2594065.20	115.7
Lu	175	3	He	1195024.55	109.7
Bi	209	1	No Gas	1563907.78	109.4
Bi	209	3	He	956518.66	110.2

ICPMS207-B Analytical Data

Sample Name B22010409-001A
File Name 041SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:08:52
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	1.325	ug/l	19031.52
Be	9	45	1	No Gas	-0.093	ug/l	32.66
B	11	45	1	No Gas	41.312	ug/l	72440.12
Na	23	45	3	He	44692.871	ug/l	29817909.28
Mg	24	45	3	He	9457.324	ug/l	3463167.53
Al	27	45	1	No Gas	4.996	ug/l	73750.90
Si	28	45	2	H2	17931.018	ug/l	27800759.66
K	39	72	3	He	2953.436	ug/l	1542624.80
Ca	40	72	2	H2	12580.384	ug/l	72920704.80
Ti	47	72	1	No Gas	0.819	ug/l	1780.24
V	51	72	1	No Gas	13.732	ug/l	173326.66
V	51	72	3	He	2.605	ug/l	39256.65
Cr	52	72	1	No Gas	-1.094	ug/l	78144.20
Cr	52	72	3	He	1.658	ug/l	10756.20
Mn	55	72	1	No Gas	3.473	ug/l	74704.24
Mn	55	72	3	He	3.244	ug/l	8099.94
Fe	56	72	2	H2	6.266	ug/l	92372.51
Fe	56	72	3	He	5.949	ug/l	37344.72
Co	59	72	1	No Gas	0.003	ug/l	775.15
Ni	60	72	1	No Gas	0.294	ug/l	1906.35
Ni	60	72	3	He	0.367	ug/l	756.69
Cu	63	72	1	No Gas	0.609	ug/l	7224.69
Cu	63	72	3	He	0.471	ug/l	2087.07
Cu	65	72	1	No Gas	0.508	ug/l	2732.69
Zn	66	72	1	No Gas	0.709	ug/l	2840.51
Zn	66	72	3	He	0.841	ug/l	831.14
As	75	72	1	No Gas	-0.830	ug/l	15452.05
As	75	72	3	He	0.409	ug/l	1512.65
Se	78	72	2	H2	0.054	ug/l	71.89
Br	79	72	1	No Gas	15.048	ug/l	125583.12
Br	79	72	2	H2	15.533	ug/l	91951.90
Se	82	72	1	No Gas	0.564	ug/l	840.89
Kr	84	72	1	No Gas		ug/l	35163.20
Sr	88	72	1	No Gas	128.384	ug/l	2552071.00
Sr	88	72	3	He	117.539	ug/l	384621.07
Mo	95	115	1	No Gas	4.413	ug/l	18292.89
Mo	95	115	3	He	4.617	ug/l	7543.16
Mo	98	115	1	No Gas	4.353	ug/l	28389.58
Ag	107	115	1	No Gas	-0.063	ug/l	53.35
Ag	109	115	1	No Gas	-0.061	ug/l	40.02
Cd	111	115	1	No Gas	0.018	ug/l	48.56

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.018	ug/l	22.89
Cd	114	115	1	No Gas	0.032	ug/l	102.85
Cd	114	115	3	He	0.022	ug/l	56.21
Sn	118	115	1	No Gas	-0.034	ug/l	864.98
Sn	118	115	3	He	-0.030	ug/l	296.67
Sb	121	115	1	No Gas	0.473	ug/l	4542.53
Sb	121	115	3	He	0.498	ug/l	1558.58
Sb	123	115	1	No Gas	0.465	ug/l	3334.74
Sb	123	115	3	He	0.498	ug/l	1204.17
Ba	135	115	1	No Gas	21.655	ug/l	34711.11
Ba	137	115	1	No Gas	21.998	ug/l	60404.35
La	139	115	3	He	4.574	ug/l	13.33
Ce	140	115	3	He	0.015	ug/l	36.67
Hg	201	209	1	No Gas	0.054	ug/l	17.66
Hg	202	209	1	No Gas	1.089	ug/l	343.94
Hg	202	209	3	He	0.959	ug/l	168.97
Tl	203	209	3	He	0.053	ug/l	204.75
Tl	205	209	1	No Gas	0.023	ug/l	524.46
Tl	205	209	3	He	0.045	ug/l	427.51
[Pb]	206	209	1	No Gas	0.017	ug/l	182.23
[Pb]	207	209	1	No Gas	0.010	ug/l	123.34
Pb	208	209	1	No Gas	0.015	ug/l	631.13
Th	232	209	3	He	0.000	ug/l	42.68
U	238	209	1	No Gas	0.277	ug/l	2836.41

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2794162.37	103.9
Sc	45	2	H2	1568842.26	98.4
Sc	45	3	He	217468.69	96.2
Ge	72	1	No Gas	652403.32	100.0
Ge	72	2	H2	556730.98	100.1
Ge	72	3	He	124012.91	98.8
In	115	1	No Gas	3204667.04	104.2
In	115	3	He	954604.12	99.7
Tb	159	1	No Gas	2949661.54	110.7
Tb	159	3	He	1571681.97	104.1
Ho	165	1	No Gas	2666161.46	110.8
Ho	165	3	He	1438225.00	103.4
Lu	175	1	No Gas	2550955.76	113.8
Lu	175	3	He	1160674.84	106.6
Bi	209	1	No Gas	1545648.95	108.2
Bi	209	3	He	914574.71	105.4

ICPMS207-B Analytical Data

Sample Name B22010410-001A
File Name 042SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:15:05
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.463	ug/l	9183.12
Be	9	45	1	No Gas	-0.093	ug/l	31.32
B	11	45	1	No Gas	30.998	ug/l	53134.50
Na	23	45	3	He	38296.714	ug/l	24579465.47
Mg	24	45	3	He	15999.530	ug/l	5633758.56
Al	27	45	1	No Gas	3.273	ug/l	50116.87
Si	28	45	2	H2	18745.972	ug/l	28091641.01
K	39	72	3	He	2358.464	ug/l	1245547.13
Ca	40	72	2	H2	16702.956	ug/l	94181908.59
Ti	47	72	1	No Gas	0.816	ug/l	1668.45
V	51	72	1	No Gas	13.137	ug/l	153557.63
V	51	72	3	He	2.754	ug/l	39183.16
Cr	52	72	1	No Gas	-1.189	ug/l	72118.94
Cr	52	72	3	He	1.551	ug/l	10231.39
Mn	55	72	1	No Gas	0.269	ug/l	13845.75
Mn	55	72	3	He	0.067	ug/l	495.24
Fe	56	72	2	H2	0.326	ug/l	23906.76
Fe	56	72	3	He	-0.004	ug/l	18692.31
Co	59	72	1	No Gas	0.002	ug/l	701.96
Ni	60	72	1	No Gas	0.204	ug/l	1473.83
Ni	60	72	3	He	0.215	ug/l	556.68
Cu	63	72	1	No Gas	0.426	ug/l	5272.41
Cu	63	72	3	He	0.260	ug/l	1395.12
Cu	65	72	1	No Gas	0.325	ug/l	1864.20
Zn	66	72	1	No Gas	4.501	ug/l	13120.91
Zn	66	72	3	He	4.395	ug/l	3518.22
As	75	72	1	No Gas	-0.916	ug/l	14213.35
As	75	72	3	He	-0.487	ug/l	707.73
Se	78	72	2	H2	0.031	ug/l	58.67
Br	79	72	1	No Gas	23.711	ug/l	173157.37
Br	79	72	2	H2	23.385	ug/l	126834.14
Se	82	72	1	No Gas	0.939	ug/l	865.68
Kr	84	72	1	No Gas		ug/l	32732.32
Sr	88	72	1	No Gas	126.189	ug/l	2358274.03
Sr	88	72	3	He	114.432	ug/l	369169.38
Mo	95	115	1	No Gas	0.796	ug/l	3198.21
Mo	95	115	3	He	0.920	ug/l	1465.64
Mo	98	115	1	No Gas	0.788	ug/l	4981.81
Ag	107	115	1	No Gas	-0.058	ug/l	99.37
Ag	109	115	1	No Gas	-0.053	ug/l	109.38
Cd	111	115	1	No Gas	0.016	ug/l	42.94

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.010	ug/l	15.89
Cd	114	115	1	No Gas	0.025	ug/l	67.70
Cd	114	115	3	He	0.012	ug/l	34.75
Sn	118	115	1	No Gas	-0.097	ug/l	505.68
Sn	118	115	3	He	-0.116	ug/l	136.67
Sb	121	115	1	No Gas	0.022	ug/l	310.37
Sb	121	115	3	He	0.017	ug/l	106.68
Sb	123	115	1	No Gas	0.020	ug/l	219.36
Sb	123	115	3	He	0.022	ug/l	89.34
Ba	135	115	1	No Gas	5.828	ug/l	9011.76
Ba	137	115	1	No Gas	5.797	ug/l	15374.86
La	139	115	3	He	3.169	ug/l	12.22
Ce	140	115	3	He	0.010	ug/l	26.67
Hg	201	209	1	No Gas	0.001	ug/l	10.00
Hg	202	209	1	No Gas	0.016	ug/l	24.33
Hg	202	209	3	He	0.028	ug/l	9.33
Tl	203	209	3	He	0.034	ug/l	160.73
Tl	205	209	1	No Gas	0.025	ug/l	522.24
Tl	205	209	3	He	0.041	ug/l	406.17
[Pb]	206	209	1	No Gas	0.000	ug/l	124.44
[Pb]	207	209	1	No Gas	0.008	ug/l	112.22
Pb	208	209	1	No Gas	0.003	ug/l	464.44
Th	232	209	3	He	0.001	ug/l	48.68
U	238	209	1	No Gas	0.034	ug/l	347.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2703430.50	100.5
Sc	45	2	H2	1516374.10	95.1
Sc	45	3	He	209139.32	92.5
Ge	72	1	No Gas	613214.56	94.0
Ge	72	2	H2	542118.38	97.5
Ge	72	3	He	122236.49	97.4
In	115	1	No Gas	3087634.65	100.4
In	115	3	He	926144.47	96.7
Tb	159	1	No Gas	2797516.09	105.0
Tb	159	3	He	1554233.71	102.9
Ho	165	1	No Gas	2507730.43	104.2
Ho	165	3	He	1433657.51	103.1
Lu	175	1	No Gas	2418915.81	107.9
Lu	175	3	He	1140734.00	104.8
Bi	209	1	No Gas	1463351.17	102.4
Bi	209	3	He	910307.07	104.9

ICPMS207-B Analytical Data

Sample Name B22010411-001A
File Name 043SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:21:19
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.994	ug/l	6366.56
Be	9	45	1	No Gas	-0.092	ug/l	32.32
B	11	45	1	No Gas	73.102	ug/l	120941.13
Na	23	45	3	He	45321.933	ug/l	29047775.68
Mg	24	45	3	He	13528.184	ug/l	4758284.02
Al	27	45	1	No Gas	1.497	ug/l	27848.14
Si	28	45	2	H2	7806.168	ug/l	11566339.94
K	39	72	3	He	3700.857	ug/l	1856095.81
Ca	40	72	2	H2	12693.509	ug/l	71915713.18
Ti	47	72	1	No Gas	0.245	ug/l	966.01
V	51	72	1	No Gas	3.754	ug/l	4677.07
V	51	72	3	He	-6.588	ug/l	8548.07
Cr	52	72	1	No Gas	-2.365	ug/l	57430.73
Cr	52	72	3	He	-0.136	ug/l	4344.00
Mn	55	72	1	No Gas	48.738	ug/l	897147.23
Mn	55	72	3	He	47.827	ug/l	112463.35
Fe	56	72	2	H2	36.144	ug/l	423724.12
Fe	56	72	3	He	36.652	ug/l	129618.90
Co	59	72	1	No Gas	0.016	ug/l	954.81
Ni	60	72	1	No Gas	0.341	ug/l	2026.14
Ni	60	72	3	He	0.439	ug/l	831.14
Cu	63	72	1	No Gas	0.633	ug/l	7230.04
Cu	63	72	3	He	0.508	ug/l	2160.06
Cu	65	72	1	No Gas	0.520	ug/l	2708.68
Zn	66	72	1	No Gas	2.319	ug/l	7362.69
Zn	66	72	3	He	2.592	ug/l	2137.95
As	75	72	1	No Gas	-1.708	ug/l	11645.95
As	75	72	3	He	-0.802	ug/l	429.80
Se	78	72	2	H2	0.037	ug/l	62.00
Br	79	72	1	No Gas	14.199	ug/l	116648.89
Br	79	72	2	H2	14.859	ug/l	86659.52
Se	82	72	1	No Gas	0.059	ug/l	717.55
Kr	84	72	1	No Gas		ug/l	26931.87
Sr	88	72	1	No Gas	86.332	ug/l	1670598.05
Sr	88	72	3	He	81.081	ug/l	260211.67
Mo	95	115	1	No Gas	13.948	ug/l	56192.56
Mo	95	115	3	He	16.399	ug/l	25771.11
Mo	98	115	1	No Gas	14.246	ug/l	90331.46
Ag	107	115	1	No Gas	-0.064	ug/l	45.35
Ag	109	115	1	No Gas	-0.062	ug/l	34.01
Cd	111	115	1	No Gas	0.045	ug/l	99.54

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.043	ug/l	41.00
Cd	114	115	1	No Gas	0.054	ug/l	193.23
Cd	114	115	3	He	0.044	ug/l	91.94
Sn	118	115	1	No Gas	-0.091	ug/l	538.94
Sn	118	115	3	He	-0.082	ug/l	195.56
Sb	121	115	1	No Gas	0.045	ug/l	516.06
Sb	121	115	3	He	0.049	ug/l	199.02
Sb	123	115	1	No Gas	0.046	ug/l	399.05
Sb	123	115	3	He	0.053	ug/l	157.69
Ba	135	115	1	No Gas	2.154	ug/l	3377.06
Ba	137	115	1	No Gas	2.022	ug/l	5446.94
La	139	115	3	He	8.116	ug/l	14.44
Ce	140	115	3	He	0.016	ug/l	37.78
Hg	201	209	1	No Gas	0.001	ug/l	9.67
Hg	202	209	1	No Gas	0.066	ug/l	37.32
Hg	202	209	3	He	0.096	ug/l	20.67
Tl	203	209	3	He	0.029	ug/l	146.06
Tl	205	209	1	No Gas	0.009	ug/l	375.56
Tl	205	209	3	He	0.024	ug/l	307.46
[Pb]	206	209	1	No Gas	0.046	ug/l	247.78
[Pb]	207	209	1	No Gas	0.052	ug/l	212.23
Pb	208	209	1	No Gas	0.053	ug/l	993.36
Th	232	209	3	He	0.003	ug/l	61.36
U	238	209	1	No Gas	0.005	ug/l	69.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2671308.91	99.3
Sc	45	2	H2	1497031.65	93.9
Sc	45	3	He	208928.66	92.4
Ge	72	1	No Gas	634933.05	97.3
Ge	72	2	H2	544163.02	97.8
Ge	72	3	He	121588.26	96.9
In	115	1	No Gas	3116932.50	101.3
In	115	3	He	918816.16	95.9
Tb	159	1	No Gas	2829615.14	106.2
Tb	159	3	He	1525022.60	101.0
Ho	165	1	No Gas	2534146.84	105.3
Ho	165	3	He	1433336.45	103.1
Lu	175	1	No Gas	2328219.26	103.9
Lu	175	3	He	1151384.39	105.7
Bi	209	1	No Gas	1424448.82	99.7
Bi	209	3	He	900232.14	103.7

ICPMS207-B Analytical Data

Sample Name B22010411-001ADIL
File Name 044ARef.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:27:34
Sample Type AIRRef
Total Dilution 5.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-2.427	ug/l	7689.04
Be	9	45	1	No Gas	-0.448	ug/l	32.99
B	11	45	1	No Gas	87.752	ug/l	26301.96
Na	23	45	3	He	45616.598	ug/l	4982270.34
Mg	24	45	3	He	13251.522	ug/l	789625.16
Al	27	45	1	No Gas	11.421	ug/l	32150.07
Si	28	45	2	H2	7571.013	ug/l	1953565.07
K	39	72	3	He	3373.704	ug/l	399525.41
Ca	40	72	2	H2	12053.319	ug/l	12226554.25
Ti	47	72	1	No Gas	-0.667	ug/l	402.08
V	51	72	1	No Gas	3.276	ug/l	-40150.39
V	51	72	3	He	1.456	ug/l	26606.26
Cr	52	72	1	No Gas	4.924	ug/l	93104.77
Cr	52	72	3	He	0.719	ug/l	4565.18
Mn	55	72	1	No Gas	51.053	ug/l	170826.53
Mn	55	72	3	He	46.870	ug/l	19177.95
Fe	56	72	2	H2	40.946	ug/l	98743.86
Fe	56	72	3	He	43.423	ug/l	38599.26
Co	59	72	1	No Gas	-0.010	ug/l	585.52
Ni	60	72	1	No Gas	0.747	ug/l	1161.08
Ni	60	72	3	He	0.859	ug/l	430.01
Cu	63	72	1	No Gas	1.576	ug/l	3944.12
Cu	63	72	3	He	1.546	ug/l	1324.13
Cu	65	72	1	No Gas	1.413	ug/l	1540.70
Zn	66	72	1	No Gas	6.903	ug/l	4094.12
Zn	66	72	3	He	7.500	ug/l	1128.94
As	75	72	1	No Gas	1.409	ug/l	16930.79
As	75	72	3	He	-0.287	ug/l	926.08
Se	78	72	2	H2	0.076	ug/l	45.56
Br	79	72	1	No Gas	16.827	ug/l	39552.58
Br	79	72	2	H2	13.578	ug/l	25395.30
Se	82	72	1	No Gas	-2.315	ug/l	535.14
Kr	84	72	1	No Gas		ug/l	18138.87
Sr	88	72	1	No Gas	83.786	ug/l	283676.37
Sr	88	72	3	He	80.036	ug/l	44234.91
Mo	95	115	1	No Gas	14.260	ug/l	10269.32
Mo	95	115	3	He	16.560	ug/l	4715.25
Mo	98	115	1	No Gas	14.302	ug/l	16213.28
Ag	107	115	1	No Gas	-0.330	ug/l	20.01
Ag	109	115	1	No Gas	-0.314	ug/l	20.01
Cd	111	115	1	No Gas	0.055	ug/l	29.04

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.043	ug/l	13.33
Cd	114	115	1	No Gas	0.108	ug/l	47.21
Cd	114	115	3	He	0.051	ug/l	28.95
Sn	118	115	1	No Gas	0.233	ug/l	1134.47
Sn	118	115	3	He	0.343	ug/l	413.34
Sb	121	115	1	No Gas	0.137	ug/l	320.37
Sb	121	115	3	He	0.122	ug/l	116.01
Sb	123	115	1	No Gas	0.139	ug/l	242.36
Sb	123	115	3	He	0.157	ug/l	99.68
Ba	135	115	1	No Gas	4.118	ug/l	1161.09
Ba	137	115	1	No Gas	4.187	ug/l	2039.45
La	139	115	3	He	176.311	ug/l	24.45
Ce	140	115	3	He	0.111	ug/l	44.44
Hg	201	209	1	No Gas	0.015	ug/l	9.00
Hg	202	209	1	No Gas	0.086	ug/l	22.00
Hg	202	209	3	He	0.072	ug/l	6.67
Tl	203	209	3	He	0.030	ug/l	92.04
Tl	205	209	1	No Gas	-0.013	ug/l	252.22
Tl	205	209	3	He	0.044	ug/l	219.42
[Pb]	206	209	1	No Gas	0.113	ug/l	166.67
[Pb]	207	209	1	No Gas	0.180	ug/l	158.89
Pb	208	209	1	No Gas	0.171	ug/l	722.23
Th	232	209	3	He	0.004	ug/l	48.02
U	238	209	1	No Gas	0.005	ug/l	30.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2292037.08	85.2
Sc	45	2	H2	1289845.30	80.9
Sc	45	3	He	176740.09	78.2
Ge	72	1	No Gas	555134.94	85.1
Ge	72	2	H2	480905.59	86.5
Ge	72	3	He	104504.70	83.2
In	115	1	No Gas	2782155.52	90.5
In	115	3	He	831186.14	86.8
Tb	159	1	No Gas	2482692.13	93.1
Tb	159	3	He	1434619.12	95.0
Ho	165	1	No Gas	2229186.90	92.6
Ho	165	3	He	1320625.58	95.0
Lu	175	1	No Gas	2083673.89	93.0
Lu	175	3	He	1015785.80	93.3
Bi	209	1	No Gas	1301171.96	91.1
Bi	209	3	He	867490.80	99.9

ICPMS207-B Analytical Data

Sample Name B22010411-001AMS
File Name 045MS.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:33:49
Sample Type MS
Total Dilution 1.0300
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2530.925	ug/l	11399068.28
Be	9	45	1	No Gas	48.970	ug/l	104974.78
B	11	45	1	No Gas	127.797	ug/l	185006.36
Na	23	45	3	He	93662.075	ug/l	56486915.27
Mg	24	45	3	He	63613.830	ug/l	21068209.13
Al	27	45	1	No Gas	47.942	ug/l	523874.79
Si	28	45	2	H2	7985.830	ug/l	10586825.99
K	39	72	3	He	49408.697	ug/l	21137146.91
Ca	40	72	2	H2	57362.906	ug/l	301108524.58
Ti	47	72	1	No Gas	50.212	ug/l	62862.93
V	51	72	1	No Gas	50.898	ug/l	722625.32
V	51	72	3	He	50.414	ug/l	180270.41
Cr	52	72	1	No Gas	48.119	ug/l	742734.34
Cr	52	72	3	He	50.555	ug/l	166092.37
Mn	55	72	1	No Gas	95.713	ug/l	1628121.38
Mn	55	72	3	He	96.679	ug/l	209753.38
Fe	56	72	2	H2	4954.426	ug/l	51362604.55
Fe	56	72	3	He	5201.942	ug/l	14575666.51
Co	59	72	1	No Gas	46.488	ug/l	688209.75
Ni	60	72	1	No Gas	46.544	ug/l	157611.40
Ni	60	72	3	He	52.175	ug/l	59959.23
Cu	63	72	1	No Gas	48.186	ug/l	385051.18
Cu	63	72	3	He	54.291	ug/l	157145.86
Cu	65	72	1	No Gas	47.874	ug/l	177459.87
Zn	66	72	1	No Gas	49.165	ug/l	130992.12
Zn	66	72	3	He	53.032	ug/l	37167.29
As	75	72	1	No Gas	49.712	ug/l	195002.19
As	75	72	3	He	50.588	ug/l	41727.90
Se	78	72	2	H2	49.057	ug/l	21850.26
Br	79	72	1	No Gas	15.607	ug/l	117572.23
Br	79	72	2	H2	16.547	ug/l	88444.08
Se	82	72	1	No Gas	48.876	ug/l	9880.03
Kr	84	72	1	No Gas		ug/l	33822.89
Sr	88	72	1	No Gas	133.124	ug/l	2392114.64
Sr	88	72	3	He	131.321	ug/l	389343.30
Mo	95	115	1	No Gas	60.619	ug/l	212200.98
Mo	95	115	3	He	67.602	ug/l	98225.95
Mo	98	115	1	No Gas	60.745	ug/l	334669.71
Ag	107	115	1	No Gas	19.175	ug/l	163638.38
Ag	109	115	1	No Gas	18.871	ug/l	150316.46
Cd	111	115	1	No Gas	48.077	ug/l	83076.27

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	51.036	ug/l	36037.70
Cd	114	115	1	No Gas	47.865	ug/l	181690.49
Cd	114	115	3	He	52.371	ug/l	86880.67
Sn	118	115	1	No Gas	46.952	ug/l	217540.47
Sn	118	115	3	He	50.345	ug/l	81284.14
Sb	121	115	1	No Gas	39.902	ug/l	316159.99
Sb	121	115	3	He	43.106	ug/l	115633.72
Sb	123	115	1	No Gas	40.600	ug/l	240062.01
Sb	123	115	3	He	43.113	ug/l	89693.14
Ba	135	115	1	No Gas	51.379	ug/l	69618.93
Ba	137	115	1	No Gas	50.468	ug/l	117111.35
La	139	115	3	He	100.450	ug/l	53.33
Ce	140	115	3	He	264.732	ug/l	457584.75
Hg	201	209	1	No Gas	5.012	ug/l	577.23
Hg	202	209	1	No Gas	5.101	ug/l	1295.81
Hg	202	209	3	He	5.440	ug/l	860.86
Tl	203	209	3	He	48.063	ug/l	100159.45
Tl	205	209	1	No Gas	47.301	ug/l	357145.26
Tl	205	209	3	He	47.770	ug/l	237752.59
[Pb]	206	209	1	No Gas	48.386	ug/l	123472.12
[Pb]	207	209	1	No Gas	50.098	ug/l	107241.23
Pb	208	209	1	No Gas	49.701	ug/l	498268.53
Th	232	209	3	He	48.549	ug/l	293258.21
U	238	209	1	No Gas	47.845	ug/l	409442.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2424547.87	90.1
Sc	45	2	H2	1381951.11	86.7
Sc	45	3	He	202672.99	89.7
Ge	72	1	No Gas	607274.02	93.1
Ge	72	2	H2	520909.38	93.7
Ge	72	3	He	115714.52	92.2
In	115	1	No Gas	2790436.43	90.7
In	115	3	He	875173.32	91.4
Tb	159	1	No Gas	2559951.06	96.0
Tb	159	3	He	1479931.09	98.0
Ho	165	1	No Gas	2306578.11	95.8
Ho	165	3	He	1408431.57	101.3
Lu	175	1	No Gas	2202023.14	98.2
Lu	175	3	He	1123771.83	103.2
Bi	209	1	No Gas	1343071.12	94.0
Bi	209	3	He	864262.78	99.6

ICPMS207-B Analytical Data

Sample Name B22010411-001AMSD
File Name 046MSD.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:40:03
Sample Type MSD
Total Dilution 1.0300
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2489.386	ug/l	12110064.83
Be	9	45	1	No Gas	47.778	ug/l	110632.00
B	11	45	1	No Gas	124.121	ug/l	194132.96
Na	23	45	3	He	92982.614	ug/l	58521607.46
Mg	24	45	3	He	64667.023	ug/l	22351284.88
Al	27	45	1	No Gas	48.240	ug/l	569256.47
Si	28	45	2	H2	7877.650	ug/l	11244324.97
K	39	72	3	He	49994.935	ug/l	22579218.55
Ca	40	72	2	H2	59060.225	ug/l	320425367.41
Ti	47	72	1	No Gas	51.357	ug/l	68669.69
V	51	72	1	No Gas	48.476	ug/l	732112.76
V	51	72	3	He	49.517	ug/l	187491.18
Cr	52	72	1	No Gas	47.780	ug/l	788227.04
Cr	52	72	3	He	49.847	ug/l	172972.51
Mn	55	72	1	No Gas	96.191	ug/l	1748189.24
Mn	55	72	3	He	96.339	ug/l	220701.13
Fe	56	72	2	H2	5045.306	ug/l	54071001.60
Fe	56	72	3	He	5109.425	ug/l	15118267.32
Co	59	72	1	No Gas	47.147	ug/l	745645.25
Ni	60	72	1	No Gas	47.633	ug/l	172280.04
Ni	60	72	3	He	50.695	ug/l	61527.94
Cu	63	72	1	No Gas	48.922	ug/l	417608.62
Cu	63	72	3	He	53.379	ug/l	163151.78
Cu	65	72	1	No Gas	48.792	ug/l	193190.41
Zn	66	72	1	No Gas	50.081	ug/l	142470.15
Zn	66	72	3	He	52.908	ug/l	39151.48
As	75	72	1	No Gas	50.712	ug/l	212101.39
As	75	72	3	He	50.553	ug/l	44030.60
Se	78	72	2	H2	50.543	ug/l	23276.12
Br	79	72	1	No Gas	16.126	ug/l	129008.57
Br	79	72	2	H2	16.964	ug/l	93287.84
Se	82	72	1	No Gas	48.820	ug/l	10543.70
Kr	84	72	1	No Gas		ug/l	35026.61
Sr	88	72	1	No Gas	131.397	ug/l	2521924.21
Sr	88	72	3	He	130.849	ug/l	409627.94
Mo	95	115	1	No Gas	62.577	ug/l	230372.74
Mo	95	115	3	He	67.536	ug/l	101449.90
Mo	98	115	1	No Gas	62.482	ug/l	361999.70
Ag	107	115	1	No Gas	19.468	ug/l	174732.83
Ag	109	115	1	No Gas	19.296	ug/l	161631.53
Cd	111	115	1	No Gas	49.103	ug/l	89222.75

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	51.829	ug/l	37839.68
Cd	114	115	1	No Gas	48.828	ug/l	194905.93
Cd	114	115	3	He	52.473	ug/l	90001.43
Sn	118	115	1	No Gas	48.035	ug/l	234117.93
Sn	118	115	3	He	51.290	ug/l	85621.15
Sb	121	115	1	No Gas	42.425	ug/l	353512.49
Sb	121	115	3	He	45.147	ug/l	125219.44
Sb	123	115	1	No Gas	42.698	ug/l	265484.18
Sb	123	115	3	He	45.092	ug/l	97005.41
Ba	135	115	1	No Gas	52.375	ug/l	74655.49
Ba	137	115	1	No Gas	51.255	ug/l	125116.14
La	139	115	3	He	679.286	ug/l	312.23
Ce	140	115	3	He	264.469	ug/l	472632.19
Hg	201	209	1	No Gas	5.034	ug/l	604.56
Hg	202	209	1	No Gas	5.369	ug/l	1421.13
Hg	202	209	3	He	5.766	ug/l	898.19
Tl	203	209	3	He	49.873	ug/l	102400.67
Tl	205	209	1	No Gas	49.005	ug/l	385925.13
Tl	205	209	3	He	49.320	ug/l	241798.74
[Pb]	206	209	1	No Gas	49.846	ug/l	132626.63
[Pb]	207	209	1	No Gas	50.842	ug/l	113484.17
Pb	208	209	1	No Gas	50.485	ug/l	527782.13
Th	232	209	3	He	50.344	ug/l	299742.24
U	238	209	1	No Gas	48.814	ug/l	435561.70

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2618641.04	97.3
Sc	45	2	H2	1485366.44	93.1
Sc	45	3	He	211507.86	93.6
Ge	72	1	No Gas	648812.82	99.5
Ge	72	2	H2	538007.90	96.7
Ge	72	3	He	122184.85	97.3
In	115	1	No Gas	2934621.16	95.4
In	115	3	He	904851.11	94.5
Tb	159	1	No Gas	2719018.25	102.0
Tb	159	3	He	1487424.01	98.5
Ho	165	1	No Gas	2424158.55	100.7
Ho	165	3	He	1417961.45	102.0
Lu	175	1	No Gas	2329344.99	103.9
Lu	175	3	He	1139672.72	104.7
Bi	209	1	No Gas	1401070.25	98.1
Bi	209	3	He	852769.09	98.2

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 047BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:46:18
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2.174	ug/l	21169.16
Be	9	45	1	No Gas	-0.076	ug/l	66.32
B	11	45	1	No Gas	3.136	ug/l	6784.25
Na	23	45	3	He	34.589	ug/l	68954.69
Mg	24	45	3	He	3.877	ug/l	2568.47
Al	27	45	1	No Gas	1.110	ug/l	21750.47
Si	28	45	2	H2	-11.778	ug/l	11158.58
K	39	72	3	He	21.309	ug/l	151391.57
Ca	40	72	2	H2	0.166	ug/l	214172.49
Ti	47	72	1	No Gas	-0.120	ug/l	470.48
V	51	72	1	No Gas	0.704	ug/l	-45137.69
V	51	72	3	He	2.261	ug/l	34418.98
Cr	52	72	1	No Gas	0.931	ug/l	104172.81
Cr	52	72	3	He	-0.001	ug/l	4431.80
Mn	55	72	1	No Gas	0.588	ug/l	19850.69
Mn	55	72	3	He	0.004	ug/l	317.27
Fe	56	72	2	H2	0.233	ug/l	21856.54
Fe	56	72	3	He	0.599	ug/l	18805.97
Co	59	72	1	No Gas	-0.015	ug/l	455.77
Ni	60	72	1	No Gas	0.038	ug/l	911.56
Ni	60	72	3	He	0.044	ug/l	315.56
Cu	63	72	1	No Gas	-0.017	ug/l	1643.42
Cu	63	72	3	He	-0.022	ug/l	467.58
Cu	65	72	1	No Gas	-0.031	ug/l	507.55
Zn	66	72	1	No Gas	-0.088	ug/l	483.94
Zn	66	72	3	He	-0.005	ug/l	163.34
As	75	72	1	No Gas	-0.097	ug/l	17589.56
As	75	72	3	He	0.126	ug/l	1139.36
Se	78	72	2	H2	0.027	ug/l	54.56
Br	79	72	1	No Gas	0.916	ug/l	28785.47
Br	79	72	2	H2	0.422	ug/l	16943.07
Se	82	72	1	No Gas	-0.356	ug/l	624.48
Kr	84	72	1	No Gas		ug/l	17322.92
Sr	88	72	1	No Gas	0.004	ug/l	286.10
Sr	88	72	3	He	0.011	ug/l	140.00
Mo	95	115	1	No Gas	0.112	ug/l	452.65
Mo	95	115	3	He	0.045	ug/l	75.56
Mo	98	115	1	No Gas	0.045	ug/l	300.91
Ag	107	115	1	No Gas	0.000	ug/l	630.27
Ag	109	115	1	No Gas	-0.003	ug/l	538.23
Cd	111	115	1	No Gas	-0.009	ug/l	-7.07

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	-0.002	ug/l	6.22
Cd	114	115	1	No Gas	-0.007	ug/l	-69.47
Cd	114	115	3	He	-0.006	ug/l	2.52
Sn	118	115	1	No Gas	1.763	ug/l	9790.70
Sn	118	115	3	He	2.002	ug/l	3663.83
Sb	121	115	1	No Gas	0.611	ug/l	5345.56
Sb	121	115	3	He	0.579	ug/l	1664.60
Sb	123	115	1	No Gas	0.611	ug/l	3995.97
Sb	123	115	3	He	0.598	ug/l	1328.53
Ba	135	115	1	No Gas	-0.002	ug/l	13.31
Ba	137	115	1	No Gas	-0.006	ug/l	33.27
La	139	115	3	He	-5.555	ug/l	7.78
Ce	140	115	3	He	0.013	ug/l	30.00
Hg	201	209	1	No Gas	0.032	ug/l	13.33
Hg	202	209	1	No Gas	0.014	ug/l	23.00
Hg	202	209	3	He	0.044	ug/l	11.67
Tl	203	209	3	He	0.101	ug/l	299.46
Tl	205	209	1	No Gas	0.085	ug/l	984.49
Tl	205	209	3	He	0.099	ug/l	688.96
[Pb]	206	209	1	No Gas	-0.003	ug/l	111.11
[Pb]	207	209	1	No Gas	0.003	ug/l	96.67
Pb	208	209	1	No Gas	0.000	ug/l	406.67
Th	232	209	3	He	0.022	ug/l	180.08
U	238	209	1	No Gas	0.003	ug/l	53.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2508942.88	93.3
Sc	45	2	H2	1367812.78	85.8
Sc	45	3	He	192873.81	85.3
Ge	72	1	No Gas	625609.60	95.9
Ge	72	2	H2	517911.67	93.1
Ge	72	3	He	111988.85	89.2
In	115	1	No Gas	2940605.57	95.6
In	115	3	He	881412.19	92.0
Tb	159	1	No Gas	2673504.53	100.3
Tb	159	3	He	1462647.69	96.9
Ho	165	1	No Gas	2380748.17	98.9
Ho	165	3	He	1357844.59	97.7
Lu	175	1	No Gas	2235416.17	99.7
Lu	175	3	He	1058589.48	97.2
Bi	209	1	No Gas	1405517.48	98.4
Bi	209	3	He	878123.29	101.2

ICPMS207-B Analytical Data

Sample Name MB-162926
File Name 048ARef.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:52:31
Sample Type AIRRef
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	1.928	ug/l	15691.04
Be	9	45	1	No Gas	-0.078	ug/l	49.99
B	11	45	1	No Gas	3.969	ug/l	6323.20
Na	23	45	3	He	62.466	ug/l	68860.97
Mg	24	45	3	He	2.210	ug/l	1633.53
Al	27	45	1	No Gas	3.630	ug/l	39717.07
Si	28	45	2	H2	10.819	ug/l	34473.41
K	39	72	3	He	3.990	ug/l	120364.23
Ca	40	72	2	H2	16.415	ug/l	256080.02
Ti	47	72	1	No Gas	0.091	ug/l	638.99
V	51	72	1	No Gas	-1.302	ug/l	-65728.44
V	51	72	3	He	9.442	ug/l	46752.94
Cr	52	72	1	No Gas	5.983	ug/l	151144.46
Cr	52	72	3	He	0.420	ug/l	4820.81
Mn	55	72	1	No Gas	1.812	ug/l	35699.04
Mn	55	72	3	He	0.191	ug/l	603.56
Fe	56	72	2	H2	1.335	ug/l	28511.30
Fe	56	72	3	He	2.538	ug/l	20229.20
Co	59	72	1	No Gas	0.065	ug/l	1463.84
Ni	60	72	1	No Gas	0.064	ug/l	855.00
Ni	60	72	3	He	0.079	ug/l	296.67
Cu	63	72	1	No Gas	0.303	ug/l	3703.96
Cu	63	72	3	He	0.480	ug/l	1594.44
Cu	65	72	1	No Gas	0.277	ug/l	1460.66
Zn	66	72	1	No Gas	0.207	ug/l	1121.70
Zn	66	72	3	He	0.288	ug/l	306.67
As	75	72	1	No Gas	3.609	ug/l	27042.79
As	75	72	3	He	1.005	ug/l	1540.45
Se	78	72	2	H2	0.060	ug/l	59.00
Br	79	72	1	No Gas	9.462	ug/l	71912.33
Br	79	72	2	H2	9.589	ug/l	49736.70
Se	82	72	1	No Gas	0.046	ug/l	600.35
Kr	84	72	1	No Gas		ug/l	16403.55
Sr	88	72	1	No Gas	0.038	ug/l	798.44
Sr	88	72	3	He	0.042	ug/l	193.34
Mo	95	115	1	No Gas	0.052	ug/l	174.45
Mo	95	115	3	He	0.059	ug/l	80.00
Mo	98	115	1	No Gas	0.049	ug/l	258.00
Ag	107	115	1	No Gas	-0.065	ug/l	22.01
Ag	109	115	1	No Gas	-0.061	ug/l	29.34
Cd	111	115	1	No Gas	0.005	ug/l	14.96

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.004	ug/l	9.11
Cd	114	115	1	No Gas	0.016	ug/l	21.44
Cd	114	115	3	He	0.002	ug/l	14.37
Sn	118	115	1	No Gas	0.461	ug/l	2615.08
Sn	118	115	3	He	0.524	ug/l	982.26
Sb	121	115	1	No Gas	0.491	ug/l	3451.11
Sb	121	115	3	He	0.377	ug/l	905.45
Sb	123	115	1	No Gas	0.496	ug/l	2605.50
Sb	123	115	3	He	0.408	ug/l	753.43
Ba	135	115	1	No Gas	0.060	ug/l	83.17
Ba	137	115	1	No Gas	0.067	ug/l	172.99
La	139	115	3	He	19.710	ug/l	15.55
Ce	140	115	3	He	0.016	ug/l	30.00
Hg	201	209	1	No Gas	0.125	ug/l	20.00
Hg	202	209	1	No Gas	0.059	ug/l	28.32
Hg	202	209	3	He	0.070	ug/l	14.33
Tl	203	209	3	He	0.110	ug/l	285.45
Tl	205	209	1	No Gas	0.094	ug/l	857.81
Tl	205	209	3	He	0.107	ug/l	656.28
[Pb]	206	209	1	No Gas	0.056	ug/l	220.00
[Pb]	207	209	1	No Gas	0.059	ug/l	183.34
Pb	208	209	1	No Gas	0.057	ug/l	828.91
Th	232	209	3	He	0.058	ug/l	369.49
U	238	209	1	No Gas	0.001	ug/l	27.33

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1969582.55	73.2
Sc	45	2	H2	1131507.01	71.0
Sc	45	3	He	155482.99	68.8
Ge	72	1	No Gas	534092.56	81.9
Ge	72	2	H2	439915.37	79.1
Ge	72	3	He	93556.61	74.5
In	115	1	No Gas	2348197.29	76.3
In	115	3	He	722501.86	75.4
Tb	159	1	No Gas	2103182.20	78.9
Tb	159	3	He	1267857.89	84.0
Ho	165	1	No Gas	1869021.65	77.6
Ho	165	3	He	1166584.75	83.9
Lu	175	1	No Gas	1794441.00	80.1
Lu	175	3	He	911827.61	83.7
Bi	209	1	No Gas	1138744.16	79.7
Bi	209	3	He	786767.36	90.6

ICPMS207-B Analytical Data

Sample Name LCS4-162926
File Name 049LCS4.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 16:58:44
Sample Type LCS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	108.584	ug/l	421562.03
Be	9	45	1	No Gas	50.910	ug/l	92242.89
B	11	45	1	No Gas	113.405	ug/l	138925.40
Na	23	45	3	He	5644.620	ug/l	2696079.26
Mg	24	45	3	He	5513.762	ug/l	1427840.22
Al	27	45	1	No Gas	477.822	ug/l	4347359.90
Si	28	45	2	H2	949.113	ug/l	1087866.38
K	39	72	3	He	4361.187	ug/l	1689500.71
Ca	40	72	2	H2	4444.293	ug/l	20673052.12
Ti	47	72	1	No Gas	87.001	ug/l	99222.37
V	51	72	1	No Gas	92.054	ug/l	1237552.05
V	51	72	3	He	107.076	ug/l	296297.21
Cr	52	72	1	No Gas	96.155	ug/l	1275322.59
Cr	52	72	3	He	103.578	ug/l	283913.75
Mn	55	72	1	No Gas	475.912	ug/l	7372422.01
Mn	55	72	3	He	495.311	ug/l	908660.62
Fe	56	72	2	H2	482.638	ug/l	4414111.77
Fe	56	72	3	He	506.223	ug/l	1214200.54
Co	59	72	1	No Gas	91.253	ug/l	1235392.38
Ni	60	72	1	No Gas	89.872	ug/l	277807.53
Ni	60	72	3	He	110.945	ug/l	107674.09
Cu	63	72	1	No Gas	92.901	ug/l	677793.33
Cu	63	72	3	He	115.383	ug/l	282236.89
Cu	65	72	1	No Gas	93.381	ug/l	316168.22
Zn	66	72	1	No Gas	95.541	ug/l	232290.76
Zn	66	72	3	He	106.282	ug/l	62914.25
As	75	72	1	No Gas	94.299	ug/l	323638.34
As	75	72	3	He	101.400	ug/l	69876.61
Se	78	72	2	H2	98.935	ug/l	38707.65
Br	79	72	1	No Gas	8.392	ug/l	66564.76
Br	79	72	2	H2	8.661	ug/l	46619.32
Se	82	72	1	No Gas	94.296	ug/l	16851.09
Kr	84	72	1	No Gas		ug/l	26445.40
Sr	88	72	1	No Gas	95.146	ug/l	1564153.65
Sr	88	72	3	He	99.137	ug/l	248856.46
Mo	95	115	1	No Gas	92.579	ug/l	278804.30
Mo	95	115	3	He	105.171	ug/l	133260.92
Mo	98	115	1	No Gas	94.298	ug/l	446997.02
Ag	107	115	1	No Gas	9.493	ug/l	69944.46
Ag	109	115	1	No Gas	9.564	ug/l	65772.85
Cd	111	115	1	No Gas	50.055	ug/l	74407.35

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	53.263	ug/l	32804.15
Cd	114	115	1	No Gas	49.586	ug/l	161940.78
Cd	114	115	3	He	54.571	ug/l	78961.31
Sn	118	115	1	No Gas	101.838	ug/l	405020.55
Sn	118	115	3	He	106.506	ug/l	149671.35
Sb	121	115	1	No Gas	97.180	ug/l	662328.95
Sb	121	115	3	He	103.091	ug/l	241187.55
Sb	123	115	1	No Gas	101.168	ug/l	514524.53
Sb	123	115	3	He	104.743	ug/l	190055.66
Ba	135	115	1	No Gas	94.807	ug/l	110538.09
Ba	137	115	1	No Gas	94.505	ug/l	188634.07
La	139	115	3	He	2139425.919	ug/l	801712.29
Ce	140	115	3	He	564.381	ug/l	850921.09
Hg	201	209	1	No Gas	0.073	ug/l	15.00
Hg	202	209	1	No Gas	0.045	ug/l	25.66
Hg	202	209	3	He	0.088	ug/l	17.67
Tl	203	209	3	He	99.686	ug/l	202791.90
Tl	205	209	1	No Gas	100.017	ug/l	668581.45
Tl	205	209	3	He	98.279	ug/l	477493.35
[Pb]	206	209	1	No Gas	101.035	ug/l	228246.79
[Pb]	207	209	1	No Gas	103.014	ug/l	195276.06
Pb	208	209	1	No Gas	100.814	ug/l	895007.23
Th	232	209	3	He	97.149	ug/l	573018.84
U	238	209	1	No Gas	96.238	ug/l	729496.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1990053.23	74.0
Sc	45	2	H2	1137038.37	71.3
Sc	45	3	He	153736.06	68.0
Ge	72	1	No Gas	539598.61	82.7
Ge	72	2	H2	444307.15	79.9
Ge	72	3	He	95123.30	75.8
In	115	1	No Gas	2330998.81	75.8
In	115	3	He	741102.16	77.4
Tb	159	1	No Gas	2146111.14	80.5
Tb	159	3	He	1308566.20	86.7
Ho	165	1	No Gas	1974620.99	82.0
Ho	165	3	He	1216142.27	87.5
Lu	175	1	No Gas	1845136.62	82.3
Lu	175	3	He	950867.90	87.3
Bi	209	1	No Gas	1155728.38	80.9
Bi	209	3	He	819320.35	94.4

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 050BLKV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:04:57
Sample Type BkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.334	ug/l	11354.12
Be	9	45	1	No Gas	-0.086	ug/l	40.66
B	11	45	1	No Gas	1.579	ug/l	4050.84
Na	23	45	3	He	28.211	ug/l	60340.32
Mg	24	45	3	He	2.235	ug/l	1883.05
Al	27	45	1	No Gas	1.010	ug/l	18943.12
Si	28	45	2	H2	-12.209	ug/l	10138.18
K	39	72	3	He	-25.641	ug/l	126319.39
Ca	40	72	2	H2	-2.154	ug/l	189873.85
Ti	47	72	1	No Gas	-0.248	ug/l	280.29
V	51	72	1	No Gas	2.570	ug/l	-13434.06
V	51	72	3	He	0.606	ug/l	28291.66
Cr	52	72	1	No Gas	0.308	ug/l	88190.65
Cr	52	72	3	He	0.039	ug/l	4378.45
Mn	55	72	1	No Gas	0.493	ug/l	16819.63
Mn	55	72	3	He	0.004	ug/l	305.61
Fe	56	72	2	H2	0.235	ug/l	20593.46
Fe	56	72	3	He	0.458	ug/l	17688.40
Co	59	72	1	No Gas	-0.008	ug/l	522.31
Ni	60	72	1	No Gas	-0.055	ug/l	535.62
Ni	60	72	3	He	0.059	ug/l	318.90
Cu	63	72	1	No Gas	-0.016	ug/l	1529.36
Cu	63	72	3	He	0.031	ug/l	593.89
Cu	65	72	1	No Gas	0.005	ug/l	600.26
Zn	66	72	1	No Gas	0.633	ug/l	2327.30
Zn	66	72	3	He	0.328	ug/l	378.90
As	75	72	1	No Gas	0.543	ug/l	18572.28
As	75	72	3	He	-0.076	ug/l	938.88
Se	78	72	2	H2	0.021	ug/l	48.56
Br	79	72	1	No Gas	1.999	ug/l	33142.41
Br	79	72	2	H2	1.589	ug/l	20943.61
Se	82	72	1	No Gas	-0.424	ug/l	565.81
Kr	84	72	1	No Gas		ug/l	16027.16
Sr	88	72	1	No Gas	0.002	ug/l	236.20
Sr	88	72	3	He	0.005	ug/l	117.78
Mo	95	115	1	No Gas	0.019	ug/l	84.44
Mo	95	115	3	He	0.015	ug/l	30.00
Mo	98	115	1	No Gas	0.012	ug/l	97.08
Ag	107	115	1	No Gas	0.002	ug/l	606.26
Ag	109	115	1	No Gas	0.004	ug/l	554.23
Cd	111	115	1	No Gas	-0.019	ug/l	-23.82

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.009	ug/l	13.89
Cd	114	115	1	No Gas	-0.011	ug/l	-79.97
Cd	114	115	3	He	0.009	ug/l	28.23
Sn	118	115	1	No Gas	1.821	ug/l	9397.90
Sn	118	115	3	He	1.836	ug/l	3242.62
Sb	121	115	1	No Gas	0.161	ug/l	1388.21
Sb	121	115	3	He	0.137	ug/l	417.05
Sb	123	115	1	No Gas	0.156	ug/l	1008.14
Sb	123	115	3	He	0.143	ug/l	331.04
Ba	135	115	1	No Gas	-0.008	ug/l	3.33
Ba	137	115	1	No Gas	0.000	ug/l	43.25
La	139	115	3	He	21.334	ug/l	18.89
Ce	140	115	3	He	0.017	ug/l	35.56
Hg	201	209	1	No Gas	0.015	ug/l	10.67
Hg	202	209	1	No Gas	0.006	ug/l	19.66
Hg	202	209	3	He	0.014	ug/l	6.67
Tl	203	209	3	He	0.323	ug/l	781.01
Tl	205	209	1	No Gas	0.290	ug/l	2512.49
Tl	205	209	3	He	0.320	ug/l	1834.20
[Pb]	206	209	1	No Gas	-0.001	ug/l	110.00
[Pb]	207	209	1	No Gas	0.005	ug/l	95.56
Pb	208	209	1	No Gas	0.003	ug/l	422.23
Th	232	209	3	He	0.026	ug/l	208.09
U	238	209	1	No Gas	0.002	ug/l	39.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2306622.07	85.7
Sc	45	2	H2	1310932.00	82.2
Sc	45	3	He	178527.71	79.0
Ge	72	1	No Gas	579706.28	88.9
Ge	72	2	H2	487596.14	87.7
Ge	72	3	He	107574.75	85.7
In	115	1	No Gas	2741228.30	89.1
In	115	3	He	844009.52	88.1
Tb	159	1	No Gas	2446243.84	91.8
Tb	159	3	He	1442346.33	95.5
Ho	165	1	No Gas	2243226.53	93.2
Ho	165	3	He	1332144.36	95.8
Lu	175	1	No Gas	2116185.10	94.4
Lu	175	3	He	1033055.78	94.9
Bi	209	1	No Gas	1330611.52	93.1
Bi	209	3	He	875577.81	100.9

ICPMS207-B Analytical Data

Sample Name B22010507-001A
File Name 051SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:11:11
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.100	ug/l	11147.22
Be	9	45	1	No Gas	-0.086	ug/l	47.66
B	11	45	1	No Gas	84.286	ug/l	141851.89
Na	23	45	3	He	94862.484	ug/l	62620092.40
Mg	24	45	3	He	37864.242	ug/l	13726682.51
Al	27	45	1	No Gas	3.249	ug/l	50188.33
Si	28	45	2	H2	23192.491	ug/l	34945258.63
K	39	72	3	He	2799.081	ug/l	1478843.80
Ca	40	72	2	H2	38469.941	ug/l	221098145.36
Ti	47	72	1	No Gas	1.144	ug/l	2210.73
V	51	72	1	No Gas	19.004	ug/l	260521.61
V	51	72	3	He	8.076	ug/l	57761.75
Cr	52	72	1	No Gas	-1.690	ug/l	68719.80
Cr	52	72	3	He	0.150	ug/l	5471.04
Mn	55	72	1	No Gas	4.672	ug/l	96433.28
Mn	55	72	3	He	4.351	ug/l	10808.82
Fe	56	72	2	H2	17.371	ug/l	217810.48
Fe	56	72	3	He	17.206	ug/l	72546.03
Co	59	72	1	No Gas	0.085	ug/l	2099.32
Ni	60	72	1	No Gas	0.522	ug/l	2734.84
Ni	60	72	3	He	0.460	ug/l	880.03
Cu	63	72	1	No Gas	1.087	ug/l	11353.02
Cu	63	72	3	He	0.721	ug/l	2899.04
Cu	65	72	1	No Gas	0.839	ug/l	4056.87
Zn	66	72	1	No Gas	1.643	ug/l	5539.77
Zn	66	72	3	He	1.797	ug/l	1577.87
As	75	72	1	No Gas	0.570	ug/l	20874.32
As	75	72	3	He	0.906	ug/l	1964.76
Se	78	72	2	H2	0.370	ug/l	225.23
Br	79	72	1	No Gas	59.786	ug/l	425226.52
Br	79	72	2	H2	60.775	ug/l	310761.85
Se	82	72	1	No Gas	0.578	ug/l	840.09
Kr	84	72	1	No Gas		ug/l	55943.80
Sr	88	72	1	No Gas	307.524	ug/l	6071957.34
Sr	88	72	3	He	289.046	ug/l	951228.96
Mo	95	115	1	No Gas	3.380	ug/l	13408.58
Mo	95	115	3	He	3.757	ug/l	5979.07
Mo	98	115	1	No Gas	3.401	ug/l	21241.09
Ag	107	115	1	No Gas	-0.062	ug/l	60.69
Ag	109	115	1	No Gas	-0.059	ug/l	58.69
Cd	111	115	1	No Gas	0.046	ug/l	101.04

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.041	ug/l	40.33
Cd	114	115	1	No Gas	0.051	ug/l	179.48
Cd	114	115	3	He	0.039	ug/l	85.32
Sn	118	115	1	No Gas	-0.098	ug/l	495.69
Sn	118	115	3	He	-0.072	ug/l	214.45
Sb	121	115	1	No Gas	0.095	ug/l	955.13
Sb	121	115	3	He	0.098	ug/l	345.71
Sb	123	115	1	No Gas	0.098	ug/l	736.10
Sb	123	115	3	He	0.112	ug/l	294.36
Ba	135	115	1	No Gas	10.305	ug/l	15807.70
Ba	137	115	1	No Gas	10.049	ug/l	26436.03
La	139	115	3	He	10.285	ug/l	15.56
Ce	140	115	3	He	0.005	ug/l	16.67
Hg	201	209	1	No Gas	0.520	ug/l	77.65
Hg	202	209	1	No Gas	11.023	ug/l	3182.09
Hg	202	209	3	He	9.254	ug/l	1579.45
Tl	203	209	3	He	0.172	ug/l	470.20
Tl	205	209	1	No Gas	0.111	ug/l	1272.30
Tl	205	209	3	He	0.159	ug/l	1034.46
[Pb]	206	209	1	No Gas	0.002	ug/l	132.22
[Pb]	207	209	1	No Gas	0.019	ug/l	141.11
Pb	208	209	1	No Gas	0.012	ug/l	571.11
Th	232	209	3	He	0.002	ug/l	59.36
U	238	209	1	No Gas	0.196	ug/l	1945.09

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2724443.74	101.3
Sc	45	2	H2	1525000.57	95.6
Sc	45	3	He	215389.02	95.3
Ge	72	1	No Gas	648115.08	99.3
Ge	72	2	H2	553213.62	99.5
Ge	72	3	He	124726.99	99.4
In	115	1	No Gas	3068895.69	99.8
In	115	3	He	929482.13	97.1
Tb	159	1	No Gas	2887601.51	108.3
Tb	159	3	He	1575536.20	104.3
Ho	165	1	No Gas	2637926.71	109.6
Ho	165	3	He	1453251.04	104.5
Lu	175	1	No Gas	2501284.92	111.6
Lu	175	3	He	1139691.46	104.7
Bi	209	1	No Gas	1493934.35	104.6
Bi	209	3	He	907408.06	104.5

ICPMS207-B Analytical Data

Sample Name CCV
File Name 052_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:17:25
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	664.937	ug/l	2934061.83
Be	9	45	1	No Gas	52.484	ug/l	109937.88
B	11	45	1	No Gas	58.362	ug/l	83539.51
Na	23	45	3	He	13466.133	ug/l	7597625.51
Mg	24	45	3	He	13249.522	ug/l	4085251.79
Al	27	45	1	No Gas	49.243	ug/l	525395.42
Si	28	45	2	H2	192.504	ug/l	274901.04
K	39	72	3	He	11452.573	ug/l	4856567.01
Ca	40	72	2	H2	11327.188	ug/l	58500187.29
Ti	47	72	1	No Gas	48.747	ug/l	60423.85
V	51	72	1	No Gas	52.842	ug/l	746604.74
V	51	72	3	He	53.248	ug/l	182294.18
Cr	52	72	1	No Gas	51.440	ug/l	777580.75
Cr	52	72	3	He	52.372	ug/l	166575.39
Mn	55	72	1	No Gas	52.079	ug/l	880727.83
Mn	55	72	3	He	51.161	ug/l	107768.80
Fe	56	72	2	H2	1283.275	ug/l	13070898.88
Fe	56	72	3	He	1315.747	ug/l	3587512.59
Co	59	72	1	No Gas	49.863	ug/l	730700.30
Ni	60	72	1	No Gas	49.080	ug/l	164508.46
Ni	60	72	3	He	56.687	ug/l	63135.88
Cu	63	72	1	No Gas	50.884	ug/l	402452.38
Cu	63	72	3	He	58.143	ug/l	163145.71
Cu	65	72	1	No Gas	51.597	ug/l	189296.69
Zn	66	72	1	No Gas	52.673	ug/l	138850.50
Zn	66	72	3	He	56.165	ug/l	38157.78
As	75	72	1	No Gas	54.991	ug/l	211202.71
As	75	72	3	He	52.568	ug/l	41978.82
Se	78	72	2	H2	52.224	ug/l	22827.75
Br	79	72	1	No Gas	1.063	ug/l	27715.37
Br	79	72	2	H2	0.706	ug/l	17455.94
Se	82	72	1	No Gas	53.119	ug/l	10554.13
Kr	84	72	1	No Gas		ug/l	23482.58
Sr	88	72	1	No Gas	52.461	ug/l	933489.74
Sr	88	72	3	He	51.471	ug/l	148047.19
Mo	95	115	1	No Gas	48.606	ug/l	169785.44
Mo	95	115	3	He	54.398	ug/l	77230.86
Mo	98	115	1	No Gas	49.046	ug/l	269711.93
Ag	107	115	1	No Gas	19.792	ug/l	168439.98
Ag	109	115	1	No Gas	19.878	ug/l	157987.91
Cd	111	115	1	No Gas	51.525	ug/l	88820.23

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	55.222	ug/l	38104.28
Cd	114	115	1	No Gas	51.554	ug/l	195225.98
Cd	114	115	3	He	56.369	ug/l	91377.03
Sn	118	115	1	No Gas	50.422	ug/l	233080.12
Sn	118	115	3	He	54.273	ug/l	85602.08
Sb	121	115	1	No Gas	50.850	ug/l	401882.71
Sb	121	115	3	He	54.030	ug/l	141633.76
Sb	123	115	1	No Gas	51.190	ug/l	301906.13
Sb	123	115	3	He	54.123	ug/l	110036.75
Ba	135	115	1	No Gas	51.942	ug/l	70267.57
Ba	137	115	1	No Gas	50.579	ug/l	117145.90
La	139	115	3	He	35.339	ug/l	24.45
Ce	140	115	3	He	271.611	ug/l	458795.34
Hg	201	209	1	No Gas	4.857	ug/l	579.90
Hg	202	209	1	No Gas	5.040	ug/l	1326.80
Hg	202	209	3	He	5.351	ug/l	871.86
Tl	203	209	3	He	51.151	ug/l	109779.01
Tl	205	209	1	No Gas	49.893	ug/l	390597.58
Tl	205	209	3	He	50.530	ug/l	258990.79
[Pb]	206	209	1	No Gas	50.473	ug/l	133484.59
[Pb]	207	209	1	No Gas	52.121	ug/l	115660.71
Pb	208	209	1	No Gas	51.494	ug/l	535136.57
Th	232	209	3	He	50.753	ug/l	315707.11
U	238	209	1	No Gas	48.627	ug/l	431376.72

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2300517.41	85.5
Sc	45	2	H2	1310128.24	82.2
Sc	45	3	He	183131.64	81.0
Ge	72	1	No Gas	583832.13	89.5
Ge	72	2	H2	495933.84	89.2
Ge	72	3	He	108951.03	86.8
In	115	1	No Gas	2704432.07	87.9
In	115	3	He	830253.22	86.7
Tb	159	1	No Gas	2509264.25	94.1
Tb	159	3	He	1440833.14	95.4
Ho	165	1	No Gas	2265011.23	94.1
Ho	165	3	He	1328976.17	95.6
Lu	175	1	No Gas	2128624.59	95.0
Lu	175	3	He	1032798.82	94.8
Bi	209	1	No Gas	1351742.71	94.6
Bi	209	3	He	864243.83	99.6

ICPMS207-B Analytical Data

Sample Name CCB
File Name 053_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:23:39
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.135	ug/l	10441.10
Be	9	45	1	No Gas	-0.077	ug/l	59.66
B	11	45	1	No Gas	1.724	ug/l	4238.30
Na	23	45	3	He	29.145	ug/l	59883.99
Mg	24	45	3	He	0.558	ug/l	1357.37
Al	27	45	1	No Gas	-0.268	ug/l	5463.26
Si	28	45	2	H2	-13.318	ug/l	8515.17
K	39	72	3	He	-13.760	ug/l	128286.32
Ca	40	72	2	H2	-2.720	ug/l	184310.12
Ti	47	72	1	No Gas	-0.236	ug/l	291.97
V	51	72	1	No Gas	2.730	ug/l	-11113.66
V	51	72	3	He	0.569	ug/l	27569.08
Cr	52	72	1	No Gas	0.462	ug/l	89425.64
Cr	52	72	3	He	0.025	ug/l	4238.42
Mn	55	72	1	No Gas	0.498	ug/l	16752.93
Mn	55	72	3	He	-0.001	ug/l	288.61
Fe	56	72	2	H2	0.287	ug/l	20808.97
Fe	56	72	3	He	0.578	ug/l	17613.26
Co	59	72	1	No Gas	-0.011	ug/l	479.06
Ni	60	72	1	No Gas	-0.022	ug/l	638.75
Ni	60	72	3	He	0.057	ug/l	311.12
Cu	63	72	1	No Gas	-0.038	ug/l	1347.94
Cu	63	72	3	He	-0.004	ug/l	486.24
Cu	65	72	1	No Gas	-0.011	ug/l	538.23
Zn	66	72	1	No Gas	-0.053	ug/l	537.38
Zn	66	72	3	He	-0.025	ug/l	140.00
As	75	72	1	No Gas	1.094	ug/l	20299.18
As	75	72	3	He	-0.050	ug/l	938.14
Se	78	72	2	H2	-0.006	ug/l	36.33
Br	79	72	1	No Gas	0.345	ug/l	22979.59
Br	79	72	2	H2	0.123	ug/l	14458.61
Se	82	72	1	No Gas	0.728	ug/l	772.75
Kr	84	72	1	No Gas		ug/l	16933.15
Sr	88	72	1	No Gas	0.002	ug/l	242.86
Sr	88	72	3	He	0.005	ug/l	114.45
Mo	95	115	1	No Gas	0.016	ug/l	74.44
Mo	95	115	3	He	0.015	ug/l	28.89
Mo	98	115	1	No Gas	0.020	ug/l	138.68
Ag	107	115	1	No Gas	-0.002	ug/l	572.24
Ag	109	115	1	No Gas	0.002	ug/l	538.90
Cd	111	115	1	No Gas	-0.001	ug/l	8.21

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.001	ug/l	7.89
Cd	114	115	1	No Gas	0.003	ug/l	-26.75
Cd	114	115	3	He	0.004	ug/l	18.31
Sn	118	115	1	No Gas	0.000	ug/l	898.25
Sn	118	115	3	He	-0.007	ug/l	288.89
Sb	121	115	1	No Gas	0.084	ug/l	767.10
Sb	121	115	3	He	0.079	ug/l	253.36
Sb	123	115	1	No Gas	0.089	ug/l	603.07
Sb	123	115	3	He	0.087	ug/l	209.35
Ba	135	115	1	No Gas	0.001	ug/l	16.63
Ba	137	115	1	No Gas	-0.009	ug/l	23.29
La	139	115	3	He	-6.783	ug/l	6.67
Ce	140	115	3	He	0.009	ug/l	22.22
Hg	201	209	1	No Gas	0.024	ug/l	11.67
Hg	202	209	1	No Gas	0.065	ug/l	34.66
Hg	202	209	3	He	0.053	ug/l	13.00
Tl	203	209	3	He	0.303	ug/l	725.64
Tl	205	209	1	No Gas	0.262	ug/l	2285.78
Tl	205	209	3	He	0.317	ug/l	1790.84
[Pb]	206	209	1	No Gas	-0.007	ug/l	93.33
[Pb]	207	209	1	No Gas	-0.004	ug/l	76.66
Pb	208	209	1	No Gas	-0.002	ug/l	367.78
Th	232	209	3	He	0.020	ug/l	165.40
U	238	209	1	No Gas	0.068	ug/l	616.47

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2298488.37	85.4
Sc	45	2	H2	1282909.97	80.5
Sc	45	3	He	175706.17	77.7
Ge	72	1	No Gas	574436.27	88.1
Ge	72	2	H2	480473.73	86.4
Ge	72	3	He	105213.42	83.8
In	115	1	No Gas	2730545.21	88.8
In	115	3	He	816969.73	85.3
Tb	159	1	No Gas	2504766.42	94.0
Tb	159	3	He	1393702.70	92.3
Ho	165	1	No Gas	2242461.03	93.2
Ho	165	3	He	1284814.10	92.4
Lu	175	1	No Gas	2051285.95	91.5
Lu	175	3	He	1027662.90	94.4
Bi	209	1	No Gas	1327122.06	92.9
Bi	209	3	He	860941.20	99.2

ICPMS207-B Analytical Data

Sample Name B22010507-001B
File Name 054SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:29:54
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	1.383	ug/l	13564.15
Be	9	45	1	No Gas	-0.073	ug/l	56.99
B	11	45	1	No Gas	98.441	ug/l	118957.32
Na	23	45	3	He	102754.616	ug/l	47099405.96
Mg	24	45	3	He	40696.897	ug/l	10246802.18
Al	27	45	1	No Gas	38.682	ug/l	353154.08
Si	28	45	2	H2	23504.831	ug/l	25663946.65
K	39	72	3	He	2711.065	ug/l	1068380.23
Ca	40	72	2	H2	37704.962	ug/l	167052806.92
Ti	47	72	1	No Gas	3.927	ug/l	4798.97
V	51	72	1	No Gas	18.291	ug/l	198982.72
V	51	72	3	He	21.710	ug/l	76800.59
Cr	52	72	1	No Gas	5.552	ug/l	141524.02
Cr	52	72	3	He	1.322	ug/l	7157.32
Mn	55	72	1	No Gas	6.584	ug/l	105577.43
Mn	55	72	3	He	5.286	ug/l	9705.26
Fe	56	72	2	H2	141.073	ug/l	1249859.37
Fe	56	72	3	He	145.315	ug/l	349777.93
Co	59	72	1	No Gas	0.203	ug/l	3207.33
Ni	60	72	1	No Gas	0.971	ug/l	3516.81
Ni	60	72	3	He	0.789	ug/l	964.48
Cu	63	72	1	No Gas	1.611	ug/l	12744.68
Cu	63	72	3	He	1.383	ug/l	3731.07
Cu	65	72	1	No Gas	1.298	ug/l	4736.01
Zn	66	72	1	No Gas	3.284	ug/l	8254.56
Zn	66	72	3	He	3.808	ug/l	2330.20
As	75	72	1	No Gas	3.904	ug/l	27143.76
As	75	72	3	He	2.850	ug/l	2749.81
Se	78	72	2	H2	0.463	ug/l	208.33
Br	79	72	1	No Gas	22.617	ug/l	140434.77
Br	79	72	2	H2	23.999	ug/l	102079.55
Se	82	72	1	No Gas	0.147	ug/l	600.61
Kr	84	72	1	No Gas		ug/l	43736.25
Sr	88	72	1	No Gas	289.283	ug/l	4567993.35
Sr	88	72	3	He	290.755	ug/l	711302.08
Mo	95	115	1	No Gas	3.662	ug/l	10748.55
Mo	95	115	3	He	4.018	ug/l	4907.54
Mo	98	115	1	No Gas	3.593	ug/l	16597.12
Ag	107	115	1	No Gas	-0.046	ug/l	156.06
Ag	109	115	1	No Gas	-0.043	ug/l	148.73
Cd	111	115	1	No Gas	0.015	ug/l	28.81

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.009	ug/l	11.56
Cd	114	115	1	No Gas	0.025	ug/l	47.87
Cd	114	115	3	He	0.010	ug/l	25.05
Sn	118	115	1	No Gas	0.515	ug/l	2734.86
Sn	118	115	3	He	0.548	ug/l	1002.26
Sb	121	115	1	No Gas	0.133	ug/l	962.46
Sb	121	115	3	He	0.151	ug/l	385.05
Sb	123	115	1	No Gas	0.149	ug/l	798.10
Sb	123	115	3	He	0.144	ug/l	282.70
Ba	135	115	1	No Gas	10.696	ug/l	12151.25
Ba	137	115	1	No Gas	10.944	ug/l	21287.70
La	139	115	3	He	445.189	ug/l	168.89
Ce	140	115	3	He	0.279	ug/l	411.12
Hg	201	209	1	No Gas	0.715	ug/l	77.32
Hg	202	209	1	No Gas	13.268	ug/l	2872.41
Hg	202	209	3	He	11.039	ug/l	1594.45
Tl	203	209	3	He	0.176	ug/l	405.50
Tl	205	209	1	No Gas	0.115	ug/l	985.60
Tl	205	209	3	He	0.164	ug/l	901.73
[Pb]	206	209	1	No Gas	0.065	ug/l	236.67
[Pb]	207	209	1	No Gas	0.065	ug/l	191.11
Pb	208	209	1	No Gas	0.076	ug/l	987.80
Th	232	209	3	He	0.071	ug/l	431.51
U	238	209	1	No Gas	0.204	ug/l	1522.79

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1960262.90	72.9
Sc	45	2	H2	1105195.31	69.3
Sc	45	3	He	149578.14	66.2
Ge	72	1	No Gas	518210.87	79.4
Ge	72	2	H2	426455.54	76.7
Ge	72	3	He	92715.48	73.9
In	115	1	No Gas	2269013.11	73.8
In	115	3	He	713513.03	74.5
Tb	159	1	No Gas	2135242.59	80.1
Tb	159	3	He	1277791.65	84.6
Ho	165	1	No Gas	1956742.89	81.3
Ho	165	3	He	1186576.33	85.3
Lu	175	1	No Gas	1836226.77	81.9
Lu	175	3	He	935365.06	85.9
Bi	209	1	No Gas	1122054.59	78.5
Bi	209	3	He	768288.23	88.5

ICPMS207-B Analytical Data

Sample Name B22010507-001BDIL
File Name 055SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:36:08
Sample Type Sample
Total Dilution 5.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-1.058	ug/l	8402.37
Be	9	45	1	No Gas	-0.426	ug/l	39.99
B	11	45	1	No Gas	101.095	ug/l	28373.17
Na	23	45	3	He	104098.080	ug/l	10423040.47
Mg	24	45	3	He	40898.995	ug/l	2243119.99
Al	27	45	1	No Gas	49.867	ug/l	106507.71
Si	28	45	2	H2	21091.205	ug/l	5556044.08
K	39	72	3	He	2516.416	ug/l	319067.07
Ca	40	72	2	H2	34699.418	ug/l	36270669.81
Ti	47	72	1	No Gas	3.214	ug/l	1308.05
V	51	72	1	No Gas	18.537	ug/l	4336.54
V	51	72	3	He	25.223	ug/l	38388.82
Cr	52	72	1	No Gas	6.075	ug/l	96134.11
Cr	52	72	3	He	1.396	ug/l	4777.47
Mn	55	72	1	No Gas	8.685	ug/l	35922.47
Mn	55	72	3	He	5.152	ug/l	2274.72
Fe	56	72	2	H2	133.729	ug/l	293238.36
Fe	56	72	3	He	149.639	ug/l	90323.29
Co	59	72	1	No Gas	0.173	ug/l	1097.86
Ni	60	72	1	No Gas	1.146	ug/l	1417.27
Ni	60	72	3	He	1.084	ug/l	460.01
Cu	63	72	1	No Gas	2.015	ug/l	4603.25
Cu	63	72	3	He	1.874	ug/l	1443.12
Cu	65	72	1	No Gas	1.697	ug/l	1739.47
Zn	66	72	1	No Gas	5.762	ug/l	3527.89
Zn	66	72	3	He	6.493	ug/l	960.04
As	75	72	1	No Gas	11.751	ug/l	23838.10
As	75	72	3	He	2.800	ug/l	1334.63
Se	78	72	2	H2	0.405	ug/l	76.33
Br	79	72	1	No Gas	22.162	ug/l	45784.94
Br	79	72	2	H2	19.236	ug/l	31445.06
Se	82	72	1	No Gas	0.828	ug/l	646.88
Kr	84	72	1	No Gas		ug/l	21806.67
Sr	88	72	1	No Gas	295.125	ug/l	999113.61
Sr	88	72	3	He	283.791	ug/l	150617.20
Mo	95	115	1	No Gas	3.465	ug/l	2353.54
Mo	95	115	3	He	4.068	ug/l	1088.94
Mo	98	115	1	No Gas	3.523	ug/l	3763.17
Ag	107	115	1	No Gas	-0.305	ug/l	59.36
Ag	109	115	1	No Gas	-0.298	ug/l	44.02
Cd	111	115	1	No Gas	0.036	ug/l	21.18

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.034	ug/l	11.33
Cd	114	115	1	No Gas	0.102	ug/l	40.05
Cd	114	115	3	He	0.032	ug/l	21.43
Sn	118	115	1	No Gas	0.518	ug/l	1317.45
Sn	118	115	3	He	0.666	ug/l	482.23
Sb	121	115	1	No Gas	0.211	ug/l	413.05
Sb	121	115	3	He	0.235	ug/l	163.69
Sb	123	115	1	No Gas	0.205	ug/l	303.03
Sb	123	115	3	He	0.269	ug/l	135.68
Ba	135	115	1	No Gas	10.635	ug/l	2788.09
Ba	137	115	1	No Gas	10.770	ug/l	4854.58
La	139	115	3	He	422.065	ug/l	42.22
Ce	140	115	3	He	0.250	ug/l	85.56
Hg	201	209	1	No Gas	0.541	ug/l	20.67
Hg	202	209	1	No Gas	12.431	ug/l	629.22
Hg	202	209	3	He	10.539	ug/l	339.27
Tl	203	209	3	He	0.346	ug/l	222.76
Tl	205	209	1	No Gas	0.286	ug/l	692.25
Tl	205	209	3	He	0.418	ug/l	589.58
[Pb]	206	209	1	No Gas	0.082	ug/l	148.89
[Pb]	207	209	1	No Gas	0.076	ug/l	113.33
Pb	208	209	1	No Gas	0.099	ug/l	570.01
Th	232	209	3	He	0.057	ug/l	110.71
U	238	209	1	No Gas	0.194	ug/l	347.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2166550.83	80.5
Sc	45	2	H2	1335683.99	83.8
Sc	45	3	He	162842.57	72.0
Ge	72	1	No Gas	555626.64	85.2
Ge	72	2	H2	501976.28	90.3
Ge	72	3	He	100515.59	80.1
In	115	1	No Gas	2608732.34	84.8
In	115	3	He	777881.70	81.2
Tb	159	1	No Gas	2466449.88	92.5
Tb	159	3	He	1403910.66	93.0
Ho	165	1	No Gas	2170775.83	90.2
Ho	165	3	He	1294256.06	93.1
Lu	175	1	No Gas	2025697.27	90.4
Lu	175	3	He	1001854.14	92.0
Bi	209	1	No Gas	1281349.26	89.7
Bi	209	3	He	847130.50	97.6

ICPMS207-B Analytical Data

Sample Name B22010507-001BPDS1
File Name 056ARef.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:42:21
Sample Type AllRef
Total Dilution 1.0300
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	2595.310	ug/l	9596828.51
Be	9	45	1	No Gas	48.944	ug/l	86136.55
B	11	45	1	No Gas	153.297	ug/l	181926.89
Na	23	45	3	He	151693.137	ug/l	75237161.10
Mg	24	45	3	He	90354.603	ug/l	24618710.71
Al	27	45	1	No Gas	85.001	ug/l	757312.59
Si	28	45	2	H2	23396.598	ug/l	26365267.16
K	39	72	3	He	46067.328	ug/l	17382397.93
Ca	40	72	2	H2	78416.941	ug/l	367330050.44
Ti	47	72	1	No Gas	48.475	ug/l	56745.74
V	51	72	1	No Gas	55.895	ug/l	745762.15
V	51	72	3	He	74.762	ug/l	223519.17
Cr	52	72	1	No Gas	48.306	ug/l	696866.26
Cr	52	72	3	He	49.312	ug/l	142937.78
Mn	55	72	1	No Gas	49.634	ug/l	793625.77
Mn	55	72	3	He	52.246	ug/l	100054.22
Fe	56	72	2	H2	4769.523	ug/l	44145245.36
Fe	56	72	3	He	5105.510	ug/l	12612230.95
Co	59	72	1	No Gas	42.435	ug/l	587471.63
Ni	60	72	1	No Gas	42.694	ug/l	135231.58
Ni	60	72	3	He	51.929	ug/l	52603.16
Cu	63	72	1	No Gas	43.091	ug/l	322211.96
Cu	63	72	3	He	54.603	ug/l	139328.38
Cu	65	72	1	No Gas	43.526	ug/l	150881.05
Zn	66	72	1	No Gas	47.147	ug/l	117493.78
Zn	66	72	3	He	53.728	ug/l	33192.24
As	75	72	1	No Gas	49.848	ug/l	182737.65
As	75	72	3	He	52.913	ug/l	38432.69
Se	78	72	2	H2	48.214	ug/l	19176.95
Br	79	72	1	No Gas	22.096	ug/l	146938.17
Br	79	72	2	H2	24.395	ug/l	109927.54
Se	82	72	1	No Gas	43.676	ug/l	8321.43
Kr	84	72	1	No Gas		ug/l	49790.47
Sr	88	72	1	No Gas	313.020	ug/l	5259229.28
Sr	88	72	3	He	333.563	ug/l	871730.69
Mo	95	115	1	No Gas	49.878	ug/l	146656.92
Mo	95	115	3	He	55.469	ug/l	70929.87
Mo	98	115	1	No Gas	49.568	ug/l	229353.79
Ag	107	115	1	No Gas	19.343	ug/l	138633.98
Ag	109	115	1	No Gas	19.572	ug/l	130929.50
Cd	111	115	1	No Gas	49.122	ug/l	71276.67

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	52.026	ug/l	32329.06
Cd	114	115	1	No Gas	49.242	ug/l	156972.41
Cd	114	115	3	He	53.040	ug/l	77431.28
Sn	118	115	1	No Gas	49.399	ug/l	192193.09
Sn	118	115	3	He	52.955	ug/l	75239.14
Sb	121	115	1	No Gas	45.996	ug/l	306025.57
Sb	121	115	3	He	48.561	ug/l	114662.65
Sb	123	115	1	No Gas	46.014	ug/l	228473.42
Sb	123	115	3	He	49.019	ug/l	89745.80
Ba	135	115	1	No Gas	60.585	ug/l	68960.54
Ba	137	115	1	No Gas	60.641	ug/l	118192.96
La	139	115	3	He	651.332	ug/l	256.70
Ce	140	115	3	He	269.934	ug/l	410645.07
Hg	201	209	1	No Gas	5.732	ug/l	575.56
Hg	202	209	1	No Gas	19.066	ug/l	4184.50
Hg	202	209	3	He	17.255	ug/l	2485.41
Tl	203	209	3	He	50.104	ug/l	95368.73
Tl	205	209	1	No Gas	49.335	ug/l	325200.27
Tl	205	209	3	He	50.295	ug/l	228599.93
[Pb]	206	209	1	No Gas	49.512	ug/l	110284.14
[Pb]	207	209	1	No Gas	50.626	ug/l	94608.13
Pb	208	209	1	No Gas	50.164	ug/l	438955.34
Th	232	209	3	He	49.902	ug/l	275225.67
U	238	209	1	No Gas	48.866	ug/l	364991.38

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1992909.60	74.1
Sc	45	2	H2	1174772.66	73.7
Sc	45	3	He	166728.14	73.8
Ge	72	1	No Gas	567929.24	87.1
Ge	72	2	H2	464654.92	83.6
Ge	72	3	He	102015.06	81.3
In	115	1	No Gas	2343603.75	76.2
In	115	3	He	770213.06	80.4
Tb	159	1	No Gas	2250040.01	84.4
Tb	159	3	He	1352672.19	89.6
Ho	165	1	No Gas	2039546.71	84.7
Ho	165	3	He	1252604.97	90.1
Lu	175	1	No Gas	1919447.57	85.6
Lu	175	3	He	994851.74	91.4
Bi	209	1	No Gas	1172833.79	82.1
Bi	209	3	He	789341.19	90.9

ICPMS207-B Analytical Data

Sample Name B22010507-001BMS4
File Name 057MS4.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:48:35
Sample Type MS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	106.446	ug/l	464822.36
Be	9	45	1	No Gas	49.783	ug/l	101417.45
B	11	45	1	No Gas	203.473	ug/l	278831.71
Na	23	45	3	He	103592.421	ug/l	55878459.72
Mg	24	45	3	He	43744.916	ug/l	12959712.26
Al	27	45	1	No Gas	512.223	ug/l	5239083.46
Si	28	45	2	H2	22270.107	ug/l	27631985.16
K	39	72	3	He	7302.077	ug/l	3059803.32
Ca	40	72	2	H2	41656.231	ug/l	209035378.01
Ti	47	72	1	No Gas	91.433	ug/l	114450.11
V	51	72	1	No Gas	110.636	ug/l	1644009.66
V	51	72	3	He	121.073	ug/l	369733.32
Cr	52	72	1	No Gas	95.616	ug/l	1392444.11
Cr	52	72	3	He	103.387	ug/l	315641.38
Mn	55	72	1	No Gas	475.805	ug/l	8093013.87
Mn	55	72	3	He	489.950	ug/l	1001234.26
Fe	56	72	2	H2	629.383	ug/l	6252814.47
Fe	56	72	3	He	654.306	ug/l	1743085.87
Co	59	72	1	No Gas	91.217	ug/l	1355658.31
Ni	60	72	1	No Gas	89.419	ug/l	303436.35
Ni	60	72	3	He	105.729	ug/l	114318.40
Cu	63	72	1	No Gas	92.692	ug/l	742266.21
Cu	63	72	3	He	111.096	ug/l	302710.88
Cu	65	72	1	No Gas	93.628	ug/l	347982.74
Zn	66	72	1	No Gas	95.914	ug/l	255945.99
Zn	66	72	3	He	107.079	ug/l	70600.34
As	75	72	1	No Gas	97.546	ug/l	366989.89
As	75	72	3	He	103.503	ug/l	79426.64
Se	78	72	2	H2	100.694	ug/l	42841.07
Br	79	72	1	No Gas	19.169	ug/l	139330.16
Br	79	72	2	H2	19.658	ug/l	97251.39
Se	82	72	1	No Gas	95.336	ug/l	18694.02
Kr	84	72	1	No Gas		ug/l	63396.88
Sr	88	72	1	No Gas	381.378	ug/l	6883230.12
Sr	88	72	3	He	388.514	ug/l	1086096.47
Mo	95	115	1	No Gas	98.228	ug/l	328913.63
Mo	95	115	3	He	107.506	ug/l	148022.00
Mo	98	115	1	No Gas	98.817	ug/l	520738.52
Ag	107	115	1	No Gas	9.416	ug/l	77135.25
Ag	109	115	1	No Gas	9.514	ug/l	72739.12
Cd	111	115	1	No Gas	50.590	ug/l	83608.17

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	53.306	ug/l	35676.01
Cd	114	115	1	No Gas	50.636	ug/l	183852.79
Cd	114	115	3	He	53.839	ug/l	84644.11
Sn	118	115	1	No Gas	101.492	ug/l	448761.71
Sn	118	115	3	He	108.350	ug/l	165423.23
Sb	121	115	1	No Gas	100.415	ug/l	760875.16
Sb	121	115	3	He	104.880	ug/l	266608.97
Sb	123	115	1	No Gas	104.310	ug/l	589780.23
Sb	123	115	3	He	106.714	ug/l	210401.46
Ba	135	115	1	No Gas	107.200	ug/l	138944.46
Ba	137	115	1	No Gas	107.513	ug/l	238579.92
La	139	115	3	He	2090180.301	ug/l	851072.58
Ce	140	115	3	He	549.860	ug/l	900749.40
Hg	201	209	1	No Gas	0.704	ug/l	89.31
Hg	202	209	1	No Gas	13.932	ug/l	3535.10
Hg	202	209	3	He	10.997	ug/l	1743.77
Tl	203	209	3	He	98.352	ug/l	205871.66
Tl	205	209	1	No Gas	98.607	ug/l	750467.22
Tl	205	209	3	He	98.435	ug/l	492063.68
[Pb]	206	209	1	No Gas	101.518	ug/l	260947.33
[Pb]	207	209	1	No Gas	101.647	ug/l	219311.21
Pb	208	209	1	No Gas	101.840	ug/l	1028750.45
Th	232	209	3	He	99.347	ug/l	602942.55
U	238	209	1	No Gas	100.347	ug/l	865699.23

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2237370.89	83.2
Sc	45	2	H2	1255779.63	78.8
Sc	45	3	He	176002.02	77.9
Ge	72	1	No Gas	592320.36	90.8
Ge	72	2	H2	483031.64	86.9
Ge	72	3	He	105953.94	84.4
In	115	1	No Gas	2591635.40	84.3
In	115	3	He	805326.71	84.1
Tb	159	1	No Gas	2448947.25	91.9
Tb	159	3	He	1403048.26	92.9
Ho	165	1	No Gas	2207929.08	91.7
Ho	165	3	He	1293900.70	93.1
Lu	175	1	No Gas	2118238.19	94.5
Lu	175	3	He	1019977.76	93.7
Bi	209	1	No Gas	1315137.68	92.0
Bi	209	3	He	843048.28	97.1

ICPMS207-B Analytical Data

Sample Name B22010507-001BMSD4
File Name 058MSD4.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 17:54:50
Sample Type MSD4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	105.312	ug/l	455004.06
Be	9	45	1	No Gas	49.955	ug/l	100672.49
B	11	45	1	No Gas	208.872	ug/l	283096.81
Na	23	45	3	He	106172.529	ug/l	57053296.93
Mg	24	45	3	He	45026.028	ug/l	13287221.31
Al	27	45	1	No Gas	515.752	ug/l	5218376.80
Si	28	45	2	H2	24139.046	ug/l	30136318.83
K	39	72	3	He	7222.148	ug/l	3078865.23
Ca	40	72	2	H2	41159.492	ug/l	208039759.10
Ti	47	72	1	No Gas	89.693	ug/l	113731.85
V	51	72	1	No Gas	102.133	ug/l	1532580.23
V	51	72	3	He	121.214	ug/l	376395.21
Cr	52	72	1	No Gas	91.841	ug/l	1358219.10
Cr	52	72	3	He	101.751	ug/l	315966.27
Mn	55	72	1	No Gas	466.202	ug/l	8030656.08
Mn	55	72	3	He	486.101	ug/l	1010132.50
Fe	56	72	2	H2	619.404	ug/l	6199026.88
Fe	56	72	3	He	649.005	ug/l	1757729.43
Co	59	72	1	No Gas	89.292	ug/l	1344076.76
Ni	60	72	1	No Gas	88.596	ug/l	304542.49
Ni	60	72	3	He	104.594	ug/l	115025.03
Cu	63	72	1	No Gas	91.587	ug/l	743037.98
Cu	63	72	3	He	110.171	ug/l	305260.14
Cu	65	72	1	No Gas	93.201	ug/l	350895.01
Zn	66	72	1	No Gas	96.529	ug/l	260915.75
Zn	66	72	3	He	105.920	ug/l	71015.55
As	75	72	1	No Gas	101.659	ug/l	386676.70
As	75	72	3	He	103.093	ug/l	80455.90
Se	78	72	2	H2	100.175	ug/l	42931.32
Br	79	72	1	No Gas	20.653	ug/l	150280.41
Br	79	72	2	H2	21.848	ug/l	107309.47
Se	82	72	1	No Gas	94.655	ug/l	18800.93
Kr	84	72	1	No Gas		ug/l	62203.89
Sr	88	72	1	No Gas	376.957	ug/l	6890726.23
Sr	88	72	3	He	389.626	ug/l	1107339.11
Mo	95	115	1	No Gas	97.011	ug/l	328245.29
Mo	95	115	3	He	107.372	ug/l	150985.21
Mo	98	115	1	No Gas	97.108	ug/l	517127.58
Ag	107	115	1	No Gas	9.259	ug/l	76657.76
Ag	109	115	1	No Gas	9.481	ug/l	73251.61
Cd	111	115	1	No Gas	50.373	ug/l	84131.74

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	52.449	ug/l	35847.45
Cd	114	115	1	No Gas	49.713	ug/l	182400.63
Cd	114	115	3	He	53.178	ug/l	85386.10
Sn	118	115	1	No Gas	104.816	ug/l	468350.67
Sn	118	115	3	He	109.228	ug/l	170330.10
Sb	121	115	1	No Gas	99.645	ug/l	762989.40
Sb	121	115	3	He	103.936	ug/l	269820.01
Sb	123	115	1	No Gas	103.347	ug/l	590518.89
Sb	123	115	3	He	105.918	ug/l	213260.01
Ba	135	115	1	No Gas	107.293	ug/l	140528.40
Ba	137	115	1	No Gas	105.537	ug/l	236679.05
La	139	115	3	He	2111004.972	ug/l	877803.29
Ce	140	115	3	He	542.766	ug/l	908142.18
Hg	201	209	1	No Gas	0.664	ug/l	84.65
Hg	202	209	1	No Gas	13.339	ug/l	3382.43
Hg	202	209	3	He	11.277	ug/l	1777.10
Tl	203	209	3	He	99.993	ug/l	208101.87
Tl	205	209	1	No Gas	100.258	ug/l	762179.66
Tl	205	209	3	He	100.322	ug/l	498665.46
[Pb]	206	209	1	No Gas	102.728	ug/l	263824.09
[Pb]	207	209	1	No Gas	104.484	ug/l	225094.15
Pb	208	209	1	No Gas	104.682	ug/l	1056382.12
Th	232	209	3	He	101.070	ug/l	609892.89
U	238	209	1	No Gas	99.595	ug/l	858331.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2213216.93	82.3
Sc	45	2	H2	1263834.82	79.3
Sc	45	3	He	175361.13	77.6
Ge	72	1	No Gas	599919.15	92.0
Ge	72	2	H2	486613.11	87.5
Ge	72	3	He	107792.11	85.9
In	115	1	No Gas	2619369.45	85.2
In	115	3	He	822356.42	85.9
Tb	159	1	No Gas	2525091.56	94.7
Tb	159	3	He	1412654.02	93.6
Ho	165	1	No Gas	2275265.81	94.5
Ho	165	3	He	1312775.65	94.4
Lu	175	1	No Gas	2114849.46	94.3
Lu	175	3	He	1043142.40	95.8
Bi	209	1	No Gas	1313182.28	91.9
Bi	209	3	He	838245.92	96.6

ICPMS207-B Analytical Data

Sample Name Rinse
File Name 059BLKV.d
Data Path Name D:\Agilent\ICPMH1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:01:05
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-200.8-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.451	ug/l	13461.37
Be	9	45	1	No Gas	-0.068	ug/l	90.32
B	11	45	1	No Gas	2.312	ug/l	5764.75
Na	23	45	3	He	37.639	ug/l	74379.26
Mg	24	45	3	He	5.065	ug/l	3104.18
Al	27	45	1	No Gas	3.639	ug/l	52903.16
Si	28	45	2	H2	20.129	ug/l	57617.99
K	39	72	3	He	-15.338	ug/l	144680.24
Ca	40	72	2	H2	-1.056	ug/l	215652.39
Ti	47	72	1	No Gas	-0.258	ug/l	306.98
V	51	72	1	No Gas	2.332	ug/l	-18972.33
V	51	72	3	He	-0.294	ug/l	28493.09
Cr	52	72	1	No Gas	-0.361	ug/l	90754.50
Cr	52	72	3	He	-0.206	ug/l	4022.89
Mn	55	72	1	No Gas	0.468	ug/l	18788.04
Mn	55	72	3	He	0.007	ug/l	346.27
Fe	56	72	2	H2	0.029	ug/l	20451.46
Fe	56	72	3	He	-0.194	ug/l	17668.36
Co	59	72	1	No Gas	-0.014	ug/l	502.35
Ni	60	72	1	No Gas	0.032	ug/l	944.83
Ni	60	72	3	He	0.051	ug/l	344.45
Cu	63	72	1	No Gas	0.094	ug/l	2739.36
Cu	63	72	3	He	0.108	ug/l	895.52
Cu	65	72	1	No Gas	0.101	ug/l	1086.48
Zn	66	72	1	No Gas	0.345	ug/l	1808.26
Zn	66	72	3	He	0.265	ug/l	373.34
As	75	72	1	No Gas	0.180	ug/l	19723.77
As	75	72	3	He	-0.043	ug/l	1069.09
Se	78	72	2	H2	0.012	ug/l	49.67
Br	79	72	1	No Gas	3.287	ug/l	46786.38
Br	79	72	2	H2	3.075	ug/l	30111.71
Se	82	72	1	No Gas	-0.353	ug/l	662.75
Kr	84	72	1	No Gas		ug/l	17073.04
Sr	88	72	1	No Gas	0.006	ug/l	355.96
Sr	88	72	3	He	-0.002	ug/l	108.89
Mo	95	115	1	No Gas	0.018	ug/l	93.33
Mo	95	115	3	He	0.021	ug/l	42.22
Mo	98	115	1	No Gas	0.017	ug/l	143.76
Ag	107	115	1	No Gas	-0.004	ug/l	628.94
Ag	109	115	1	No Gas	0.000	ug/l	602.92
Cd	111	115	1	No Gas	0.009	ug/l	29.66

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.009	ug/l	14.78
Cd	114	115	1	No Gas	0.010	ug/l	2.80
Cd	114	115	3	He	0.010	ug/l	32.53
Sn	118	115	1	No Gas	1.722	ug/l	10193.55
Sn	118	115	3	He	1.864	ug/l	3589.37
Sb	121	115	1	No Gas	0.195	ug/l	1890.99
Sb	121	115	3	He	0.181	ug/l	584.41
Sb	123	115	1	No Gas	0.195	ug/l	1410.88
Sb	123	115	3	He	0.183	ug/l	452.72
Ba	135	115	1	No Gas	0.032	ug/l	66.53
Ba	137	115	1	No Gas	0.022	ug/l	109.78
La	139	115	3	He	5.601	ug/l	13.33
Ce	140	115	3	He	0.013	ug/l	31.11
Hg	201	209	1	No Gas	0.032	ug/l	14.67
Hg	202	209	1	No Gas	0.019	ug/l	26.66
Hg	202	209	3	He	0.028	ug/l	9.33
Tl	203	209	3	He	0.702	ug/l	1666.78
Tl	205	209	1	No Gas	0.557	ug/l	5286.71
Tl	205	209	3	He	0.687	ug/l	3888.81
[Pb]	206	209	1	No Gas	0.002	ug/l	136.67
[Pb]	207	209	1	No Gas	0.004	ug/l	108.89
Pb	208	209	1	No Gas	0.005	ug/l	508.90
Th	232	209	3	He	0.030	ug/l	240.10
U	238	209	1	No Gas	0.003	ug/l	53.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2617476.05	97.3
Sc	45	2	H2	1452912.53	91.1
Sc	45	3	He	202751.46	89.7
Ge	72	1	No Gas	663857.56	101.8
Ge	72	2	H2	537981.55	96.7
Ge	72	3	He	119283.90	95.0
In	115	1	No Gas	3127251.22	101.7
In	115	3	He	921606.66	96.2
Tb	159	1	No Gas	2831475.83	106.2
Tb	159	3	He	1535648.20	101.7
Ho	165	1	No Gas	2530253.47	105.1
Ho	165	3	He	1413379.80	101.7
Lu	175	1	No Gas	2378049.63	106.1
Lu	175	3	He	1118053.17	102.7
Bi	209	1	No Gas	1538808.96	107.7
Bi	209	3	He	908587.19	104.7

ICPMS207-B Analytical Data

Sample Name B22010625-001A
File Name 060SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:07:18
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	6.124	ug/l	47272.71
Be	9	45	1	No Gas	-0.095	ug/l	29.33
B	11	45	1	No Gas	100.416	ug/l	183002.90
Na	23	45	3	He	109058.356	ug/l	77121978.85
Mg	24	45	3	He	26387.744	ug/l	10249207.37
Al	27	45	1	No Gas	1.368	ug/l	29103.85
Si	28	45	2	H2	22633.654	ug/l	36744655.35
K	39	72	3	He	7547.631	ug/l	3974236.29
Ca	40	72	2	H2	22910.297	ug/l	141113358.39
Ti	47	72	1	No Gas	1.141	ug/l	2385.94
V	51	72	1	No Gas	18.065	ug/l	264742.11
V	51	72	3	He	9.242	ug/l	65895.35
Cr	52	72	1	No Gas	-0.348	ug/l	95997.11
Cr	52	72	3	He	1.711	ug/l	11766.98
Mn	55	72	1	No Gas	0.735	ug/l	25188.21
Mn	55	72	3	He	0.474	ug/l	1585.77
Fe	56	72	2	H2	0.319	ug/l	26044.15
Fe	56	72	3	He	-0.301	ug/l	19407.33
Co	59	72	1	No Gas	0.033	ug/l	1350.72
Ni	60	72	1	No Gas	0.457	ug/l	2701.57
Ni	60	72	3	He	0.320	ug/l	751.13
Cu	63	72	1	No Gas	1.439	ug/l	15605.90
Cu	63	72	3	He	0.982	ug/l	3990.42
Cu	65	72	1	No Gas	1.129	ug/l	5663.38
Zn	66	72	1	No Gas	0.851	ug/l	3501.57
Zn	66	72	3	He	0.930	ug/l	967.82
As	75	72	1	No Gas	2.463	ug/l	30587.13
As	75	72	3	He	2.952	ug/l	4050.88
Se	78	72	2	H2	0.711	ug/l	419.01
Br	79	72	1	No Gas	166.268	ug/l	1234390.77
Br	79	72	2	H2	198.465	ug/l	1047736.36
Se	82	72	1	No Gas	2.992	ug/l	1448.02
Kr	84	72	1	No Gas		ug/l	57200.20
Sr	88	72	1	No Gas	289.129	ug/l	6174469.61
Sr	88	72	3	He	271.476	ug/l	954895.46
Mo	95	115	1	No Gas	10.369	ug/l	45339.52
Mo	95	115	3	He	11.442	ug/l	19473.31
Mo	98	115	1	No Gas	10.321	ug/l	71037.05
Ag	107	115	1	No Gas	-0.064	ug/l	48.02
Ag	109	115	1	No Gas	-0.060	ug/l	50.02
Cd	111	115	1	No Gas	0.042	ug/l	101.95

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.041	ug/l	42.78
Cd	114	115	1	No Gas	0.048	ug/l	184.11
Cd	114	115	3	He	0.040	ug/l	92.25
Sn	118	115	1	No Gas	0.218	ug/l	2368.85
Sn	118	115	3	He	0.271	ug/l	875.59
Sb	121	115	1	No Gas	0.388	ug/l	3951.62
Sb	121	115	3	He	0.414	ug/l	1363.21
Sb	123	115	1	No Gas	0.396	ug/l	3015.30
Sb	123	115	3	He	0.411	ug/l	1044.81
Ba	135	115	1	No Gas	25.165	ug/l	42604.19
Ba	137	115	1	No Gas	24.906	ug/l	72193.47
La	139	115	3	He	7.971	ug/l	15.56
Ce	140	115	3	He	0.009	ug/l	26.67
Hg	201	209	1	No Gas	0.277	ug/l	50.66
Hg	202	209	1	No Gas	5.671	ug/l	1814.43
Hg	202	209	3	He	4.978	ug/l	874.85
Tl	203	209	3	He	0.351	ug/l	895.72
Tl	205	209	1	No Gas	0.232	ug/l	2550.28
Tl	205	209	3	He	0.362	ug/l	2185.73
[Pb]	206	209	1	No Gas	0.035	ug/l	250.00
[Pb]	207	209	1	No Gas	0.040	ug/l	212.22
Pb	208	209	1	No Gas	0.038	ug/l	968.90
Th	232	209	3	He	0.022	ug/l	190.08
U	238	209	1	No Gas	0.372	ug/l	4039.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2956723.89	109.9
Sc	45	2	H2	1643145.07	103.0
Sc	45	3	He	230730.43	102.1
Ge	72	1	No Gas	700813.60	107.4
Ge	72	2	H2	592433.47	106.5
Ge	72	3	He	133375.18	106.2
In	115	1	No Gas	3383987.41	110.0
In	115	3	He	995102.45	103.9
Tb	159	1	No Gas	3143145.72	117.9
Tb	159	3	He	1624929.48	107.6
Ho	165	1	No Gas	2830569.95	117.6
Ho	165	3	He	1506259.54	108.3
Lu	175	1	No Gas	2672263.26	119.2
Lu	175	3	He	1229394.12	112.9
Bi	209	1	No Gas	1645575.46	115.2
Bi	209	3	He	931620.55	107.3

ICPMS207-B Analytical Data

Sample Name B22010625-001B
File Name 061SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:13:32
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	7.537	ug/l	40726.62
Be	9	45	1	No Gas	-0.088	ug/l	33.66
B	11	45	1	No Gas	120.071	ug/l	160942.35
Na	23	45	3	He	115531.767	ug/l	59716688.55
Mg	24	45	3	He	27027.854	ug/l	7674152.47
Al	27	45	1	No Gas	6.341	ug/l	70909.20
Si	28	45	2	H2	23405.520	ug/l	28438374.03
K	39	72	3	He	7367.378	ug/l	2995146.62
Ca	40	72	2	H2	22349.522	ug/l	108447494.51
Ti	47	72	1	No Gas	1.509	ug/l	2427.65
V	51	72	1	No Gas	14.819	ug/l	170709.93
V	51	72	3	He	23.694	ug/l	90642.35
Cr	52	72	1	No Gas	6.717	ug/l	174262.73
Cr	52	72	3	He	2.391	ug/l	11061.98
Mn	55	72	1	No Gas	2.547	ug/l	51077.04
Mn	55	72	3	He	0.892	ug/l	2052.07
Fe	56	72	2	H2	3.262	ug/l	48685.79
Fe	56	72	3	He	3.447	ug/l	24563.52
Co	59	72	1	No Gas	0.118	ug/l	2365.52
Ni	60	72	1	No Gas	0.916	ug/l	3759.71
Ni	60	72	3	He	0.463	ug/l	727.80
Cu	63	72	1	No Gas	1.848	ug/l	16140.08
Cu	63	72	3	He	1.486	ug/l	4410.79
Cu	65	72	1	No Gas	1.440	ug/l	5826.18
Zn	66	72	1	No Gas	0.959	ug/l	3182.54
Zn	66	72	3	He	0.933	ug/l	748.91
As	75	72	1	No Gas	7.568	ug/l	43317.59
As	75	72	3	He	5.078	ug/l	4688.32
Se	78	72	2	H2	0.859	ug/l	390.56
Br	79	72	1	No Gas	24.567	ug/l	169229.17
Br	79	72	2	H2	22.740	ug/l	106572.39
Se	82	72	1	No Gas	0.909	ug/l	814.75
Kr	84	72	1	No Gas		ug/l	46482.93
Sr	88	72	1	No Gas	267.269	ug/l	4730907.11
Sr	88	72	3	He	269.539	ug/l	731330.22
Mo	95	115	1	No Gas	11.863	ug/l	38096.31
Mo	95	115	3	He	13.114	ug/l	17436.25
Mo	98	115	1	No Gas	11.815	ug/l	59709.74
Ag	107	115	1	No Gas	-0.061	ug/l	54.02
Ag	109	115	1	No Gas	-0.059	ug/l	47.35
Cd	111	115	1	No Gas	0.019	ug/l	38.33

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.010	ug/l	13.44
Cd	114	115	1	No Gas	0.025	ug/l	53.71
Cd	114	115	3	He	0.008	ug/l	23.89
Sn	118	115	1	No Gas	0.689	ug/l	3729.78
Sn	118	115	3	He	0.760	ug/l	1403.41
Sb	121	115	1	No Gas	0.482	ug/l	3585.49
Sb	121	115	3	He	0.515	ug/l	1312.19
Sb	123	115	1	No Gas	0.493	ug/l	2736.88
Sb	123	115	3	He	0.510	ug/l	1003.81
Ba	135	115	1	No Gas	27.675	ug/l	34404.42
Ba	137	115	1	No Gas	26.781	ug/l	56996.82
La	139	115	3	He	73.390	ug/l	37.78
Ce	140	115	3	He	0.040	ug/l	70.00
Hg	201	209	1	No Gas	0.351	ug/l	45.99
Hg	202	209	1	No Gas	7.258	ug/l	1740.77
Hg	202	209	3	He	6.009	ug/l	890.85
Tl	203	209	3	He	0.201	ug/l	463.53
Tl	205	209	1	No Gas	0.122	ug/l	1128.95
Tl	205	209	3	He	0.189	ug/l	1041.13
[Pb]	206	209	1	No Gas	0.036	ug/l	192.23
[Pb]	207	209	1	No Gas	0.048	ug/l	176.67
Pb	208	209	1	No Gas	0.041	ug/l	752.24
Th	232	209	3	He	0.060	ug/l	379.49
U	238	209	1	No Gas	0.384	ug/l	3138.42

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2179076.07	81.0
Sc	45	2	H2	1229839.60	77.1
Sc	45	3	He	168676.76	74.6
Ge	72	1	No Gas	580896.39	89.0
Ge	72	2	H2	466663.96	83.9
Ge	72	3	He	102833.67	81.9
In	115	1	No Gas	2484963.86	80.8
In	115	3	He	777253.66	81.2
Tb	159	1	No Gas	2328099.92	87.3
Tb	159	3	He	1325901.73	87.8
Ho	165	1	No Gas	2039575.91	84.7
Ho	165	3	He	1232063.28	88.6
Lu	175	1	No Gas	1968856.79	87.8
Lu	175	3	He	963853.43	88.5
Bi	209	1	No Gas	1237059.01	86.6
Bi	209	3	He	786575.60	90.6

ICPMS207-B Analytical Data

Sample Name B22010626-001A
File Name 062SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:19:46
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.310	ug/l	11013.74
Be	9	45	1	No Gas	-0.093	ug/l	34.32
B	11	45	1	No Gas	43.619	ug/l	81572.47
Na	23	45	3	He	31878.362	ug/l	22381447.72
Mg	24	45	3	He	9822.606	ug/l	3782469.43
Al	27	45	1	No Gas	3.522	ug/l	58704.45
Si	28	45	2	H2	21890.709	ug/l	36092004.30
K	39	72	3	He	2231.751	ug/l	1307962.85
Ca	40	72	2	H2	10032.525	ug/l	61781233.64
Ti	47	72	1	No Gas	1.114	ug/l	2344.34
V	51	72	1	No Gas	19.929	ug/l	298660.62
V	51	72	3	He	9.181	ug/l	66368.85
Cr	52	72	1	No Gas	-0.846	ug/l	87913.02
Cr	52	72	3	He	1.630	ug/l	11575.72
Mn	55	72	1	No Gas	0.347	ug/l	17395.84
Mn	55	72	3	He	0.075	ug/l	566.23
Fe	56	72	2	H2	1.421	ug/l	39335.21
Fe	56	72	3	He	0.638	ug/l	22752.13
Co	59	72	1	No Gas	0.008	ug/l	921.54
Ni	60	72	1	No Gas	0.523	ug/l	2961.11
Ni	60	72	3	He	0.499	ug/l	1002.26
Cu	63	72	1	No Gas	0.546	ug/l	7156.63
Cu	63	72	3	He	0.390	ug/l	1988.41
Cu	65	72	1	No Gas	0.474	ug/l	2786.72
Zn	66	72	1	No Gas	8.535	ug/l	27689.56
Zn	66	72	3	He	8.260	ug/l	7112.88
As	75	72	1	No Gas	-1.982	ug/l	11709.33
As	75	72	3	He	-0.815	ug/l	463.47
Se	78	72	2	H2	0.097	ug/l	98.45
Br	79	72	1	No Gas	11.342	ug/l	107953.26
Br	79	72	2	H2	11.284	ug/l	75603.49
Se	82	72	1	No Gas	0.057	ug/l	791.95
Kr	84	72	1	No Gas		ug/l	28841.74
Sr	88	72	1	No Gas	71.973	ug/l	1536764.50
Sr	88	72	3	He	65.675	ug/l	233554.71
Mo	95	115	1	No Gas	0.117	ug/l	553.37
Mo	95	115	3	He	0.120	ug/l	218.89
Mo	98	115	1	No Gas	0.138	ug/l	1022.64
Ag	107	115	1	No Gas	-0.062	ug/l	64.69
Ag	109	115	1	No Gas	-0.059	ug/l	62.69
Cd	111	115	1	No Gas	0.021	ug/l	58.58

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.026	ug/l	31.22
Cd	114	115	1	No Gas	0.038	ug/l	142.43
Cd	114	115	3	He	0.030	ug/l	75.63
Sn	118	115	1	No Gas	-0.039	ug/l	918.21
Sn	118	115	3	He	-0.004	ug/l	367.79
Sb	121	115	1	No Gas	0.198	ug/l	2152.72
Sb	121	115	3	He	0.207	ug/l	730.09
Sb	123	115	1	No Gas	0.200	ug/l	1622.93
Sb	123	115	3	He	0.207	ug/l	561.40
Ba	135	115	1	No Gas	3.404	ug/l	5989.44
Ba	137	115	1	No Gas	3.303	ug/l	9970.48
La	139	115	3	He	9.357	ug/l	16.67
Ce	140	115	3	He	0.006	ug/l	20.00
Hg	201	209	1	No Gas	0.027	ug/l	15.33
Hg	202	209	1	No Gas	0.004	ug/l	24.00
Hg	202	209	3	He	0.037	ug/l	11.67
Tl	203	209	3	He	0.162	ug/l	478.20
Tl	205	209	1	No Gas	0.111	ug/l	1414.53
Tl	205	209	3	He	0.172	ug/l	1180.53
[Pb]	206	209	1	No Gas	0.016	ug/l	195.56
[Pb]	207	209	1	No Gas	0.013	ug/l	142.22
Pb	208	209	1	No Gas	0.019	ug/l	742.24
Th	232	209	3	He	-0.001	ug/l	38.68
U	238	209	1	No Gas	0.018	ug/l	226.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2983824.33	110.9
Sc	45	2	H2	1668563.55	104.6
Sc	45	3	He	228686.55	101.2
Ge	72	1	No Gas	700536.58	107.4
Ge	72	2	H2	590973.11	106.3
Ge	72	3	He	134750.05	107.3
In	115	1	No Gas	3507260.77	114.0
In	115	3	He	1022137.75	106.7
Tb	159	1	No Gas	3207965.14	120.4
Tb	159	3	He	1684585.50	111.6
Ho	165	1	No Gas	2894764.56	120.2
Ho	165	3	He	1534483.32	110.4
Lu	175	1	No Gas	2708107.78	120.8
Lu	175	3	He	1253814.17	115.1
Bi	209	1	No Gas	1682373.05	117.7
Bi	209	3	He	968675.34	111.6

ICPMS207-B Analytical Data

Sample Name B22010626-001B
File Name 063SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:25:59
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.438	ug/l	10702.72
Be	9	45	1	No Gas	-0.082	ug/l	44.99
B	11	45	1	No Gas	51.825	ug/l	67587.46
Na	23	45	3	He	33628.692	ug/l	16434233.09
Mg	24	45	3	He	10401.976	ug/l	2788185.24
Al	27	45	1	No Gas	778.819	ug/l	7437326.56
Si	28	45	2	H2	22939.879	ug/l	26672032.86
K	39	72	3	He	1968.753	ug/l	861330.82
Ca	40	72	2	H2	9778.928	ug/l	46425895.51
Ti	47	72	1	No Gas	57.417	ug/l	69537.84
V	51	72	1	No Gas	16.756	ug/l	196329.08
V	51	72	3	He	26.193	ug/l	93721.73
Cr	52	72	1	No Gas	7.979	ug/l	187964.54
Cr	52	72	3	He	3.701	ug/l	14312.55
Mn	55	72	1	No Gas	9.411	ug/l	162700.40
Mn	55	72	3	He	8.359	ug/l	16200.67
Fe	56	72	2	H2	686.570	ug/l	6431730.26
Fe	56	72	3	He	703.667	ug/l	1747442.88
Co	59	72	1	No Gas	0.418	ug/l	6625.05
Ni	60	72	1	No Gas	1.717	ug/l	6312.21
Ni	60	72	3	He	1.989	ug/l	2235.74
Cu	63	72	1	No Gas	2.961	ug/l	24445.52
Cu	63	72	3	He	3.483	ug/l	9304.10
Cu	65	72	1	No Gas	2.828	ug/l	10694.88
Zn	66	72	1	No Gas	20.046	ug/l	52107.06
Zn	66	72	3	He	23.578	ug/l	14615.17
As	75	72	1	No Gas	1.571	ug/l	21845.05
As	75	72	3	He	1.176	ug/l	1747.60
Se	78	72	2	H2	0.189	ug/l	112.89
Br	79	72	1	No Gas	12.700	ug/l	96030.41
Br	79	72	2	H2	13.797	ug/l	68308.79
Se	82	72	1	No Gas	0.493	ug/l	725.28
Kr	84	72	1	No Gas		ug/l	23166.04
Sr	88	72	1	No Gas	66.703	ug/l	1161281.53
Sr	88	72	3	He	69.257	ug/l	180666.63
Mo	95	115	1	No Gas	0.201	ug/l	648.91
Mo	95	115	3	He	0.245	ug/l	320.01
Mo	98	115	1	No Gas	0.191	ug/l	973.58
Ag	107	115	1	No Gas	-0.019	ug/l	374.82
Ag	109	115	1	No Gas	-0.013	ug/l	370.82
Cd	111	115	1	No Gas	0.010	ug/l	24.07

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.005	ug/l	9.89
Cd	114	115	1	No Gas	0.011	ug/l	3.64
Cd	114	115	3	He	0.005	ug/l	18.96
Sn	118	115	1	No Gas	0.902	ug/l	4538.41
Sn	118	115	3	He	0.907	ug/l	1561.21
Sb	121	115	1	No Gas	0.678	ug/l	4912.35
Sb	121	115	3	He	0.760	ug/l	1842.64
Sb	123	115	1	No Gas	0.698	ug/l	3768.89
Sb	123	115	3	He	0.758	ug/l	1420.55
Ba	135	115	1	No Gas	5.233	ug/l	6382.17
Ba	137	115	1	No Gas	5.322	ug/l	11129.12
La	139	115	3	He	4844.024	ug/l	1842.36
Ce	140	115	3	He	2.730	ug/l	4163.98
Hg	201	209	1	No Gas	-0.004	ug/l	7.67
Hg	202	209	1	No Gas	0.125	ug/l	45.32
Hg	202	209	3	He	0.092	ug/l	17.67
Tl	203	209	3	He	0.122	ug/l	314.80
Tl	205	209	1	No Gas	0.081	ug/l	815.59
Tl	205	209	3	He	0.111	ug/l	684.96
[Pb]	206	209	1	No Gas	0.109	ug/l	357.79
[Pb]	207	209	1	No Gas	0.132	ug/l	336.67
Pb	208	209	1	No Gas	0.121	ug/l	1466.71
Th	232	209	3	He	0.046	ug/l	304.79
U	238	209	1	No Gas	0.023	ug/l	199.30

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2090242.64	77.7
Sc	45	2	H2	1176712.30	73.8
Sc	45	3	He	159230.86	70.4
Ge	72	1	No Gas	571176.24	87.6
Ge	72	2	H2	455591.54	81.9
Ge	72	3	He	98823.45	78.7
In	115	1	No Gas	2433662.89	79.1
In	115	3	He	748586.21	78.2
Tb	159	1	No Gas	2298730.71	86.2
Tb	159	3	He	1325966.88	87.8
Ho	165	1	No Gas	2064587.49	85.8
Ho	165	3	He	1225942.23	88.2
Lu	175	1	No Gas	1953388.17	87.1
Lu	175	3	He	960491.00	88.2
Bi	209	1	No Gas	1202781.64	84.2
Bi	209	3	He	797600.39	91.9

ICPMS207-B Analytical Data

Sample Name B22010628-001A
File Name 064SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:32:14
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.436	ug/l	10033.34
Be	9	45	1	No Gas	-0.098	ug/l	20.00
B	11	45	1	No Gas	46.157	ug/l	83991.41
Na	23	45	3	He	40165.610	ug/l	27128988.21
Mg	24	45	3	He	18570.388	ug/l	6881147.99
Al	27	45	1	No Gas	3.693	ug/l	59459.31
Si	28	45	2	H2	26900.464	ug/l	42496147.81
K	39	72	3	He	3693.289	ug/l	1975274.17
Ca	40	72	2	H2	15598.460	ug/l	93869243.44
Ti	47	72	1	No Gas	1.194	ug/l	2375.92
V	51	72	1	No Gas	11.151	ug/l	134423.47
V	51	72	3	He	1.358	ug/l	36705.68
Cr	52	72	1	No Gas	-0.671	ug/l	87604.86
Cr	52	72	3	He	0.521	ug/l	7051.72
Mn	55	72	1	No Gas	8.756	ug/l	179962.99
Mn	55	72	3	He	8.172	ug/l	20784.83
Fe	56	72	2	H2	0.087	ug/l	22670.22
Fe	56	72	3	He	-0.680	ug/l	17639.93
Co	59	72	1	No Gas	0.028	ug/l	1214.31
Ni	60	72	1	No Gas	1.073	ug/l	4984.30
Ni	60	72	3	He	1.135	ug/l	1805.68
Cu	63	72	1	No Gas	0.908	ug/l	10215.00
Cu	63	72	3	He	0.769	ug/l	3171.38
Cu	65	72	1	No Gas	0.816	ug/l	4138.92
Zn	66	72	1	No Gas	2.547	ug/l	8536.24
Zn	66	72	3	He	2.512	ug/l	2215.74
As	75	72	1	No Gas	-2.408	ug/l	9565.26
As	75	72	3	He	-0.841	ug/l	421.93
Se	78	72	2	H2	0.191	ug/l	144.11
Br	79	72	1	No Gas	13.250	ug/l	117615.22
Br	79	72	2	H2	13.553	ug/l	85481.49
Se	82	72	1	No Gas	-0.416	ug/l	662.61
Kr	84	72	1	No Gas		ug/l	43515.97
Sr	88	72	1	No Gas	187.230	ug/l	3859184.41
Sr	88	72	3	He	171.457	ug/l	586569.31
Mo	95	115	1	No Gas	0.521	ug/l	2273.53
Mo	95	115	3	He	0.584	ug/l	983.37
Mo	98	115	1	No Gas	0.520	ug/l	3569.50
Ag	107	115	1	No Gas	-0.061	ug/l	72.70
Ag	109	115	1	No Gas	-0.058	ug/l	71.36
Cd	111	115	1	No Gas	0.098	ug/l	221.40

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.098	ug/l	88.55
Cd	114	115	1	No Gas	0.108	ug/l	459.58
Cd	114	115	3	He	0.105	ug/l	214.59
Sn	118	115	1	No Gas	-0.092	ug/l	575.54
Sn	118	115	3	He	-0.097	ug/l	180.00
Sb	121	115	1	No Gas	0.077	ug/l	866.11
Sb	121	115	3	He	0.074	ug/l	288.70
Sb	123	115	1	No Gas	0.077	ug/l	650.08
Sb	123	115	3	He	0.077	ug/l	226.36
Ba	135	115	1	No Gas	5.150	ug/l	8628.91
Ba	137	115	1	No Gas	5.214	ug/l	14981.82
La	139	115	3	He	8.632	ug/l	15.55
Ce	140	115	3	He	0.014	ug/l	35.55
Hg	201	209	1	No Gas	0.011	ug/l	12.33
Hg	202	209	1	No Gas	0.000	ug/l	22.00
Hg	202	209	3	He	0.029	ug/l	9.67
Tl	203	209	3	He	0.133	ug/l	390.83
Tl	205	209	1	No Gas	0.074	ug/l	1026.71
Tl	205	209	3	He	0.117	ug/l	827.69
[Pb]	206	209	1	No Gas	-0.006	ug/l	117.78
[Pb]	207	209	1	No Gas	0.007	ug/l	121.11
Pb	208	209	1	No Gas	0.008	ug/l	566.67
Th	232	209	3	He	0.000	ug/l	45.35
U	238	209	1	No Gas	0.011	ug/l	141.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2908510.35	108.1
Sc	45	2	H2	1599116.76	100.3
Sc	45	3	He	220112.69	97.4
Ge	72	1	No Gas	676429.00	103.7
Ge	72	2	H2	578329.08	104.0
Ge	72	3	He	129644.94	103.3
In	115	1	No Gas	3343790.96	108.7
In	115	3	He	976070.68	101.9
Tb	159	1	No Gas	3113947.56	116.8
Tb	159	3	He	1643757.79	108.9
Ho	165	1	No Gas	2808062.31	116.6
Ho	165	3	He	1482645.78	106.6
Lu	175	1	No Gas	2647124.76	118.1
Lu	175	3	He	1199919.22	110.2
Bi	209	1	No Gas	1615068.40	113.0
Bi	209	3	He	928484.74	107.0

ICPMS207-B Analytical Data

Sample Name CCV
File Name 065_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:38:28
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	669.063	ug/l	3053681.80
Be	9	45	1	No Gas	52.073	ug/l	112815.55
B	11	45	1	No Gas	56.720	ug/l	84022.92
Na	23	45	3	He	13750.381	ug/l	7909112.73
Mg	24	45	3	He	13284.379	ug/l	4176331.09
Al	27	45	1	No Gas	49.556	ug/l	546827.69
Si	28	45	2	H2	199.561	ug/l	291757.95
K	39	72	3	He	11504.560	ug/l	5035580.86
Ca	40	72	2	H2	11487.090	ug/l	60716681.63
Ti	47	72	1	No Gas	48.778	ug/l	62550.09
V	51	72	1	No Gas	50.315	ug/l	732716.27
V	51	72	3	He	53.869	ug/l	190058.86
Cr	52	72	1	No Gas	50.036	ug/l	784907.73
Cr	52	72	3	He	53.231	ug/l	174704.12
Mn	55	72	1	No Gas	52.243	ug/l	914037.35
Mn	55	72	3	He	51.247	ug/l	111451.61
Fe	56	72	2	H2	1280.582	ug/l	13348786.23
Fe	56	72	3	He	1315.946	ug/l	3703965.21
Co	59	72	1	No Gas	49.742	ug/l	754060.23
Ni	60	72	1	No Gas	48.339	ug/l	167648.11
Ni	60	72	3	He	55.150	ug/l	63426.94
Cu	63	72	1	No Gas	50.305	ug/l	411661.46
Cu	63	72	3	He	57.962	ug/l	167902.91
Cu	65	72	1	No Gas	51.297	ug/l	194745.83
Zn	66	72	1	No Gas	52.581	ug/l	143388.91
Zn	66	72	3	He	55.482	ug/l	38915.27
As	75	72	1	No Gas	53.675	ug/l	213680.10
As	75	72	3	He	52.454	ug/l	43243.86
Se	78	72	2	H2	52.584	ug/l	23525.41
Br	79	72	1	No Gas	1.016	ug/l	28335.09
Br	79	72	2	H2	0.839	ug/l	18458.50
Se	82	72	1	No Gas	51.313	ug/l	10572.31
Kr	84	72	1	No Gas		ug/l	23639.24
Sr	88	72	1	No Gas	52.358	ug/l	964001.30
Sr	88	72	3	He	51.704	ug/l	153542.95
Mo	95	115	1	No Gas	48.929	ug/l	178332.22
Mo	95	115	3	He	54.087	ug/l	79121.60
Mo	98	115	1	No Gas	47.593	ug/l	273012.47
Ag	107	115	1	No Gas	19.620	ug/l	174232.72
Ag	109	115	1	No Gas	19.510	ug/l	161810.53
Cd	111	115	1	No Gas	51.088	ug/l	91888.98

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	54.873	ug/l	39011.62
Cd	114	115	1	No Gas	51.093	ug/l	201904.58
Cd	114	115	3	He	56.018	ug/l	93562.18
Sn	118	115	1	No Gas	50.791	ug/l	244851.59
Sn	118	115	3	He	53.739	ug/l	87327.58
Sb	121	115	1	No Gas	50.581	ug/l	417136.05
Sb	121	115	3	He	53.930	ug/l	145662.10
Sb	123	115	1	No Gas	50.882	ug/l	313073.01
Sb	123	115	3	He	53.916	ug/l	112948.10
Ba	135	115	1	No Gas	51.312	ug/l	72374.32
Ba	137	115	1	No Gas	52.415	ug/l	126576.20
La	139	115	3	He	41.106	ug/l	27.78
Ce	140	115	3	He	269.634	ug/l	469290.34
Hg	201	209	1	No Gas	4.710	ug/l	582.90
Hg	202	209	1	No Gas	5.058	ug/l	1379.80
Hg	202	209	3	He	5.466	ug/l	898.85
Tl	203	209	3	He	50.918	ug/l	110363.52
Tl	205	209	1	No Gas	49.511	ug/l	401681.85
Tl	205	209	3	He	50.193	ug/l	259846.12
[Pb]	206	209	1	No Gas	50.619	ug/l	138677.96
[Pb]	207	209	1	No Gas	52.042	ug/l	119645.56
Pb	208	209	1	No Gas	51.378	ug/l	553282.78
Th	232	209	3	He	50.134	ug/l	314941.33
U	238	209	1	No Gas	48.877	ug/l	449257.63

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2379320.46	88.4
Sc	45	2	H2	1346069.52	84.4
Sc	45	3	He	186729.67	82.6
Ge	72	1	No Gas	604108.78	92.6
Ge	72	2	H2	507507.29	91.3
Ge	72	3	He	112475.15	89.6
In	115	1	No Gas	2821886.57	91.7
In	115	3	He	855477.35	89.3
Tb	159	1	No Gas	2696084.40	101.2
Tb	159	3	He	1438426.40	95.3
Ho	165	1	No Gas	2344134.15	97.4
Ho	165	3	He	1327827.69	95.5
Lu	175	1	No Gas	2203535.93	98.3
Lu	175	3	He	1058446.14	97.2
Bi	209	1	No Gas	1400812.02	98.0
Bi	209	3	He	872830.19	100.5

ICPMS207-B Analytical Data

Sample Name CCB
File Name 066_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:44:42
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.598	ug/l	7153.89
Be	9	45	1	No Gas	-0.083	ug/l	46.66
B	11	45	1	No Gas	1.792	ug/l	4296.34
Na	23	45	3	He	34.798	ug/l	63817.71
Mg	24	45	3	He	0.697	ug/l	1417.26
Al	27	45	1	No Gas	0.209	ug/l	10418.09
Si	28	45	2	H2	-10.289	ug/l	12601.70
K	39	72	3	He	-17.027	ug/l	129235.13
Ca	40	72	2	H2	-3.076	ug/l	185203.02
Ti	47	72	1	No Gas	-0.256	ug/l	276.95
V	51	72	1	No Gas	6.096	ug/l	40591.24
V	51	72	3	He	1.638	ug/l	31128.38
Cr	52	72	1	No Gas	0.741	ug/l	96278.32
Cr	52	72	3	He	-0.078	ug/l	4002.79
Mn	55	72	1	No Gas	0.461	ug/l	16676.45
Mn	55	72	3	He	-0.018	ug/l	257.95
Fe	56	72	2	H2	0.213	ug/l	20367.92
Fe	56	72	3	He	0.493	ug/l	17701.74
Co	59	72	1	No Gas	-0.006	ug/l	565.56
Ni	60	72	1	No Gas	-0.042	ug/l	592.17
Ni	60	72	3	He	0.037	ug/l	294.45
Cu	63	72	1	No Gas	-0.022	ug/l	1522.03
Cu	63	72	3	He	0.024	ug/l	573.57
Cu	65	72	1	No Gas	-0.003	ug/l	584.91
Zn	66	72	1	No Gas	-0.034	ug/l	603.56
Zn	66	72	3	He	0.014	ug/l	168.89
As	75	72	1	No Gas	2.731	ug/l	26890.10
As	75	72	3	He	0.051	ug/l	1032.02
Se	78	72	2	H2	0.022	ug/l	49.22
Br	79	72	1	No Gas	0.445	ug/l	24345.68
Br	79	72	2	H2	0.302	ug/l	15430.94
Se	82	72	1	No Gas	-0.300	ug/l	605.55
Kr	84	72	1	No Gas		ug/l	16766.59
Sr	88	72	1	No Gas	0.005	ug/l	289.43
Sr	88	72	3	He	-0.001	ug/l	101.11
Mo	95	115	1	No Gas	0.023	ug/l	103.34
Mo	95	115	3	He	0.021	ug/l	38.89
Mo	98	115	1	No Gas	0.018	ug/l	133.41
Ag	107	115	1	No Gas	-0.004	ug/l	567.57
Ag	109	115	1	No Gas	0.000	ug/l	542.90
Cd	111	115	1	No Gas	-0.003	ug/l	3.57

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.001	ug/l	8.22
Cd	114	115	1	No Gas	0.004	ug/l	-20.43
Cd	114	115	3	He	0.003	ug/l	16.90
Sn	118	115	1	No Gas	-0.028	ug/l	791.79
Sn	118	115	3	He	-0.014	ug/l	287.78
Sb	121	115	1	No Gas	0.080	ug/l	760.43
Sb	121	115	3	He	0.069	ug/l	237.36
Sb	123	115	1	No Gas	0.078	ug/l	555.07
Sb	123	115	3	He	0.082	ug/l	204.69
Ba	135	115	1	No Gas	-0.001	ug/l	13.31
Ba	137	115	1	No Gas	-0.005	ug/l	33.27
La	139	115	3	He	-9.868	ug/l	5.55
Ce	140	115	3	He	0.003	ug/l	12.22
Hg	201	209	1	No Gas	0.039	ug/l	13.67
Hg	202	209	1	No Gas	0.024	ug/l	24.66
Hg	202	209	3	He	0.022	ug/l	8.00
Tl	203	209	3	He	0.399	ug/l	939.08
Tl	205	209	1	No Gas	0.336	ug/l	2921.48
Tl	205	209	3	He	0.383	ug/l	2144.37
[Pb]	206	209	1	No Gas	-0.010	ug/l	87.78
[Pb]	207	209	1	No Gas	-0.009	ug/l	65.56
Pb	208	209	1	No Gas	-0.006	ug/l	338.89
Th	232	209	3	He	0.014	ug/l	132.05
U	238	209	1	No Gas	0.002	ug/l	41.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2279241.63	84.7
Sc	45	2	H2	1308653.21	82.1
Sc	45	3	He	178193.53	78.8
Ge	72	1	No Gas	593973.93	91.0
Ge	72	2	H2	487607.25	87.7
Ge	72	3	He	107100.59	85.3
In	115	1	No Gas	2825124.60	91.9
In	115	3	He	844721.49	88.2
Tb	159	1	No Gas	2525063.02	94.7
Tb	159	3	He	1408389.04	93.3
Ho	165	1	No Gas	2282300.29	94.8
Ho	165	3	He	1320819.59	95.0
Lu	175	1	No Gas	2141890.30	95.6
Lu	175	3	He	1039607.49	95.5
Bi	209	1	No Gas	1358829.00	95.1
Bi	209	3	He	866978.13	99.9

ICPMS207-B Analytical Data

Sample Name B22010628-001B
File Name 067SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:50:57
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	0.685	ug/l	10802.17
Be	9	45	1	No Gas	-0.074	ug/l	54.66
B	11	45	1	No Gas	53.454	ug/l	64363.61
Na	23	45	3	He	42730.405	ug/l	19006347.91
Mg	24	45	3	He	20248.677	ug/l	4941392.81
Al	27	45	1	No Gas	319.355	ug/l	2820573.71
Si	28	45	2	H2	28116.945	ug/l	30271053.72
K	39	72	3	He	3416.248	ug/l	1296326.82
Ca	40	72	2	H2	15196.290	ug/l	68953002.24
Ti	47	72	1	No Gas	14.366	ug/l	16404.23
V	51	72	1	No Gas	12.126	ug/l	117466.65
V	51	72	3	He	16.461	ug/l	62832.31
Cr	52	72	1	No Gas	6.470	ug/l	154672.18
Cr	52	72	3	He	1.965	ug/l	8721.54
Mn	55	72	1	No Gas	39.331	ug/l	600836.93
Mn	55	72	3	He	39.287	ug/l	69462.27
Fe	56	72	2	H2	205.846	ug/l	1857205.07
Fe	56	72	3	He	214.782	ug/l	502867.94
Co	59	72	1	No Gas	0.506	ug/l	7257.43
Ni	60	72	1	No Gas	2.425	ug/l	7968.23
Ni	60	72	3	He	2.342	ug/l	2394.66
Cu	63	72	1	No Gas	3.839	ug/l	28729.02
Cu	63	72	3	He	4.349	ug/l	10633.74
Cu	65	72	1	No Gas	3.678	ug/l	12643.90
Zn	66	72	1	No Gas	3.570	ug/l	9043.77
Zn	66	72	3	He	3.967	ug/l	2385.77
As	75	72	1	No Gas	1.281	ug/l	19285.10
As	75	72	3	He	0.947	ug/l	1465.78
Se	78	72	2	H2	0.301	ug/l	150.78
Br	79	72	1	No Gas	12.801	ug/l	88949.62
Br	79	72	2	H2	13.356	ug/l	63700.10
Se	82	72	1	No Gas	0.041	ug/l	591.54
Kr	84	72	1	No Gas		ug/l	33502.65
Sr	88	72	1	No Gas	186.926	ug/l	2994839.05
Sr	88	72	3	He	186.760	ug/l	450271.33
Mo	95	115	1	No Gas	0.596	ug/l	1837.91
Mo	95	115	3	He	0.695	ug/l	840.03
Mo	98	115	1	No Gas	0.584	ug/l	2834.96
Ag	107	115	1	No Gas	-0.049	ug/l	145.40
Ag	109	115	1	No Gas	-0.045	ug/l	142.72
Cd	111	115	1	No Gas	0.017	ug/l	34.31

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.006	ug/l	9.67
Cd	114	115	1	No Gas	0.014	ug/l	14.48
Cd	114	115	3	He	0.010	ug/l	23.77
Sn	118	115	1	No Gas	0.474	ug/l	2691.59
Sn	118	115	3	He	0.509	ug/l	934.49
Sb	121	115	1	No Gas	0.136	ug/l	1026.14
Sb	121	115	3	He	0.151	ug/l	377.38
Sb	123	115	1	No Gas	0.150	ug/l	838.45
Sb	123	115	3	He	0.163	ug/l	310.04
Ba	135	115	1	No Gas	8.488	ug/l	10063.75
Ba	137	115	1	No Gas	8.384	ug/l	17040.02
La	139	115	3	He	1899.158	ug/l	682.25
Ce	140	115	3	He	1.150	ug/l	1647.88
Hg	201	209	1	No Gas	0.057	ug/l	13.67
Hg	202	209	1	No Gas	0.078	ug/l	33.32
Hg	202	209	3	He	0.059	ug/l	12.67
Tl	203	209	3	He	0.175	ug/l	418.84
Tl	205	209	1	No Gas	0.128	ug/l	1117.84
Tl	205	209	3	He	0.193	ug/l	1068.48
[Pb]	206	209	1	No Gas	0.125	ug/l	384.45
[Pb]	207	209	1	No Gas	0.132	ug/l	327.78
Pb	208	209	1	No Gas	0.127	ug/l	1480.04
Th	232	209	3	He	0.064	ug/l	406.84
U	238	209	1	No Gas	0.018	ug/l	154.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1931524.89	71.8
Sc	45	2	H2	1089879.14	68.3
Sc	45	3	He	144973.06	64.1
Ge	72	1	No Gas	525854.72	80.6
Ge	72	2	H2	436022.81	78.4
Ge	72	3	He	91371.85	72.8
In	115	1	No Gas	2367388.18	77.0
In	115	3	He	701915.94	73.3
Tb	159	1	No Gas	2169122.35	81.4
Tb	159	3	He	1294149.59	85.7
Ho	165	1	No Gas	1967240.70	81.7
Ho	165	3	He	1195657.23	86.0
Lu	175	1	No Gas	1882764.83	84.0
Lu	175	3	He	937929.11	86.1
Bi	209	1	No Gas	1167967.86	81.7
Bi	209	3	He	795533.69	91.6

ICPMS207-B Analytical Data

Sample Name B22010629-001A
File Name 068SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 18:57:10
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-1.593	ug/l	3357.73
Be	9	45	1	No Gas	-0.088	ug/l	43.99
B	11	45	1	No Gas	45.469	ug/l	77204.91
Na	23	45	3	He	40767.097	ug/l	26509031.55
Mg	24	45	3	He	18859.851	ug/l	6728251.02
Al	27	45	1	No Gas	3.171	ug/l	49022.31
Si	28	45	2	H2	18470.639	ug/l	28030495.22
K	39	72	3	He	1158.506	ug/l	705692.79
Ca	40	72	2	H2	16000.398	ug/l	92184627.21
Ti	47	72	1	No Gas	0.826	ug/l	1750.20
V	51	72	1	No Gas	3.878	ug/l	6633.43
V	51	72	3	He	-6.299	ug/l	9745.50
Cr	52	72	1	No Gas	-2.391	ug/l	57374.04
Cr	52	72	3	He	-0.290	ug/l	3912.76
Mn	55	72	1	No Gas	381.735	ug/l	7004577.22
Mn	55	72	3	He	355.715	ug/l	856717.62
Fe	56	72	2	H2	94.578	ug/l	1094679.76
Fe	56	72	3	He	92.539	ug/l	306924.26
Co	59	72	1	No Gas	0.154	ug/l	3170.73
Ni	60	72	1	No Gas	0.235	ug/l	1650.16
Ni	60	72	3	He	0.257	ug/l	622.24
Cu	63	72	1	No Gas	0.469	ug/l	5868.21
Cu	63	72	3	He	0.322	ug/l	1622.43
Cu	65	72	1	No Gas	0.374	ug/l	2139.02
Zn	66	72	1	No Gas	5.574	ug/l	16741.80
Zn	66	72	3	He	5.221	ug/l	4233.97
As	75	72	1	No Gas	-1.159	ug/l	13894.80
As	75	72	3	He	-0.809	ug/l	434.73
Se	78	72	2	H2	-0.032	ug/l	29.67
Br	79	72	1	No Gas	16.192	ug/l	130593.21
Br	79	72	2	H2	17.356	ug/l	100309.92
Se	82	72	1	No Gas	-0.408	ug/l	625.14
Kr	84	72	1	No Gas		ug/l	36416.98
Sr	88	72	1	No Gas	161.441	ug/l	3141939.85
Sr	88	72	3	He	142.954	ug/l	471020.64
Mo	95	115	1	No Gas	5.955	ug/l	24827.22
Mo	95	115	3	He	6.744	ug/l	10955.47
Mo	98	115	1	No Gas	5.920	ug/l	38854.67
Ag	107	115	1	No Gas	-0.064	ug/l	47.35
Ag	109	115	1	No Gas	-0.061	ug/l	44.69
Cd	111	115	1	No Gas	0.018	ug/l	48.93

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.024	ug/l	27.78
Cd	114	115	1	No Gas	0.038	ug/l	128.12
Cd	114	115	3	He	0.028	ug/l	66.66
Sn	118	115	1	No Gas	-0.113	ug/l	439.14
Sn	118	115	3	He	-0.100	ug/l	168.89
Sb	121	115	1	No Gas	0.029	ug/l	388.04
Sb	121	115	3	He	0.021	ug/l	123.01
Sb	123	115	1	No Gas	0.032	ug/l	313.04
Sb	123	115	3	He	0.023	ug/l	94.01
Ba	135	115	1	No Gas	2.326	ug/l	3769.72
Ba	137	115	1	No Gas	2.389	ug/l	6645.11
La	139	115	3	He	0.228	ug/l	11.11
Ce	140	115	3	He	0.005	ug/l	17.78
Hg	201	209	1	No Gas	0.009	ug/l	11.67
Hg	202	209	1	No Gas	0.241	ug/l	92.31
Hg	202	209	3	He	0.307	ug/l	58.66
Tl	203	209	3	He	0.181	ug/l	507.55
Tl	205	209	1	No Gas	0.106	ug/l	1274.52
Tl	205	209	3	He	0.163	ug/l	1091.82
[Pb]	206	209	1	No Gas	0.007	ug/l	150.00
[Pb]	207	209	1	No Gas	0.010	ug/l	124.45
Pb	208	209	1	No Gas	0.011	ug/l	586.68
Th	232	209	3	He	0.001	ug/l	53.36
U	238	209	1	No Gas	0.006	ug/l	83.65

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2712935.42	100.8
Sc	45	2	H2	1535648.32	96.3
Sc	45	3	He	211930.65	93.8
Ge	72	1	No Gas	638829.28	97.9
Ge	72	2	H2	553762.75	99.6
Ge	72	3	He	124850.39	99.5
In	115	1	No Gas	3224793.74	104.8
In	115	3	He	949491.53	99.1
Tb	159	1	No Gas	2911118.34	109.2
Tb	159	3	He	1590747.85	105.4
Ho	165	1	No Gas	2609868.42	108.4
Ho	165	3	He	1479192.41	106.4
Lu	175	1	No Gas	2517119.84	112.3
Lu	175	3	He	1190667.24	109.3
Bi	209	1	No Gas	1544070.61	108.1
Bi	209	3	He	937004.34	107.9

ICPMS207-B Analytical Data

Sample Name B22010629-001B
File Name 069SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:03:24
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.885	ug/l	4886.08
Be	9	45	1	No Gas	-0.080	ug/l	43.99
B	11	45	1	No Gas	52.958	ug/l	62260.86
Na	23	45	3	He	41883.232	ug/l	18679525.42
Mg	24	45	3	He	19192.223	ug/l	4696268.16
Al	27	45	1	No Gas	2.149	ug/l	25276.94
Si	28	45	2	H2	18733.422	ug/l	19872236.27
K	39	72	3	He	1031.355	ug/l	478358.54
Ca	40	72	2	H2	14926.021	ug/l	65601197.22
Ti	47	72	1	No Gas	1.153	ug/l	1778.57
V	51	72	1	No Gas	2.257	ug/l	-16307.70
V	51	72	3	He	7.675	ug/l	41847.06
Cr	52	72	1	No Gas	5.561	ug/l	141725.80
Cr	52	72	3	He	0.618	ug/l	5288.75
Mn	55	72	1	No Gas	341.188	ug/l	5083370.53
Mn	55	72	3	He	341.715	ug/l	609845.30
Fe	56	72	2	H2	127.319	ug/l	1118507.13
Fe	56	72	3	He	127.961	ug/l	309047.36
Co	59	72	1	No Gas	0.227	ug/l	3526.78
Ni	60	72	1	No Gas	0.631	ug/l	2511.99
Ni	60	72	3	He	0.634	ug/l	816.70
Cu	63	72	1	No Gas	0.915	ug/l	7882.63
Cu	63	72	3	He	0.826	ug/l	2399.05
Cu	65	72	1	No Gas	0.735	ug/l	2911.46
Zn	66	72	1	No Gas	4.236	ug/l	10476.75
Zn	66	72	3	He	4.562	ug/l	2758.06
As	75	72	1	No Gas	3.756	ug/l	26703.57
As	75	72	3	He	0.913	ug/l	1462.04
Se	78	72	2	H2	0.081	ug/l	64.44
Br	79	72	1	No Gas	11.815	ug/l	82437.44
Br	79	72	2	H2	12.548	ug/l	58705.75
Se	82	72	1	No Gas	0.004	ug/l	577.01
Kr	84	72	1	No Gas		ug/l	28978.44
Sr	88	72	1	No Gas	141.719	ug/l	2239513.64
Sr	88	72	3	He	138.234	ug/l	337425.99
Mo	95	115	1	No Gas	6.663	ug/l	19601.32
Mo	95	115	3	He	7.660	ug/l	9186.34
Mo	98	115	1	No Gas	6.498	ug/l	30062.00
Ag	107	115	1	No Gas	-0.063	ug/l	35.35
Ag	109	115	1	No Gas	-0.062	ug/l	21.34
Cd	111	115	1	No Gas	0.010	ug/l	23.31

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.007	ug/l	10.45
Cd	114	115	1	No Gas	0.019	ug/l	30.13
Cd	114	115	3	He	0.009	ug/l	23.39
Sn	118	115	1	No Gas	0.289	ug/l	1863.15
Sn	118	115	3	He	0.328	ug/l	693.36
Sb	121	115	1	No Gas	0.052	ug/l	428.38
Sb	121	115	3	He	0.062	ug/l	181.02
Sb	123	115	1	No Gas	0.061	ug/l	362.37
Sb	123	115	3	He	0.066	ug/l	143.68
Ba	135	115	1	No Gas	2.446	ug/l	2794.75
Ba	137	115	1	No Gas	2.458	ug/l	4821.31
La	139	115	3	He	24.239	ug/l	16.67
Ce	140	115	3	He	0.022	ug/l	36.67
Hg	201	209	1	No Gas	0.053	ug/l	12.67
Hg	202	209	1	No Gas	0.360	ug/l	92.65
Hg	202	209	3	He	0.348	ug/l	55.66
Tl	203	209	3	He	0.096	ug/l	259.44
Tl	205	209	1	No Gas	0.050	ug/l	561.13
Tl	205	209	3	He	0.096	ug/l	607.59
[Pb]	206	209	1	No Gas	0.017	ug/l	131.11
[Pb]	207	209	1	No Gas	0.022	ug/l	111.11
Pb	208	209	1	No Gas	0.019	ug/l	488.89
Th	232	209	3	He	0.029	ug/l	200.75
U	238	209	1	No Gas	0.006	ug/l	62.66

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1885261.40	70.1
Sc	45	2	H2	1073358.31	67.3
Sc	45	3	He	145366.01	64.3
Ge	72	1	No Gas	518557.85	79.5
Ge	72	2	H2	422320.15	75.9
Ge	72	3	He	92521.13	73.7
In	115	1	No Gas	2275420.60	74.0
In	115	3	He	700955.38	73.2
Tb	159	1	No Gas	2171585.94	81.5
Tb	159	3	He	1276527.69	84.5
Ho	165	1	No Gas	1940739.15	80.6
Ho	165	3	He	1188196.14	85.5
Lu	175	1	No Gas	1840755.78	82.1
Lu	175	3	He	930706.20	85.5
Bi	209	1	No Gas	1119946.55	78.4
Bi	209	3	He	790248.01	91.0

ICPMS207-B Analytical Data

Sample Name B22010633-001A
File Name 070SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:09:37
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-1.090	ug/l	5922.87
Be	9	45	1	No Gas	-0.092	ug/l	33.66
B	11	45	1	No Gas	54.036	ug/l	90711.30
Na	23	45	3	He	36899.727	ug/l	23543610.48
Mg	24	45	3	He	11791.051	ug/l	4127331.22
Al	27	45	1	No Gas	2.586	ug/l	41480.64
Si	28	45	2	H2	21551.460	ug/l	32357009.39
K	39	72	3	He	1705.710	ug/l	960469.77
Ca	40	72	2	H2	10540.178	ug/l	60732383.16
Ti	47	72	1	No Gas	0.873	ug/l	1770.23
V	51	72	1	No Gas	18.807	ug/l	247512.68
V	51	72	3	He	9.732	ug/l	63124.46
Cr	52	72	1	No Gas	-0.840	ug/l	78294.62
Cr	52	72	3	He	1.801	ug/l	11295.51
Mn	55	72	1	No Gas	0.320	ug/l	14981.30
Mn	55	72	3	He	0.055	ug/l	475.25
Fe	56	72	2	H2	0.254	ug/l	23581.04
Fe	56	72	3	He	-0.472	ug/l	17569.82
Co	59	72	1	No Gas	-0.002	ug/l	655.38
Ni	60	72	1	No Gas	0.307	ug/l	1866.43
Ni	60	72	3	He	0.336	ug/l	720.02
Cu	63	72	1	No Gas	1.203	ug/l	11888.95
Cu	63	72	3	He	1.086	ug/l	4055.75
Cu	65	72	1	No Gas	1.131	ug/l	5042.24
Zn	66	72	1	No Gas	9.456	ug/l	27202.96
Zn	66	72	3	He	9.176	ug/l	7272.96
As	75	72	1	No Gas	-1.619	ug/l	11790.28
As	75	72	3	He	-0.894	ug/l	357.67
Se	78	72	2	H2	0.141	ug/l	113.78
Br	79	72	1	No Gas	14.103	ug/l	113846.39
Br	79	72	2	H2	13.816	ug/l	83022.51
Se	82	72	1	No Gas	0.244	ug/l	741.42
Kr	84	72	1	No Gas		ug/l	28421.73
Sr	88	72	1	No Gas	83.232	ug/l	1580502.36
Sr	88	72	3	He	74.011	ug/l	243011.54
Mo	95	115	1	No Gas	0.141	ug/l	592.24
Mo	95	115	3	He	0.146	ug/l	244.45
Mo	98	115	1	No Gas	0.136	ug/l	904.48
Ag	107	115	1	No Gas	-0.062	ug/l	57.36
Ag	109	115	1	No Gas	-0.060	ug/l	44.68
Cd	111	115	1	No Gas	0.025	ug/l	60.00

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.024	ug/l	27.22
Cd	114	115	1	No Gas	0.036	ug/l	116.97
Cd	114	115	3	He	0.029	ug/l	67.28
Sn	118	115	1	No Gas	-0.102	ug/l	489.04
Sn	118	115	3	He	-0.101	ug/l	166.67
Sb	121	115	1	No Gas	0.430	ug/l	4063.00
Sb	121	115	3	He	0.453	ug/l	1403.22
Sb	123	115	1	No Gas	0.444	ug/l	3131.33
Sb	123	115	3	He	0.440	ug/l	1053.82
Ba	135	115	1	No Gas	4.782	ug/l	7547.08
Ba	137	115	1	No Gas	4.564	ug/l	12337.69
La	139	115	3	He	0.405	ug/l	11.11
Ce	140	115	3	He	0.011	ug/l	28.89
Hg	201	209	1	No Gas	-0.006	ug/l	9.67
Hg	202	209	1	No Gas	0.017	ug/l	25.99
Hg	202	209	3	He	0.051	ug/l	13.67
Tl	203	209	3	He	0.100	ug/l	320.13
Tl	205	209	1	No Gas	0.062	ug/l	883.37
Tl	205	209	3	He	0.101	ug/l	754.33
[Pb]	206	209	1	No Gas	0.032	ug/l	228.89
[Pb]	207	209	1	No Gas	0.042	ug/l	205.56
Pb	208	209	1	No Gas	0.036	ug/l	888.90
Th	232	209	3	He	-0.001	ug/l	38.02
U	238	209	1	No Gas	0.179	ug/l	1852.13

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2694637.64	100.2
Sc	45	2	H2	1519585.95	95.3
Sc	45	3	He	207890.72	92.0
Ge	72	1	No Gas	623057.10	95.5
Ge	72	2	H2	553123.43	99.5
Ge	72	3	He	124390.11	99.1
In	115	1	No Gas	3147917.27	102.3
In	115	3	He	941407.18	98.3
Tb	159	1	No Gas	2918858.88	109.5
Tb	159	3	He	1582891.08	104.8
Ho	165	1	No Gas	2680735.69	111.4
Ho	165	3	He	1471919.63	105.9
Lu	175	1	No Gas	2550577.05	113.8
Lu	175	3	He	1170247.71	107.5
Bi	209	1	No Gas	1549971.66	108.5
Bi	209	3	He	940718.82	108.4

ICPMS207-B Analytical Data

Sample Name B22010633-001B
File Name 071SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:15:50
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.408	ug/l	6595.42
Be	9	45	1	No Gas	-0.085	ug/l	34.32
B	11	45	1	No Gas	61.398	ug/l	71863.46
Na	23	45	3	He	38776.784	ug/l	16757162.25
Mg	24	45	3	He	12441.316	ug/l	2949805.36
Al	27	45	1	No Gas	46.597	ug/l	407241.10
Si	28	45	2	H2	21761.596	ug/l	22766867.72
K	39	72	3	He	1632.127	ug/l	655164.98
Ca	40	72	2	H2	9865.507	ug/l	42586633.05
Ti	47	72	1	No Gas	3.863	ug/l	4618.71
V	51	72	1	No Gas	11.175	ug/l	100553.24
V	51	72	3	He	24.251	ug/l	78893.85
Cr	52	72	1	No Gas	7.564	ug/l	161662.65
Cr	52	72	3	He	3.382	ug/l	11944.91
Mn	55	72	1	No Gas	4.689	ug/l	75593.26
Mn	55	72	3	He	3.213	ug/l	5694.97
Fe	56	72	2	H2	67.306	ug/l	587372.68
Fe	56	72	3	He	71.674	ug/l	170602.30
Co	59	72	1	No Gas	0.136	ug/l	2282.32
Ni	60	72	1	No Gas	0.678	ug/l	2591.77
Ni	60	72	3	He	0.830	ug/l	952.26
Cu	63	72	1	No Gas	1.624	ug/l	12529.08
Cu	63	72	3	He	1.743	ug/l	4354.12
Cu	65	72	1	No Gas	1.435	ug/l	5056.91
Zn	66	72	1	No Gas	22.625	ug/l	52028.92
Zn	66	72	3	He	26.238	ug/l	14473.94
As	75	72	1	No Gas	1.054	ug/l	17864.13
As	75	72	3	He	0.868	ug/l	1362.90
Se	78	72	2	H2	0.258	ug/l	127.67
Br	79	72	1	No Gas	11.292	ug/l	77707.18
Br	79	72	2	H2	11.619	ug/l	54207.19
Se	82	72	1	No Gas	0.839	ug/l	698.48
Kr	84	72	1	No Gas		ug/l	22906.22
Sr	88	72	1	No Gas	72.709	ug/l	1121110.52
Sr	88	72	3	He	73.453	ug/l	170644.73
Mo	95	115	1	No Gas	0.342	ug/l	1018.93
Mo	95	115	3	He	0.414	ug/l	491.12
Mo	98	115	1	No Gas	0.356	ug/l	1668.30
Ag	107	115	1	No Gas	-0.004	ug/l	458.86
Ag	109	115	1	No Gas	-0.005	ug/l	402.17
Cd	111	115	1	No Gas	0.013	ug/l	26.96

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.004	ug/l	8.11
Cd	114	115	1	No Gas	0.022	ug/l	40.49
Cd	114	115	3	He	0.007	ug/l	20.15
Sn	118	115	1	No Gas	0.391	ug/l	2262.37
Sn	118	115	3	He	0.478	ug/l	871.15
Sb	121	115	1	No Gas	0.510	ug/l	3470.78
Sb	121	115	3	He	0.581	ug/l	1297.86
Sb	123	115	1	No Gas	0.515	ug/l	2614.84
Sb	123	115	3	He	0.585	ug/l	1010.14
Ba	135	115	1	No Gas	6.469	ug/l	7367.43
Ba	137	115	1	No Gas	6.671	ug/l	13013.67
La	139	115	3	He	612.412	ug/l	220.00
Ce	140	115	3	He	0.465	ug/l	653.35
Hg	201	209	1	No Gas	0.007	ug/l	8.33
Hg	202	209	1	No Gas	0.085	ug/l	33.99
Hg	202	209	3	He	0.087	ug/l	16.67
Tl	203	209	3	He	0.069	ug/l	205.42
Tl	205	209	1	No Gas	0.045	ug/l	530.02
Tl	205	209	3	He	0.065	ug/l	457.53
[Pb]	206	209	1	No Gas	0.221	ug/l	586.68
[Pb]	207	209	1	No Gas	0.234	ug/l	507.79
Pb	208	209	1	No Gas	0.233	ug/l	2363.43
Th	232	209	3	He	0.023	ug/l	166.07
U	238	209	1	No Gas	0.016	ug/l	134.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1883823.18	70.0
Sc	45	2	H2	1058775.57	66.4
Sc	45	3	He	140813.26	62.3
Ge	72	1	No Gas	506163.60	77.6
Ge	72	2	H2	414260.92	74.5
Ge	72	3	He	88031.68	70.1
In	115	1	No Gas	2273081.77	73.9
In	115	3	He	684914.87	71.5
Tb	159	1	No Gas	2159099.13	81.0
Tb	159	3	He	1295788.22	85.8
Ho	165	1	No Gas	1964373.56	81.6
Ho	165	3	He	1192865.02	85.8
Lu	175	1	No Gas	1863338.10	83.1
Lu	175	3	He	917995.19	84.3
Bi	209	1	No Gas	1135351.29	79.5
Bi	209	3	He	783654.14	90.3

ICPMS207-B Analytical Data

Sample Name B22010637-001A
File Name 072SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:22:04
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-1.479	ug/l	3840.03
Be	9	45	1	No Gas	-0.093	ug/l	28.99
B	11	45	1	No Gas	72.231	ug/l	118001.32
Na	23	45	3	He	37302.152	ug/l	23297429.38
Mg	24	45	3	He	8799.597	ug/l	3015465.58
Al	27	45	1	No Gas	1.807	ug/l	31247.13
Si	28	45	2	H2	21923.317	ug/l	32586671.25
K	39	72	3	He	1549.327	ug/l	861230.33
Ca	40	72	2	H2	6982.236	ug/l	39552526.13
Ti	47	72	1	No Gas	0.865	ug/l	1753.54
V	51	72	1	No Gas	22.712	ug/l	309757.34
V	51	72	3	He	13.277	ug/l	72759.98
Cr	52	72	1	No Gas	0.136	ug/l	92050.25
Cr	52	72	3	He	2.815	ug/l	14449.36
Mn	55	72	1	No Gas	0.593	ug/l	19794.04
Mn	55	72	3	He	0.370	ug/l	1194.15
Fe	56	72	2	H2	0.561	ug/l	26553.98
Fe	56	72	3	He	-0.162	ug/l	17989.07
Co	59	72	1	No Gas	-0.011	ug/l	515.65
Ni	60	72	1	No Gas	0.065	ug/l	998.06
Ni	60	72	3	He	0.114	ug/l	426.68
Cu	63	72	1	No Gas	0.809	ug/l	8551.27
Cu	63	72	3	He	0.717	ug/l	2794.38
Cu	65	72	1	No Gas	0.708	ug/l	3379.09
Zn	66	72	1	No Gas	4.678	ug/l	13781.31
Zn	66	72	3	He	4.606	ug/l	3632.69
As	75	72	1	No Gas	-1.624	ug/l	11731.66
As	75	72	3	He	-0.903	ug/l	339.93
Se	78	72	2	H2	0.123	ug/l	103.11
Br	79	72	1	No Gas	13.241	ug/l	107959.67
Br	79	72	2	H2	13.967	ug/l	82185.49
Se	82	72	1	No Gas	0.247	ug/l	739.29
Kr	84	72	1	No Gas		ug/l	24522.23
Sr	88	72	1	No Gas	61.699	ug/l	1168223.43
Sr	88	72	3	He	55.858	ug/l	178070.81
Mo	95	115	1	No Gas	0.903	ug/l	3712.73
Mo	95	115	3	He	1.080	ug/l	1716.78
Mo	98	115	1	No Gas	0.901	ug/l	5832.00
Ag	107	115	1	No Gas	-0.063	ug/l	52.69
Ag	109	115	1	No Gas	-0.060	ug/l	48.02
Cd	111	115	1	No Gas	0.022	ug/l	55.50

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.018	ug/l	21.89
Cd	114	115	1	No Gas	0.034	ug/l	108.21
Cd	114	115	3	He	0.021	ug/l	51.62
Sn	118	115	1	No Gas	-0.114	ug/l	425.83
Sn	118	115	3	He	-0.118	ug/l	133.33
Sb	121	115	1	No Gas	0.025	ug/l	347.04
Sb	121	115	3	He	0.026	ug/l	133.68
Sb	123	115	1	No Gas	0.025	ug/l	257.69
Sb	123	115	3	He	0.026	ug/l	97.68
Ba	135	115	1	No Gas	1.911	ug/l	3040.98
Ba	137	115	1	No Gas	1.911	ug/l	5227.31
La	139	115	3	He	3.376	ug/l	12.22
Ce	140	115	3	He	0.006	ug/l	17.78
Hg	201	209	1	No Gas	-0.003	ug/l	10.00
Hg	202	209	1	No Gas	0.077	ug/l	43.66
Hg	202	209	3	He	0.111	ug/l	23.66
Tl	203	209	3	He	0.079	ug/l	266.11
Tl	205	209	1	No Gas	0.040	ug/l	676.69
Tl	205	209	3	He	0.077	ug/l	606.26
[Pb]	206	209	1	No Gas	0.029	ug/l	217.78
[Pb]	207	209	1	No Gas	0.037	ug/l	192.23
Pb	208	209	1	No Gas	0.037	ug/l	884.46
Th	232	209	3	He	-0.002	ug/l	32.01
U	238	209	1	No Gas	0.005	ug/l	71.99

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2636563.11	98.0
Sc	45	2	H2	1504208.32	94.3
Sc	45	3	He	203502.73	90.0
Ge	72	1	No Gas	621325.52	95.2
Ge	72	2	H2	542696.82	97.6
Ge	72	3	He	120800.42	96.2
In	115	1	No Gas	3164033.75	102.9
In	115	3	He	925044.25	96.6
Tb	159	1	No Gas	2954931.34	110.9
Tb	159	3	He	1576173.59	104.4
Ho	165	1	No Gas	2658462.06	110.4
Ho	165	3	He	1448855.43	104.2
Lu	175	1	No Gas	2579129.14	115.1
Lu	175	3	He	1158425.16	106.4
Bi	209	1	No Gas	1541789.83	107.9
Bi	209	3	He	923804.80	106.4

ICPMS207-B Analytical Data

Sample Name B22010637-001B
File Name 073SMPL.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:28:17
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.846	ug/l	4884.09
Be	9	45	1	No Gas	-0.081	ug/l	41.32
B	11	45	1	No Gas	83.422	ug/l	94436.55
Na	23	45	3	He	39133.001	ug/l	16626799.89
Mg	24	45	3	He	9289.468	ug/l	2165624.64
Al	27	45	1	No Gas	4.723	ug/l	46075.57
Si	28	45	2	H2	22466.573	ug/l	23261216.78
K	39	72	3	He	1429.591	ug/l	593914.99
Ca	40	72	2	H2	6619.077	ug/l	28460836.08
Ti	47	72	1	No Gas	1.411	ug/l	1938.75
V	51	72	1	No Gas	20.089	ug/l	210382.80
V	51	72	3	He	26.034	ug/l	83984.00
Cr	52	72	1	No Gas	8.550	ug/l	167071.42
Cr	52	72	3	He	3.631	ug/l	12707.75
Mn	55	72	1	No Gas	3.155	ug/l	51421.06
Mn	55	72	3	He	1.570	ug/l	2938.04
Fe	56	72	2	H2	28.150	ug/l	253122.46
Fe	56	72	3	He	29.180	ug/l	78267.67
Co	59	72	1	No Gas	0.116	ug/l	1964.21
Ni	60	72	1	No Gas	0.389	ug/l	1690.17
Ni	60	72	3	He	0.424	ug/l	594.46
Cu	63	72	1	No Gas	0.796	ug/l	6635.52
Cu	63	72	3	He	0.670	ug/l	1951.74
Cu	65	72	1	No Gas	0.598	ug/l	2317.78
Zn	66	72	1	No Gas	12.878	ug/l	28815.10
Zn	66	72	3	He	13.871	ug/l	7793.25
As	75	72	1	No Gas	1.363	ug/l	18066.07
As	75	72	3	He	0.723	ug/l	1284.63
Se	78	72	2	H2	0.231	ug/l	117.22
Br	79	72	1	No Gas	13.251	ug/l	84869.69
Br	79	72	2	H2	13.831	ug/l	61902.47
Se	82	72	1	No Gas	-0.357	ug/l	487.41
Kr	84	72	1	No Gas		ug/l	20227.50
Sr	88	72	1	No Gas	56.832	ug/l	845557.82
Sr	88	72	3	He	54.108	ug/l	127065.50
Mo	95	115	1	No Gas	0.980	ug/l	2811.41
Mo	95	115	3	He	1.141	ug/l	1328.96
Mo	98	115	1	No Gas	0.988	ug/l	4466.21
Ag	107	115	1	No Gas	-0.064	ug/l	28.68
Ag	109	115	1	No Gas	-0.062	ug/l	24.68
Cd	111	115	1	No Gas	-0.006	ug/l	-1.44

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.001	ug/l	6.45
Cd	114	115	1	No Gas	0.011	ug/l	4.93
Cd	114	115	3	He	0.004	ug/l	14.88
Sn	118	115	1	No Gas	0.291	ug/l	1826.51
Sn	118	115	3	He	0.329	ug/l	671.13
Sb	121	115	1	No Gas	0.053	ug/l	418.38
Sb	121	115	3	He	0.062	ug/l	175.35
Sb	123	115	1	No Gas	0.050	ug/l	301.37
Sb	123	115	3	He	0.064	ug/l	136.01
Ba	135	115	1	No Gas	2.174	ug/l	2412.10
Ba	137	115	1	No Gas	1.983	ug/l	3789.68
La	139	115	3	He	12.760	ug/l	12.22
Ce	140	115	3	He	0.024	ug/l	38.89
Hg	201	209	1	No Gas	0.010	ug/l	8.67
Hg	202	209	1	No Gas	0.126	ug/l	42.99
Hg	202	209	3	He	0.088	ug/l	17.33
Tl	203	209	3	He	0.058	ug/l	189.41
Tl	205	209	1	No Gas	0.036	ug/l	475.57
Tl	205	209	3	He	0.055	ug/l	420.84
[Pb]	206	209	1	No Gas	0.106	ug/l	332.23
[Pb]	207	209	1	No Gas	0.128	ug/l	312.23
Pb	208	209	1	No Gas	0.114	ug/l	1327.82
Th	232	209	3	He	0.019	ug/l	150.06
U	238	209	1	No Gas	0.006	ug/l	63.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	1831532.72	68.1
Sc	45	2	H2	1047916.75	65.7
Sc	45	3	He	138448.95	61.2
Ge	72	1	No Gas	488130.56	74.8
Ge	72	2	H2	411930.54	74.1
Ge	72	3	He	88949.09	70.9
In	115	1	No Gas	2211724.33	71.9
In	115	3	He	677650.60	70.8
Tb	159	1	No Gas	2101439.71	78.8
Tb	159	3	He	1275103.00	84.5
Ho	165	1	No Gas	1880786.79	78.1
Ho	165	3	He	1187277.42	85.4
Lu	175	1	No Gas	1818275.51	81.1
Lu	175	3	He	905136.44	83.1
Bi	209	1	No Gas	1137824.63	79.6
Bi	209	3	He	802151.05	92.4

ICPMS207-B Analytical Data

Sample Name CCV
File Name 074_CCV.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:34:30
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-200.8-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	658.839	ug/l	2677027.56
Be	9	45	1	No Gas	51.786	ug/l	99897.55
B	11	45	1	No Gas	56.558	ug/l	74609.13
Na	23	45	3	He	13542.828	ug/l	6991739.55
Mg	24	45	3	He	13229.515	ug/l	3732606.68
Al	27	45	1	No Gas	47.857	ug/l	470481.91
Si	28	45	2	H2	196.407	ug/l	259593.01
K	39	72	3	He	10693.289	ug/l	4293527.40
Ca	40	72	2	H2	11056.528	ug/l	54358549.55
Ti	47	72	1	No Gas	47.651	ug/l	54233.52
V	51	72	1	No Gas	47.582	ug/l	611538.99
V	51	72	3	He	51.524	ug/l	167410.21
Cr	52	72	1	No Gas	50.842	ug/l	706233.48
Cr	52	72	3	He	52.563	ug/l	157928.80
Mn	55	72	1	No Gas	52.989	ug/l	822690.90
Mn	55	72	3	He	50.108	ug/l	99728.93
Fe	56	72	2	H2	1250.680	ug/l	12123226.76
Fe	56	72	3	He	1302.656	ug/l	3356577.08
Co	59	72	1	No Gas	50.348	ug/l	677228.61
Ni	60	72	1	No Gas	49.638	ug/l	152668.89
Ni	60	72	3	He	57.098	ug/l	60100.86
Cu	63	72	1	No Gas	50.357	ug/l	365519.72
Cu	63	72	3	He	59.335	ug/l	157298.13
Cu	65	72	1	No Gas	51.125	ug/l	172164.56
Zn	66	72	1	No Gas	53.561	ug/l	129534.86
Zn	66	72	3	He	55.736	ug/l	35781.65
As	75	72	1	No Gas	53.197	ug/l	187953.35
As	75	72	3	He	51.983	ug/l	39228.39
Se	78	72	2	H2	52.039	ug/l	21649.96
Br	79	72	1	No Gas	1.366	ug/l	27098.39
Br	79	72	2	H2	1.053	ug/l	18052.21
Se	82	72	1	No Gas	50.415	ug/l	9223.64
Kr	84	72	1	No Gas		ug/l	20430.78
Sr	88	72	1	No Gas	53.994	ug/l	882106.96
Sr	88	72	3	He	50.352	ug/l	136809.08
Mo	95	115	1	No Gas	47.808	ug/l	161575.60
Mo	95	115	3	He	55.755	ug/l	76276.05
Mo	98	115	1	No Gas	47.651	ug/l	253451.65
Ag	107	115	1	No Gas	19.385	ug/l	159678.11
Ag	109	115	1	No Gas	19.626	ug/l	150896.92
Cd	111	115	1	No Gas	50.647	ug/l	84478.65

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	55.966	ug/l	37208.92
Cd	114	115	1	No Gas	50.733	ug/l	185906.22
Cd	114	115	3	He	57.268	ug/l	89449.31
Sn	118	115	1	No Gas	51.371	ug/l	229651.65
Sn	118	115	3	He	55.591	ug/l	84472.22
Sb	121	115	1	No Gas	50.194	ug/l	383906.77
Sb	121	115	3	He	54.349	ug/l	137274.86
Sb	123	115	1	No Gas	51.443	ug/l	293606.86
Sb	123	115	3	He	54.915	ug/l	107569.71
Ba	135	115	1	No Gas	52.407	ug/l	68565.64
Ba	137	115	1	No Gas	52.105	ug/l	116717.57
La	139	115	3	He	34.996	ug/l	23.33
Ce	140	115	3	He	273.961	ug/l	445862.52
Hg	201	209	1	No Gas	4.749	ug/l	563.90
Hg	202	209	1	No Gas	4.986	ug/l	1304.81
Hg	202	209	3	He	5.536	ug/l	935.18
Tl	203	209	3	He	49.816	ug/l	110845.33
Tl	205	209	1	No Gas	49.167	ug/l	382585.03
Tl	205	209	3	He	49.624	ug/l	263691.85
[Pb]	206	209	1	No Gas	50.611	ug/l	133051.69
[Pb]	207	209	1	No Gas	52.039	ug/l	114778.26
Pb	208	209	1	No Gas	52.099	ug/l	538178.40
Th	232	209	3	He	50.924	ug/l	328443.09
U	238	209	1	No Gas	48.765	ug/l	429967.77

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2118839.28	78.8
Sc	45	2	H2	1214961.92	76.2
Sc	45	3	He	167569.66	74.1
Ge	72	1	No Gas	536037.78	82.2
Ge	72	2	H2	472016.87	84.9
Ge	72	3	He	102998.17	82.0
In	115	1	No Gas	2615455.73	85.0
In	115	3	He	799994.54	83.5
Tb	159	1	No Gas	2453066.81	92.0
Tb	159	3	He	1414700.47	93.7
Ho	165	1	No Gas	2184354.69	90.7
Ho	165	3	He	1330595.18	95.7
Lu	175	1	No Gas	2076806.84	92.6
Lu	175	3	He	1077029.35	98.9
Bi	209	1	No Gas	1343793.66	94.0
Bi	209	3	He	895874.15	103.2

ICPMS207-B Analytical Data

Sample Name CCB
File Name 075_CCB.d
Data Path Name D:\Agilent\ICPMH\1\DATA\220114ADoD.b
Acq Time 2022-01-14 19:40:45
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-200.8-W-D
Operator CAR/SRH/JPV/AEM
Method SW6020/ SW6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	45	1	No Gas	-0.396	ug/l	7350.07
Be	9	45	1	No Gas	-0.080	ug/l	48.99
B	11	45	1	No Gas	1.491	ug/l	3545.18
Na	23	45	3	He	54.750	ug/l	68463.69
Mg	24	45	3	He	0.891	ug/l	1354.05
Al	27	45	1	No Gas	-0.307	ug/l	4577.40
Si	28	45	2	H2	-11.605	ug/l	10059.43
K	39	72	3	He	-44.526	ug/l	111538.33
Ca	40	72	2	H2	-4.071	ug/l	169727.93
Ti	47	72	1	No Gas	-0.225	ug/l	285.29
V	51	72	1	No Gas	3.547	ug/l	1137.56
V	51	72	3	He	0.364	ug/l	25944.01
Cr	52	72	1	No Gas	0.809	ug/l	87772.34
Cr	52	72	3	He	-0.004	ug/l	3991.68
Mn	55	72	1	No Gas	0.398	ug/l	14085.56
Mn	55	72	3	He	-0.010	ug/l	260.28
Fe	56	72	2	H2	0.286	ug/l	19875.06
Fe	56	72	3	He	0.289	ug/l	16200.21
Co	59	72	1	No Gas	-0.011	ug/l	445.79
Ni	60	72	1	No Gas	-0.053	ug/l	502.35
Ni	60	72	3	He	0.079	ug/l	321.12
Cu	63	72	1	No Gas	-0.008	ug/l	1470.67
Cu	63	72	3	He	0.046	ug/l	596.89
Cu	65	72	1	No Gas	0.024	ug/l	621.60
Zn	66	72	1	No Gas	-0.035	ug/l	543.89
Zn	66	72	3	He	0.059	ug/l	187.78
As	75	72	1	No Gas	1.277	ug/l	19557.15
As	75	72	3	He	-0.124	ug/l	848.14
Se	78	72	2	H2	0.019	ug/l	45.11
Br	79	72	1	No Gas	0.524	ug/l	22449.65
Br	79	72	2	H2	0.362	ug/l	14788.34
Se	82	72	1	No Gas	0.208	ug/l	631.81
Kr	84	72	1	No Gas		ug/l	14708.47
Sr	88	72	1	No Gas	0.000	ug/l	192.96
Sr	88	72	3	He	0.003	ug/l	105.56
Mo	95	115	1	No Gas	0.023	ug/l	95.56
Mo	95	115	3	He	0.018	ug/l	32.22
Mo	98	115	1	No Gas	0.019	ug/l	131.67
Ag	107	115	1	No Gas	0.000	ug/l	561.57
Ag	109	115	1	No Gas	0.004	ug/l	530.89
Cd	111	115	1	No Gas	0.011	ug/l	27.12

ICPMS207-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Cd	111	115	3	He	0.003	ug/l	9.00
Cd	114	115	1	No Gas	0.002	ug/l	-25.49
Cd	114	115	3	He	0.006	ug/l	20.47
Sn	118	115	1	No Gas	-0.022	ug/l	765.18
Sn	118	115	3	He	-0.019	ug/l	262.23
Sb	121	115	1	No Gas	0.068	ug/l	615.74
Sb	121	115	3	He	0.052	ug/l	179.35
Sb	123	115	1	No Gas	0.070	ug/l	469.72
Sb	123	115	3	He	0.055	ug/l	141.02
Ba	135	115	1	No Gas	0.012	ug/l	29.94
Ba	137	115	1	No Gas	-0.006	ug/l	29.94
La	139	115	3	He	-11.798	ug/l	4.44
Ce	140	115	3	He	0.013	ug/l	27.78
Hg	201	209	1	No Gas	0.004	ug/l	9.33
Hg	202	209	1	No Gas	0.009	ug/l	20.33
Hg	202	209	3	He	0.013	ug/l	6.67
Tl	203	209	3	He	0.459	ug/l	1091.15
Tl	205	209	1	No Gas	0.325	ug/l	2781.44
Tl	205	209	3	He	0.423	ug/l	2403.19
[Pb]	206	209	1	No Gas	-0.001	ug/l	110.00
[Pb]	207	209	1	No Gas	0.000	ug/l	85.56
Pb	208	209	1	No Gas	-0.003	ug/l	355.57
Th	232	209	3	He	0.015	ug/l	141.39
U	238	209	1	No Gas	0.003	ug/l	43.99

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	No Gas	2084559.32	77.5
Sc	45	2	H2	1207834.51	75.7
Sc	45	3	He	163323.14	72.3
Ge	72	1	No Gas	536166.06	82.2
Ge	72	2	H2	459244.78	82.6
Ge	72	3	He	101121.49	80.6
In	115	1	No Gas	2623080.90	85.3
In	115	3	He	792128.29	82.7
Tb	159	1	No Gas	2458283.12	92.2
Tb	159	3	He	1415622.03	93.8
Ho	165	1	No Gas	2254140.41	93.6
Ho	165	3	He	1300389.71	93.5
Lu	175	1	No Gas	2138455.54	95.4
Lu	175	3	He	1018769.39	93.6
Bi	209	1	No Gas	1328564.96	93.0
Bi	209	3	He	886786.99	102.2

Energy Laboratories Inc

Standard LOG

Standard ID: ME211124 EL-MSICV-2
Standard Name: EL-MSICV-2
Date Prepared: 11/24/2021
Date Expires: 11/24/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14023	500	mL	11/24

Final Volume: mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSICV-2
 Lot Number: R2-MEB696849
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s):
 1 000 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin, Titanium,
 Molybdenum, Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.6 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	99.9 ± 0.4 µg/mL
Titanium, Ti	99.9 ± 0.6 µg/mL		

Density: 1.019 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Sn	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$
 k = coverage factor = 2
 $u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$
 k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va, 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 14, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 14, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211202 EL200.2MS
Standard Name: EL-200.2MS
Date Prepared: 12/2/2021
Date Expires: 12/2/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB685870
Balance ID:
Comments: Opened 8/11/2021; Expires 8/11/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14398	500	mL	12/2/

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

 P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	EL-200.2MS	
Lot Number:	S2-MEB702960	
Matrix:	5% (v/v) HNO ₃	
Value / Analyte(s):	5 000 µg/mL ea:	Potassium, Sodium,
	Calcium,	
	Magnesium,	
	1 000 µg/mL ea:	
	Phosphorus,	
	500 µg/mL ea:	Iron,
	Manganese,	
	Aluminum,	
	100 µg/mL ea:	Boron, Cobalt, Copper, Nickel, Selenium, Thallium, Zinc,
	Arsenic,	
	Barium,	
	Chromium,	
	Lithium,	
Lead,		
Strontium,		
Vanadium,		
50 µg/mL ea:	Beryllium,	
Cadmium,		
10 µg/mL ea:		
Silver		

ID #: 14398

Opened: _____

Multi Analyte Custom Grade Solution
Expires: 3/8/2025
Rec'd: 10/18/2021

 Energv Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	499.9 ± 1.9 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	100.0 ± 0.4 µg/mL	Beryllium, Be	50.01 ± 0.30 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	50.01 ± 0.22 µg/mL
Calcium, Ca	5 000 ± 20 µg/mL	Chromium, Cr	100.0 ± 0.7 µg/mL
Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.0 ± 0.4 µg/mL
Iron, Fe	499.8 ± 2.1 µg/mL	Lead, Pb	100.0 ± 0.5 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 20 µg/mL
Manganese, Mn	500.1 ± 2.0 µg/mL	Nickel, Ni	100.0 ± 0.5 µg/mL
Phosphorus, P	1 000 ± 6 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Selenium, Se	100.0 ± 0.8 µg/mL	Silver, Ag	10.00 ± 0.05 µg/mL
Sodium, Na	5 000 ± 18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.1 ± 0.4 µg/mL		

Density: 1.097 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/(u_{\text{char } i})^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 08, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 08, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME220106 AUDIGSPK
Standard Name: AUDIGSPK
Date Prepared: 1/6/2022
Date Expires: 10/25/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Amanda E. McDani
Status: Open

<u>Stock Source</u>	<u>Base Units</u>	<u>Final Volume:</u> 50 mL	<u>Amount Added</u>
ME211202A U Stock	ug/mL		5 mL
ME 211025 Th Sec Th Seondary Stock	ug/mL		5 mL
ME211222 Ce 2nd Ce Secondary Stock	ug/mL		5 mL
ME211222 La Sec La Secondary Stock	ug/mL		5 mL
ME211229A AU 2n Au 2nd source Stock	ug/mL		15 mL
ME211025A Te Stock	ug/mL		15 mL

<u>Analytes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
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Energy Laboratories Inc

Standard LOG

Standard ID: ME211202A
Standard Name: U Stock
Date Prepared: 12/2/2021
Date Expires: 12/2/2022
Department: ME
Vendor: SCP Science
Lot Number: S210517021
Balance ID:

Type: Primary
BY: Amanda E. McDani
Status: New

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Uranium	14419	500	mL	12/2/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

U

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Uranium 1000 µg/ml
 Catalogue Number: 140-051-920/-921/-925
 Starting Material: Uranyl Nitrate 99.99%
 Lot Number: **S210517021**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **May 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1004 µg/ml +/- 4 µg/ml**
985 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3164 Lot: **080521**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 24.0 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

% abundance of stable isotopes : ²³⁸U : 99.82% ; ²³⁵U : 0.18%
 Note : The uranyl nitrate comes from a depleted source of uranium.

ID #: 14419

Opened: _____
 ICP/ICPMS Standard Uranium
Expires: 5/31/2023
 Rec'd: 10/20/2021
 Enerav Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	0.0252	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	N/A
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0020	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Yaling Sui, Chemist
 Certification Date: May 27, 2021

Yaling Sui

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est appropriée à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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3rd Party Distribution Center
348 Route 11, Champlain,
N.Y. 12919-4816
Phone: +1 (800) 361-6820
Fax: +1 (800) 253-5549

FRANCE
12 Ave. de Québec, Bat. IRIS
SILIC 642, 91965
Villebon sur Yvette, France
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME 211025 TH SECONDARY STOCK
Standard Name: Th Secondary Stock
Date Prepared: 10/25/2021
Date Expires: 10/25/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-TH706436
Balance ID:
Comments: Opened 10/25/2021; Expires 10/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Thorium Single Analyte Custom Grade Sol	14318	125	mL	10/25/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

 P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGTH1
 Lot Number: S2-TH706436
 Matrix: 5% (v/v) HNO₃
 Value / Analyte(s): 1 000 µg/mL ea:
 Thorium
 Starting Material: TH(NO₃)₄·4H₂O
 Starting Material Lot#: 2250
 Starting Material Purity: 99.9905%

ID #: 14318
 Opened:
 Thorium Single Analyte Custom Grade Solution
Expires: 7/4/2025
 Rec'd: 9/24/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 4 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 3 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1001 ± 6 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag < 0.000448	M Eu < 0.000224	O Na 0.064077	M Se < 0.005827	M Zn 0.003183
O Al 0.010962	M Fe 0.012392	M Nb < 0.003138	i Si < 0.002582	M Zr < 0.010310
M As < 0.038776	M Ga < 0.004931	M Nd 0.004697	M Sm 0.000871	
M Au < 0.000224	M Gd 0.000300	M Ni < 0.006724	M Sn < 0.028242	
M B < 0.021293	M Ge < 0.008965	M Os < 0.000224	M Sr 0.002582	
M Ba 0.001317	M Hf < 0.000224	i P < 0.001344	M Ta < 0.001344	
M Be < 0.000224	M Hg < 0.000448	M Pb 0.003287	M Tb < 0.001793	
M Bi < 0.001793	M Ho < 0.001344	M Pd < 0.000448	M Te < 0.010086	
O Ca 0.051969	M In 0.000134	M Pr 0.001202	s Th < 0.004258	
M Cd < 0.001344	M Ir < 0.000224	M Pt < 0.000224	M Ti < 0.000224	
M Ce 0.015420	O K 0.028928	M Rb < 0.005155	M Tl < 0.000224	
M Co < 0.001344	M La 0.003577	M Re < 0.000224	M Tm < 0.006564	
M Cr < 0.015465	M Li < 0.000448	M Rh < 0.000224	M U 0.001793	
M Cs < 0.013896	M Lu < 0.000224	M Ru < 0.000224	M V < 0.000224	
M Cu 0.001472	O Mg 0.027914	i S < 0.004931	M W < 0.000860	
M Dy 0.000197	M Mn 0.001814	M Sb < 0.000672	M Y 0.000224	
M Er < 0.002241	M Mo < 0.000896	M Sc < 0.000672	M Yb < 0.000224	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 232.04 +4 8 Th(OH) 3+ and Th(OH)22+

Chemical Compatibility -Soluble in HCl, and HNO3. Avoid H3PO4, H2SO4 and HF although solubilities may not be a problem depending upon pH and matrix (For example: ThF4 is soluble in acids). Avoid neutral to basic media. Th4+ is stable with most metals and inorganic anions forming an insoluble carbonate, oxide, fluoride, oxalate, sulfate and phosphate in neutral to slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Th Containing Samples (Preparation and Solution) -Metal (Soluble in Aqua Regia); Oxide (The heated oxide is not soluble in acids except hot conc. H2SO4); Ores (Na2O2 fusion at 480 ± 20EC for 7 minutes, cool and treat sintered mass with 50 mL cold water and stand until disintegrated. The mass is transferred to a beaker and acidified with HCl with 25 mL excess HCl added. Any residue is collected on a Whatman No. 42 filter, dried and ignited to 1000 EC in Pt0 crucible and the ash treated with H2SO4 / HF and fumed. If residue remains, then treat it by peroxide fusion as above.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 232 amu	1 ppt	N/A	
ICP-OES 274.716 nm	0.08 / 0.008 µg/mL	1	Ti, Ta, Fe, V
ICP-OES 283.231 nm	0.07 / 0.007 µg/mL	1	U, Mo, Ti, Fe, Cr
ICP-OES 283.730 nm	0.07 / 0.007 µg/mL	1	U, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 04, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211222 CE 2ND SOURCE
Standard Name: Ce Secondary Stock
Date Prepared: 12/22/2021
Date Expires: 12/22/2022
Department: ME
Vendor: SCP Science
Lot Number: S210208003
Balance ID:
Type: Primary
BY: Amanda E. McDani
Status: Open
Comments: opened 12/22/2021, expires 12/22/2022

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Cerium PlasmaCal Standard	14327	125	mL	12/22/2022

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

A Cerium

7440-45-1

1000

Ce

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Cerium 1000 µg/ml**
 Catalogue Number: 140-051-580/-581/-585
 Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%
 Lot Number: **S210208003**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.021 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**
 Trace Metal Impurities as tested by ICP-MS:

ID #: 14327
 Opened: _____
 Cerium PlasmaCal Standard
Expires: 2/28/2023
 Rec'd: 9/29/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	0.0102	Sn	<0.0010
Al	0.0148	Ga	0.0526	Ni	0.0064	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	0.0235	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0375	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0121	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	0.0035	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Yaling Sui, Chemist
 Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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FRANCE
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SILIC 642, 91965
Villebon sur Yvette, France
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GERMANY
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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211222 LA SECOND SOURCE
Standard Name: La Secondary Stock
Date Prepared: 12/22/2021
Date Expires: 12/22/2022
Department: ME
Vendor: SCP Science
Lot Number: S210803016
Balance ID:
Comments: opened 12/22/2021, expires 12/22/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Lanthanum PlasmaCal Standard	14326	125	mL	12/22/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

La

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Lanthanum 1000 µg/ml**
 Catalogue Number: 140-051-570/-571/-575
 Starting Material: Lanthanum(III) Oxide 99.99+%
 Lot Number: **S210803016**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **August 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1005 µg/ml +/- 4 µg/ml**
985 µg/g +/- 3 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3127a Lot: **151030**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.020 g/ml @ 23.2 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 14326

Opened: _____

Lanthanum PlasmaCal Standard

Expires: 8/31/2023

Rec'd: 9/29/2021

Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

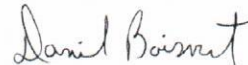
Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	0.0106	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	0.0889	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	0.0031	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0062
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0169	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	0.0272	La	N/A	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	0.0020
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0156	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021



5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*

- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*

- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*

- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*

- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*

- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*

For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou au CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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91140, Villebon-sur-Yvette
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktberdorfer Straße 14, 87616
Marktberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99+%

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211025A
Standard Name: Te Stock
Date Prepared: 10/25/2021
Date Expires: 10/25/2022
Department: ME
Vendor: SCP Science
Lot Number: S200130018
Balance ID:
Comments: Opened 10/25/2021; Expires 10/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
ICP/ICPMS Standard Tellurium	14418	500	mL	10/25

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

Analyses

CAS

Conc: **ug/mL**

Te

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Tellurium 1000 µg/ml*
 Catalogue Number: 140-051-520/-521/-525
 Starting Material: Tellurium Metal 99.99+%
 Lot Number: **S210615004**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **June 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1005 µg/ml +/- 5 µg/ml**
958 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3156 Lot: **140830**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.049 g/ml @ 25.5 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

ID #: 14418

Opened:

ICP/ICPMS Standard Tellurium

Expires: 6/30/2023

Rec'd: 10/20/2021

Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	0.0449	Sn	<0.0010
Al	<0.0010	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	0.0184	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	N/A
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	0.0028	Ti	<0.0012
Bi	<0.0010	In	0.0020	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0020	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.1	Zr	<0.0010
Er	<0.0010	Na	<0.0025	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: June 30, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / Étalons ICP : Pour l'étalonnage de instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.
 - IC Standards: For calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
- For any inquiries, please contact **SCP SCIENCE**. / Pour toute question, veuillez contacter **SCP SCIENCE**.

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou au CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.

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Energy Laboratories Inc

Standard LOG

Standard ID: ME220114A TUNE SOLUTION
Standard Name: Tune Solution
Date Prepared: 1/14/2022
Date Expires: 12/7/2022
Department: ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Stacy R. Hendricks
Status: Open

Comments: All elements except Be at 10 ppb. Be is spiked at 210 ppb.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	5	mL	4/11/
Milli-Q H2O	391	493	mL	6/1/2
Multi Analyte Custom Grade Solution	13795	0.5	mL	12/7/
Beryllium Single Analyte Custom Grad	14679	0.2	mL	9/17/

Final Volume: 500 mL

Stock Source

ME220114 TUNE S Tune Solution Stock

Base Units

ug/mL

Amount Added

1 mL

Analvtes

CAS

Conc: ug/mL

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 2008TS
 Lot Number: R2-MEB691898
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 µg/mL ea:
 Beryllium, Cobalt,
 Indium, Magnesium,
 Lead

ID #: 13795
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 4/8/2024
 Rec'd: 4/29/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Beryllium, Be	10.01 ± 0.06 µg/mL	Cobalt, Co	10.01 ± 0.04 µg/mL
Indium, In	10.01 ± 0.04 µg/mL	Lead, Pb	10.01 ± 0.04 µg/mL
Magnesium, Mg	10.01 ± 0.05 µg/mL		

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Be	ICP Assay	3105a	090514
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mg	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum((w_i)^2 (u_{\text{char } i}^2))]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = long term stability standard uncertainty (storage)

u_{TS} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ITS} = long term stability standard uncertainty (storage)

u_{TS} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at $20^\circ \pm 4^\circ$ C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 08, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 08, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGBE1
Lot Number: S2-BE708103
Matrix: 3% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Beryllium
Starting Material: Beryllium Acetate
Starting Material Lot#: 2354
Starting Material Purity: 99.9997%

ID #: 14679

Opened: _____
Beryllium Single Analyte Custom Grade Solut
Expires: 9/17/2026
Rec'd: 12/28/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL
Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	1003 ± 5 µg/mL ICP Assay NIST SRM 3105a Lot Number: 090514
Assay Method #2	1002 ± 6 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = (\sum((w_i)^2 (u_{char i})^2))^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000940	M Eu < 0.000240	O Na 0.003944	M Se < 0.018000	O Zn 0.001126
M Al 0.005019	O Fe 0.001024	M Nb < 0.000240	O Si 0.021513	M Zr < 0.000470
M As < 0.005500	M Ga < 0.000710	M Ni < 0.000240	M Sm < 0.000240	
M Au < 0.000240	M Gd < 0.000240	M Ni ^{SRM} < 0.004700	M Sn < 0.003300	
M B < 0.045000	M Ge < 0.003100	M Os ^{SRM} < 0.000240	M Sr < 0.001900	
M Ba < 0.001900	M Hf < 0.000240	O P < 0.130000	M Ta < 0.000240	
s Be < 0.003300	M Hg < 0.000470	M Pb < 0.000470	M Tb < 0.000240	
M Bi < 0.003300	M Ho < 0.000240	M Pd < 0.000470	M Te < 0.009700	
O Ca 0.002919	M In < 0.001900	M Pr < 0.000240	M Th < 0.000240	
M Cd < 0.000470	M Ir < 0.000240	M Pt < 0.000240	O Ti < 0.003600	
M Ce < 0.000240	M K 0.004968	M Rb < 0.001500	M Tl < 0.000240	
O Co < 0.002100	M La < 0.000240	M Re < 0.000240	M Tm < 0.000240	
O Cr < 0.002100	M Li < 0.002200	M Rh < 0.000240	M U < 0.000240	
M Cs 0.000133	M Lu < 0.000240	M Ru < 0.000710	M V < 0.001500	
O Cu < 0.013000	O Mg 0.000819	i S < 0.000940	M W < 0.001700	
M Dy < 0.000240	O Mn < 0.001900	M Sb < 0.000940	M Y < 0.000940	
M Er < 0.000240	M Mo < 0.001700	M Sc < 0.003600	M Yb < 0.000240	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 9.01 ; +2 ; 4 ; Be(H₂O)₄+2

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1 % HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 5-10 % HNO₃ / LDPE container.

Be Containing Samples (Preparation and Solution) - Meta l(is best dissolved in diluted H₂SO₄); BeO (boiling nitric, hydrochloric, or sulfuric acids or KHSO₄ fusion); Ores (H₂SO₄/HF digestion or carbonate fusion in Pt0); Organic Matrices (sulfuric/peroxide digestion or nitric/sulfuric/perchloric acid decomposition, or dry ash and dissolution according to the BeO procedure above).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 9 amu	4 ppt	N/A	
ICP-OES 234.861 nm	0.0003/0.00016 µg/mL	1	Fe, Ta, Mo
ICP-OES 313.042 nm	0.0003/0.00009 µg/mL	1	V, Ce, U
ICP-OES 313.107 nm	0.0007/0.0005 µg/mL	1	Ce, Th, Tm

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 17, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 17, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220114 TUNE STOCK
 Standard Name: Tune Solution Stock Type: Secondary
 Date Prepared: 1/14/2022 BY: Stacy R. Hendricks
 Date Expires: 12/22/2022
 Department: ME Status: Open
 Vendor:
 Lot Number:
 Balance ID:
 Comments: Solution is 1% HNO3 preserved

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000026478	13061	5	mL	5/12/
Milli-Q H2O	391	482.25	mL	6/1/2
Yittrium Single Analyte Custom Grade	14210	2.5	mL	1/25/
Cerium PlasmaCal Standard	14327	2.5	mL	12/22
Cobalt Single Analyte Custom Grade S	14683	2.5	mL	3/22/
Lithium Single Analyte Custom Grade	14687	2.5	mL	2/11/
Magnesium Single Analyte Custom Gr	14688	0.25	mL	4/23/
Thallium Single Analyte Custom Grade	14693	2.5	mL	8/5/2

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

**2.0 PRODUCT DESCRIPTION**

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGY1
Lot Number: S2-Y700840
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Yttrium
Starting Material: Yttrium Oxide
Starting Material Lot#: 623052
Starting Material Purity: 99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 4 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	999 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	1000 ± 5 µg/mL ICP Assay NIST SRM 3167a Lot Number: 120314
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

ID #: 14210

Opened: _____

Yttrium Single Analyte Custom Grade Solution

Expires: 1/25/2025

Rec'd: 8/27/2021

Eneray Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UHPA-Filtered Clean Room. An UHPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.038000	M Eu < 0.002235	O Na < 0.060000	M Se < 0.027000	O Zn < 0.002642
O Al < 0.016000	O Fe < 0.000193	M Nb < 0.000570	O Si < 0.003658	O Zr < 0.012000
M As < 0.002300	M Ga < 0.000570	M Nd < 0.000570	M Sm < 0.000570	
M Au < 0.008000	M Gd < 0.000570	M Ni < 0.004600	M Sn < 0.001800	
O B < 0.022000	M Ge < 0.001200	M Os < 0.000570	O Sr < 0.003100	
M Ba < 0.001200	M Hf < 0.000570	n P <	M Ta < 0.000570	
O Be < 0.002900	M Hg < 0.002900	M Pb < 0.000833	M Tb < 0.000570	
M Bi < 0.005600	M Ho < 0.001524	i Pd <	M Te < 0.006900	
O Ca < 0.000304	M In < 0.002500	M Pr < 0.000570	M Th < 0.000570	
M Cd < 0.000570	M Ir < 0.000570	M Pt < 0.000570	M Ti < 0.005700	
M Ce < 0.000570	O K < 0.001117	M Rb < 0.001400	M Tl < 0.000570	
M Co < 0.000570	M La < 0.000570	M Re < 0.000570	M Tm < 0.001200	
M Cr < 0.003500	O Li < 0.004200	M Rh < 0.011000	M U < 0.000570	
M Cs < 0.005700	M Lu < 0.000570	M Ru < 0.000570	O V < 0.013000	
M Cu < 0.000365	O Mg < 0.000223	n S <	M W < 0.006900	
M Dy < 0.000508	O Mn < 0.001400	M Sb < 0.000365	s Y <	
M Er < 0.000197	M Mo < 0.006200	O Sc < 0.011000	M Yb < 0.003500	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H₂O)_{x+2}

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media.

Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride.

Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H₂O/ HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	<u>73Ge16O</u> , <u>178Hf+2</u>
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 25, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 25, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Ce

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Cerium 1000 µg/ml**
 Catalogue Number: 140-051-580/-581/-585
 Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%
 Lot Number: **S210208003**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.021 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 14327
 Opened: _____
 Cerium PlasmaCal Standard
Expires: 2/28/2023
 Rec'd: 9/29/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	0.0102	Sn	<0.0010
Al	0.0148	Ga	0.0526	Ni	0.0064	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	0.0235	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0375	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0121	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	0.0035	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Yaling Sui, Chemist
 Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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 Christiansburg, VA 24073 USA
 inorganicventures.com

 P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGCO1
 Lot Number: S2-CO702699
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 1 000 µg/mL ea:
 Cobalt
 Starting Material: Co Metal
 Starting Material Lot#: 2326
 Starting Material Purity: 99.9934%

ID #: 14683

Opened:

Cobalt Single Analyte Custom Grade Solution

Expires: 3/22/2025

Rec'd: 12/28/2021

 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 3 µg/mL
Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	994 ± 5 µg/mL ICP Assay NIST SRM 3113 Lot Number: 190630
Assay Method #2	997 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$

k = coverage factor = 2
 $u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k(u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{Its} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag	<	0.001515	M Eu	<	0.000590	O Na		0.000778	M Se	<	0.019000	M Zn		0.000357
M Al	<	0.024000	M Fe		0.005262	M Nb	<	0.000590	O Si		0.007789	M Zr	<	0.001200
i As	<		M Ga	<	0.000590	M Nd	<	0.000590	M Sm	<	0.000590			
M Au	<	0.004100	M Gd	<	0.000590	O Ni		0.044207	M Sn	<	0.001200			
M B	<	0.031000	M Ge	<	0.003000	M Os	<	0.000590	O Sr	<	0.000260			
M Ba	<	0.000590	M Hf	<	0.000590	n P	<		M Ta	<	0.001200			
O Be	<	0.001300	M Hg	<	0.001800	M Pb		0.000336	M Tb	<	0.000590			
M Bi	<	0.003000	M Ho	<	0.000590	M Pd	<	0.000590	M Te	<	0.005300			
O Ca		0.001094	M In	<	0.001200	M Pr	<	0.000590	M Th	<	0.000590			
M Cd	<	0.004700	M Ir	<	0.001200	M Pt	<	0.002400	M Ti	<	0.014000			
M Ce	<	0.000590	O K		0.000842	M Rb	<	0.000590	M Tl		0.000273			
s Co	<		M La	<	0.000590	M Re	<	0.000590	M Tm	<	0.000590			
M Cr	<	0.021000	O Li	<	0.000130	M Rh	<	0.000590	M U	<	0.000590			
M Cs	<	0.002400	M Lu	<	0.000590	M Ru	<	0.007100	O V	<	0.000880			
M Cu		0.019577	O Mg		0.000195	n S	<		M W	<	0.000590			
M Dy	<	0.000590	M Mn	<	0.001800	M Sb	<	0.003600	M Y	<	0.000590			
M Er	<	0.000590	M Mo	<	0.002400	O Sc	<	0.001600	M Yb	<	0.000590			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 58.93 +2 6 Co(H₂O)₆2+

Chemical Compatibility - Stable in HCl, HNO₃, H₂SO₄, HF, H₃PO₄. Avoid basic media. Stable with most metals and inorganic anions in acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Co Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxides (Soluble in HCl); Ore (dissolve in HCl / HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 59 amu	2 ppt	n/a	42Ca16O1H , 40Ar18O1H , 36Ar23Na, 43Ca16O, 24Mg35Cl
ICP-OES 228.616 nm	0.01/0.001 µg/mL	1	
ICP-OES 237.862 nm	0.01/0.002 µg/mL	1	W, Re, Al, Ta
ICP-OES 238.892 nm	0.01/0.002 µg/mL	1	Fe, W, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGLI1
 Lot Number: S2-LI701641
 Matrix: 0.1% (v/v) HNO3
 Value / Analyte(s): 1 000 µg/mL ea:
 Lithium
 Starting Material: Lithium Carbonate
 Starting Material Lot#: 1613
 Starting Material Purity: 99.9962%

ID #: 14687
 Opened:
 Lithium Single Analyte Custom Grade Solution
Expires: 2/11/2025
 Rec'd: 12/28/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 3 µg/mL
Density: 1.005 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	997 ± 4 µg/mL ICP Assay NIST SRM 3129a Lot Number: 100714
Assay Method #2	1000 ± 1 µg/mL Gravimetric NIST SRM Lot Number: See Sec. 4.2
Assay Method #3	1001 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = (\sum(w_i)^2 (u_{char i}^2))^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.000500	M Eu <	0.000500	O Na	0.018534	M Se <	0.011000	M Zn	0.003494
O Al	0.000741	O Fe	0.004342	M Nb <	0.000500	M Si	0.111204	M Zr <	0.002000
M As <	0.011000	M Ga <	0.000500	M Nd <	0.000500	M Sm <	0.000500		
M Au <	0.010000	M Gd <	0.000500	M Ni <	0.007000	M Sn <	0.001000		
O B	0.000503	M Ge <	0.004500	M Os <	0.001000	M Sr	0.000243		
O Ba	0.000381	M Hf <	0.000500	O P <	0.045000	M Ta <	0.000500		
O Be	0.000046	M Hg <	0.000500	M Pb <	0.003000	M Tb <	0.000500		
M Bi <	0.000500	M Ho <	0.000500	M Pd <	0.000500	M Te <	0.005000		
O Ca	0.058249	M In <	0.000500	M Pr <	0.000500	M Th <	0.000500		
M Cd <	0.000500	M Ir <	0.000500	M Pt <	0.000500	M Ti <	0.002500		
M Ce <	0.000500	O K	0.029124	M Rb <	0.001000	M Tl <	0.000500		
M Co <	0.000500	M La <	0.000500	M Re <	0.000500	M Tm <	0.000500		
M Cr	0.000153	s Li <		M Rh <	0.000500	M U <	0.000500		
M Cs <	0.000500	M Lu <	0.000500	M Ru <	0.000500	M V	0.000953		
M Cu <	0.002000	O Mg	0.011649	O S	0.031772	M W <	0.001000		
M Dy <	0.000500	O Mn	0.000164	M Sb <	0.003000	M Y <	0.000500		
M Er <	0.000500	M Mo <	0.000500	M Sc <	0.001500	M Yb <	0.000500		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 6.94 +1 (6) Li+(aq) large effective radius due to hydration sphere

Chemical Compatibility -Soluble in HCl, HNO₃, H₂SO₄ and HF aqueous matrices. Stable with all metals and inorganic anions.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO₃ / LDPE container.

Li Containing Samples (Preparation and Solution) -Metal (Dissolves very rapidly in water); Ores (Sodium carbonate fusion in Pt0 followed by HCl dissolution-blank levels of Li in sodium carbonate critical); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 7 amu	10 ppt	n/a	
ICP-OES 323.261 nm	1.1 / 0.05 micro;g/mL	1	Sb, Th, Ni
ICP-OES 460.286 nm	0.9 / 0.04 µg/mL	1	Zr, Th
ICP-OES 670.784 nm	0.002 / 0.00002 µg/mL	1	2nd order radiation from R.E.s on some optical designs

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 11, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **February 11, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMG10
Lot Number: S2-MG704239
Matrix: 2% (v/v) HNO3
Value / Analyte(s): 10 000 µg/mL ea:
Magnesium
Starting Material: Magnesium Metal
Starting Material Lot#: 2168
Starting Material Purity: 99.9984%

ID #: 14688
Opened:
Magnesium Single Analyte Custom Grade Sol
Expires: 4/23/2025
Rec'd: 12/28/2021
Enerav Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10053 ± 30 µg/mL
Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10022 ± 62 µg/mL ICP Assay NIST SRM 3131a Lot Number: 140110
Assay Method #2	10078 ± 26 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10033 ± 26 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag	0.002106	M	Eu	<	0.000910	O Na	0.071075	O Se	<	0.048000	O Zn	0.003299		
M Al	0.003553	M	Fe		0.002538	M Nb	<	0.000460	O Si	<	0.032000	O Zr	<	0.002700
M As	<	0.001400	M Ga	<	0.000460	M Nd	<	0.000910	M Sm	<	0.000460			
M Au	<	0.001400	M Gd	<	0.000460	O Ni	<	0.001600	M Sn	<	0.002300			
O B	0.006853	M	Ge	<	0.001400	M Os	<	0.000460	O Sr		0.000279			
O Ba	0.000964	M	Hf	<	0.000460	O P		0.015230	M Ta	<	0.000460			
O Be	<	0.000120	M Hg	<	0.000460	M Pb	<	0.000460	M Tb	<	0.000460			
M Bi	<	0.000460	M Ho	<	0.000460	M Pd	<	0.003200	M Te	<	0.007300			
O Ca	0.053306	M	In	<	0.000460	M Pr	<	0.000460	M Th	<	0.000460			
O Cd	<	0.000360	M Ir	<	0.000460	M Pt	<	0.001900	O Ti	<	0.001700			
M Ce	<	0.002300	M K		0.048229	M Rb		0.002411	M Tl		0.003046			
M Co	<	0.000910	M La	<	0.002800	M Re	<	0.000460	M Tm	<	0.000460			
M Cr	<	0.002300	O Li		0.027922	M Rh	<	0.000460	M U	<	0.000460			
M Cs	0.001040	M	Lu	<	0.000460	M Ru	<	0.000460	M V	<	0.000460			
O Cu	<	0.003000	s Mg	<		O S	<	0.190000	M W	<	0.000460			
M Dy	<	0.000460	O Mn		0.015230	M Sb		0.020814	O Y	<	0.000720			
M Er	<	0.000460	M Mo	<	0.000910	O Sc	<	0.000480	M Yb	<	0.000460			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 24.31 +2 6 Mg(H₂O)₆+2

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄ avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicates, carbonates, hydroxides, oxides, and tungstates in neutral and slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-10% HNO₃ / LDPE container.

Mg Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Oxide (Readily soluble in above compatible aqueous acidic solutions); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric / peroxide digestion or nitric / sulfuric / perchloric acid decomposition, or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 24 amu	42 ppt	n/a	7Li17O, 48Ti+2 , 48Ca+2
ICP-OES 279.553 nm	0.0002 / 0.00003 µg/mL	1	Th
ICP-OES 280.270 nm	0.0003 / 0.00005 µg/mL	1	U, V
ICP-OES 285.213 nm	0.002 / 0.00003 µg/mL	1	U, Hf, Cr, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 23, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 23, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0

NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGTL1
Lot Number: R2-TL694852
Matrix: 1% (v/v) HNO3
Value / Analyte(s): 1 000 µg/mL ea:
Thallium
Starting Material: TINO3
Starting Material Lot#: 2118
Starting Material Purity: 99.9998%

ID #: 14693
Opened:
Thallium Single Analyte Custom Grade Solution
Expires: 8/5/2024
Rec'd: 12/28/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL
Density: 1.005 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1003 ± 4 µg/mL**
ICP Assay NIST SRM 3158 Lot Number: 151215

Assay Method #2 **1000 ± 7 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char} = (\sum((w_i)^2 (u_{char i})^2))^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000200	M Eu < 0.000200	O Na < 0.000256	M Se < 0.011019	O Zn < 0.000236
O Al < 0.004184	O Fe < 0.002824	M Nb < 0.000200	O Si < 0.000387	M Zr < 0.000200
M As < 0.002003	M Ga < 0.000200	M ⁱ Nd < 0.000200	M Sm < 0.000200	
O Au < 0.002824	M Gd < 0.000200	M ⁱ Ni < 0.000177	M Sn < 0.000601	
O B < 0.004184	M Ge < 0.000801	M ⁱ Os < 0.000198	O Sr < 0.000313	
M Ba < 0.000400	M Hf < 0.000200	O P < 0.010460	M Ta < 0.000200	
O Be < 0.000104	M Hg < 0.000794	M Pb < 0.000083	M Tb < 0.000200	
M Bi < 0.005209	M Ho < 0.000200	M Pd < 0.000400	M Te < 0.005008	
O Ca < 0.000250	M In < 0.000200	M Pr < 0.000200	M Th < 0.000200	
M Cd < 0.000135	M Ir < 0.000198	M Pt < 0.000801	O Ti < 0.001255	
M Ce < 0.000200	O K < 0.000636	M Rb < 0.000200	s Tl <	
M Co < 0.000601	M La < 0.000200	M Re < 0.000200	M Tm < 0.000200	
M Cr < 0.000801	O Li < 0.000177	M Rh < 0.000200	M U < 0.000200	
M Cs < 0.003606	M Lu < 0.000200	M Ru < 0.000397	M V < 0.002203	
M Cu < 0.001001	O Mg < 0.000054	O S < 0.015690	M W < 0.000601	
M Dy < 0.000200	M Mn < 0.000801	M Sb < 0.000400	M Y < 0.000200	
M Er < 0.000200	M Mo < 0.001202	O Sc < 0.000711	M Yb < 0.000200	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 204.38 + 16 Ti(H₂O)₆1+

Chemical Compatibility - Soluble in HCl, HNO₃, and H₂SO₄. Stable with most metals and inorganic anions. The sulfite, thiocyanate and oxalate are moderately soluble; the phosphate and arsenite are slightly soluble and the sulfide is insoluble.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ti Containing Samples (Preparation and Solution) -Metal (Best dissolved in HNO₃ which forms chiefly the Ti¹⁺ ion.); Oxide (The thalious oxide is readily soluble in water. The thallic oxide requires high levels of acid); Ores (Carbonate fusion in Pt₀ followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 205 amu	2 ppt	N/A	189Os16O
ICP-OES 190.864 nm	0.04 / 0.004 µg/mL	1	V, Ti
ICP-OES 276.787 nm	0.1 / 0.01 µg/mL	1	Ta, V, Fe, Cr
ICP-OES 351.924 nm	0.2 / 0.02 µg/mL	1	Th, Ce, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 05, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 05, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220112A 1000 PPB STANDARD
 Standard Name: 1000 PPB Standard
 Date Prepared: 1/12/2022
 Date Expires: 11/18/2022
 Department: ME
 Vendor:
 Lot Number:
 Balance ID:
 Comments: Made fresh daily

Type: Secondary
 BY: Cindy Rohrer
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.25	mL	6/1/2100

Final Volume:
 50 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
ME211208 MSCAL MSCAL 2B	ug/mL	0.5 mL
ME211118 MSCAL EL-MSCAL-5A	ug/mL	0.5 mL
ME211229A AU 2n Au 2nd source Stock	ug/mL	0.01 mL

<u>Analytes</u>	<u>CAS</u>	Conc:	<u>mg/L</u>
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Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-2B
 Lot Number: S2-MEB704403
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s):
 100 µg/mL ea:
 Aluminum, Arsenic,
 Boron, Barium,
 Beryllium, Cadmium,
 Cobalt, Chromium,
 Copper, Iron,
 Manganese, Nickel,
 Lead, Selenium,
 Strontium, Thorium,
 Thallium, Uranium,
 Vanadium, Zinc,
 40 µg/mL ea:
 Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum (1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char\ a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSCAL-5A

Lot Number: P2-MEB687200

Matrix: 3% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
500 µg/mL ea:	Phosphorus,	Iron,	
250 µg/mL ea:	Lithium		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{ \sum((w_i)^2 (u_{char i}^2)) \}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99+%

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 100 PPB STANDARD
 Standard Name: 100 ppb Standard
 Date Prepared: 1/12/2022
 Date Expires: 11/18/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments: Made Fresh Daily

Type: Secondary
 BY: Cindy Rohrer
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
 50 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
ME211221 MSCAL MSCAL 3C	ug/mL	0.05 mL
ME211118 MSCAL EL-MSCAL-5A	ug/mL	0.25 mL
ME220105 HgPrim Primary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211208 MSCAL MSCAL 2B	ug/mL	0.05 mL
ME211229A AU 2n Au 2nd source Stock	ug/mL	0.01 mL
ME220110 Ce, La Ce, La Primary	ug/mL	0.05 mL

<u>Analytes</u>	<u>CAS</u>	<u>Conc:</u>	<u>mg/L</u>
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Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,

1-6-2025

ID #: 13473
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 1/6/2025
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Titanium,
 Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° \pm 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSCAL-5A

Lot Number: P2-MEB687200

Matrix: 3% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
500 µg/mL ea:	Phosphorus,	Iron,	
250 µg/mL ea:	Lithium		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{\sum((w_i)^2 (u_{char i}^2))\}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107**SCP SCIENCE**

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis**Hg****1.0 DESCRIPTION:**

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+%
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

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Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:
Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 50 PPB STANDARD_CCV
 Standard Name: 50 ppb Standard/CCV
 Date Prepared: 1/12/2022
 Date Expires: 11/18/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments: Made Fresh Daily

Type: Secondary
 BY: Cindy Rohrer
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
100 mL

Stock Source

ME211221 MSCAL MSCAL 3C
 ME211118 MSCAL EL-MSCAL-5A
 ME220105 HgPrim Primary Hg Stock 2 PPM
 ME211208 MSCAL MSCAL 2B
 ME211229A AU 2n Au 2nd source Stock
 ME220110 Ce, La Ce, La Primary

Base Units

ug/mL
 ug/mL
 ug/mL
 ug/mL
 ug/mL
 ug/mL

Amount Added

0.05 mL
 0.25 mL
 0.05 mL
 0.05 mL
 0.01 mL
 0.05 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,

1-6-2025

ID #: 13473
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 1/6/2025
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Titanium,
 Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° \pm 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSCAL-5A

Lot Number: P2-MEB687200

Matrix: 3% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
500 µg/mL ea:	Phosphorus,	Iron,	
250 µg/mL ea:	Lithium		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{ \sum((w_i)^2 (u_{char i}^2)) \}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

Hg

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+%
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP: Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA: Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice: Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH: Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité: Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC: Pour étalonnage d'instruments tels que: IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktberdorfer Straße 14, 87616
Marktberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENCE

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:
Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 10 PPB STANDARD
Standard Name: 10 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 100 PP 100 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 1 PPB STANDARD
Standard Name: 1 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 10 PPB 10 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.5 PPB STANDARD
Standard Name: 0.5 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 10 PPB 10 ppb Standard

Base Units
ug/mL

Amount Added
2.5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.1 PPB STANDARD
Standard Name: 0.1 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220112 1 PPB 1 ppb Standard

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.05 PPB STANDARD
Standard Name: 0.5 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 0.5 PP 0.5 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.025 PPB STANDARD
Standard Name: 0.025 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 0.5 PP 0.5 ppb Standard

Base Units
ug/mL

Amount Added
2.5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211206 ICV STANDARD
 Standard Name: ICV for ICPMS Standards
 Date Prepared: 12/6/2021
 Date Expires: 4/30/2022
 Department:
 Vendor:
 Lot Number:
 Balance ID:
 Comments: Made fresh daily

Type: Secondary
 BY: Stacy R. Hendricks
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Hydrochloric Acid Instra Analyzed 000	14028	1	mL	3/29/
Nitric Acid Instra Analyzed 000028856	14572	2	mL	6/28/
Milli-Q H2O	391		mL	6/1/2

Final Volume: 100 mL

<u>Stock Source</u>	Base Units	Amount Added
ME210211 U Seco U 2' QCS	ug/mL	0.05 mL
ME211206 Th QC Th QCS Stock	ug/mL	0.05 mL
ME210901 Hg Sec Secondary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211124 EL-MSI EL-MSICV-2	ug/mL	0.05 mL
ME210817 ICV-1A EL-MSICV-1A	ug/mL	0.05 mL
ME210903 Ce, La Ce, La Secondary solution	ug/mL	0.05 mL

Analvtes **CAS** Conc: **mg/L**

Energy Laboratories Inc

Spike LOG

Standard ID: ME210211 U SECOND SOURCE
Standard Name: U 2' QCS
Date Prepared: 2/11/2021
Date Expires: 4/30/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Alyssa A. Olson
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid Instra Analyzed 0000264786	13061	0.25	mL	5/12/2025
Milli-Q H2O	391	22.25	mL	6/1/2100

Final Volume:
25 mL

Stock Source

ME200624A U Stock

Base Units

ug/mL

Amount Added

2.5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME200624A
Standard Name: U Stock
Date Prepared: 6/24/2020
Date Expires: 4/30/2022
Department: ME
Vendor: SCP Science
Lot Number: S200422002
Balance ID:

Type: Primary
BY: Ron Hunt
Status: Empty/Disposed

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
PlasmaCal Standard Uranium	12767	500	mL	4/30/

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

A Uranium

7440-61-1

1000

U

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Uranium 1000 µg/ml**
 Catalogue Number: 140-051-920/-921/-925
 Starting Material: Uranyl Nitrate 99.99%
 Lot Number: **S200422002**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **April 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
983 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3164 Lot: **080521**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.020 g/ml @ 21.7 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 12767
 Opened: _____
 PlasmaCAL Standard Uranium
Expires: 4/30/2022
 Rec'd: 6/15/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

% abundance of stable isotopes : ²³⁸U : 99.79% ; ²³⁵U : 0.21%
 Note : The uranyl nitrate comes from a depleted source of uranium.

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	0.0073	Ga	<0.0010	Ni	0.0038	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	*	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0031
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	0.0020
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0340	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	N/A
Ce	<0.0010	La	*	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	<1.0000	Y	0.0049
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	*	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<1.0000		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: April 28, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que : ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Spike LOG

Standard ID: ME211206 TH QCS STOCK
Standard Name: Th QCS Stock
Date Prepared: 12/6/2021
Date Expires: 10/25/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000028856	14572	0.25	mL	6/28/
Milli-Q H2O	391	22.25	mL	6/1/2

Final Volume: 25 mL

Stock Source
ME 211025 Th Sec Th Secondary Stock

Base Units
ug/mL

Amount Added
2.5 mL

Analvtes

CAS

Conc: **ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID: ME 211025 TH SECONDARY STOCK
Standard Name: Th Secondary Stock
Date Prepared: 10/25/2021
Date Expires: 10/25/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-TH706436
Balance ID:
Comments: Opened 10/25/2021; Expires 10/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Thorium Single Analyte Custom Grade Sol	14318	125	mL	10/25/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

 P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGTH1
 Lot Number: S2-TH706436
 Matrix: 5% (v/v) HNO₃
 Value / Analyte(s): 1 000 µg/mL ea:
 Thorium
 Starting Material: TH(NO₃)₄·4H₂O
 Starting Material Lot#: 2250
 Starting Material Purity: 99.9905%

ID #: 14318
 Opened:
 Thorium Single Analyte Custom Grade Solution
Expires: 7/4/2025
 Rec'd: 9/24/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 4 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 3 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1001 ± 6 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.000448	M Eu <	0.000224	O Na	0.064077	M Se <	0.005827	M Zn	0.003183
O Al	0.010962	M Fe	0.012392	M Nb <	0.003138	i Si <		M Zr <	0.010310
M As <	0.038776	M Ga <	0.004931	M Nd	0.004697	M Sm	0.000871		
M Au <	0.000224	M Gd	0.000300	M Ni <	0.006724	M Sn <	0.028242		
M B <	0.021293	M Ge <	0.008965	M Os <	0.000224	M Sr	0.002582		
M Ba	0.001317	M Hf <	0.000224	i P <		M Ta <	0.001344		
M Be <	0.000224	M Hg <	0.000448	M Pb	0.003287	M Tb <	0.001793		
M Bi <	0.001793	M Ho <	0.001344	M Pd <	0.000448	M Te <	0.010086		
O Ca	0.051969	M In	0.000134	M Pr	0.001202	s Th <			
M Cd <	0.001344	M Ir <	0.000224	M Pt <	0.000224	M Ti <	0.004258		
M Ce	0.015420	O K	0.028928	M Rb <	0.005155	M Tl <	0.000224		
M Co <	0.001344	M La	0.003577	M Re <	0.000224	M Tm <	0.000224		
M Cr <	0.015465	M Li <	0.000448	M Rh <	0.000224	M U	0.006564		
M Cs <	0.013896	M Lu <	0.000224	M Ru <	0.000224	M V <	0.001793		
M Cu	0.001472	O Mg	0.027914	i S <		M W <	0.000224		
M Dy	0.000197	M Mn	0.001814	M Sb <	0.004931	M Y	0.000860		
M Er <	0.002241	M Mo <	0.000896	M Sc <	0.000672	M Yb <	0.000224		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 232.04 +4 8 Th(OH) 3+ and Th(OH)22+

Chemical Compatibility -Soluble in HCl, and HNO3. Avoid H3PO4, H2SO4 and HF although solubilities may not be a problem depending upon pH and matrix (For example: ThF4 is soluble in acids). Avoid neutral to basic media. Th4+ is stable with most metals and inorganic anions forming an insoluble carbonate, oxide, fluoride, oxalate, sulfate and phosphate in neutral to slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Th Containing Samples (Preparation and Solution) -Metal (Soluble in Aqua Regia); Oxide (The heated oxide is not soluble in acids except hot conc. H2SO4); Ores (Na2O2 fusion at 480 ± 20EC for 7 minutes, cool and treat sintered mass with 50 mL cold water and stand until disintegrated. The mass is transferred to a beaker and acidified with HCl with 25 mL excess HCl added. Any residue is collected on a Whatman No. 42 filter, dried and ignited to 1000 EC in Pt0 crucible and the ash treated with H2SO4 / HF and fumed. If residue remains, then treat it by peroxide fusion as above.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 232 amu	1 ppt	N/A	
ICP-OES 274.716 nm	0.08 / 0.008 µg/mL	1	Ti, Ta, Fe, V
ICP-OES 283.231 nm	0.07 / 0.007 µg/mL	1	U, Mo, Ti, Fe, Cr
ICP-OES 283.730 nm	0.07 / 0.007 µg/mL	1	U, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 04, 2025

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME210901 HG SECOND SOURCE
Standard Name: Secondary Hg Stock 2 PPM
Date Prepared: 9/1/2021
Date Expires: 7/26/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	0.1	mL	4/11/
Hydrochloric Acid Instra Analyzed 000	14028	0.05	mL	3/29/

Final Volume: 50 mL

Stock Source
ME210726 Hg Secondary Source

Base Units
ug/mL

Amount Added
0.1 mL

Analvtes

CAS

Conc: **ug/mL**

Energy Laboratories Inc

Spike LOG

Standard ID: ME210726
Standard Name: Hg Secondary Source
Date Prepared: 7/26/2021
Date Expires: 7/26/2022
Department: _____
Vendor: _____
Lot Number: _____
Balance ID: _____
Comments: _____

Type: _____
BY: Jordan A. Gjerde
Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Mercury Single Analyte Custom Grade	13979	120	mL	7/26/

Final Volume: _____ mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: _____ ug/mL

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGHG1
 Lot Number: R2-HG696409
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s): 1 000 µg/mL ea:
 Mercury
 Starting Material: Hg metal
 Starting Material Lot#: 1959
 Starting Material Purity: 99.9994%

ID #: 13979
 Opened:
 Mercury Single Analyte Custom Grade Solution
Expires: 9/15/2024
 Rec'd: 6/23/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1004 ± 8 µg/mL**
 ICP Assay NIST SRM 3133 Lot Number: 160921

Assay Method #2 **1003 ± 3 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 3 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O Ag	0.001159	M	Eu <	0.000201	O Na	0.000435	M	Se <	0.015915	O Zn <	0.001510
O Al	0.000090	O	Fe	0.000113	M Nb <	0.000201	O	Si	0.000525	M Zr <	0.000201
M As <	0.000402	M	Ga <	0.000201	M Nd <	0.000201	M	Sm <	0.000201		
M Au <	0.003631	M	Gd <	0.000201	M Ni <	0.000402	M	Sn <	0.001007		
M B <	0.001208	M	Ge <	0.000201	M Os <	0.000605	M	Sr <	0.000201		
M Ba <	0.000201	M	Hf <	0.000201	O P <	0.032370	M	Ta <	0.000201		
M Be <	0.000201	s	Hg <		M Pb <	0.000201	M	Tb <	0.000201		
M Bi <	0.000201	M	Ho <	0.000201	M Pd <	0.000403	M	Te <	0.002216		
O Ca	0.000746	M	In <	0.000201	M Pr <	0.000201	M	Th <	0.000201		
M Cd <	0.000201	M	Ir <	0.000201	M Pt <	0.000402	M	Ti <	0.000402		
M Ce <	0.000201	O	K	0.002007	M Rb <	0.000201	O	Tl <	0.016508		
M Co <	0.000201	M	La <	0.000201	M Re <	0.000201	M	Tm <	0.000201		
O Cr <	0.003021	O	Li <	0.000107	M Rh <	0.000201	M	U <	0.008058		
M Cs <	0.001208	M	Lu <	0.000201	M Ru <	0.000201	M	V <	0.000201		
M Cu <	0.000402	O	Mg	0.000096	O S <	0.053950	M	W <	0.000604		
M Dy <	0.000201	M	Mn <	0.000604	M Sb <	0.001208	M	Y <	0.000201		
M Er <	0.000201	M	Mo	0.000971	M Sc <	0.000201	M	Yb <	0.000201		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO₃. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th, Rh, Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 15, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 15, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211124 EL-MSICV-2
Standard Name: EL-MSICV-2
Date Prepared: 11/24/2021
Date Expires: 11/24/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14023	500	mL	11/24

Final Volume: mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSICV-2
 Lot Number: R2-MEB696849
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s):
 1 000 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin, Titanium,
 Molybdenum, Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.6 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	99.9 ± 0.4 µg/mL
Titanium, Ti	99.9 ± 0.6 µg/mL		

Density: 1.019 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Sn	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$
 k = coverage factor = 2
 $u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (\pm) = $U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$
 k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va, 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 14, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 14, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME210817 ICV-1A
Standard Name: EL-MSICV-1A
Date Prepared: 8/17/2021
Date Expires: 8/17/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: R2-MEB688457
Balance ID:
Comments: Opened 8/17/2021; Expires 8/17/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	13475	500	mL	8/17/

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

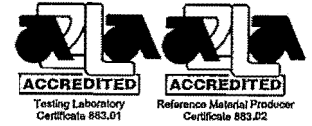
Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSICV-1A

Lot Number: R2-MEB688457

Matrix: 5% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
1 000 µg/mL ea:	Phosphorus,		
500 µg/mL ea:	Manganese,	Iron,	Aluminum,
100 µg/mL ea:	Arsenic,	Boron,	Barium,
	Cobalt,	Chromium,	Copper,
	Lithium,	Nickel,	Lead,
	Selenium,	Strontium,	Thallium,
	Vanadium,	Zinc,	
50 µg/mL ea:	Silver,	Cadmium,	Beryllium

ID #: 13475

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 1/10/2024

Rec'd: 1/15/2021

 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	500.3 ± 1.8 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	99.9 ± 0.4 µg/mL	Beryllium, Be	49.96 ± 0.33 µg/mL
Boron, B	100.0 ± 0.6 µg/mL	Cadmium, Cd	50.10 ± 0.22 µg/mL
Calcium, Ca	5 001 ± 20 µg/mL	Chromium, Cr	100.0 ± 0.6 µg/mL
Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.1 ± 0.4 µg/mL
Iron, Fe	499.7 ± 2.1 µg/mL	Lead, Pb	100.1 ± 0.4 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Manganese, Mn	499.8 ± 1.9 µg/mL	Nickel, Ni	100.1 ± 0.4 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Selenium, Se	100.1 ± 0.8 µg/mL	Silver, Ag	50.02 ± 0.22 µg/mL
Sodium, Na	5 000 ± 18 µg/mL	Strontium, Sr	100.1 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL	Vanadium, V	99.9 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.4 µg/mL		

Density: 1.098 g/mL (measured at 20 ± 4 °C)

Assay Information:

1.098 g/mL
measured at 20 ± 4 °C

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/(u_{\text{char } i}^2)))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i}^2))^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_n) (u_{\text{char } n})$$

X_n = mean of Assay Method n with

$u_{\text{char } n}$ = the standard uncertainty of characterization Method n

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } n}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } n}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va, 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; Inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME210903 CE, LA SECONDARY
Standard Name: Ce, La Secondary solution
Date Prepared: 9/3/2021
Date Expires: 5/25/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments: Second Source Stock Solution

Type: Secondary
BY: Parker A. Pearsall
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000020579	10902	0.5	mL	7/1/2
Milli-Q H2O	391	39.5	mL	6/1/2

Final Volume: 50 mL

Stock Source

ME210903 La Sec La Secondary Stock
ME210525 Ce 2nd Ce Secondary Stock

Base Units

ug/mL
ug/mL

Amount Added

5 mL
5 mL

Analvtes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME210903 LA SECOND SOURCE
Standard Name: La Secondary Stock
Date Prepared: 9/3/2021
Date Expires: 9/3/2022
Department: ME
Vendor: SCP Science
Lot Number: S201029004
Balance ID:
Comments: Opened 9/3/2021; Expires 9/3/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Lanthanum PlasmaCal Standard	14019	125	mL	9/3/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

La

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Lanthanum 1000 µg/ml
 Catalogue Number: 140-051-570/-571/-575
 Starting Material: Lanthanum(III) Oxide 99.99+%
 Lot Number: **S201029004**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **November 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1005 µg/ml +/- 4 µg/ml**
985 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3127a Lot: **151030**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 14019

Opened: _____
 Lanthanum PlasmaCal Standard
Expires: 11/30/2022
 Rec'd: 7/6/2021
 Energv Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.020 g/ml @ 23.4 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0049	Fe	<0.0102	Nd	<0.1595	Sn	<0.0307
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0525	Gd	<0.0685	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.2535	Hf	<0.0339	Pb	<0.2460	Te	<0.4025
Ba	<0.0025	Hg	*	Pd	<0.1410	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.0274	Ti	<0.0013
Bi	<0.0780	In	<0.0105	Pt	<0.0533	Tl	<0.5600
Ca	0.0164	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	N/A	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0006	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0045	Sb	<0.0197	Yb	<0.0057
Cu	<0.0040	Mn	<0.0018	Sc	<0.0055	Zn	<0.0045
Dy	<0.0043	Mo	<0.0229	Se	<0.0249	Zr	<0.0061
Er	<0.0070	Na	<0.0038	Si	<0.0455		
Eu	<0.0086	Nb	<0.0112	Sm	<0.1105		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: November 04, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présupmant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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SILIC 642, 91965
Villebon sur Yvette, France
Phone: +33 (0) 1 69 18 71 17
Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME210525 CE 2ND SOURCE
Standard Name: Ce Secondary Stock
Date Prepared: 5/25/2021
Date Expires: 5/25/2022
Department: ME
Vendor: SCP Science
Lot Number: S210208003
Balance ID:
Comments: opened 5/25/2021, expires 5/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Empty/Disposed

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Cerium	13642	125	mL	5/25/2022

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

Ce

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Cerium 1000 µg/ml*
 Catalogue Number: 140-051-580/-581/-585
 Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%
 Lot Number: **S210208003**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.021 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

ID #: 13642
 Opened: _____
 ICP/ICPMS Standard Cerium
Expires: 2/28/2023
 Rec'd: 3/16/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	0.0102	Sn	<0.0010
Al	0.0148	Ga	0.0526	Ni	0.0064	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	0.0235	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0375	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0121	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	0.0035	Nb	<0.0010	Sm	<0.0010		

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Yaling Sui, Chemist
 Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact SCP SCIENCE. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME210901 ICSAB
Standard Name: ICSAB
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Cindy Rohrer
Status: Open

Comments: Made fresh every Monday, Wednesday, and Friday

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	1	mL	4/11/
Milli-Q H2O	391	46.45	mL	6/1/2
Hydrochloric Acid Instra Analyzed 000	14028	0.5	mL	3/29/

Final Volume: 50 mL

Stock Source

ME210901 6020IC 6020ICS-8A
ME 210901 6020IC 6020ICS-9B

Base Units

ug/mL
ug/mL

Amount Added

2 mL
0.05 mL

Analvtes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME 210901 6020ICS-9B
Standard Name: 6020ICS-9B
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB678862
Balance ID:
Comments: Opened 9/1/2021; Expires 9/1/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13478	125	mL	9/1/2022

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **mg/L**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 6020ICS-9B
 Lot Number: P2-MEB678862
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 20 µg/mL ea:
 Cobalt, Chromium, Copper,
 Manganese, Nickel, Vanadium,
 10 µg/mL ea:
 Zinc, Arsenic, Cadmium,
 Selenium,
 5 µg/mL ea:
 Silver

ID #: 13478
 Opened: _____
 Multi Analyte Custom Grade Solution
 Expires: 5/17/2023
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	10.01 ± 0.05 µg/mL	Cadmium, Cd	10.01 ± 0.04 µg/mL
Chromium, Cr	20.02 ± 0.12 µg/mL	Cobalt, Co	20.01 ± 0.10 µg/mL
Copper, Cu	20.02 ± 0.08 µg/mL	Manganese, Mn	20.02 ± 0.09 µg/mL
Nickel, Ni	20.02 ± 0.09 µg/mL	Selenium, Se	10.01 ± 0.06 µg/mL
Silver, Ag	5.005 ± 0.022 µg/mL	Vanadium, V	20.02 ± 0.08 µg/mL
Zinc, Zn	10.01 ± 0.04 µg/mL		

Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Mn	EDTA	928	928
Mn	ICP Assay	Traceable to 3132	N2-MN665236
Mn	Calculated		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method I with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i})^2]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 17, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 17, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

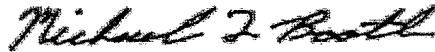
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 SS1
 Standard Name: SS1 ICPMS Spiking Solution
 Date Prepared: 1/12/2022
 Date Expires: 12/8/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments:

Type: Secondary
 BY: Stacy R. Hendricks
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid, 69.0-70.0%,0000277202	13781	0.8	mL	1/14/2026
Hydrochloric Acid, 36.5-38.0% 000027567	13784	2	mL	12/15/2025
Milli-Q H2O	391	28.8	mL	6/1/2100

Final Volume:
 40 mL

Stock Source

ME220105 HgPrim Primary Hg Stock 2 PPM
 ME211208 MSCAL MSCAL 2B
 ME211221 MSCAL MSCAL 3C
 ME220110 Ce, La Ce, La Primary

Base Units

ug/mL
 ug/mL
 ug/mL
 ug/mL

Amount Added

2 mL
 2 mL
 2 mL
 2 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:

Type: Primary
BY: Amanda E. McDani
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107**SCP SCIENCE**

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis**Hg****1.0 DESCRIPTION:**

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+ %
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP: Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA: Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice: Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH: Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité: Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC: Pour étalonnage d'instruments tels que: IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENCE

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99+%

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,
 Titanium,
 Antimony

1-6-2025

ID #: 13473

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 1/6/2025

Rec'd: 1/15/2021

Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° \pm 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:

Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Spike LOG

Standard ID: ME220112 7900 INTERNAL STANDARD

Standard Name: Internal Standards 2 mg/L

Type: Secondary

Date Prepared: 1/12/2022

BY: Cindy Rohrer

Date Expires: 2/8/2022

Department: ME

Status: Open

Vendor:

Lot Number:

Balance ID:

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Hydrochloric Acid E1421	14721	10	mL	1/4/22
Nitric Acid 69.0- 70.0% D0521	14626	20	mL	12/14
Germanium Single Analyte Custom Gr	13636	2	mL	12/31
Holmium Single Analyte Custom Grad	13443	2	mL	2/12/22
Lutetium Single Analyte Atomic Absorp	13444	2	mL	3/1/22
Terbium Single Analyte Atomic Absorp	13445	2	mL	2/12/22
Indium Single Analyte Custom Grade	13654	2	mL	5/29/22
PlasmaCal Standard Bismuth	14230	2	mL	3/31/22
ICP/ICPMS Standard Scandium	13641	2	mL	8/31/22
ICP/ICPMS Standard Gold	14710	0.2	mL	12/29

Final Volume: 1000 mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: **mg/L**

Ge

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Germanium 1000 µg/ml*
 Catalogue Number: 140-050-320/-321/-325
 Starting Material: Ammonium Hexafluorogermanate(IV) 99.99+%
 Lot Number: **S201204009**
 Matrix: H₂O / tr. F⁻
 Expiration Date (End of month): **December 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1002 µg/ml +/- 3 µg/ml**
1002 µg/g +/- 3 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3120a Lot: **151115**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 13639
 Opened: _____
 ICP/ICPMS Standard Germanium
Expires: 12/31/2022
 Rec'd: 3/16/2021
 Enerav Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.000 g/ml @ 22.7 °C**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	<0.0010	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	0.0097	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	N/A	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0025	Si	*		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: December 16, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est appropriée à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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Fax: +1 (800) 253-5549

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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktberdorfer Straße 14, 87616
Marktberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGHO1
 Lot Number: R2-HO691014
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s): 1 000 µg/mL ea:
 Holmium
 Starting Material: Holmium Oxide
 Starting Material Lot#: 1890
 Starting Material Purity: 99.9947%

ID #: 13443
 Opened: _____
 Holmium Single Analyte Custom Grade Solution
Expires: 4/1/2024
 Rec'd: 1/7/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	996 ± 6 µg/mL ICP Assay NIST SRM 3123a Lot Number: 090408
Assay Method #2	998 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1000 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.010000	M Eu	0.000377	M Na <	0.036000	M Se <	0.004400	M Zn <	0.071000
M Al <	0.020000	M Fe	0.002965	M Nb <	0.001200	i Si <		M Zr <	0.000400
M As <	0.011000	M Ga <	0.001600	M Nd	0.000183	M Sm	0.000700		
M Au <	0.006400	M Gd	0.000404	M Ni <	0.004800	M Sn <	0.002400		
M B <	0.091000	M Ge <	0.004000	M Os <	0.000400	M Sr <	0.002400		
M Ba <	0.002400	M Hf <	0.003200	i P <		i Ta <			
M Be <	0.003200	M Hg <	0.005600	M Pb <	0.057000	M Tb	0.000431		
M Bi <	0.005600	s Ho <		M Pd <	0.004400	M Te <	0.008000		
M Ca <	0.028000	M In <	0.001600	M Pr	0.000204	M Th <	0.001200		
M Cd <	0.000800	M Ir <	0.001600	M Pt <	0.000400	M Ti <	0.000800		
M Ce <	0.004800	O K	0.002965	M Rb <	0.002400	M Tl <	0.001600		
M Co <	0.001600	M La	0.000350	M Re <	0.000400	M Tm	0.000323		
M Cr <	0.005600	O Li <	0.001200	M Rh <	0.001600	M U <	0.000400		
M Cs	0.000485	M Lu	0.037737	M Ru <	0.000400	M V <	0.029000		
M Cu <	0.005600	O Mg <	0.003300	n S <		M W <	0.011000		
M Dy	0.009434	M Mn <	0.001200	M Sb <	0.002000	M Y	0.003504		
M Er	0.001671	M Mo <	0.011000	M Sc <	0.001200	M Yb	0.006199		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 164.93 +3 6 to 9 or 10 for some compounds $\text{Ho}(\text{OH})_x(\text{H}_2\text{O})_{y+3-x}$

Chemical Compatibility - Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ho Containing Samples (Preparation and Solution) - Meta I (Soluble in acids); Oxide (Dissolved by heating in H₂O / HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 165 amu	1 ppt	n/a	149 Sm 16O
ICP-OES 339.898 nm	0.02 / 0.002 µg/mL	1	Ce, Re
ICP-OES 345.600 nm	0.006 / 0.0001 µg/mL	1	U, Ti

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 01, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Atomic Absorption Solution
Catalog Number: AALU1
Lot Number: R2-LU689867RAA
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Lutetium

ID #: 13444

Opened: _____

Lutetium Single Analyte Custom Grade Solution

Expires: 3/1/2024

Rec'd: 1/7/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

Certified Value: 1000 ± 10 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3130a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 174.97 +3 6 to 9 or 10 for some compounds $\text{Lu}(\text{OH})_x(\text{H}_2\text{O})_{y+3-x}$

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Lu Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolved by heating in H₂O/ HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 175 amu	1 ppt	n/a	159 Tb16O
ICP-OES 261.542 nm	0.001 / 0.0003 µg/mL	1	Th, Mo, V, W
ICP-OES 291.139 nm	0.006 / 0.0006 µg/mL	1	Cr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 01, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

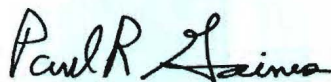
Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Atomic Absorption Solution
Catalog Number: AATB1
Lot Number: R2-TB695079AA
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Terbium

ID #: 13445
Opened:
Terbium Single Analyte Atomic Absorption So
Expires: 8/19/2024
Rec'd: 1/7/2021
Eneray Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 10 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3157a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 158.93 +3 6 to 9 or 10 for some compounds $Tb(OH)_x(H_2O)_y+3-x$

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2 - 5% HNO₃ / LDPE container.

Tb Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolve by heating in H₂O/ HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 159 amu	1 ppt	N/A	
ICP-OES 350.917 nm	0.02 / 0.002 µg/mL	1	V, Th, Ce, Zr
ICP-OES 367.635 nm	0.06 / 0.006 µg/mL	1	Ta, Ce, Co, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 19, 2020

- The certification is valid within the measurement uncertainty specified provided the CRMWRM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRMWRM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 19, 2024**

- The date after which this CRMWRM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRMWRM can be supported by long term stability studies conducted on properly stored and handled CRMWRMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRMWRM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRMWRM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS


Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGIN1
Lot Number: R2-IN693030
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Indium
Starting Material: Indium Metal
Starting Material Lot#: 2249
Starting Material Purity: 99.9997%

ID #: 13654

Opened: _____

Indium Single Analyte Custom Grade Solution

Expires: 5/29/2024

Rec'd: 3/18/2021

Energy Laboratories Inc 1120 So 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	998 ± 6 µg/mL ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	1001 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1002 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method I with standard uncertainty $u_{char i}$
 w_i = the weighting factors for each method calculated using the inverse square of the variance:
 $w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2
 $u_{char} = (\sum(w_i)^2 (u_{char i}^2))^{1/2}$ where $u_{char i}$ are the errors from each characterization method
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with
 $u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2
 $u_{char a}$ = the errors from characterization
 u_{bb} = bottle to bottle homogeneity standard uncertainty
 u_{lts} = long term stability standard uncertainty (storage)
 u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRMRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMRM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag < 0.000670	M Eu < 0.000670	O Na < 0.000371	M Se < 0.007300	M Zn < 0.035000
O Al < 0.016000	O Fe < 0.000106	M Nb < 0.000670	O Si < 0.001486	M Zr < 0.000670
M As < 0.005400	M Ga < 0.000670	M Nd < 0.000670	M Sm < 0.000670	
M Au < 0.000670	M Gd < 0.000670	O Ni < 0.015000	M Sn < 0.001400	
O B < 0.000265	M Ge < 0.003400	M Os < 0.002000	O Sr < 0.000240	
O Ba < 0.001200	M Hf < 0.000670	n P < 0.000670	M Ta < 0.000670	
M Be < 0.000670	M Hg < 0.002000	M Pb < 0.000177	M Tb < 0.000670	
M Bi < 0.001400	M Ho < 0.000670	M Pd < 0.000670	M Te < 0.014000	
O Ca < 0.000548	s In < 0.000670	M Pr < 0.000670	M Th < 0.000670	
M Cd < 0.000670	M Ir < 0.000670	M Pt < 0.000670	O Tl < 0.002100	
M Ce < 0.000670	O K < 0.000247	M Rb < 0.000670	M Tl < 0.000670	
M Co < 0.001400	M La < 0.000670	M Re < 0.000670	M Tm < 0.000670	
O Cr < 0.002900	O Li < 0.000120	M Rh < 0.000670	M U < 0.000670	
M Cs < 0.001400	M Lu < 0.000670	M Ru < 0.000670	M V < 0.000670	
O Cu < 0.002400	O Mg < 0.000026	n S < 0.000670	M W < 0.000670	
M Dy < 0.000670	O Mn < 0.000720	M Sb < 0.002700	M Y < 0.000670	
M Er < 0.000670	M Mo < 0.001400	O Sc < 0.000600	M Yb < 0.000670	

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/WRM is negligible. After opening the sealed TCT bag transpiration of the CRM/WRM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H₂O)₆+3

Chemical Compatibility -Soluble in HCl, HNO₃, and H₂SO₄. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO₃); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/WRM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 29, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 29, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0

NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Bi

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Bismuth 1000 µg/ml*
 Catalogue Number: 140-051-830/-831/-835
 Starting Material: Bismuth Metal 99.99+%
 Lot Number: **S210302013**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **March 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1002 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3106 Lot: **180815**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.020 g/ml @ 23.4 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 14230
 Opened: _____
 PlasmaCal Standard Bismuth
Expires: 3/31/2023
 Rec'd: 9/1/2021
 Enerav Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	N/A	In	<0.0010	Pt	<0.0010	Tl	<0.0055
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0120	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: March 04, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présupposant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Sc

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Scandium 1000 µg/ml*
 Catalogue Number: 140-051-210/-211/-215
 Starting Material: Scandium(III) Oxide 99.99+%
 Lot Number: **S200813011**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **August 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **999 µg/ml +/- 5 µg/ml**
978 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3148a Lot: **100701**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.022 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 13641

Opened: _____

ICP/ICPMS Standard Scandium

Expires: 8/31/2022

Rec'd: 3/16/2021

Enerav Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0244	Fe	<0.0102	Nd	<0.0319	Sn	<0.1535
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0105	Gd	<0.0137	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.0507	Hf	<0.0339	Pb	<0.0492	Te	<0.4025
Ba	<0.0005	Hg	*	Pd	<0.0282	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.1370	Ti	<0.0013
Bi	<0.0156	In	<0.0105	Pt	<0.2665	Tl	<0.5600
Ca	0.0742	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	<0.0173	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0028	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0009	Sb	<0.0197	Yb	<0.0057
Cu	<0.0200	Mn	<0.0089	Sc	N/A	Zn	<0.0045
Dy	<0.0214	Mo	<0.0229	Se	<0.1245	Zr	0.1015
Er	<0.0349	Na	<0.0191	Si	<0.0091		
Eu	<0.0017	Nb	<0.0112	Sm	<0.1105		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 20, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présupmant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99+%

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

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Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

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10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

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Energy Laboratories Inc

ANALYTICAL RUN Summary

22-Jan-22

Run ID ICPMS206-B_220118A

Run Start Date: 1/18/2022 6:18:16 P
 Analyst: Cindy Rohrer
 Ical: 0
 Column ID:
 Comments:

Instrument ID	Description
04F07114	Metals 5-50 uL Adjustable Pipette
340760037	Metals 100-1000 uL Adjustable Pipette
340760040	Metals 100-1000 uL Adjustable Pipette
440780018	Metals 1-5 mL Adjustable Pipette
440780025	Metals 1-5 mL Adjustable Pipette
841980007	1000-5000uL Pipette
841980009	1000-5000uL Pipette

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
ME210901 ICSA	ICSA					ICSA	9/1/2022
ME210901 ICSAB	ICSAB					ICSAB	9/1/2022
ME211206 ICV STANDARD	ICV for ICPMS Standards					ICV	4/30/2022
ME211207 2008TS	200.8 Tune Solution						12/7/2022
ME220112 0.025 PPB STAND	0.025 ppb Standard						11/18/2022
ME220112 0.05 PPB STAND	0.5 ppb Standard						11/18/2022
ME220112 0.1 PPB STANDAR	0.1 ppb Standard						11/18/2022
ME220112 0.5 PPB STANDAR	0.5 ppb Standard						11/18/2022
ME220112 1 PPB STANDARD	1 ppb Standard						11/18/2022
ME220112 10 PPB STANDAR	10 ppb Standard					CCV	11/18/2022
ME220112 100 PPB STANDAR	100 ppb Standard					CAL8	11/18/2022
ME220112 206 INTERNAL ST	Internal Standards 2 mg/L						2/8/2022
ME220112 50 PPB STANDAR	50 ppb Standard/CCV					CRI	11/18/2022
ME220112 SS1	SS1 ICPMS Spiking Solution					LFB/MS	12/8/2022
ME220112A 1000 PPB STAND	1000 PPB Standard					URL	11/18/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985100	Rinse	ICPMS-6020-W- SAMP			1/18/2022 6:18:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985101	Rinse	ICPMS-6020-W- SAMP			1/18/2022 6:23:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985102	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:29:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985103	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:35:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985104	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:18:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985105	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:23:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985106	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:29:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985107	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 6:35:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985108	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 6:41:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0	0	0	0	0.0006548	0.001	1	0%	0	0	0%		
Antimony	A	mg/L	0	0	0	0	0	0.0002987	0.001	0.1	0%	0	0	0%		
Arsenic	A	mg/L	0	0	0	0	0	0.0001814	0.001	1	0%	0	0	0%		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985108	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 6:41:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.0000666	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985109	0.025 PPB STD	ICPMS-6020B-C Cal1			1/18/2022 6:47:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0001039	-0.0001039		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00003152	0.00003152		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00003273	0.00003273		0.000025	0	0		0.001		131%	80	120	0%	S
Barium	A	mg/L	0.00002354	0.00002354		0.000025	0	0		0.0003		94%	80	120	0%	
Beryllium	A	mg/L	0.00002131	0.00002131		0.000025	0	0		0.001		85%	80	120	0%	
Boron	A	mg/L	0.00002233	0.00002233		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0000364	0.0000364		0.000025	0	0		0.001		146%	80	120	0%	S
Calcium	A	mg/L	0.007952	0.007952		0	0	0		1		0%			0%	
Chromium	A	mg/L	0.00001346	0.00001346		0.000025	0	0		0.001		54%	80	120	0%	S
Cobalt	A	mg/L	0.00003141	0.00003141		0.000025	0	0		0.001		126%	80	120	0%	S
Copper	A	mg/L	0.00004325	0.00004325		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0006407	0.0006407		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00003013	0.00003013		0.000025	0	0		0.001		121%	80	120	0%	S
Magnesium	A	mg/L	0.007034	0.007034		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002021	0.00002021		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	8.795E-07	8.795E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00003368	0.00003368		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00001774	0.00001774		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.008335	0.008335		0.00625	0	0		1		133%	80	120	0%	S
Selenium	A	mg/L	0.00004974	0.00004974		0.000025	0	0		0.005		199%	80	120	0%	S
Silicon	A	mg/L	0.0001411	0.0001411		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001559	0.00001559		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.01229	0.01229		0.00625	0	0		1		197%	80	120	0%	S
Strontium	A	mg/L	0.00002935	0.00002935		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.00002876	0.00002876		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001732	0.00001732		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002421	-0.002421		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.0001535	0.0001535		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.0000268	0.0000268		0.000025	0	0		0.001		107%	80	120	0%	
Vanadium	A	mg/L	0.00003025	0.00003025		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00006768	0.00006768		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0006407	0.0006407		0.000025	0	0		0.01	5	2563%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00030195	0.00030195		0.0000535	0	0		0.214	0.9	564%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985110	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/18/2022 6:53:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.00032	-0.00032		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00006063	0.00006063		0.00005	0	0		0.001		121%	80	120	0%	S
Arsenic	A	mg/L	0.00006374	0.00006374		0.00005	0	0		0.001		127%	80	120	0%	S
Barium	A	mg/L	0.00006519	0.00006519		0.00005	0	0		0.0003		130%	80	120	0%	S
Beryllium	A	mg/L	0.00007707	0.00007707		0.00005	0	0		0.001		154%	80	120	0%	S
Boron	A	mg/L	0.00006384	0.00006384		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00007258	0.00007258		0.00005	0	0		0.001		145%	80	120	0%	S
Calcium	A	mg/L	0.01585	0.01585		0.0125	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	-1.983E-05	-1.983E-05		0.00005	0	0		0.001		-40%	80	120	0%	S
Cobalt	A	mg/L	0.00006452	0.00006452		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00007128	0.00007128		0.00005	0	0		0.005		143%	80	120	0%	S
Iron	A	mg/L	0.001484	0.001484		0.00125	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.0000648	0.0000648		0.00005	0	0		0.001		130%	80	120	0%	S
Magnesium	A	mg/L	0.01593	0.01593		0.0125	0	0		1		127%	80	120	0%	S
Manganese	A	mg/L	0.00005871	0.00005871		0.00005	0	0		0.001		117%	80	120	0%	
Mercury	A	mg/L	3.574E-09	3.574E-09		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00006834	0.00006834		0.00005	0	0		0.001		137%	80	120	0%	S
Nickel	A	mg/L	0.0000922	0.0000922		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.01602	0.01602		0.0125	0	0		1		128%	80	120	0%	S
Selenium	A	mg/L	0.00005862	0.00005862		0.00005	0	0		0.005		117%	80	120	0%	
Silicon	A	mg/L	-5.384E-05	-5.384E-05		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00003231	0.00003231		0.00002	0	0		0.001		162%	80	120	0%	S
Sodium	A	mg/L	0.01656	0.01656		0.0125	0	0		1		132%	80	120	0%	S
Strontium	A	mg/L	0.00006167	0.00006167		0.00005	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.00006392	0.00006392		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00004177	0.00004177		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002426	-0.002426		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00008878	0.00008878		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005896	0.00005896		0.00005	0	0		0.001		118%	80	120	0%	
Vanadium	A	mg/L	0.00004706	0.00004706		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	-8.325E-05	-8.325E-05		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001484	0.001484		0.00005	0	0		0.01	5	2968%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0001152	-0.0001152		0.00428	0	0		0.214	0.9	-3%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985111	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 6:59:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002104	-0.0002104		0.0001	0	0		0.01		-210%	80	120	0%	S
Antimony	A	mg/L	0.0001164	0.0001164		0.0001	0	0		0.001		116%	80	120	0%	
Arsenic	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Barium	A	mg/L	0.000131	0.000131		0.0001	0	0		0.0003		131%	80	120	0%	S
Beryllium	A	mg/L	0.0001396	0.0001396		0.0001	0	0		0.001		140%	80	120	0%	S
Boron	A	mg/L	0.00006582	0.00006582		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001186	0.0001186		0.0001	0	0		0.001		119%	80	120	0%	
Calcium	A	mg/L	0.02936	0.02936		0.025	0	0		1		117%	80	120	0%	
Chromium	A	mg/L	0.00003344	0.00003344		0.0001	0	0		0.001		33%	80	120	0%	S
Cobalt	A	mg/L	0.0001333	0.0001333		0.0001	0	0		0.001		133%	80	120	0%	S
Copper	A	mg/L	0.0001322	0.0001322		0.0001	0	0		0.005		132%	80	120	0%	S
Iron	A	mg/L	0.002979	0.002979		0.0025	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.0001235	0.0001235		0.0001	0	0		0.001		124%	80	120	0%	S
Lead	A	mg/L	0.0001248	0.0001248		0.0001	0	0		0.001		125%	80	120	0%	S
Magnesium	A	mg/L	0.03021	0.03021		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001327	0.0001327		0.0001	0	0		0.001		133%	80	120	0%	S
Mercury	A	mg/L	0.00000149	0.00000149		0.000002	0	0		0.001		75%	80	120	0%	S
Molybdenum	A	mg/L	0.0001064	0.0001064		0.0001	0	0		0.001		106%	80	120	0%	
Nickel	A	mg/L	0.0001373	0.0001373		0.0001	0	0		0.005		137%	80	120	0%	S
Potassium	A	mg/L	0.0285	0.0285		0.025	0	0		1		114%	80	120	0%	
Selenium	A	mg/L	0.0001245	0.0001245		0.0001	0	0		0.005		125%	80	120	0%	S
Silicon	A	mg/L	-0.0002189	-0.0002189		0.0004	0	0		0.1		-55%	80	120	0%	S
Silver	A	mg/L	0.00005544	0.00005544		0.00004	0	0		0.001		139%	80	120	0%	S
Sodium	A	mg/L	0.03445	0.03445		0.025	0	0		1		138%	80	120	0%	S
Strontium	A	mg/L	0.0001296	0.0001296		0.0001	0	0		0.001		130%	80	120	0%	S
Thallium	A	mg/L	0.0001264	0.0001264		0.0001	0	0		0.001		126%	80	120	0%	S
Thorium	A	mg/L	0.00008705	0.00008705		0.0001	0	0		0.05		87%	80	120	0%	
Tin	A	mg/L	-0.002374	-0.002374		0.0001	0	0		0.001		-2374%	80	120	0%	S
Titanium	A	mg/L	0.0001422	0.0001422		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.0001186	0.0001186		0.0001	0	0		0.001		119%	80	120	0%	
Vanadium	A	mg/L	0.00008593	0.00008593		0.0001	0	0		0.005		86%	80	120	0%	
Zinc	A	mg/L	-0.0002346	-0.0002346		0.0001	0	0		0.01		-235%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.002979	0.002979		0.0001	0	0		0.01	5	2979%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0004684	-0.0004684		0.00856	0	0		0.214	0.9	-5%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985112	0.5 PPB STD	ICPMS-6020B-C	CaI4		1/18/2022 7:05:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002768	0.0002768		0.0005	0	0		0.01		55%	80	120	0%	S
Antimony	A	mg/L	0.0005331	0.0005331		0.0005	0	0		0.001		107%	80	120	0%	
Arsenic	A	mg/L	0.0005133	0.0005133		0.0005	0	0		0.001		103%	80	120	0%	
Barium	A	mg/L	0.0005351	0.0005351		0.0005	0	0		0.0003		107%	80	120	0%	
Beryllium	A	mg/L	0.0005452	0.0005452		0.0005	0	0		0.001		109%	80	120	0%	
Boron	A	mg/L	0.0003914	0.0003914		0.0005	0	0		0.1		78%	80	120	0%	S
Cadmium	A	mg/L	0.0005889	0.0005889		0.0005	0	0		0.001		118%	80	120	0%	
Calcium	A	mg/L	0.1386	0.1386		0.125	0	0		1		111%	80	120	0%	
Chromium	A	mg/L	0.0004588	0.0004588		0.0005	0	0		0.001		92%	80	120	0%	
Cobalt	A	mg/L	0.0005725	0.0005725		0.0005	0	0		0.001		115%	80	120	0%	
Copper	A	mg/L	0.0006045	0.0006045		0.0005	0	0		0.005		121%	80	120	0%	S
Iron	A	mg/L	0.0142	0.0142		0.0125	0	0		0.01		114%	80	120	0%	
Lanthanum	A	mg/L	0.0005654	0.0005654		0.0005	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.1311	0.1311		0.125	0	0		1		105%	80	120	0%	
Manganese	A	mg/L	0.0005579	0.0005579		0.0005	0	0		0.001		112%	80	120	0%	
Mercury	A	mg/L	9.246E-06	9.246E-06		0.00001	0	0		0.001		92%	80	120	0%	
Molybdenum	A	mg/L	0.000545	0.000545		0.0005	0	0		0.001		109%	80	120	0%	
Nickel	A	mg/L	0.0005327	0.0005327		0.0005	0	0		0.005		107%	80	120	0%	
Potassium	A	mg/L	0.1321	0.1321		0.125	0	0		1		106%	80	120	0%	
Selenium	A	mg/L	0.0005967	0.0005967		0.0005	0	0		0.005		119%	80	120	0%	
Silicon	A	mg/L	0.002215	0.002215		0.002	0	0		0.1		111%	80	120	0%	
Silver	A	mg/L	0.0002498	0.0002498		0.0002	0	0		0.001		125%	80	120	0%	S
Sodium	A	mg/L	0.1452	0.1452		0.125	0	0		1		116%	80	120	0%	
Strontium	A	mg/L	0.0006022	0.0006022		0.0005	0	0		0.001		120%	80	120	0%	
Thallium	A	mg/L	0.0005898	0.0005898		0.0005	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0004519	0.0004519		0.0005	0	0		0.05		90%	80	120	0%	
Tin	A	mg/L	-0.001898	-0.001898		0.0005	0	0		0.001		-380%	80	120	0%	S
Titanium	A	mg/L	0.0005751	0.0005751		0.0005	0	0		0.001		115%	80	120	0%	
Uranium	A	mg/L	0.000555	0.000555		0.0005	0	0		0.001		111%	80	120	0%	
Vanadium	A	mg/L	0.000484	0.000484		0.0005	0	0		0.005		97%	80	120	0%	
Zinc	A	mg/L	0.0003661	0.0003661		0.0005	0	0		0.01		73%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.0142	0.0142		0.0005	0	0		0.01	5	2840%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.0047401	0.0047401		0.0428	0	0		0.214	0.9	11%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985113	1 PPB STD	ICPMS-6020B-C	Ca15		1/18/2022 7:11:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0007413	0.0007413		0.001	0	0		0.01		74%	80	120	0%	S
Antimony	A	mg/L	0.001059	0.001059		0.001	0	0		0.001		106%	80	120	0%	
Arsenic	A	mg/L	0.001133	0.001133		0.001	0	0		0.001		113%	80	120	0%	
Barium	A	mg/L	0.001101	0.001101		0.001	0	0		0.0003		110%	80	120	0%	
Beryllium	A	mg/L	0.001219	0.001219		0.001	0	0		0.001		122%	80	120	0%	S
Boron	A	mg/L	0.001268	0.001268		0.001	0	0		0.1		127%	80	120	0%	S
Cadmium	A	mg/L	0.001161	0.001161		0.001	0	0		0.001		116%	80	120	0%	
Calcium	A	mg/L	0.2864	0.2864		0.25	0	0		1		115%	80	120	0%	
Chromium	A	mg/L	0.001015	0.001015		0.001	0	0		0.001		101%	80	120	0%	
Cobalt	A	mg/L	0.001196	0.001196		0.001	0	0		0.001		120%	80	120	0%	
Copper	A	mg/L	0.001223	0.001223		0.001	0	0		0.005		122%	80	120	0%	S
Iron	A	mg/L	0.02987	0.02987		0.025	0	0		0.01		119%	80	120	0%	
Lanthanum	A	mg/L	0.001211	0.001211		0.001	0	0		0.001		121%	80	120	0%	S
Magnesium	A	mg/L	0.2743	0.2743		0.25	0	0		1		110%	80	120	0%	
Manganese	A	mg/L	0.00116	0.00116		0.001	0	0		0.001		116%	80	120	0%	
Mercury	A	mg/L	0.00002405	0.00002405		0.00002	0	0		0.001		120%	80	120	0%	
Molybdenum	A	mg/L	0.001105	0.001105		0.001	0	0		0.001		110%	80	120	0%	
Nickel	A	mg/L	0.001177	0.001177		0.001	0	0		0.005		118%	80	120	0%	
Potassium	A	mg/L	0.2814	0.2814		0.25	0	0		1		113%	80	120	0%	
Selenium	A	mg/L	0.001104	0.001104		0.001	0	0		0.005		110%	80	120	0%	
Silicon	A	mg/L	0.003809	0.003809		0.004	0	0		0.1		95%	80	120	0%	
Silver	A	mg/L	0.000501	0.000501		0.0004	0	0		0.001		125%	80	120	0%	S
Sodium	A	mg/L	0.3072	0.3072		0.25	0	0		1		123%	80	120	0%	S
Strontium	A	mg/L	0.001248	0.001248		0.001	0	0		0.001		125%	80	120	0%	S
Thallium	A	mg/L	0.001243	0.001243		0.001	0	0		0.001		124%	80	120	0%	S
Thorium	A	mg/L	0.00102	0.00102		0.001	0	0		0.05		102%	80	120	0%	
Tin	A	mg/L	-0.001285	-0.001285		0.001	0	0		0.001		-128%	80	120	0%	S
Titanium	A	mg/L	0.001096	0.001096		0.001	0	0		0.001		110%	80	120	0%	
Uranium	A	mg/L	0.001158	0.001158		0.001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.001129	0.001129		0.001	0	0		0.005		113%	80	120	0%	
Zinc	A	mg/L	0.00103	0.00103		0.001	0	0		0.01		103%	80	120	0%	
Iron, Ferrous	C	mg/L	0.02987	0.02987		0.001	0	0		0.01	5	2987%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00815126	0.00815126		0.0856	0	0		0.214	0.9	10%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985114	10 PPB STD	ICPMS-6020B-C Cal6			1/18/2022 7:17:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985115	50 PPB STD	ICPMS-6020B-C Cal7			1/18/2022 7:23:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Aluminum	A	mg/L	0.04954	0.04954		0.05	0	0		0.01		99%	90	110	0%	
Antimony	A	mg/L	0.0526	0.0526		0.05	0	0		0.001		105%	90	110	0%	
Arsenic	A	mg/L	0.05147	0.05147		0.05	0	0		0.001		103%	90	110	0%	
Barium	A	mg/L	0.04963	0.04963		0.05	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.04946	0.04946		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.0505	0.0505		0.05	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.05144	0.05144		0.05	0	0		0.001		103%	90	110	0%	
Calcium	A	mg/L	13.63	13.63		12.5	0	0		1		109%	90	110	0%	
Chromium	A	mg/L	0.0521	0.0521		0.05	0	0		0.001		104%	90	110	0%	
Cobalt	A	mg/L	0.05027	0.05027		0.05	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.05208	0.05208		0.05	0	0		0.005		104%	90	110	0%	
Iron	A	mg/L	1.286	1.286		1.25	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.04882	0.04882		0.05	0	0		0.001		98%	90	110	0%	
Magnesium	A	mg/L	12.69	12.69		12.5	0	0		1		102%	90	110	0%	
Manganese	A	mg/L	0.05191	0.05191		0.05	0	0		0.001		104%	90	110	0%	
Mercury	A	mg/L	0.0009636	0.0009636		0.001	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.05441	0.05441		0.05	0	0		0.001		109%	90	110	0%	
Nickel	A	mg/L	0.05248	0.05248		0.05	0	0		0.005		105%	90	110	0%	
Potassium	A	mg/L	12.82	12.82		12.5	0	0		1		103%	90	110	0%	
Selenium	A	mg/L	0.05187	0.05187		0.05	0	0		0.005		104%	90	110	0%	
Silicon	A	mg/L	0.2159	0.2159		0.2	0	0		0.1		108%	90	110	0%	
Silver	A	mg/L	0.02039	0.02039		0.02	0	0		0.001		102%	90	110	0%	
Sodium	A	mg/L	13.06	13.06		12.5	0	0		1		104%	90	110	0%	
Strontium	A	mg/L	0.05138	0.05138		0.05	0	0		0.001		103%	90	110	0%	
Thallium	A	mg/L	0.05293	0.05293		0.05	0	0		0.001		106%	90	110	0%	
Thorium	A	mg/L	0.05243	0.05243		0.05	0	0		0.05		105%	90	110	0%	
Tin	A	mg/L	0.05038	0.05038		0.05	0	0		0.001		101%	90	110	0%	
Titanium	A	mg/L	0.05178	0.05178		0.05	0	0		0.001		104%	90	110	0%	
Uranium	A	mg/L	0.04866	0.04866		0.05	0	0		0.001		97%	90	110	0%	
Vanadium	A	mg/L	0.05193	0.05193		0.05	0	0		0.005		104%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985115	50 PPB STD	ICPMS-6020B-C Cal7			1/18/2022 7:23:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	A	mg/L	0.05273	0.05273		0.05	0	0		0.01		105%	90	110	0%	
Iron, Ferrous	C	mg/L	1.286	1.286		0.05	0	0		0.01	5	2572%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.462026	0.462026		4.28	0	0		0.214	0.9	11%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985116	100 PPB STD	ICPMS-6020B-C Cal8			1/18/2022 7:29:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1002	0.1002		0.1	0	0		0.01		100%	90	110	0%	
Antimony	A	mg/L	0.0987	0.0987		0.1	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.09926	0.09926		0.1	0	0		0.001		99%	90	110	0%	
Barium	A	mg/L	0.1002	0.1002		0.1	0	0		0.0003		100%	90	110	0%	
Beryllium	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.09975	0.09975		0.1	0	0		0.1		100%	90	110	0%	
Cadmium	A	mg/L	0.09928	0.09928		0.1	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	27.28	27.28		25	0	0		1		109%	90	110	0%	
Chromium	A	mg/L	0.09895	0.09895		0.1	0	0		0.001		99%	90	110	0%	
Cobalt	A	mg/L	0.09986	0.09986		0.1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.09896	0.09896		0.1	0	0		0.005		99%	90	110	0%	
Iron	A	mg/L	2.569	2.569		2.5	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.1006	0.1006		0.1	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	25.98	25.98		25	0	0		1		104%	90	110	0%	
Manganese	A	mg/L	0.09904	0.09904		0.1	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.002018	0.002018		0.002	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.0978	0.0978		0.1	0	0		0.001		98%	90	110	0%	
Nickel	A	mg/L	0.09876	0.09876		0.1	0	0		0.005		99%	90	110	0%	
Potassium	A	mg/L	25.3	25.3		25	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.09906	0.09906		0.1	0	0		0.005		99%	90	110	0%	
Silicon	A	mg/L	0.392	0.392		0.4	0	0		0.1		98%	90	110	0%	
Silver	A	mg/L	0.0398	0.0398		0.04	0	0		0.001		99%	90	110	0%	
Sodium	A	mg/L	25.78	25.78		25	0	0		1		103%	90	110	0%	
Strontium	A	mg/L	0.09931	0.09931		0.1	0	0		0.001		99%	90	110	0%	
Thallium	A	mg/L	0.09853	0.09853		0.1	0	0		0.001		99%	90	110	0%	
Thorium	A	mg/L	0.09878	0.09878		0.1	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.09985	0.09985		0.1	0	0		0.001		100%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985116	100 PPB STD	ICPMS-6020B-C Cal8			1/18/2022 7:29:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Titanium	A	mg/L	0.09911	0.09911		0.1	0	0		0.001		99%	90	110	0%	
Uranium	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Vanadium	A	mg/L	0.09903	0.09903		0.1	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.09864	0.09864		0.1	0	0		0.01		99%	90	110	0%	
Iron, Ferrous	C	mg/L	2.569	2.569		0.1	0	0		0.01	5	2569%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.83888	0.83888		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985117	1000 PPB STD	ICPMS-6020B-C Cal10			1/18/2022 7:35:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.9928	0.9928		1	0	0		0.01		99%	90	110	0%	
Antimony	A	mg/L	0.00009293	0.00009293		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.9569	0.9569		1	0	0		0.001		96%	90	110	0%	
Barium	A	mg/L	0.9185	0.9185		1	0	0		0.0003		92%	90	110	0%	
Beryllium	A	mg/L	0.973	0.973		1	0	0		0.001		97%	90	110	0%	
Boron	A	mg/L	0.9675	0.9675		1	0	0		0.1		97%	90	110	0%	
Cadmium	A	mg/L	0.9158	0.9158		1	0	0		0.001		92%	90	110	0%	
Calcium	A	mg/L	48.58	48.58		50	0	0		1		97%	90	110	0%	
Chromium	A	mg/L	0.9483	0.9483		1	0	0		0.001		95%	90	110	0%	
Cobalt	A	mg/L	1.028	1.028		1	0	0		0.001		103%	90	110	0%	
Copper	A	mg/L	0.9682	0.9682		1	0	0		0.005		97%	90	110	0%	
Iron	A	mg/L	6.016	6.016		6	0	0		0.01		100%	90	110	0%	
Lanthanum	A	mg/L	0.00001124	0.00001124		0	0	0		0.001		0%			0%	
Magnesium	A	mg/L	49.46	49.46		50	0	0		1		99%	90	110	0%	
Manganese	A	mg/L	0.9626	0.9626		1	0	0		0.001		96%	90		0%	
Mercury	A	mg/L	0.00001182	0.00001182		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0000609	0.0000609		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.012	1.012		1	0	0		0.005		101%	90	110	0%	
Potassium	A	mg/L	49.77	49.77		50	0	0		1		100%	90	110	0%	
Selenium	A	mg/L	0.9115	0.9115		1	0	0		0.005		91%	90	110	0%	
Silicon	A	mg/L	0.001486	0.001486		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.4008	0.4008		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	49.47	49.47		50	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	1.017	1.017		1	0	0		0.001		102%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985117	1000	PPB STD	ICPMS-6020B-C	Cal10	1/18/2022 7:35:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	A	mg/L	0.9403	0.9403		1	0	0		0.001		94%	90	110	0%	
Thorium	A	mg/L	0.9556	0.9556		1	0	0		0.05		96%	90	110	0%	
Tin	A	mg/L	-0.002451	-0.002451		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00587	0.00587		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9837	0.9837		1	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.9506	0.9506		1	0	0		0.005		95%	90	110	0%	
Zinc	A	mg/L	0.9716	0.9716		1	0	0		0.01		97%	90	110	0%	
Iron, Ferrous	C	mg/L	6.016	6.016		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	0.00318004	0.00318004		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985118	100	ppb Bromine	ICPMS-6020-W-	SAMP	1/18/2022 7:40:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.007645	0.007645		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002427	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0001667	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.000111	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0001474	0.0001474		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.00008901	0.00008901		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	2.298E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	7.081E-07	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00008155	0.00008155		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.000157	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	1.581E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Manganese	A	mg/L	0.0001208	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	4.617E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001241	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001677	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0002045	0.0002045		0	0	0	0.0001415	0.001	1	0%	0	0	0%	J
Silicon	A	mg/L	-0.0003608	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0002236	0.0002236		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001013	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001354	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00005373	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985118	100 ppb Bromine	ICPMS-6020-W-	SAMP		1/18/2022 7:40:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.0001489	0.0001489		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.006119	0.006119		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Calcium	B	mg/L	0.008743	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	0.0008477	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0008477	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.004708	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.003977	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.538	0.538		0	0	0	0.207399	0.207399	50	0%	0	0	0%	D
Sodium	B	mg/L	0.05681	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0003504	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002525	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00008902	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0002141	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985119	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 7:46:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002359	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	6.567E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00003347	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001262	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00002906	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.728E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.836E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-8.399E-05	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001118	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	6.719E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	2.191E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Manganese	A	mg/L	6.065E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.916E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00000844	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00005159	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00005657	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-7.11E-06	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985119	Rinse	ICPMS-6020-W- SAMP			1/18/2022 7:46:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	0.00001731	0.00001731		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	6.844E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0000255	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00004538	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001816	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001759	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Calcium	B	mg/L	0.001085	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	-7.234E-05	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-7.234E-05	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001675	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	-0.0003099	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.003341	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.001751	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00006792	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002669	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	-1.398E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0003736	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985120	QCS	ICPMS-6020-W- ICV			1/18/2022 7:52:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2504	0.2504		0.25	0	0	0.0006548	0.001	1	100%	90	110	0%	
Antimony	A	mg/L	0.04764	0.04764		0.05	0	0	0.0002987	0.001	0.1	95%	90	110	0%	
Arsenic	A	mg/L	0.04929	0.04929		0.05	0	0	0.0001814	0.001	1	99%	90	110	0%	
Barium	A	mg/L	0.05078	0.05078		0.05	0	0	0.0001321	0.001	1	102%	90	110	0%	
Beryllium	A	mg/L	0.0247	0.0247		0.025	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05173	0.05173		0.05	0	0	0.0030032	0.0030032	1	103%	90	110	0%	
Cadmium	A	mg/L	0.02527	0.02527		0.025	0	0	5.139E-05	0.001	1	101%	90	110	0%	
Calcium	A	mg/L	2.592	2.592		2.5	0	0	0.0749796	0.0749796	50	104%	90	110	0%	
Cerium	A	mg/L	0.05333	0.05333		0.05	0	0	1.462E-05	0.001	0.1	107%	90	110	0%	
Chromium	A	mg/L	0.05122	0.05122		0.05	0	0	0.0005481	0.001	1	102%	90	110	0%	
Cobalt	A	mg/L	0.05153	0.05153		0.05	0	0	4.756E-05	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05315	0.05315		0.05	0	0	0.0003828	0.001	1	106%	90	110	0%	
Iron	A	mg/L	0.2584	0.2584		0.25	0	0	0.0046291	0.0046291	5	103%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985120	QCS	ICPMS-6020-W- ICV			1/18/2022 7:52:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lanthanum	A	mg/L	0.05212	0.05212		0.05	0	0	1.683E-05	0.001	0.1	104%	90	110	0%	
Lithium	A	mg/L	0.04996	0.04996		0.05	0	0	0.0052105	0.0052105	2.5	100%	90	110	0%	
Magnesium	A	mg/L	2.485	2.485		2.5	0	0	0.0118993	0.0118993	50	99%	90	110	0%	
Manganese	A	mg/L	0.2557	0.2557		0.25	0	0	0.0001444	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.001008	0.001008		0.001	0	0	0.000066	0.001	0.02	101%	90	110	0%	
Molybdenum	A	mg/L	0.05103	0.05103		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.05147	0.05147		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	2.504	2.504		2.5	0	0	0.207399	0.207399	50	100%	90	110	0%	
Selenium	A	mg/L	0.05004	0.05004		0.05	0	0	0.0001415	0.001	1	100%	90	110	0%	
Silicon	A	mg/L	0.4749	0.4749		0.5	0	0	0.0146174	0.1	0.4	95%	90	110	0%	
Silver	A	mg/L	0.02694	0.02694		0.025	0	0	1.123E-05	0.001	0.04	108%	90	110	0%	
Sodium	A	mg/L	2.529	2.529		2.5	0	0	0.0809273	0.0809273	50	101%	90	110	0%	
Strontium	A	mg/L	0.05146	0.05146		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05308	0.05308		0.05	0	0	0.0002991	0.001	1	106%	90	110	0%	
Thorium	A	mg/L	0.05318	0.05318		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04998	0.04998		0.05	0	0	0.0022388	0.0022388	0.1	100%	90	110	0%	
Titanium	A	mg/L	0.0473	0.0473		0.05	0	0	0.0002974	0.001	1	95%	90	110	0%	
Uranium	A	mg/L	0.05353	0.05353		0.05	0	0	3.139E-05	0.0003	1	107%	90	110	0%	
Vanadium	A	mg/L	0.04967	0.04967		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05148	0.05148		0.05	0	0	0.0011598	0.0011598	1	103%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2584	0.2584		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985121	CCV	ICPMS-6020-W- CCV			1/18/2022 7:58:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04926	0.04926		0.05	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05211	0.05211		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.05095	0.05095		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05143	0.05143		0.05	0	0	0.0001321	0.001	1	103%	90	110	0%	
Beryllium	A	mg/L	0.04955	0.04955		0.05	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05128	0.05128		0.05	0	0	0.0030032	0.0030032	1	103%	90	110	0%	
Cadmium	A	mg/L	0.04896	0.04896		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	13.18	13.18		12.5	0	0	0.0749796	0.0749796	50	105%	90	110	0%	
Cerium	A	mg/L	0.05157	0.05157		0.05	0	0	1.462E-05	0.001	0.1	103%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985121	CCV	ICPMS-6020-W- CCV			1/18/2022 7:58:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.05253	0.05253		0.05	0	0	0.0005481	0.001	1	105%	90	110	0%	
Cobalt	A	mg/L	0.04983	0.04983		0.05	0	0	4.756E-05	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05158	0.05158		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.296	1.296		1.3	0	0	0.0046291	0.0046291	5	100%	90	110	0%	
Lanthanum	A	mg/L	0.05071	0.05071		0.05	0	0	1.683E-05	0.001	0.1	101%	90	110	0%	
Lithium	A	mg/L	0.5879	0.5879		0.625	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	12.2	12.2		12.5	0	0	0.0118993	0.0118993	50	98%	90	110	0%	
Manganese	A	mg/L	0.05036	0.05036		0.05	0	0	0.0001444	0.001	1	101%	90	110	0%	
Mercury	A	mg/L	0.0009809	0.0009809		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.05362	0.05362		0.05	0	0	8.338E-05	0.001	0.1	107%	90	110	0%	
Nickel	A	mg/L	0.05159	0.05159		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	12.53	12.53		12.5	0	0	0.207399	0.207399	50	100%	90	110	0%	
Selenium	A	mg/L	0.04919	0.04919		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.2143	0.2143		0.2	0	0	0.0146174	0.1	0.4	107%	90	110	0%	
Silver	A	mg/L	0.02053	0.02053		0.02	0	0	1.123E-05	0.001	0.04	103%	90	110	0%	
Sodium	A	mg/L	12.55	12.55		12.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.05121	0.05121		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.05148	0.05148		0.05	0	0	0.0002991	0.001	1	103%	90	110	0%	
Thorium	A	mg/L	0.05129	0.05129		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.05277	0.05277		0.05	0	0	0.0022388	0.0022388	0.1	106%	90	110	0%	
Titanium	A	mg/L	0.05028	0.05028		0.05	0	0	0.0002974	0.001	1	101%	90	110	0%	
Uranium	A	mg/L	0.04903	0.04903		0.05	0	0	3.139E-05	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05052	0.05052		0.05	0	0	0.0043468	0.0043468	1	101%	90	110	0%	
Zinc	A	mg/L	0.05082	0.05082		0.05	0	0	0.0011598	0.0011598	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.296	1.296		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985122	Rinse	ICPMS-6020-W- SAMP			1/18/2022 8:03:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0003318	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00001256	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001893	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	9.313E-06	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00001173	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985122	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 8:03:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	9.314E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.057E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001293	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	9.123E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001805	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	1.322E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	7.346E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00001096	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.245E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001446	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.269E-05	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0000252	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.000511	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.000015	0.000015		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	5.691E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009264	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	-7.005E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001166	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.000782	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Calcium	B	mg/L	0.001052	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Iron	B	mg/L	-0.0001782	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-0.0001782	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001747	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.0004809	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.005133	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.00831	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00008572	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002689	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00000878	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0003367	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985123	10 PPB STD	ICPMS-6020B-C	Cal6		1/18/2022 8:09:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985123	10 PPB STD	ICPMS-6020B-C Cal6			1/18/2022 8:09:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.01016	0.01016		0.01	0	0		0.01		102%	90	110	0%	
Antimony	A	mg/L	0.0108	0.0108		0.01	0	0		0.001		108%	90	110	0%	
Arsenic	A	mg/L	0.01062	0.01062		0.01	0	0		0.001		106%	90	110	0%	
Barium	A	mg/L	0.01046	0.01046		0.01	0	0		0.0003		105%	90	110	0%	
Beryllium	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Boron	A	mg/L	0.01166	0.01166		0.01	0	0		0.1		117%	90	110	0%	S
Cadmium	A	mg/L	0.01123	0.01123		0.01	0	0		0.001		112%	90	110	0%	S
Calcium	A	mg/L	3.124	3.124		2.5	0	0		1		125%	90	110	0%	S
Chromium	A	mg/L	0.01102	0.01102		0.01	0	0		0.001		110%	90	110	0%	
Cobalt	A	mg/L	0.01143	0.01143		0.01	0	0		0.001		114%	90	110	0%	S
Copper	A	mg/L	0.01158	0.01158		0.01	0	0		0.005		116%	90	110	0%	S
Iron	A	mg/L	0.2839	0.2839		0.25	0	0		0.01		114%	90	110	0%	S
Lanthanum	A	mg/L	0.01084	0.01084		0.01	0	0		0.001		108%	90	110	0%	
Lead	A	mg/L	0.01117	0.01117		0.01	0	0		0.001		112%	90	110	0%	S
Magnesium	A	mg/L	2.858	2.858		2.5	0	0		1		114%	90	110	0%	S
Manganese	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Mercury	A	mg/L	0.000215	0.000215		0.0002	0	0		0.001		107%	90	110	0%	
Molybdenum	A	mg/L	0.01118	0.01118		0.01	0	0		0.001		112%	90	110	0%	S
Nickel	A	mg/L	0.01168	0.01168		0.01	0	0		0.005		117%	90	110	0%	S
Potassium	A	mg/L	2.782	2.782		2.5	0	0		1		111%	90	110	0%	S
Selenium	A	mg/L	0.01212	0.01212		0.01	0	0		0.005		121%	90	110	0%	S
Silicon	A	mg/L	0.05002	0.05002		0.04	0	0		0.1		125%	90	110	0%	S
Silver	A	mg/L	0.004645	0.004645		0.004	0	0		0.001		116%	90	110	0%	S
Sodium	A	mg/L	2.828	2.828		2.5	0	0		1		113%	90	110	0%	S
Strontium	A	mg/L	0.0119	0.0119		0.01	0	0		0.001		119%	90	110	0%	S
Thallium	A	mg/L	0.01187	0.01187		0.01	0	0		0.001		119%	90	110	0%	S
Thorium	A	mg/L	0.01105	0.01105		0.01	0	0		0.05		110%	90	110	0%	
Tin	A	mg/L	0.00914	0.00914		0.01	0	0		0.001		91%	90	110	0%	
Titanium	A	mg/L	0.01028	0.01028		0.01	0	0		0.001		103%	90	110	0%	
Uranium	A	mg/L	0.01095	0.01095		0.01	0	0		0.001		109%	90	110	0%	
Vanadium	A	mg/L	0.01084	0.01084		0.01	0	0		0.005		108%	90	110	0%	
Zinc	A	mg/L	0.01065	0.01065		0.01	0	0		0.01		106%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2839	0.2839		0.01	0	0		0.01	5	2839%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.1070428	0.1070428		0.856	0	0		0.214	0.9	13%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985124	QCS	ICPMS-6020-W- ICV			1/18/2022 8:15:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2529	0.2529		0.25	0	0	0.0006548	0.001	1	101%	90	110	0%	
Antimony	A	mg/L	0.04478	0.04478		0.05	0	0	0.0002987	0.001	0.1	90%	90	110	0%	
Arsenic	A	mg/L	0.0487	0.0487		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04766	0.04766		0.05	0	0	0.0001321	0.001	1	95%	90	110	0%	
Beryllium	A	mg/L	0.02482	0.02482		0.025	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.05242	0.05242		0.05	0	0	0.0030032	0.0030032	1	105%	90	110	0%	
Cadmium	A	mg/L	0.02426	0.02426		0.025	0	0	5.139E-05	0.001	1	97%	90	110	0%	
Calcium	A	mg/L	2.586	2.586		2.5	0	0	0.0749796	0.0749796	50	103%	90	110	0%	
Cerium	A	mg/L	0.05251	0.05251		0.05	0	0	1.462E-05	0.001	0.1	105%	90	110	0%	
Chromium	A	mg/L	0.04972	0.04972		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.04943	0.04943		0.05	0	0	4.756E-05	0.001	1	99%	90	110	0%	
Copper	A	mg/L	0.05197	0.05197		0.05	0	0	0.0003828	0.001	1	104%	90	110	0%	
Iron	A	mg/L	0.265	0.265		0.25	0	0	0.0046291	0.0046291	5	106%	90	110	0%	
Lanthanum	A	mg/L	0.05131	0.05131		0.05	0	0	1.683E-05	0.001	0.1	103%	90	110	0%	
Lithium	A	mg/L	0.05037	0.05037		0.05	0	0	0.0052105	0.0052105	2.5	101%	90	110	0%	
Magnesium	A	mg/L	2.482	2.482		2.5	0	0	0.0118993	0.0118993	50	99%	90	110	0%	
Manganese	A	mg/L	0.2511	0.2511		0.25	0	0	0.0001444	0.001	1	100%	90	110	0%	
Mercury	A	mg/L	0.0009524	0.0009524		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05007	0.05007		0.05	0	0	8.338E-05	0.001	0.1	100%	90	110	0%	
Nickel	A	mg/L	0.05073	0.05073		0.05	0	0	0.0002531	0.001	1	101%	90	110	0%	
Potassium	A	mg/L	2.438	2.438		2.5	0	0	0.207399	0.207399	50	98%	90	110	0%	
Selenium	A	mg/L	0.04913	0.04913		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.4613	0.4613		0.5	0	0	0.0146174	0.1	0.4	92%	90	110	0%	
Silver	A	mg/L	0.02645	0.02645		0.025	0	0	1.123E-05	0.001	0.04	106%	90	110	0%	
Sodium	A	mg/L	2.493	2.493		2.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.05193	0.05193		0.05	0	0	0.0001825	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.05208	0.05208		0.05	0	0	0.0002991	0.001	1	104%	90	110	0%	
Thorium	A	mg/L	0.05205	0.05205		0.05	0	0	0.0010473	0.0010473	1	104%	90	110	0%	
Tin	A	mg/L	0.04655	0.04655		0.05	0	0	0.0022388	0.0022388	0.1	93%	90	110	0%	
Titanium	A	mg/L	0.0449	0.0449		0.05	0	0	0.0002974	0.001	1	90%	90	110	0%	
Uranium	A	mg/L	0.05091	0.05091		0.05	0	0	3.139E-05	0.0003	1	102%	90	110	0%	
Vanadium	A	mg/L	0.04963	0.04963		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05255	0.05255		0.05	0	0	0.0011598	0.0011598	1	105%	90	110	0%	
Iron, Ferrous	C	mg/L	0.265	0.265		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985125	CCV	ICPMS-6020-W-CCV			1/18/2022 8:21:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04934	0.04934		0.05	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05213	0.05213		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.05032	0.05032		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.05008	0.05008		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.05032	0.05032		0.05	0	0	7.465E-05	0.001	1	101%	90	110	0%	
Boron	A	mg/L	0.05294	0.05294		0.05	0	0	0.0030032	0.0030032	1	106%	90	110	0%	
Cadmium	A	mg/L	0.04892	0.04892		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	13.95	13.95		12.5	0	0	0.0749796	0.0749796	50	112%	90	110	0%	S
Cerium	A	mg/L	0.05094	0.05094		0.05	0	0	1.462E-05	0.001	0.1	102%	90	110	0%	
Chromium	A	mg/L	0.05157	0.05157		0.05	0	0	0.0005481	0.001	1	103%	90	110	0%	
Cobalt	A	mg/L	0.05257	0.05257		0.05	0	0	4.756E-05	0.001	1	105%	90	110	0%	
Copper	A	mg/L	0.05166	0.05166		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.29	1.29		1.3	0	0	0.0046291	0.0046291	5	99%	90	110	0%	
Lanthanum	A	mg/L	0.04995	0.04995		0.05	0	0	1.683E-05	0.001	0.1	100%	90	110	0%	
Lithium	A	mg/L	0.589	0.589		0.625	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	12.74	12.74		12.5	0	0	0.0118993	0.0118993	50	102%	90	110	0%	
Manganese	A	mg/L	0.05208	0.05208		0.05	0	0	0.0001444	0.001	1	104%	90	110	0%	
Mercury	A	mg/L	0.0009815	0.0009815		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.05328	0.05328		0.05	0	0	8.338E-05	0.001	0.1	107%	90	110	0%	
Nickel	A	mg/L	0.05161	0.05161		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	12.96	12.96		12.5	0	0	0.207399	0.207399	50	104%	90	110	0%	
Selenium	A	mg/L	0.04917	0.04917		0.05	0	0	0.0001415	0.001	1	98%	90	110	0%	
Silicon	A	mg/L	0.2079	0.2079		0.2	0	0	0.0146174	0.1	0.4	104%	90	110	0%	
Silver	A	mg/L	0.02091	0.02091		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	12.89	12.89		12.5	0	0	0.0809273	0.0809273	50	103%	90	110	0%	
Strontium	A	mg/L	0.05172	0.05172		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05063	0.05063		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05166	0.05166		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.05207	0.05207		0.05	0	0	0.0022388	0.0022388	0.1	104%	90	110	0%	
Titanium	A	mg/L	0.05233	0.05233		0.05	0	0	0.0002974	0.001	1	105%	90	110	0%	
Uranium	A	mg/L	0.04957	0.04957		0.05	0	0	3.139E-05	0.0003	1	99%	90	110	0%	
Vanadium	A	mg/L	0.05113	0.05113		0.05	0	0	0.0043468	0.0043468	1	102%	90	110	0%	
Zinc	A	mg/L	0.05047	0.05047		0.05	0	0	0.0011598	0.0011598	1	101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.29	1.29		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985126	CCB	ICPMS-6020-W-	CCB		1/18/2022 8:26:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0004617	-0.0004617		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	5.763E-06	5.763E-06		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00001569	0.00001569		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	-1.693E-06	-1.693E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-2.651E-06	-2.651E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0006225	0.0006225		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.141E-06	1.141E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	0.0003579	0.0003579		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	6.11E-07	6.11E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001279	-0.0001279		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-7.006E-07	-7.006E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00003699	0.00003699		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-0.0005201	-0.0005201		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	8.318E-07	8.318E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lithium	A	mg/L	0.000697	0.000697		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-0.0007442	-0.0007442		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	-4.06E-06	-4.06E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	7.584E-06	7.584E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00000476	0.00000476		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0000258	-0.0000258		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007135	-0.007135		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00004721	0.00004721		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.0006428	-0.0006428		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001143	0.00001143		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	-0.01252	-0.01252		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-6.647E-09	-6.647E-09		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009974	0.00009974		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00008608	0.00008608		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-0.0004011	-0.0004011		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003809	0.00003809		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	5.482E-06	5.482E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	3.183E-06	3.183E-06		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.0001983	-0.0001983		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-0.0005201	-0.0005201		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985127	0.10 PPB STD	ICPMS-6020B-C Cal3			1/18/2022 8:32:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0002796	-0.0002796		0.0001	0	0		0.01		-280%	80	120	0%	S
Antimony	A	mg/L	0.0001295	0.0001295		0.0001	0	0		0.001		130%	80	120	0%	S
Arsenic	A	mg/L	0.0001182	0.0001182		0.0001	0	0		0.001		118%	80	120	0%	
Barium	A	mg/L	0.0001175	0.0001175		0.0001	0	0		0.0003		118%	80	120	0%	
Beryllium	A	mg/L	0.0001346	0.0001346		0.0001	0	0		0.001		135%	80	120	0%	S
Boron	A	mg/L	0.0005309	0.0005309		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001343	0.0001343		0.0001	0	0		0.001		134%	80	120	0%	S
Calcium	A	mg/L	0.03151	0.03151		0.025	0	0		1		126%	80	120	0%	S
Chromium	A	mg/L	0.00001058	0.00001058		0.0001	0	0		0.001		11%	80	120	0%	S
Cobalt	A	mg/L	0.0001113	0.0001113		0.0001	0	0		0.001		111%	80	120	0%	
Copper	A	mg/L	0.0001408	0.0001408		0.0001	0	0		0.005		141%	80	120	0%	S
Iron	A	mg/L	0.002619	0.002619		0.0025	0	0		0.01		105%	80	120	0%	
Lanthanum	A	mg/L	0.0001204	0.0001204		0.0001	0	0		0.001		120%	80	120	0%	
Magnesium	A	mg/L	0.02866	0.02866		0.025	0	0		1		115%	80	120	0%	
Manganese	A	mg/L	0.0001018	0.0001018		0.0001	0	0		0.001		102%	80	120	0%	
Mercury	A	mg/L	4.278E-06	4.278E-06		0.000002	0	0		0.001		214%	80	120	0%	S
Molybdenum	A	mg/L	0.0001103	0.0001103		0.0001	0	0		0.001		110%	80	120	0%	
Nickel	A	mg/L	0.0001207	0.0001207		0.0001	0	0		0.005		121%	80	120	0%	S
Potassium	A	mg/L	0.02973	0.02973		0.025	0	0		1		119%	80	120	0%	
Selenium	A	mg/L	0.0001086	0.0001086		0.0001	0	0		0.005		109%	80	120	0%	
Silicon	A	mg/L	0.0003267	0.0003267		0.0004	0	0		0.1		82%	80	120	0%	
Silver	A	mg/L	0.00005472	0.00005472		0.00004	0	0		0.001		137%	80	120	0%	S
Sodium	A	mg/L	0.02923	0.02923		0.025	0	0		1		117%	80	120	0%	
Strontium	A	mg/L	0.0001227	0.0001227		0.0001	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.0001577	0.0001577		0.0001	0	0		0.001		158%	80	120	0%	S
Thorium	A	mg/L	0.0001369	0.0001369		0.0001	0	0		0.05		137%	80	120	0%	S
Tin	A	mg/L	-0.002362	-0.002362		0.0001	0	0		0.001		-2362%	80	120	0%	S
Titanium	A	mg/L	0.0001599	0.0001599		0.0001	0	0		0.001		160%	80	120	0%	S
Uranium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.0001136	0.0001136		0.0001	0	0		0.005		114%	80	120	0%	
Zinc	A	mg/L	-0.0002457	-0.0002457		0.0001	0	0		0.01		-246%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.002619	0.002619		0.0001	0	0		0.01	5	2619%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00069914	0.00069914		0.00856	0	0		0.214	0.9	8%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985128	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 9:19:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-0.0004589	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-2.113E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001007	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	-2.148E-06	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	8.083E-06	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	-9.183E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	6.263E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-0.0001538	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	-7.424E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001992	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	5.819E-07	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	2.756E-07	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	-5.785E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	-3.613E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	-5.867E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-0.0000191	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00001813	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-0.0002711	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	3.409E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	3.345E-07	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	3.753E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	2.901E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	-6.543E-08	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.0001322	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	-0.0005261	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	-0.0005261	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.0003008	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	-0.0006257	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	-0.000314	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	-0.01731	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	4.148E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.0002899	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	-1.245E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-0.0004357	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985129	BLANK	ICPMS-6020-W-	SAMP		1/18/2022 9:24:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985130	0.025 PPB STD	ICPMS-6020B-C Cal1			1/18/2022 9:30:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-6.287E-06	-6.287E-06		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00002083	0.00002083		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.00002624	0.00002624		0.000025	0	0		0.001		105%	80	120	0%	
Barium	A	mg/L	0.00002	0.00002		0.000025	0	0		0.0003		80%	80	120	0%	
Beryllium	A	mg/L	0.00001173	0.00001173		0.000025	0	0		0.001		47%	80	120	0%	S
Boron	A	mg/L	-3.706E-05	-3.706E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00003387	0.00003387		0.000025	0	0		0.001		135%	80	120	0%	S
Calcium	A	mg/L	0.007203	0.007203		0	0	0		1		0%			0%	
Chromium	A	mg/L	4.089E-06	4.089E-06		0.000025	0	0		0.001		16%	80	120	0%	S
Cobalt	A	mg/L	0.00001787	0.00001787		0.000025	0	0		0.001		71%	80	120	0%	S
Copper	A	mg/L	-5.913E-06	-5.913E-06		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0006327	0.0006327		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00002306	0.00002306		0.000025	0	0		0.001		92%	80	120	0%	
Lead	A	mg/L	0.000024	0.000024		0.000025	0	0		0.001		96%	80	120	0%	
Magnesium	A	mg/L	0.006598	0.006598		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002693	0.00002693		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	2.086E-06	2.086E-06		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00002467	0.00002467		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	0.00002176	0.00002176		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.003803	0.003803		0.00625	0	0		1		61%	80	120	0%	S
Selenium	A	mg/L	8.848E-07	8.848E-07		0.000025	0	0		0.005		4%	80	120	0%	S
Silicon	A	mg/L	0.0001578	0.0001578		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001249	0.00001249		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	0.002419	0.002419		0.00625	0	0		1		39%	80	120	0%	S
Strontium	A	mg/L	0.00002844	0.00002844		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.00002567	0.00002567		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001788	0.00001788		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002311	-0.002311		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00004033	0.00004033		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00002299	0.00002299		0.000025	0	0		0.001		92%	80	120	0%	
Vanadium	A	mg/L	0.00005786	0.00005786		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	-2.536E-05	-2.536E-05		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0006327	0.0006327		0.000025	0	0		0.01	5	2531%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00033769	0.00033769		0.0000535	0	0		0.214	0.9	631%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985131	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/18/2022 9:36:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00003068	0.00003068		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00005555	0.00005555		0.00005	0	0		0.001		111%	80	120	0%	
Arsenic	A	mg/L	0.00005802	0.00005802		0.00005	0	0		0.001		116%	80	120	0%	
Barium	A	mg/L	0.00005321	0.00005321		0.00005	0	0		0.0003		106%	80	120	0%	
Beryllium	A	mg/L	0.00007359	0.00007359		0.00005	0	0		0.001		147%	80	120	0%	S
Boron	A	mg/L	-4.566E-05	-4.566E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00006027	0.00006027		0.00005	0	0		0.001		121%	80	120	0%	S
Calcium	A	mg/L	0.01359	0.01359		0.0125	0	0		1		109%	80	120	0%	
Chromium	A	mg/L	0.00006624	0.00006624		0.00005	0	0		0.001		132%	80	120	0%	S
Cobalt	A	mg/L	0.00005089	0.00005089		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.0000271	0.0000271		0.00005	0	0		0.005		54%	80	120	0%	S
Iron	A	mg/L	0.001406	0.001406		0.00125	0	0		0.01		112%	80	120	0%	
Lanthanum	A	mg/L	0.00005213	0.00005213		0.00005	0	0		0.001		104%	80	120	0%	
Lead	A	mg/L	0.00005408	0.00005408		0.00005	0	0		0.001		108%	80	120	0%	
Magnesium	A	mg/L	0.01281	0.01281		0.0125	0	0		1		102%	80	120	0%	
Manganese	A	mg/L	0.00005306	0.00005306		0.00005	0	0		0.001		106%	80	120	0%	
Mercury	A	mg/L	2.042E-06	2.042E-06		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00005706	0.00005706		0.00005	0	0		0.001		114%	80	120	0%	
Nickel	A	mg/L	0.00004372	0.00004372		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.0121	0.0121		0.0125	0	0		1		97%	80	120	0%	
Selenium	A	mg/L	0.00004163	0.00004163		0.00005	0	0		0.005		83%	80	120	0%	
Silicon	A	mg/L	0.0007726	0.0007726		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00002665	0.00002665		0.00002	0	0		0.001		133%	80	120	0%	S
Sodium	A	mg/L	0.01198	0.01198		0.0125	0	0		1		96%	80	120	0%	
Strontium	A	mg/L	0.00006168	0.00006168		0.00005	0	0		0.001		123%	80	120	0%	S
Thallium	A	mg/L	0.00005241	0.00005241		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003696	0.00003696		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002277	-0.002277		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00007257	0.00007257		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005101	0.00005101		0.00005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.00008363	0.00008363		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00002572	0.00002572		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001406	0.001406		0.00005	0	0		0.01	5	2812%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00165336	0.00165336		0.00428	0	0		0.214	0.9	39%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985132	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 9:42:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000178	0.000178		0.0001	0	0		0.01		178%	80	120	0%	S
Antimony	A	mg/L	0.0001136	0.0001136		0.0001	0	0		0.001		114%	80	120	0%	
Arsenic	A	mg/L	0.0001343	0.0001343		0.0001	0	0		0.001		134%	80	120	0%	S
Barium	A	mg/L	0.0001075	0.0001075		0.0001	0	0		0.0003		107%	80	120	0%	
Beryllium	A	mg/L	0.000115	0.000115		0.0001	0	0		0.001		115%	80	120	0%	
Boron	A	mg/L	-7.461E-05	-7.461E-05		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Calcium	A	mg/L	0.03187	0.03187		0.025	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	0.0001293	0.0001293		0.0001	0	0		0.001		129%	80	120	0%	S
Cobalt	A	mg/L	0.0001302	0.0001302		0.0001	0	0		0.001		130%	80	120	0%	S
Copper	A	mg/L	0.0001043	0.0001043		0.0001	0	0		0.005		104%	80	120	0%	
Iron	A	mg/L	0.003303	0.003303		0.0025	0	0		0.01		132%	80	120	0%	S
Lanthanum	A	mg/L	0.0001248	0.0001248		0.0001	0	0		0.001		125%	80	120	0%	S
Magnesium	A	mg/L	0.03019	0.03019		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001071	0.0001071		0.0001	0	0		0.001		107%	80	120	0%	
Mercury	A	mg/L	3.896E-06	3.896E-06		0.000002	0	0		0.001		195%	80	120	0%	S
Molybdenum	A	mg/L	0.0001146	0.0001146		0.0001	0	0		0.001		115%	80	120	0%	
Nickel	A	mg/L	0.0001389	0.0001389		0.0001	0	0		0.005		139%	80	120	0%	S
Potassium	A	mg/L	0.0288	0.0288		0.025	0	0		1		115%	80	120	0%	
Selenium	A	mg/L	0.0001326	0.0001326		0.0001	0	0		0.005		133%	80	120	0%	S
Silicon	A	mg/L	0.001112	0.001112		0.0004	0	0		0.1		278%	80	120	0%	S
Silver	A	mg/L	0.00005328	0.00005328		0.00004	0	0		0.001		133%	80	120	0%	S
Sodium	A	mg/L	0.03068	0.03068		0.025	0	0		1		123%	80	120	0%	S
Strontium	A	mg/L	0.0001334	0.0001334		0.0001	0	0		0.001		133%	80	120	0%	S
Thallium	A	mg/L	0.0001241	0.0001241		0.0001	0	0		0.001		124%	80	120	0%	S
Thorium	A	mg/L	0.00008861	0.00008861		0.0001	0	0		0.05		89%	80	120	0%	
Tin	A	mg/L	-0.002208	-0.002208		0.0001	0	0		0.001		-2208%	80	120	0%	S
Titanium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.001		116%	80	120	0%	
Uranium	A	mg/L	0.0001162	0.0001162		0.0001	0	0		0.001		116%	80	120	0%	
Vanadium	A	mg/L	0.0001409	0.0001409		0.0001	0	0		0.005		141%	80	120	0%	S
Zinc	A	mg/L	0.0001151	0.0001151		0.0001	0	0		0.01		115%	80	120	0%	
Iron, Ferrous	C	mg/L	0.003303	0.003303		0.0001	0	0		0.01	5	3303%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00237968	0.00237968		0.00856	0	0		0.214	0.9	28%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985133	0.5 PPB STD	ICPMS-6020B-C Cal4			1/18/2022 9:48:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0004749	0.0004749		0.0005	0	0		0.01		95%	80	120	0%	
Antimony	A	mg/L	0.0004813	0.0004813		0.0005	0	0		0.001		96%	80	120	0%	
Arsenic	A	mg/L	0.0004708	0.0004708		0.0005	0	0		0.001		94%	80	120	0%	
Barium	A	mg/L	0.0004974	0.0004974		0.0005	0	0		0.0003		99%	80	120	0%	
Beryllium	A	mg/L	0.0004473	0.0004473		0.0005	0	0		0.001		89%	80	120	0%	
Boron	A	mg/L	0.000188	0.000188		0.0005	0	0		0.1		38%	80	120	0%	S
Cadmium	A	mg/L	0.0005189	0.0005189		0.0005	0	0		0.001		104%	80	120	0%	
Calcium	A	mg/L	0.1258	0.1258		0.125	0	0		1		101%	80	120	0%	
Chromium	A	mg/L	0.0004836	0.0004836		0.0005	0	0		0.001		97%	80	120	0%	
Cobalt	A	mg/L	0.0005235	0.0005235		0.0005	0	0		0.001		105%	80	120	0%	
Copper	A	mg/L	0.0004751	0.0004751		0.0005	0	0		0.005		95%	80	120	0%	
Iron	A	mg/L	0.01257	0.01257		0.0125	0	0		0.01		101%	80	120	0%	
Lanthanum	A	mg/L	0.0005006	0.0005006		0.0005	0	0		0.001		100%	80	120	0%	
Lead	A	mg/L	0.000508	0.000508		0.0005	0	0		0.001		102%	80	120	0%	
Magnesium	A	mg/L	0.1189	0.1189		0.125	0	0		1		95%	80	120	0%	
Manganese	A	mg/L	0.0004781	0.0004781		0.0005	0	0		0.001		96%	80	120	0%	
Mercury	A	mg/L	9.802E-06	9.802E-06		0.00001	0	0		0.001		98%	80	120	0%	
Molybdenum	A	mg/L	0.0004837	0.0004837		0.0005	0	0		0.001		97%	80	120	0%	
Nickel	A	mg/L	0.0005082	0.0005082		0.0005	0	0		0.005		102%	80	120	0%	
Potassium	A	mg/L	0.1192	0.1192		0.125	0	0		1		95%	80	120	0%	
Selenium	A	mg/L	0.0004198	0.0004198		0.0005	0	0		0.005		84%	80	120	0%	
Silicon	A	mg/L	0.001896	0.001896		0.002	0	0		0.1		95%	80	120	0%	
Silver	A	mg/L	0.000208	0.000208		0.0002	0	0		0.001		104%	80	120	0%	
Sodium	A	mg/L	0.1234	0.1234		0.125	0	0		1		99%	80	120	0%	
Strontium	A	mg/L	0.0005285	0.0005285		0.0005	0	0		0.001		106%	80	120	0%	
Thallium	A	mg/L	0.0004952	0.0004952		0.0005	0	0		0.001		99%	80	120	0%	
Thorium	A	mg/L	0.0003879	0.0003879		0.0005	0	0		0.05		78%	80	120	0%	S
Tin	A	mg/L	-0.001878	-0.001878		0.0005	0	0		0.001		-376%	80	120	0%	S
Titanium	A	mg/L	0.0005172	0.0005172		0.0005	0	0		0.001		103%	80	120	0%	
Uranium	A	mg/L	0.0004879	0.0004879		0.0005	0	0		0.001		98%	80	120	0%	
Vanadium	A	mg/L	0.000488	0.000488		0.0005	0	0		0.005		98%	80	120	0%	
Zinc	A	mg/L	0.0004604	0.0004604		0.0005	0	0		0.01		92%	80	120	0%	
Iron, Ferrous	C	mg/L	0.01257	0.01257		0.0005	0	0		0.01	5	2514%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00405744	0.00405744		0.0428	0	0		0.214	0.9	9%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985134	1 PPB STD	ICPMS-6020B-C	Cal5		1/18/2022 9:54:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001057	0.001057		0.001	0	0		0.01		106%	80	120	0%	
Antimony	A	mg/L	0.0009836	0.0009836		0.001	0	0		0.001		98%	80	120	0%	
Arsenic	A	mg/L	0.001102	0.001102		0.001	0	0		0.001		110%	80	120	0%	
Barium	A	mg/L	0.001087	0.001087		0.001	0	0		0.0003		109%	80	120	0%	
Beryllium	A	mg/L	0.001142	0.001142		0.001	0	0		0.001		114%	80	120	0%	
Boron	A	mg/L	0.0007415	0.0007415		0.001	0	0		0.1		74%	80	120	0%	S
Cadmium	A	mg/L	0.001096	0.001096		0.001	0	0		0.001		110%	80	120	0%	
Calcium	A	mg/L	0.2776	0.2776		0.25	0	0		1		111%	80	120	0%	
Chromium	A	mg/L	0.001188	0.001188		0.001	0	0		0.001		119%	80	120	0%	
Cobalt	A	mg/L	0.001151	0.001151		0.001	0	0		0.001		115%	80	120	0%	
Copper	A	mg/L	0.001159	0.001159		0.001	0	0		0.005		116%	80	120	0%	
Iron	A	mg/L	0.0258	0.0258		0.025	0	0		0.01		103%	80	120	0%	
Lanthanum	A	mg/L	0.001084	0.001084		0.001	0	0		0.001		108%	80	120	0%	
Lead	A	mg/L	0.001113	0.001113		0.001	0	0		0.001		111%	80	120	0%	
Magnesium	A	mg/L	0.2835	0.2835		0.25	0	0		1		113%	80	120	0%	
Manganese	A	mg/L	0.001111	0.001111		0.001	0	0		0.001		111%	80	120	0%	
Mercury	A	mg/L	0.00002101	0.00002101		0.00002	0	0		0.001		105%	80	120	0%	
Molybdenum	A	mg/L	0.00109	0.00109		0.001	0	0		0.001		109%	80	120	0%	
Nickel	A	mg/L	0.00113	0.00113		0.001	0	0		0.005		113%	80	120	0%	
Potassium	A	mg/L	0.2453	0.2453		0.25	0	0		1		98%	80	120	0%	
Selenium	A	mg/L	0.001042	0.001042		0.001	0	0		0.005		104%	80	120	0%	
Silicon	A	mg/L	0.004531	0.004531		0.004	0	0		0.1		113%	80	120	0%	
Silver	A	mg/L	0.0004636	0.0004636		0.0004	0	0		0.001		116%	80	120	0%	
Sodium	A	mg/L	0.2766	0.2766		0.25	0	0		1		111%	80	120	0%	
Strontium	A	mg/L	0.001159	0.001159		0.001	0	0		0.001		116%	80	120	0%	
Thallium	A	mg/L	0.001182	0.001182		0.001	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0009486	0.0009486		0.001	0	0		0.05		95%	80	120	0%	
Tin	A	mg/L	-0.001236	-0.001236		0.001	0	0		0.001		-124%	80	120	0%	S
Titanium	A	mg/L	0.001073	0.001073		0.001	0	0		0.001		107%	80	120	0%	
Uranium	A	mg/L	0.001061	0.001061		0.001	0	0		0.001		106%	80	120	0%	
Vanadium	A	mg/L	0.001109	0.001109		0.001	0	0		0.005		111%	80	120	0%	
Zinc	A	mg/L	0.001137	0.001137		0.001	0	0		0.01		114%	80	120	0%	
Iron, Ferrous	C	mg/L	0.0258	0.0258		0.001	0	0		0.01	5	2580%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00969634	0.00969634		0.0856	0	0		0.214	0.9	11%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985135	10 PPB STD	ICPMS-6020B-C Cal6			1/18/2022 9:59:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009772	0.009772		0.01	0	0		0.01		98%	90	110	0%	
Antimony	A	mg/L	0.009319	0.009319		0.01	0	0		0.001		93%	90	110	0%	
Arsenic	A	mg/L	0.01033	0.01033		0.01	0	0		0.001		103%	90	110	0%	
Barium	A	mg/L	0.009926	0.009926		0.01	0	0		0.0003		99%	90	110	0%	
Beryllium	A	mg/L	0.009589	0.009589		0.01	0	0		0.001		96%	90	110	0%	
Boron	A	mg/L	0.008856	0.008856		0.01	0	0		0.1		89%	90	110	0%	S
Cadmium	A	mg/L	0.009917	0.009917		0.01	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	2.466	2.466		2.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.009712	0.009712		0.01	0	0		0.001		97%	90	110	0%	
Cobalt	A	mg/L	0.01047	0.01047		0.01	0	0		0.001		105%	90	110	0%	
Copper	A	mg/L	0.01064	0.01064		0.01	0	0		0.005		106%	90	110	0%	
Iron	A	mg/L	0.2458	0.2458		0.25	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.009855	0.009855		0.01	0	0		0.001		99%	90	110	0%	
Lead	A	mg/L	0.01013	0.01013		0.01	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	2.341	2.341		2.5	0	0		1		94%	90	110	0%	
Manganese	A	mg/L	0.01046	0.01046		0.01	0	0		0.001		105%	90	110	0%	
Mercury	A	mg/L	0.0001905	0.0001905		0.0002	0	0		0.001		95%	90	110	0%	
Molybdenum	A	mg/L	0.0105	0.0105		0.01	0	0		0.001		105%	90	110	0%	
Nickel	A	mg/L	0.01054	0.01054		0.01	0	0		0.005		105%	90	110	0%	
Potassium	A	mg/L	2.347	2.347		2.5	0	0		1		94%	90	110	0%	
Selenium	A	mg/L	0.01035	0.01035		0.01	0	0		0.005		103%	90	110	0%	
Silicon	A	mg/L	0.03749	0.03749		0.04	0	0		0.1		94%	90	110	0%	
Silver	A	mg/L	0.004224	0.004224		0.004	0	0		0.001		106%	90	110	0%	
Sodium	A	mg/L	2.436	2.436		2.5	0	0		1		97%	90	110	0%	
Strontium	A	mg/L	0.01029	0.01029		0.01	0	0		0.001		103%	90	110	0%	
Thallium	A	mg/L	0.01099	0.01099		0.01	0	0		0.001		110%	90	110	0%	
Thorium	A	mg/L	0.009923	0.009923		0.01	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.007789	0.007789		0.01	0	0		0.001		78%	90	110	0%	S
Titanium	A	mg/L	0.01007	0.01007		0.01	0	0		0.001		101%	90	110	0%	
Uranium	A	mg/L	0.0098	0.0098		0.01	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.01034	0.01034		0.01	0	0		0.005		103%	90	110	0%	
Zinc	A	mg/L	0.01056	0.01056		0.01	0	0		0.01		106%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2458	0.2458		0.01	0	0		0.01	5	2458%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.0802286	0.0802286		0.856	0	0		0.214	0.9	9%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985136	50 PPB STD	ICPMS-6020B-C Cal7			1/18/2022 10:05:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04757	0.04757		0.05	0	0		0.01		95%	90	110	0%	
Antimony	A	mg/L	0.04959	0.04959		0.05	0	0		0.001		99%	90	110	0%	
Arsenic	A	mg/L	0.04939	0.04939		0.05	0	0		0.001		99%	90	110	0%	
Barium	A	mg/L	0.04835	0.04835		0.05	0	0		0.0003		97%	90	110	0%	
Beryllium	A	mg/L	0.04926	0.04926		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.04798	0.04798		0.05	0	0		0.1		96%	90	110	0%	
Cadmium	A	mg/L	0.04952	0.04952		0.05	0	0		0.001		99%	90	110	0%	
Calcium	A	mg/L	12.38	12.38		12.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.04876	0.04876		0.05	0	0		0.001		98%	90	110	0%	
Cobalt	A	mg/L	0.05045	0.05045		0.05	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.05002	0.05002		0.05	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	1.229	1.229		1.25	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.04682	0.04682		0.05	0	0		0.001		94%	90	110	0%	
Lead	A	mg/L	0.04863	0.04863		0.05	0	0		0.001		97%	90	110	0%	
Magnesium	A	mg/L	11.89	11.89		12.5	0	0		1		95%	90	110	0%	
Manganese	A	mg/L	0.04973	0.04973		0.05	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.0009595	0.0009595		0.001	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.04917	0.04917		0.05	0	0		0.001		98%	90	110	0%	
Nickel	A	mg/L	0.04973	0.04973		0.05	0	0		0.005		99%	90	110	0%	
Potassium	A	mg/L	11.82	11.82		12.5	0	0		1		95%	90	110	0%	
Selenium	A	mg/L	0.04715	0.04715		0.05	0	0		0.005		94%	90	110	0%	
Silicon	A	mg/L	0.1937	0.1937		0.2	0	0		0.1		97%	90	110	0%	
Silver	A	mg/L	0.02016	0.02016		0.02	0	0		0.001		101%	90	110	0%	
Sodium	A	mg/L	12.03	12.03		12.5	0	0		1		96%	90	110	0%	
Strontium	A	mg/L	0.05079	0.05079		0.05	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	0.05004	0.05004		0.05	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	0.04967	0.04967		0.05	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.04802	0.04802		0.05	0	0		0.001		96%	90	110	0%	
Titanium	A	mg/L	0.04828	0.04828		0.05	0	0		0.001		97%	90	110	0%	
Uranium	A	mg/L	0.04981	0.04981		0.05	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.04948	0.04948		0.05	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.05009	0.05009		0.05	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	1.229	1.229		0.05	0	0		0.01	5	2458%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.414518	0.414518		4.28	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985137	100 PPB STD	ICPMS-6020B-C Cal8			1/18/2022 10:11:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1012	0.1012		0.1	0	0		0.01		101%	90	110	0%	
Antimony	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Arsenic	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.1008	0.1008		0.1	0	0		0.0003		101%	90	110	0%	
Beryllium	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.1011	0.1011		0.1	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	26.66	26.66		25	0	0		1		107%	90	110	0%	
Chromium	A	mg/L	0.1006	0.1006		0.1	0	0		0.001		101%	90	110	0%	
Cobalt	A	mg/L	0.09973	0.09973		0.1	0	0		0.001		100%	90	110	0%	
Copper	A	mg/L	0.09992	0.09992		0.1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	2.44	2.44		2.5	0	0		0.01		98%	90	110	0%	
Lanthanum	A	mg/L	0.1016	0.1016		0.1	0	0		0.001		102%	90	110	0%	
Lead	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Magnesium	A	mg/L	25.41	25.41		25	0	0		1		102%	90	110	0%	
Manganese	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Mercury	A	mg/L	0.002021	0.002021		0.002	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Nickel	A	mg/L	0.1001	0.1001		0.1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	24.66	24.66		25	0	0		1		99%	90	110	0%	
Selenium	A	mg/L	0.1014	0.1014		0.1	0	0		0.005		101%	90	110	0%	
Silicon	A	mg/L	0.4034	0.4034		0.4	0	0		0.1		101%	90	110	0%	
Silver	A	mg/L	0.0399	0.0399		0.04	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	25.11	25.11		25	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	0.09957	0.09957		0.1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.09988	0.09988		0.1	0	0		0.001		100%	90	110	0%	
Thorium	A	mg/L	0.1002	0.1002		0.1	0	0		0.05		100%	90	110	0%	
Tin	A	mg/L	0.1012	0.1012		0.1	0	0		0.001		101%	90	110	0%	
Titanium	A	mg/L	0.1009	0.1009		0.1	0	0		0.001		101%	90	110	0%	
Uranium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Vanadium	A	mg/L	0.1002	0.1002		0.1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.0999	0.0999		0.1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	2.44	2.44		0.1	0	0		0.01	5	2440%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.863276	0.863276		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985138	1000	PPB STD	ICPMS-6020B-C	Cal10	1/18/2022 10:17:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.9396	0.9396		1	0	0		0.01		94%	90	110	0%	
Antimony	A	mg/L	0.0001022	0.0001022		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	1.053	1.053		1	0	0		0.001		105%	90	110	0%	
Barium	A	mg/L	0.9523	0.9523		1	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.972	0.972		1	0	0		0.001		97%	90	110	0%	
Boron	A	mg/L	0.9453	0.9453		1	0	0		0.1		95%	90	110	0%	
Cadmium	A	mg/L	1.019	1.019		1	0	0		0.001		102%	90	110	0%	
Calcium	A	mg/L	49.2	49.2		50	0	0		1		98%	90	110	0%	
Chromium	A	mg/L	1.056	1.056		1	0	0		0.001		106%	90	110	0%	
Cobalt	A	mg/L	1.027	1.027		1	0	0		0.001		103%	90	110	0%	
Copper	A	mg/L	1.007	1.007		1	0	0		0.005		101%	90	110	0%	
Iron	A	mg/L	6.085	6.085		6	0	0		0.01		101%	90	110	0%	
Lanthanum	A	mg/L	0.00001168	0.00001168		0	0	0		0.001		0%			0%	
Lead	A	mg/L	0.948	0.948		1	0	0		0.001		95%	90	110	0%	
Magnesium	A	mg/L	49.96	49.96		50	0	0		1		100%	90	110	0%	
Manganese	A	mg/L	1.053	1.053		1	0	0		0.001		105%	90		0%	
Mercury	A	mg/L	0.00001097	0.00001097		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.0000465	0.0000465		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.039	1.039		1	0	0		0.005		104%	90	110	0%	
Potassium	A	mg/L	50.35	50.35		50	0	0		1		101%	90	110	0%	
Selenium	A	mg/L	0.9645	0.9645		1	0	0		0.005		96%	90	110	0%	
Silicon	A	mg/L	0.002293	0.002293		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3603	0.3603		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	50.06	50.06		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	1.022	1.022		1	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	1.057	1.057		1	0	0		0.001		106%	90	110	0%	
Thorium	A	mg/L	1.073	1.073		1	0	0		0.05		107%	90	110	0%	
Tin	A	mg/L	-0.002227	-0.002227		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.005898	0.005898		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9859	0.9859		1	0	0		0.001		99%	90	110	0%	
Vanadium	A	mg/L	1.078	1.078		1	0	0		0.005		108%	90	110	0%	
Zinc	A	mg/L	1.019	1.019		1	0	0		0.01		102%	90	110	0%	
Iron, Ferrous	C	mg/L	6.085	6.085		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	0.00490702	0.00490702		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985139	100	ppb Bromine ICPMS-6020-W-	SAMP		1/18/2022 10:22:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.008329	0.008329		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002701	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0001619	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0001189	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.0001375	0.0001375		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.00009428	0.00009428		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	5.794E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001493	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0000947	0.0000947		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0001493	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	2.782E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000107	0.000107		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001167	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.978E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00002011	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001667	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.0002539	0.0002539		0	0	0	0.0001415	0.001	1	0%	0	0	0%	J
Silicon	A	mg/L	0.0003702	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.0002965	0.0002965		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0001001	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001281	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0000584	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001313	0.0001313		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.005425	0.005425		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Iron	B	mg/L	0.001135	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.001135	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.004394	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.00437	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.5057	0.5057		0	0	0	0.207399	0.207399	50	0%	0	0	0%	D
Sodium	B	mg/L	0.05657	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0003205	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.00237	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0001249	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0006069	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985141	Rinse	ICPMS-6020-W- SAMP			1/18/2022 10:29:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001488	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.0000162	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00004572	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0000198	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00003266	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001648	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.641E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-9.608E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001903	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-7.383E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	4.425E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001788	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00002604	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.038E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	9.217E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	2.523E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Selenium	A	mg/L	0.00008222	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	-6.575E-05	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00002018	0.00002018		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00001443	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00002812	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.00001326	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002166	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001853	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	0.0003545	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0003545	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lithium	B	mg/L	0.001809	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	B	mg/L	0.0017	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Potassium	B	mg/L	0.00206	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Sodium	B	mg/L	0.01492	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00006317	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	B	mg/L	-0.002526	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00003016	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-5.201E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985142	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 10:34:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0002425	0.0002425		0.0001	0	0		0.01		242%	80	120	0%	S
Antimony	A	mg/L	0.0001231	0.0001231		0.0001	0	0		0.001		123%	80	120	0%	S
Arsenic	A	mg/L	0.0001639	0.0001639		0.0001	0	0		0.001		164%	80	120	0%	S
Barium	A	mg/L	0.0001243	0.0001243		0.0001	0	0		0.0003		124%	80	120	0%	S
Beryllium	A	mg/L	0.0001256	0.0001256		0.0001	0	0		0.001		126%	80	120	0%	S
Boron	A	mg/L	0.0008848	0.0008848		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001376	0.0001376		0.0001	0	0		0.001		138%	80	120	0%	S
Calcium	A	mg/L	0.03147	0.03147		0.025	0	0		1		126%	80	120	0%	S
Chromium	A	mg/L	0.0001391	0.0001391		0.0001	0	0		0.001		139%	80	120	0%	S
Cobalt	A	mg/L	0.0001176	0.0001176		0.0001	0	0		0.001		118%	80	120	0%	
Copper	A	mg/L	0.0001236	0.0001236		0.0001	0	0		0.005		124%	80	120	0%	S
Iron	A	mg/L	0.003135	0.003135		0.0025	0	0		0.01		125%	80	120	0%	S
Lanthanum	A	mg/L	0.0001178	0.0001178		0.0001	0	0		0.001		118%	80	120	0%	
Magnesium	A	mg/L	0.02505	0.02505		0.025	0	0		1		100%	80	120	0%	
Manganese	A	mg/L	0.0001227	0.0001227		0.0001	0	0		0.001		123%	80	120	0%	S
Mercury	A	mg/L	4.266E-06	4.266E-06		0.000002	0	0		0.001		213%	80	120	0%	S
Molybdenum	A	mg/L	0.0001221	0.0001221		0.0001	0	0		0.001		122%	80	120	0%	S
Nickel	A	mg/L	0.0001078	0.0001078		0.0001	0	0		0.005		108%	80	120	0%	
Potassium	A	mg/L	0.03071	0.03071		0.025	0	0		1		123%	80	120	0%	S
Selenium	A	mg/L	0.0001444	0.0001444		0.0001	0	0		0.005		144%	80	120	0%	S
Silicon	A	mg/L	0.0008207	0.0008207		0.0004	0	0		0.1		205%	80	120	0%	S
Silver	A	mg/L	0.00005558	0.00005558		0.00004	0	0		0.001		139%	80	120	0%	S
Sodium	A	mg/L	0.03514	0.03514		0.025	0	0		1		141%	80	120	0%	S
Strontium	A	mg/L	0.0001235	0.0001235		0.0001	0	0		0.001		124%	80	120	0%	S
Thallium	A	mg/L	0.0001298	0.0001298		0.0001	0	0		0.001		130%	80	120	0%	S
Thorium	A	mg/L	0.0001282	0.0001282		0.0001	0	0		0.05		128%	80	120	0%	S
Tin	A	mg/L	-0.002203	-0.002203		0.0001	0	0		0.001		-2203%	80	120	0%	S
Titanium	A	mg/L	0.0001421	0.0001421		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.000117	0.000117		0.0001	0	0		0.001		117%	80	120	0%	
Vanadium	A	mg/L	0.0001497	0.0001497		0.0001	0	0		0.005		150%	80	120	0%	S
Zinc	A	mg/L	0.000134	0.000134		0.0001	0	0		0.01		134%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003135	0.003135		0.0001	0	0		0.01	5	3135%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.0017563	0.0017563		0.00856	0	0		0.214	0.9	21%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985143	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/18/2022 10:40:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.000285	0.000285		0.0001	0	0		0.01		285%	80	120	0%	S
Antimony	A	mg/L	0.0001197	0.0001197		0.0001	0	0		0.001		120%	80	120	0%	
Arsenic	A	mg/L	0.0001158	0.0001158		0.0001	0	0		0.001		116%	80	120	0%	
Barium	A	mg/L	0.0001157	0.0001157		0.0001	0	0		0.0003		116%	80	120	0%	
Beryllium	A	mg/L	0.0001044	0.0001044		0.0001	0	0		0.001		104%	80	120	0%	
Boron	A	mg/L	0.0009167	0.0009167		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001434	0.0001434		0.0001	0	0		0.001		143%	80	120	0%	S
Calcium	A	mg/L	0.03187	0.03187		0.025	0	0		1		127%	80	120	0%	S
Chromium	A	mg/L	0.0001364	0.0001364		0.0001	0	0		0.001		136%	80	120	0%	S
Cobalt	A	mg/L	0.0001141	0.0001141		0.0001	0	0		0.001		114%	80	120	0%	
Copper	A	mg/L	0.0001226	0.0001226		0.0001	0	0		0.005		123%	80	120	0%	S
Iron	A	mg/L	0.003146	0.003146		0.0025	0	0		0.01		126%	80	120	0%	S
Lanthanum	A	mg/L	0.0001137	0.0001137		0.0001	0	0		0.001		114%	80	120	0%	
Lead	A	mg/L	0.0001128	0.0001128		0.0001	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.03016	0.03016		0.025	0	0		1		121%	80	120	0%	S
Manganese	A	mg/L	0.0001207	0.0001207		0.0001	0	0		0.001		121%	80	120	0%	S
Mercury	A	mg/L	3.792E-06	3.792E-06		0.000002	0	0		0.001		190%	80	120	0%	S
Molybdenum	A	mg/L	0.0001158	0.0001158		0.0001	0	0		0.001		116%	80	120	0%	
Nickel	A	mg/L	0.0000909	0.0000909		0.0001	0	0		0.005		91%	80	120	0%	
Potassium	A	mg/L	0.0307	0.0307		0.025	0	0		1		123%	80	120	0%	S
Selenium	A	mg/L	0.0001104	0.0001104		0.0001	0	0		0.005		110%	80	120	0%	
Silicon	A	mg/L	0.0009301	0.0009301		0.0004	0	0		0.1		233%	80	120	0%	S
Silver	A	mg/L	0.00004719	0.00004719		0.00004	0	0		0.001		118%	80	120	0%	
Sodium	A	mg/L	0.02808	0.02808		0.025	0	0		1		112%	80	120	0%	
Strontium	A	mg/L	0.00012	0.00012		0.0001	0	0		0.001		120%	80	120	0%	
Thallium	A	mg/L	0.0001184	0.0001184		0.0001	0	0		0.001		118%	80	120	0%	
Thorium	A	mg/L	0.0001106	0.0001106		0.0001	0	0		0.05		111%	80	120	0%	
Tin	A	mg/L	-0.00221	-0.00221		0.0001	0	0		0.001		-2210%	80	120	0%	S
Titanium	A	mg/L	0.0001552	0.0001552		0.0001	0	0		0.001		155%	80	120	0%	S
Uranium	A	mg/L	0.0001087	0.0001087		0.0001	0	0		0.001		109%	80	120	0%	
Vanadium	A	mg/L	0.0001138	0.0001138		0.0001	0	0		0.005		114%	80	120	0%	
Zinc	A	mg/L	0.0001469	0.0001469		0.0001	0	0		0.01		147%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003146	0.003146		0.0001	0	0		0.01	5	3146%	80	120	0%	S
Silicon as SiO2	C	mg/L	0.00199041	0.00199041		0.00856	0	0		0.214	0.9	23%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985144	QCS	ICPMS-6020-W- ICV			1/18/2022 10:46:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2469	0.2469		0.25	0	0	0.0006548	0.001	1	99%	90	110	0%	
Antimony	A	mg/L	0.05273	0.05273		0.05	0	0	0.0002987	0.001	0.1	105%	90	110	0%	
Arsenic	A	mg/L	0.05041	0.05041		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.05204	0.05204		0.05	0	0	0.0001321	0.001	1	104%	90	110	0%	
Beryllium	A	mg/L	0.02498	0.02498		0.025	0	0	7.465E-05	0.001	1	100%	90	110	0%	
Boron	A	mg/L	0.04852	0.04852		0.05	0	0	0.0030032	0.0030032	1	97%	90	110	0%	
Cadmium	A	mg/L	0.02555	0.02555		0.025	0	0	5.139E-05	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	2.453	2.453		2.5	0	0	0.0749796	0.0749796	50	98%	90	110	0%	
Cerium	A	mg/L	0.05034	0.05034		0.05	0	0	1.462E-05	0.001	0.1	101%	90	110	0%	
Chromium	A	mg/L	0.0495	0.0495		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05097	0.05097		0.05	0	0	4.756E-05	0.001	1	102%	90	110	0%	
Copper	A	mg/L	0.05256	0.05256		0.05	0	0	0.0003828	0.001	1	105%	90	110	0%	
Iron	A	mg/L	0.2403	0.2403		0.25	0	0	0.0046291	0.0046291	5	96%	90	110	0%	
Lanthanum	A	mg/L	0.04915	0.04915		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.05241	0.05241		0.05	0	0	6.264E-05	0.001	1	105%	90	110	0%	
Lithium	A	mg/L	0.0472	0.0472		0.05	0	0	0.0052105	0.0052105	2.5	94%	90	110	0%	
Magnesium	A	mg/L	2.295	2.295		2.5	0	0	0.0118993	0.0118993	50	92%	90	110	0%	
Manganese	A	mg/L	0.245	0.245		0.25	0	0	0.0001444	0.001	1	98%	90	110	0%	
Mercury	A	mg/L	0.001026	0.001026		0.001	0	0	0.000066	0.001	0.02	103%	90	110	0%	
Molybdenum	A	mg/L	0.04905	0.04905		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.05067	0.05067		0.05	0	0	0.0002531	0.001	1	101%	90	110	0%	
Potassium	A	mg/L	2.316	2.316		2.5	0	0	0.207399	0.207399	50	93%	90	110	0%	
Selenium	A	mg/L	0.05025	0.05025		0.05	0	0	0.0001415	0.001	1	100%	90	110	0%	
Silicon	A	mg/L	0.5026	0.5026		0.5	0	0	0.0146174	0.1	0.4	101%	90	110	0%	
Silver	A	mg/L	0.02615	0.02615		0.025	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	2.414	2.414		2.5	0	0	0.0809273	0.0809273	50	97%	90	110	0%	
Strontium	A	mg/L	0.04893	0.04893		0.05	0	0	0.0001825	0.001	1	98%	90	110	0%	
Thallium	A	mg/L	0.05014	0.05014		0.05	0	0	0.0002991	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05087	0.05087		0.05	0	0	0.0010473	0.0010473	1	102%	90	110	0%	
Tin	A	mg/L	0.05142	0.05142		0.05	0	0	0.0022388	0.0022388	0.1	103%	90	110	0%	
Titanium	A	mg/L	0.04724	0.04724		0.05	0	0	0.0002974	0.001	1	94%	90	110	0%	
Uranium	A	mg/L	0.0535	0.0535		0.05	0	0	3.139E-05	0.0003	1	107%	90	110	0%	
Vanadium	A	mg/L	0.04952	0.04952		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05183	0.05183		0.05	0	0	0.0011598	0.0011598	1	104%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2403	0.2403		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985145	CCV	ICPMS-6020-W-CCV			1/18/2022 10:52:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04818	0.04818		0.05	0	0	0.0006548	0.001	1	96%	90	110	0%	
Antimony	A	mg/L	0.05198	0.05198		0.05	0	0	0.0002987	0.001	0.1	104%	90	110	0%	
Arsenic	A	mg/L	0.04982	0.04982		0.05	0	0	0.0001814	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.05002	0.05002		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.04964	0.04964		0.05	0	0	7.465E-05	0.001	1	99%	90	110	0%	
Boron	A	mg/L	0.04765	0.04765		0.05	0	0	0.0030032	0.0030032	1	95%	90	110	0%	
Cadmium	A	mg/L	0.051	0.051		0.05	0	0	5.139E-05	0.001	1	102%	90	110	0%	
Calcium	A	mg/L	12.61	12.61		12.5	0	0	0.0749796	0.0749796	50	101%	90	110	0%	
Cerium	A	mg/L	0.04884	0.04884		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.04938	0.04938		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.05128	0.05128		0.05	0	0	4.756E-05	0.001	1	103%	90	110	0%	
Copper	A	mg/L	0.05054	0.05054		0.05	0	0	0.0003828	0.001	1	101%	90	110	0%	
Iron	A	mg/L	1.252	1.252		1.3	0	0	0.0046291	0.0046291	5	96%	90	110	0%	
Lanthanum	A	mg/L	0.04943	0.04943		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.05022	0.05022		0.05	0	0	6.264E-05	0.001	1	100%	90	110	0%	
Lithium	A	mg/L	0.5553	0.5553		0.625	0	0	0.0052105	0.0052105	2.5	89%	90	110	0%	S
Magnesium	A	mg/L	11.74	11.74		12.5	0	0	0.0118993	0.0118993	50	94%	90	110	0%	
Manganese	A	mg/L	0.05019	0.05019		0.05	0	0	0.0001444	0.001	1	100%	90	110	0%	
Mercury	A	mg/L	0.0009623	0.0009623		0.001	0	0	0.000066	0.001	0.02	96%	90	110	0%	
Molybdenum	A	mg/L	0.0508	0.0508		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.04945	0.04945		0.05	0	0	0.0002531	0.001	1	99%	90	110	0%	
Potassium	A	mg/L	12.07	12.07		12.5	0	0	0.207399	0.207399	50	97%	90	110	0%	
Selenium	A	mg/L	0.05211	0.05211		0.05	0	0	0.0001415	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.1986	0.1986		0.2	0	0	0.0146174	0.1	0.4	99%	90	110	0%	
Silver	A	mg/L	0.02045	0.02045		0.02	0	0	1.123E-05	0.001	0.04	102%	90	110	0%	
Sodium	A	mg/L	11.95	11.95		12.5	0	0	0.0809273	0.0809273	50	96%	90	110	0%	
Strontium	A	mg/L	0.05	0.05		0.05	0	0	0.0001825	0.001	1	100%	90	110	0%	
Thallium	A	mg/L	0.04931	0.04931		0.05	0	0	0.0002991	0.001	1	99%	90	110	0%	
Thorium	A	mg/L	0.0492	0.0492		0.05	0	0	0.0010473	0.0010473	1	98%	90	110	0%	
Tin	A	mg/L	0.05107	0.05107		0.05	0	0	0.0022388	0.0022388	0.1	102%	90	110	0%	
Titanium	A	mg/L	0.05006	0.05006		0.05	0	0	0.0002974	0.001	1	100%	90	110	0%	
Uranium	A	mg/L	0.04876	0.04876		0.05	0	0	3.139E-05	0.0003	1	98%	90	110	0%	
Vanadium	A	mg/L	0.05013	0.05013		0.05	0	0	0.0043468	0.0043468	1	100%	90	110	0%	
Zinc	A	mg/L	0.04963	0.04963		0.05	0	0	0.0011598	0.0011598	1	99%	90	110	0%	
Iron, Ferrous	C	mg/L	1.252	1.252		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985146	CCB	ICPMS-6020-W-	CCB		1/18/2022 10:57:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-1.751E-05	-1.751E-05		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00005459	0.00005459		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	0.00001192	0.00001192		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	4.018E-06	4.018E-06		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	2.479E-06	2.479E-06		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	0.0006072	0.0006072		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	1.648E-06	1.648E-06		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.0000133	0.0000133		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	-2.039E-07	-2.039E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-2.332E-06	-2.332E-06		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	-8.235E-07	-8.235E-07		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	-0.00001	-0.00001		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	-2.424E-05	-2.424E-05		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	8.788E-07	8.788E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	1.801E-06	1.801E-06		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	0.0005897	0.0005897		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	0.00008591	0.00008591		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	0.00001182	0.00001182		0	0	0	0.0001444	0.001	1	0%				0%
Mercury	A	mg/L	7.109E-06	7.109E-06		0	0	0	0.000066	0.001	0.02	0%				0%
Molybdenum	A	mg/L	8.642E-06	8.642E-06		0	0	0	8.338E-05	0.001	0.1	0%				0%
Nickel	A	mg/L	-5.757E-06	-5.757E-06		0	0	0	0.0002531	0.001	1	0%				0%
Potassium	A	mg/L	-0.001826	-0.001826		0	0	0	0.207399	0.207399	50	0%				0%
Selenium	A	mg/L	0.00001913	0.00001913		0	0	0	0.0001415	0.001	1	0%				0%
Silicon	A	mg/L	0.0005637	0.0005637		0	0	0	0.0146174	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.00001183	0.00001183		0	0	0	1.123E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	-0.003526	-0.003526		0	0	0	0.0809273	0.0809273	50	0%				0%
Strontium	A	mg/L	-1.17E-07	-1.17E-07		0	0	0	0.0001825	0.001	1	0%	0	0		0%
Thallium	A	mg/L	9.383E-06	9.383E-06		0	0	0	0.0002991	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00006654	0.00006654		0	0	0	0.0010473	0.0010473	1	0%	0	0		0%
Tin	A	mg/L	-1.308E-05	-1.308E-05		0	0	0	0.0022388	0.0022388	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00003612	0.00003612		0	0	0	0.0002974	0.001	1	0%	0	0		0%
Uranium	A	mg/L	3.465E-06	3.465E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.00001366	0.00001366		0	0	0	0.0043468	0.0043468	1	0%	0	0		0%
Zinc	A	mg/L	-7.178E-05	-7.178E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-2.424E-05	-2.424E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985147	LRB	ICPMS-6020-W- MBLK			1/18/2022 11:03:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0003414	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	9.973E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	-4.131E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001042	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-3.416E-06	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0.0002762	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	
Cadmium	A	mg/L	3.978E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0.006779	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	
Cerium	A	mg/L	1.025E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001317	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	2.815E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-0.0000258	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0.0007955	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.209E-06	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.899E-06	0		0	0	0	6.264E-05	0.0005	1	0%	0	0	0%	
Lithium	A	mg/L	-3.381E-06	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	
Magnesium	A	mg/L	0.0008985	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001457	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	4.148E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001429	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00006474	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	-0.002897	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	
Selenium	A	mg/L	0.00001326	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.004461	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.676E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0.03202	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	
Strontium	A	mg/L	8.309E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	2.374E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003177	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-0.002543	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00001883	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	9.022E-07	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00003632	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	0.0006421	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0007955	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985148	LFB	ICPMS-6020-W- LFB			1/18/2022 11:09:	1.03	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04524	0.0465972		0.05	0	0	0.0006745	0.001	1	93%	85	115	0%	
Antimony	A	mg/L	0.04753	0.0489559		0.05	0	0	0.0003076	0.001	0.1	98%	85	115	0%	
Arsenic	A	mg/L	0.04748	0.0489044		0.05	0	0	0.0001869	0.001	1	98%	85	115	0%	
Barium	A	mg/L	0.04561	0.0469783		0.05	0	0	0.0001360	0.001	1	94%	85	115	0%	
Beryllium	A	mg/L	0.04535	0.0467105		0.05	0	0	7.689E-05	0.001	1	93%	85	115	0%	
Boron	A	mg/L	0.0458	0.047174		0.05	0	0	0.0030933	0.0030933	1	94%	85	115	0%	
Cadmium	A	mg/L	0.04681	0.0482143		0.05	0	0	5.293E-05	0.001	1	96%	85	115	0%	
Calcium	A	mg/L	58.7	60.461		50	0	0	0.0772290	0.0772290	50	121%	85	115	0%	S
Cerium	A	mg/L	0.04724	0.0486572		0.05	0	0	1.506E-05	0.001	0.1	97%	85	115	0%	
Chromium	A	mg/L	0.04572	0.0470916		0.05	0	0	0.0005646	0.001	1	94%	85	115	0%	
Cobalt	A	mg/L	0.04795	0.0493885		0.05	0	0	4.899E-05	0.001	1	99%	85	115	0%	
Copper	A	mg/L	0.04773	0.0491619		0.05	0	0	0.0003943	0.001	1	98%	85	115	0%	
Iron	A	mg/L	5.383	5.54449		5.05	0	0	0.0047679	0.0047679	5	110%	85	115	0%	
Lanthanum	A	mg/L	5.515E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	85	115	0%	S
Lead	A	mg/L	0.04388	0.0451964		0.05	0	0	6.452E-05	0.001	1	90%	88	115	0%	
Lithium	A	mg/L	2.076	2.13828		2.5	0	0	0.0053668	0.0053668	2.5	86%	85	115	0%	
Magnesium	A	mg/L	47.81	49.2443		50	0	0	0.0122563	0.0122563	50	98%	85	115	0%	
Manganese	A	mg/L	0.04733	0.0487499		0.05	0	0	0.0001487	0.001	1	97%	85	115	0%	
Mercury	A	mg/L	0.0009098	0.00093709		0.001	0	0	6.798E-05	0.001	0.02	94%	85	115	0%	
Molybdenum	A	mg/L	0.04702	0.0484306		0.05	0	0	8.588E-05	0.001	0.1	97%	85	115	0%	
Nickel	A	mg/L	0.04749	0.0489147		0.05	0	0	0.0002607	0.001	1	98%	85	115	0%	
Potassium	A	mg/L	46.33	47.7199		50	0	0	0.2136209	0.2136209	50	95%	85	115	0%	
Selenium	A	mg/L	0.04768	0.0491104		0.05	0	0	0.0009152	0.001	1	98%	85	115	0%	
Silicon	A	mg/L	0.2278	0.234634		0.2	0	0	0.0150559	0.1	0.4	117%	85	115	0%	S
Silver	A	mg/L	0.01892	0.0194876		0.02	0	0	1.157E-05	0.001	0.04	97%	85	115	0%	
Sodium	A	mg/L	49.06	50.5318		50	0	0	0.0833551	0.0833551	50	101%	85	115	0%	
Strontium	A	mg/L	0.04728	0.0486984		0.05	0	0	0.000188	0.001	1	97%	85	115	0%	
Thallium	A	mg/L	0.04558	0.0469474		0.05	0	0	0.0003081	0.001	1	94%	85	115	0%	
Thorium	A	mg/L	0.0478	0.049234		0.05	0	0	0.0010787	0.0010787	1	98%	85	115	0%	
Tin	A	mg/L	0.04529	0.0466487		0.05	0	0	0.002306	0.002306	0.1	93%	85	115	0%	
Titanium	A	mg/L	0.05268	0.0542604		0.05	0	0	0.0003063	0.001	1	109%	85	115	0%	
Uranium	A	mg/L	0.04373	0.0450419		0.05	0	0	3.233E-05	0.0003	1	90%	85	115	0%	
Vanadium	A	mg/L	0.04792	0.0493576		0.05	0	0	0.0044772	0.0044772	1	99%	85	115	0%	
Zinc	A	mg/L	0.04687	0.0482761		0.05	0	0	0.0011946	0.0011946	1	97%	85	115	0%	
Iron, Ferrous	C	mg/L	5.383	5.54449		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985149	ICSA	ICPMS-6020-W- ICSA			1/18/2022 11:15:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	35	35		40	0	0	0.0006548	0.001	1	88%	80	120	0%	
Antimony	A	mg/L	0.00004723	0.00004723		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.0000672	0.0000672		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.00006922	0.00006922		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-7.049E-06	-7.049E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0004629	0.0004629		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.0002035	0.0002035		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	103.4	103.4		120	0	0	0.0749796	0.0749796	50	86%	80	120	0%	
Cerium	A	mg/L	2.108E-06	2.108E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0008054	0.0008054		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	0.0003553	0.0003553		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00001757	0.00001757		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	91.37	91.37		100	0	0	0.0046291	0.0046291	5	91%	80	120	0%	
Lanthanum	A	mg/L	8.014E-06	8.014E-06		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001789	0.00001789		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.001196	0.001196		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	37.62	37.62		50	0	0	0.0118993	0.0118993	50	75%			0%	
Manganese	A	mg/L	0.0002076	0.0002076		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	6.353E-06	6.353E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7737	0.7737		0.8	0	0	8.338E-05	0.001	0.1	97%	80	120	0%	
Nickel	A	mg/L	0.0001753	0.0001753		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	35.68	35.68		50	0	0	0.207399	0.207399	50	71%			0%	
Selenium	A	mg/L	0.0001243	0.0001243		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0006468	0.0006468		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	1.245E-06	1.245E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	91.39	91.39		100	0	0	0.0809273	0.0809273	50	91%			0%	
Strontium	A	mg/L	0.001221	0.001221		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.00005934	0.00005934		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001787	0.0001787		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002292	-0.002292		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7694	0.7694		0.8	0	0	0.0002974	0.001	1	96%			0%	
Uranium	A	mg/L	2.639E-06	2.639E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	-1.102E-06	-1.102E-06		0	0	0	0.0043468	0.0043468	1	0%			0%	
Zinc	A	mg/L	0.000327	0.000327		0	0	0	0.0011598	0.0011598	1	0%			0%	
Iron, Ferrous	C	mg/L	91.37	91.37		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985150	ICSAB	ICPMS-6020-W- ICSAB			1/18/2022 11:20:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	32.31	32.31		40	0	0	0.0006548	0.001	1	81%	80	120	0%	
Antimony	A	mg/L	0.0000256	0.0000256		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.009932	0.009932		0.01	0	0	0.0001814	0.001	1	99%	80	120	0%	
Barium	A	mg/L	0.00005794	0.00005794		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-9.32E-06	-9.32E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.00004334	0.00004334		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.009772	0.009772		0.01	0	0	5.139E-05	0.001	1	98%	80	120	0%	
Calcium	A	mg/L	91.66	91.66		120	0	0	0.0749796	0.0749796	50	76%	80	120	0%	S
Cerium	A	mg/L	3.443E-06	3.443E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.01884	0.01884		0.02	0	0	0.0005481	0.001	1	94%	80	120	0%	
Cobalt	A	mg/L	0.01929	0.01929		0.02	0	0	4.756E-05	0.001	1	96%	80	120	0%	
Copper	A	mg/L	0.01869	0.01869		0.02	0	0	0.0003828	0.001	1	93%	80	120	0%	
Iron	A	mg/L	82.29	82.29		100	0	0	0.0046291	0.0046291	5	82%	80	120	0%	
Lanthanum	A	mg/L	0.00001052	0.00001052		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001701	0.00001701		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0002865	0.0002865		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	32.85	32.85		40	0	0	0.0118993	0.0118993	50	82%	80	120	0%	
Manganese	A	mg/L	0.01903	0.01903		0.02	0	0	0.0001444	0.001	1	95%	80	120	0%	
Mercury	A	mg/L	1.227E-06	1.227E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.76	0.76		0.8	0	0	8.338E-05	0.001	0.1	95%	80	120	0%	
Nickel	A	mg/L	0.01904	0.01904		0.02	0	0	0.0002531	0.001	1	95%	80	120	0%	
Potassium	A	mg/L	33.57	33.57		40	0	0	0.207399	0.207399	50	84%	80	120	0%	
Selenium	A	mg/L	0.01042	0.01042		0.01	0	0	0.0001415	0.001	1	104%	80	120	0%	
Silicon	A	mg/L	0.000719	0.000719		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.004793	0.004793		0.005	0	0	1.123E-05	0.001	0.04	96%	80	120	0%	
Sodium	A	mg/L	85.1	85.1		100	0	0	0.0809273	0.0809273	50	85%	80	120	0%	
Strontium	A	mg/L	0.001186	0.001186		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0000225	0.0000225		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001098	0.0001098		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.00229	-0.00229		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7395	0.7395		0.8	0	0	0.0002974	0.001	1	92%	80	120	0%	
Uranium	A	mg/L	8.966E-07	8.966E-07		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.01863	0.01863		0.02	0	0	0.0043468	0.0043468	1	93%	80	120	0%	
Zinc	A	mg/L	0.009528	0.009528		0.01	0	0	0.0011598	0.0011598	1	95%	80	120	0%	
Iron, Ferrous	C	mg/L	82.29	82.29		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985151	Rinse	ICPMS-6020-W- SAMP			1/18/2022 11:26:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	9.984E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0000353	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003494	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00003028	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	7.129E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00003102	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00002502	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00000995	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00003208	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00003486	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	6.218E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00008336	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00001998	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001864	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001542	0.00001542		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.0000292	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004192	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002857	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00003052	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00001954	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-2.998E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985152	CCV	ICPMS-6020-W- CCV			1/18/2022 11:32:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04152	0.04152		0.05	0	0	0.0006548	0.001	1	83%	90	110	0%	S
Antimony	A	mg/L	0.04622	0.04622		0.05	0	0	0.0002987	0.001	0.1	92%	90	110	0%	
Arsenic	A	mg/L	0.05001	0.05001		0.05	0	0	0.0001814	0.001	1	100%	90	110	0%	
Barium	A	mg/L	0.04526	0.04526		0.05	0	0	0.0001321	0.001	1	91%	90	110	0%	
Beryllium	A	mg/L	0.03994	0.03994		0.05	0	0	7.465E-05	0.001	1	80%	90	110	0%	S
Boron	A	mg/L	0.03854	0.03854		0.05	0	0	0.0030032	0.0030032	1	77%	90	110	0%	S
Cadmium	A	mg/L	0.04838	0.04838		0.05	0	0	5.139E-05	0.001	1	97%	90	110	0%	
Calcium	A	mg/L	10.47	10.47		12.5	0	0	0.0749796	0.0749796	50	84%	90	110	0%	S
Cerium	A	mg/L	0.04888	0.04888		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985152	CCV	ICPMS-6020-W- CCV			1/18/2022 11:32:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.04628	0.04628		0.05	0	0	0.0005481	0.001	1	93%	90	110	0%	
Cobalt	A	mg/L	0.04661	0.04661		0.05	0	0	4.756E-05	0.001	1	93%	90	110	0%	
Copper	A	mg/L	0.05019	0.05019		0.05	0	0	0.0003828	0.001	1	100%	90	110	0%	
Iron	A	mg/L	1.127	1.127		1.3	0	0	0.0046291	0.0046291	5	87%	90	110	0%	S
Lanthanum	A	mg/L	0.04914	0.04914		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04572	0.04572		0.05	0	0	6.264E-05	0.001	1	91%	90	110	0%	
Lithium	A	mg/L	0.3866	0.3866		0.625	0	0	0.0052105	0.0052105	2.5	62%	90	110	0%	S
Magnesium	A	mg/L	10.38	10.38		12.5	0	0	0.0118993	0.0118993	50	83%	90	110	0%	S
Manganese	A	mg/L	0.04601	0.04601		0.05	0	0	0.0001444	0.001	1	92%	90	110	0%	
Mercury	A	mg/L	0.0009002	0.0009002		0.001	0	0	0.000066	0.001	0.02	90%	90	110	0%	
Molybdenum	A	mg/L	0.04842	0.04842		0.05	0	0	8.338E-05	0.001	0.1	97%	90	110	0%	
Nickel	A	mg/L	0.04856	0.04856		0.05	0	0	0.0002531	0.001	1	97%	90	110	0%	
Potassium	A	mg/L	10.57	10.57		12.5	0	0	0.207399	0.207399	50	85%	90	110	0%	S
Selenium	A	mg/L	0.05139	0.05139		0.05	0	0	0.0001415	0.001	1	103%	90	110	0%	
Silicon	A	mg/L	0.1799	0.1799		0.2	0	0	0.0146174	0.1	0.4	90%	90	110	0%	
Silver	A	mg/L	0.01954	0.01954		0.02	0	0	1.123E-05	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	10.96	10.96		12.5	0	0	0.0809273	0.0809273	50	88%	90	110	0%	S
Strontium	A	mg/L	0.04888	0.04888		0.05	0	0	0.0001825	0.001	1	98%	90	110	0%	
Thallium	A	mg/L	0.04896	0.04896		0.05	0	0	0.0002991	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.04958	0.04958		0.05	0	0	0.0010473	0.0010473	1	99%	90	110	0%	
Tin	A	mg/L	0.04498	0.04498		0.05	0	0	0.0022388	0.0022388	0.1	90%	90	110	0%	
Titanium	A	mg/L	0.04299	0.04299		0.05	0	0	0.0002974	0.001	1	86%	90	110	0%	S
Uranium	A	mg/L	0.04513	0.04513		0.05	0	0	3.139E-05	0.0003	1	90%	90	110	0%	
Vanadium	A	mg/L	0.04877	0.04877		0.05	0	0	0.0043468	0.0043468	1	98%	90	110	0%	
Zinc	A	mg/L	0.04963	0.04963		0.05	0	0	0.0011598	0.0011598	1	99%	90	110	0%	
Iron, Ferrous	C	mg/L	1.127	1.127		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985153	CCB	ICPMS-6020-W- CCB			1/18/2022 11:38:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-2.724E-05	-2.724E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.0000424	0.0000424		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	5.812E-06	5.812E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	2.646E-06	2.646E-06		0	0	0	0.0001321	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985153	CCB	ICPMS-6020-W-	CCB		1/18/2022 11:38:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Beryllium	A	mg/L	8.244E-07	8.244E-07		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0001344	0.0001344		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	2.715E-06	2.715E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0001496	-0.0001496		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-4.724E-07	-4.724E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.253E-05	-1.253E-05		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-2.116E-06	-2.116E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.419E-07	-1.419E-07		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.0001707	0.0001707		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	1.266E-06	1.266E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.013E-06	1.013E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0007954	0.0007954		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-0.0001394	-0.0001394		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	0.00000222	0.00000222		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	6.972E-06	6.972E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00001747	0.00001747		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-0.0000109	-0.0000109		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007152	-0.007152		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00001925	0.00001925		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.0003317	0.0003317		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00001058	0.00001058		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.01226	0.01226		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-4.391E-07	-4.391E-07		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	5.357E-06	5.357E-06		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00004591	0.00004591		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	5.988E-06	5.988E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	6.132E-06	6.132E-06		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.417E-06	1.417E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00004501	0.00004501		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-7.498E-05	-7.498E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.0001707	0.0001707		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985154	Rinse	ICPMS-6020-W-	SAMP		1/18/2022 11:43:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001098	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001279	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001622	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	2.825E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.461E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	2.631E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	3.441E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.919E-05	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	4.325E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	4.579E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	3.364E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001004	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.508E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001765	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	7.016E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00000688	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	5.997E-06	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000326	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00002326	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00004988	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	-5.328E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985155	MB-162360	ICPMS-6020-W-	MBLK		1/18/2022 11:49:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0018	0		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00003785	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00002225	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00008732	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	-3.666E-06	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	
Boron	A	mg/L	0.0004547	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001777	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.008141	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	1.576E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985155	MB-162360	ICPMS-6020-W- MBLK			1/18/2022 11:49:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.000676	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	4.654E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0001632	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.003345	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.956E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002803	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.001317	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00005451	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00005617	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002035	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01061	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00002558	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.009822	0.009822		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-5.298E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.004526	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00002152	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	2.717E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.0001205	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002358	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.0002967	0.0002967		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.491E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00008229	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.002962	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.02101122	0.02101122		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.02101122	0.02101122		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985156	MB-162497	ICPMS-6020-W- MBLK			1/18/2022 11:55:	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001929	0		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00001772	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	3.253E-06	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003707	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	4.483E-07	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985156	MB-162497	ICPMS-6020-W- MBLK			1/18/2022 11:55:	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.0004885	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002346	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.02088	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	8.546E-07	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0002287	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	1.238E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00009799	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.001128	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	1.238E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001182	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.001095	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001966	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003501	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	4.127E-06	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01123	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00004939	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.008677	0.008677		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.165E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.007982	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00003052	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00000212	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00006674	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002409	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.000252	0.000252		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	-5.589E-08	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00003228	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.0002024	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.01856184	0.01856184		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.01856184	0.01856184		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985157	MB-162992	ICPMS-6020-W- MBLK			1/19/2022 12:01:	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985157	MB-162992	ICPMS-6020-W- MBLK			1/19/2022 12:01:	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.003364	0.003364		0	0	0	0.0031975	0.0031975	1	0%	0	0	0%	
Antimony	A	mg/L	0.00004159	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001939	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002748	0		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	1.765E-06	0		0	0	0	0.0001563	0.01	1	0%	0	0	0%	
Boron	A	mg/L	0.0002253	0		0	0	0	0.01467	0.01467	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000129	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Calcium	A	mg/L	0.0325	0		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	
Cerium	A	mg/L	1.196E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00005728	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	
Cobalt	A	mg/L	5.189E-06	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.094E-05	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	
Iron	A	mg/L	0.001344	0		0	0	0	0.00513	0.00513	5	0%	0	0	0%	
Lanthanum	A	mg/L	7.207E-07	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001277	0		0	0	0	7.716E-05	0.0005	1	0%	0	0	0%	
Magnesium	A	mg/L	0.000806	0		0	0	0	0.0081522	0.0081522	50	0%	0	0	0%	
Manganese	A	mg/L	0.00001526	0		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001409	0		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-3.491E-06	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	
Potassium	A	mg/L	-0.01039	0		0	0	0	0.0261205	0.0261205	50	0%	0	0	0%	
Selenium	A	mg/L	0.00001406	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.009825	0.009825		0	0	0	0.0053212	0.0053212	0.4	0%	0	0	0%	
Silver	A	mg/L	-6.698E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	-0.006902	0		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	
Strontium	A	mg/L	0.00006311	0		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	1.749E-07	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00005833	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	
Tin	A	mg/L	-0.002148	0		0	0	0	0.0011175	0.0011175	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.000341	0.000341		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.344E-07	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.00004559	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	
Zinc	A	mg/L	0.006809	0.006809		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	
Silica	C	mg/L	0.02101764	0.02101764		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	0.02101764	0.02101764		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985158	LCS4-162360	ICPMS-6020-W- LCS4			1/19/2022 12:06:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4409	0.4409		0.5	0	0	0.0031975	0.0031975	1	88%	80	120	0%	
Antimony	A	mg/L	0.0953	0.0953		0.1	0	0	0.00098	0.0021372	0.1	95%	80	120	0%	
Arsenic	A	mg/L	0.09367	0.09367		0.1	0	0	0.0002677	0.001	1	94%	80	120	0%	
Barium	A	mg/L	0.08864	0.08864		0.1	0	0	0.0002408	0.001	1	89%	80	120	0%	
Beryllium	A	mg/L	0.04233	0.04233		0.05	0	0	0.0001563	0.01	1	85%	80	120	0%	
Boron	A	mg/L	0.09163	0.09163		0.1	0	0	0.01467	0.01467	1	92%	80	120	0%	
Cadmium	A	mg/L	0.04707	0.04707		0.05	0	0	4.567E-05	0.005	1	94%	80	120	0%	
Calcium	A	mg/L	4.306	4.306		5	0	0	0.1103481	0.1103481	150	86%	80	120	0%	
Cerium	A	mg/L	0.09882	0.09882		0.1	0	0	0.00005	0.001	0.1	99%	80	120	0%	
Chromium	A	mg/L	0.09932	0.09932		0.1	0	0	0.00154	0.00154	1	99%	80	120	0%	
Cobalt	A	mg/L	0.0983	0.0983		0.1	0	0	0.000072	0.001	1	98%	80	120	0%	
Copper	A	mg/L	0.1029	0.1029		0.1	0	0	0.00198	0.0034752	1	103%	80	120	0%	
Iron	A	mg/L	0.4456	0.4456		0.5	0	0	0.00513	0.00513	5	89%	80	120	0%	
Lanthanum	A	mg/L	0.09906	0.09906		0.1	0	0	0.000055	0.001	0.1	99%	80	120	0%	
Lead	A	mg/L	0.1018	0.1018		0.1	0	0	7.716E-05	0.001	1	102%	88	115	0%	
Magnesium	A	mg/L	4.758	4.758		5	0	0	0.0081522	0.0081522	50	95%	80	120	0%	
Manganese	A	mg/L	0.4905	0.4905		0.5	0	0	0.0002139	0.001	1	98%	80	120	0%	
Molybdenum	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001763	0.001	0.1	103%	80	120	0%	
Nickel	A	mg/L	0.102	0.102		0.1	0	0	0.0024200	0.0024200	1	102%	80	120	0%	
Potassium	A	mg/L	4.458	4.458		5	0	0	0.0261205	0.0261205	50	89%	80	120	0%	
Selenium	A	mg/L	0.09472	0.09472		0.1	0	0	0.0005855	0.001	1	95%	80	120	0%	
Silicon	A	mg/L	0.9631	0.9631		1	0	0	0.0053212	0.0053212	0.4	96%	80	120	0%	
Silver	A	mg/L	0.01058	0.01058		0.01	0	0	4.316E-05	0.001	0.04	106%	80	120	0%	
Sodium	A	mg/L	4.8	4.8		5	0	0	0.7330269	0.7330269	50	96%	80	120	0%	
Strontium	A	mg/L	0.1031	0.1031		0.1	0	0	0.0001264	0.001	1	103%	80	120	0%	
Thallium	A	mg/L	0.1063	0.1063		0.1	0	0	0.0001114	0.001	1	106%	80	120	0%	
Thorium	A	mg/L	0.1029	0.1029		0.1	0	0	0.00415	0.00415	1	103%	80	120	0%	
Tin	A	mg/L	0.09951	0.09951		0.1	0	0	0.0011175	0.0011175	0.1	100%	80	120	0%	
Titanium	A	mg/L	0.08925	0.08925		0.1	0	0	0.0001634	0.001	1	89%	80	120	0%	
Uranium	A	mg/L	0.09903	0.09903		0.1	0	0	8.449E-05	0.0003	1	99%	80	120	0%	
Vanadium	A	mg/L	0.09778	0.09778		0.1	0	0	0.0021085	0.0021085	1	98%	80	120	0%	
Zinc	A	mg/L	0.09383	0.09383		0.1	0	0	0.0065544	0.0065544	1	94%	80	120	0%	
Silica	C	mg/L	2.06026352	2.06026352		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.06026352	2.06026352		2.14	0	0	0.0113831	0.0113831	5	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985159	LCS4-162497	ICPMS-6020-W- LCS4			1/19/2022 12:12:	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4533	0.4533		0.5	0	0	0.0031975	0.0031975	1	91%	80	120	0%	
Antimony	A	mg/L	0.09902	0.09902		0.1	0	0	0.00098	0.0021372	0.1	99%	80	120	0%	
Arsenic	A	mg/L	0.09696	0.09696		0.1	0	0	0.0002677	0.001	1	97%	80	120	0%	
Barium	A	mg/L	0.0923	0.0923		0.1	0	0	0.0002408	0.001	1	92%	80	120	0%	
Beryllium	A	mg/L	0.04235	0.04235		0.05	0	0	0.0001563	0.01	1	85%	80	120	0%	
Boron	A	mg/L	0.09027	0.09027		0.1	0	0	0.01467	0.01467	1	90%	80	120	0%	
Cadmium	A	mg/L	0.04819	0.04819		0.05	0	0	4.567E-05	0.005	1	96%	80	120	0%	
Calcium	A	mg/L	4.229	4.229		5	0	0	0.1103481	0.1103481	150	85%	80	120	0%	
Cerium	A	mg/L	0.1015	0.1015		0.1	0	0	0.00005	0.001	0.1	101%	80	120	0%	
Chromium	A	mg/L	0.09992	0.09992		0.1	0	0	0.00154	0.00154	1	100%	80	120	0%	
Cobalt	A	mg/L	0.09688	0.09688		0.1	0	0	0.000072	0.001	1	97%	80	120	0%	
Copper	A	mg/L	0.1067	0.1067		0.1	0	0	0.00198	0.0034752	1	107%	80	120	0%	
Iron	A	mg/L	0.4521	0.4521		0.5	0	0	0.00513	0.00513	5	90%	80	120	0%	
Lanthanum	A	mg/L	0.1014	0.1014		0.1	0	0	0.000055	0.001	0.1	101%	80	120	0%	
Lead	A	mg/L	0.09865	0.09865		0.1	0	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	4.754	4.754		5	0	0	0.0081522	0.0081522	50	95%	80	120	0%	
Manganese	A	mg/L	0.5075	0.5075		0.5	0	0	0.0002139	0.001	1	102%	80	120	0%	
Molybdenum	A	mg/L	0.104	0.104		0.1	0	0	0.0001763	0.001	0.1	104%	80	120	0%	
Nickel	A	mg/L	0.1028	0.1028		0.1	0	0	0.0024200	0.0024200	1	103%	80	120	0%	
Potassium	A	mg/L	4.674	4.674		5	0	0	0.0261205	0.0261205	50	93%	80	120	0%	
Selenium	A	mg/L	0.09448	0.09448		0.1	0	0	0.0005855	0.001	1	94%	80	120	0%	
Silicon	A	mg/L	0.9763	0.9763		1	0	0	0.0053212	0.0053212	0.4	98%	80	120	0%	
Silver	A	mg/L	0.01065	0.01065		0.01	0	0	4.316E-05	0.001	0.04	106%	80	120	0%	
Sodium	A	mg/L	4.957	4.957		5	0	0	0.7330269	0.7330269	50	99%	80	120	0%	
Strontium	A	mg/L	0.1053	0.1053		0.1	0	0	0.0001264	0.001	1	105%	80	120	0%	
Thallium	A	mg/L	0.1082	0.1082		0.1	0	0	0.0001114	0.001	1	108%	80	120	0%	
Thorium	A	mg/L	0.1064	0.1064		0.1	0	0	0.00415	0.00415	1	106%	80	120	0%	
Tin	A	mg/L	0.09878	0.09878		0.1	0	0	0.0011175	0.0011175	0.1	99%	80	120	0%	
Titanium	A	mg/L	0.08993	0.08993		0.1	0	0	0.0001634	0.001	1	90%	80	120	0%	
Uranium	A	mg/L	0.09703	0.09703		0.1	0	0	8.449E-05	0.0003	1	97%	80	120	0%	
Vanadium	A	mg/L	0.1025	0.1025		0.1	0	0	0.0021085	0.0021085	1	102%	80	120	0%	
Zinc	A	mg/L	0.09443	0.09443		0.1	0	0	0.0065544	0.0065544	1	94%	80	120	0%	
Silica	C	mg/L	2.08850096	2.08850096		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.08850096	2.08850096		2.14	0	0	0.0113831	0.0113831	5	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985160	LCS4-162992	ICPMS-6020-W- LCS4			1/19/2022 12:18:	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4505	0.4505		0.5	0	0	0.0031975	0.0031975	1	90%	80	120	0%	
Antimony	A	mg/L	0.09953	0.09953		0.1	0	0	0.00098	0.0021372	0.1	100%	80	120	0%	
Arsenic	A	mg/L	0.09471	0.09471		0.1	0	0	0.0002677	0.001	1	95%	80	120	0%	
Barium	A	mg/L	0.09284	0.09284		0.1	0	0	0.0002408	0.001	1	93%	80	120	0%	
Beryllium	A	mg/L	0.04314	0.04314		0.05	0	0	0.0001563	0.01	1	86%	80	120	0%	
Boron	A	mg/L	0.09447	0.09447		0.1	0	0	0.01467	0.01467	1	94%	80	120	0%	
Cadmium	A	mg/L	0.04859	0.04859		0.05	0	0	4.567E-05	0.005	1	97%	80	120	0%	
Calcium	A	mg/L	4.387	4.387		5	0	0	0.1103481	0.1103481	150	88%	80	120	0%	
Cerium	A	mg/L	0.1039	0.1039		0.1	0	0	0.00005	0.001	0.1	104%	80	120	0%	
Chromium	A	mg/L	0.09994	0.09994		0.1	0	0	0.00154	0.00154	1	100%	80	120	0%	
Cobalt	A	mg/L	0.09973	0.09973		0.1	0	0	0.000072	0.001	1	100%	80	120	0%	
Copper	A	mg/L	0.103	0.103		0.1	0	0	0.00198	0.0034752	1	103%	80	120	0%	
Iron	A	mg/L	0.4595	0.4595		0.5	0	0	0.00513	0.00513	5	92%	80	120	0%	
Lanthanum	A	mg/L	0.1021	0.1021		0.1	0	0	0.000055	0.001	0.1	102%	80	120	0%	
Lead	A	mg/L	0.09907	0.09907		0.1	0	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	4.719	4.719		5	0	0	0.0081522	0.0081522	50	94%	80	120	0%	
Manganese	A	mg/L	0.4886	0.4886		0.5	0	0	0.0002139	0.001	1	98%	80	120	0%	
Molybdenum	A	mg/L	0.1043	0.1043		0.1	0	0	0.0001763	0.001	0.1	104%	80	120	0%	
Nickel	A	mg/L	0.1006	0.1006		0.1	0	0	0.0024200	0.0024200	1	101%	80	120	0%	
Potassium	A	mg/L	4.528	4.528		5	0	0	0.0261205	0.0261205	50	91%	80	120	0%	
Selenium	A	mg/L	0.09802	0.09802		0.1	0	0	0.0005855	0.001	1	98%	80	120	0%	
Silicon	A	mg/L	0.9809	0.9809		1	0	0	0.0053212	0.0053212	0.4	98%	80	120	0%	
Silver	A	mg/L	0.01068	0.01068		0.01	0	0	4.316E-05	0.001	0.04	107%	80	120	0%	
Sodium	A	mg/L	4.843	4.843		5	0	0	0.7330269	0.7330269	50	97%	80	120	0%	
Strontium	A	mg/L	0.1042	0.1042		0.1	0	0	0.0001264	0.001	1	104%	80	120	0%	
Thallium	A	mg/L	0.1059	0.1059		0.1	0	0	0.0001114	0.001	1	106%	80	120	0%	
Thorium	A	mg/L	0.1044	0.1044		0.1	0	0	0.00415	0.00415	1	104%	80	120	0%	
Tin	A	mg/L	0.1007	0.1007		0.1	0	0	0.0011175	0.0011175	0.1	101%	80	120	0%	
Titanium	A	mg/L	0.08743	0.08743		0.1	0	0	0.0001634	0.001	1	87%	80	120	0%	
Uranium	A	mg/L	0.1005	0.1005		0.1	0	0	8.449E-05	0.0003	1	100%	80	120	0%	
Vanadium	A	mg/L	0.09842	0.09842		0.1	0	0	0.0021085	0.0021085	1	98%	80	120	0%	
Zinc	A	mg/L	0.09313	0.09313		0.1	0	0	0.0065544	0.0065544	1	93%	80	120	0%	
Silica	C	mg/L	2.09834128	2.09834128		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	2.09834128	2.09834128		2.14	0	0	0.0113831	0.0113831	5	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985161	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 12:23:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002179	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	1.755E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001718	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	1.753E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	6.778E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-9.565E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	7.209E-07	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	-1.285E-05	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00000441	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	8.407E-07	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	6.599E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001067	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.426E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.0001478	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000467	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00000276	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0004223	0.0004223		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	6.586E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00008277	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	4.653E-06	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0001227	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985162	B21121609-001	ICPMS-6020-W-	SAMP		1/19/2022 12:29:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.01549	0.01549		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	
Antimony	B	mg/L	0.0007783	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001592	0.001592		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.05864	0.05864		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0003391	0.0003391		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	J
Cerium	B	mg/L	0.0007825	0.0007825		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.005229	0.005229		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.002727	0.002727		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.01232	0.01232		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985162	B21121609-001	ICPMS-6020-W-	SAMP		1/19/2022 12:29:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lanthanum	B	mg/L	0.0003431	0.0003431		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.3867	0.3867		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0007438	0.0007438		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.01856	0.01856		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.002536	0.002536		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.896E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.3112	0.3112		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001627	0.0001627		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0002486	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0000974	0.0000974		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01117	0.01117		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.05573	0.05573		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985163	B21121611-001	ICPMS-6020-W-	SAMP		1/19/2022 12:35:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0007437	0.0007437		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0009694	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001138	0.001138		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.01492	0.01492		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002223	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0005363	0.0005363		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.002259	0.002259		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.001908	0.001908		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.00345	0.00345		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Lanthanum	B	mg/L	0.0002061	0.0002061		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.1706	0.1706		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.003137	0.003137		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.005309	0.005309		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.000249	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.768E-06	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1754	0.1754		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001129	0.0001129		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0001298	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985163	B21121611-001	ICPMS-6020-W-	SAMP		1/19/2022 12:35:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	B	mg/L	0.000139	0.000139		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01782	0.01782		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.005474	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985164	B21121613-001	ICPMS-6020-W-	SAMP		1/19/2022 12:40:	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0002825	0.0002825		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0001466	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0002728	0.0002728		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.006222	0.006222		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002373	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0007694	0.0007694		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.006728	0.006728		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.0005254	0.0005254		0	0	0	0.000072	0.001	1	0%	0	0	0%	J
Copper	B	mg/L	0.001968	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0002204	0.0002204		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.01634	0.01634		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0007119	0.0007119		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.001439	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0003382	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-5.794E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.05878	0.05878		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00007152	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.0001519	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00002998	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.04636	0.04636		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.004279	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985165	B21121613-001	ICPMS-6020-W-	SD		1/19/2022 12:46:	5	162360	12/20/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985165	B21121613-001	ICPMS-6020-W- SD			1/19/2022 12:46:	5	162360	12/20/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1531	0.7655		0	0	0.7256	0.0159875	0.0159875	1	0%	0	0	5%	
Antimony	A	mg/L	0.00004984	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.00004538	0		0	0	0.0002728	0.0013383	0.0013383	1	0%	0	0		
Barium	A	mg/L	0.001417	0.007085		0	0	0.006222	0.0012039	0.0012039	1	0%	0	0		N
Beryllium	A	mg/L	-2.124E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.03583	0.17915		0	0	0.1833	0.07335	0.07335	1	0%	0	0		N
Cadmium	A	mg/L	0.00002957	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	0.9429	4.7145		0	0	4.68	0.5517403	0.5517403	150	0%	0	0		N
Cerium	A	mg/L	0.0001427	0.0007135		0	0	0.0007694	0.00025	0.001	0.1	0%	0	0		N
Chromium	A	mg/L	0.001336	0		0	0	0.006728	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	0.0001174	0.000587		0	0	0.0005254	0.00036	0.001	1	0%	0	0		N
Copper	A	mg/L	0.000529	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.137	0.685		0	0	0.675	0.02565	0.02565	5	0%	0	0	1%	
Lanthanum	A	mg/L	0.00004486	0		0	0	0.0002204	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00007595	0		0	0	0.0002825	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.65	8.25		0	0	8.141	0.0407608	0.0407608	50	0%	0	0	1%	
Manganese	A	mg/L	0.003293	0.016465		0	0	0.01634	0.0010695	0.0010695	1	0%	0	0	1%	
Molybdenum	A	mg/L	0.0001458	0		0	0	0.0007119	0.0008814	0.001	0.1	0%	0	0		
Nickel	A	mg/L	0.0003329	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		
Potassium	A	mg/L	0.5615	2.8075		0	0	2.872	0.1306027	0.1306027	50	0%	0	0	2%	
Selenium	A	mg/L	0.000141	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	6.756	33.78		0	0	32.28	0.026606	0.026606	0.4	0%	0	0	5%	
Silver	A	mg/L	-6.935E-05	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		
Sodium	A	mg/L	18.66	93.3		0	0	93.05	3.6651346	3.6651346	50	0%	0	0	0%	
Strontium	A	mg/L	0.01137	0.05685		0	0	0.05878	0.0006322	0.001	1	0%	0	0	3%	
Thallium	A	mg/L	0.00004531	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	0.00002416	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002405	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.008213	0.041065		0	0	0.04094	0.0008168	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	6.249E-06	0		0	0	0	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.009307	0.046535		0	0	0.04636	0.0105423	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.004665	0		0	0	0	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	14.4524352	72.262176		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	14.4524352	72.262176		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985166	CCV	ICPMS-6020-W- CCV			1/19/2022 12:52:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0423	0.0423		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.04757	0.04757		0.05	0	0	0.0002987	0.001	0.1	95%	90	110	0%	
Arsenic	A	mg/L	0.04927	0.04927		0.05	0	0	0.0001814	0.001	1	99%	90	110	0%	
Barium	A	mg/L	0.04705	0.04705		0.05	0	0	0.0001321	0.001	1	94%	90	110	0%	
Beryllium	A	mg/L	0.04257	0.04257		0.05	0	0	7.465E-05	0.001	1	85%	90	110	0%	S
Boron	A	mg/L	0.04156	0.04156		0.05	0	0	0.0030032	0.0030032	1	83%	90	110	0%	S
Cadmium	A	mg/L	0.04688	0.04688		0.05	0	0	5.139E-05	0.001	1	94%	90	110	0%	
Calcium	A	mg/L	10.45	10.45		12.5	0	0	0.0749796	0.0749796	50	84%	90	110	0%	S
Cerium	A	mg/L	0.0481	0.0481		0.05	0	0	1.462E-05	0.001	0.1	96%	90	110	0%	
Chromium	A	mg/L	0.04661	0.04661		0.05	0	0	0.0005481	0.001	1	93%	90	110	0%	
Cobalt	A	mg/L	0.04903	0.04903		0.05	0	0	4.756E-05	0.001	1	98%	90	110	0%	
Copper	A	mg/L	0.04869	0.04869		0.05	0	0	0.0003828	0.001	1	97%	90	110	0%	
Iron	A	mg/L	1.124	1.124		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04718	0.04718		0.05	0	0	1.683E-05	0.001	0.1	94%	90	110	0%	
Lead	A	mg/L	0.0473	0.0473		0.05	0	0	6.264E-05	0.001	1	95%	90	110	0%	
Lithium	A	mg/L	0.3517	0.3517		0.625	0	0	0.0052105	0.0052105	2.5	56%	90	110	0%	S
Magnesium	A	mg/L	10.53	10.53		12.5	0	0	0.0118993	0.0118993	50	84%	90	110	0%	S
Manganese	A	mg/L	0.0468	0.0468		0.05	0	0	0.0001444	0.001	1	94%	90	110	0%	
Mercury	A	mg/L	0.0009518	0.0009518		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05261	0.05261		0.05	0	0	8.338E-05	0.001	0.1	105%	90	110	0%	
Nickel	A	mg/L	0.04719	0.04719		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	9.874	9.874		12.5	0	0	0.207399	0.207399	50	79%	90	110	0%	S
Selenium	A	mg/L	0.05233	0.05233		0.05	0	0	0.0001415	0.001	1	105%	90	110	0%	
Silicon	A	mg/L	0.1923	0.1923		0.2	0	0	0.0146174	0.1	0.4	96%	90	110	0%	
Silver	A	mg/L	0.02156	0.02156		0.02	0	0	1.123E-05	0.001	0.04	108%	90	110	0%	
Sodium	A	mg/L	10.67	10.67		12.5	0	0	0.0809273	0.0809273	50	85%	90	110	0%	S
Strontium	A	mg/L	0.05183	0.05183		0.05	0	0	0.0001825	0.001	1	104%	90	110	0%	
Thallium	A	mg/L	0.04981	0.04981		0.05	0	0	0.0002991	0.001	1	100%	90	110	0%	
Thorium	A	mg/L	0.05104	0.05104		0.05	0	0	0.0010473	0.0010473	1	102%	90	110	0%	
Tin	A	mg/L	0.04605	0.04605		0.05	0	0	0.0022388	0.0022388	0.1	92%	90	110	0%	
Titanium	A	mg/L	0.04437	0.04437		0.05	0	0	0.0002974	0.001	1	89%	90	110	0%	S
Uranium	A	mg/L	0.04667	0.04667		0.05	0	0	3.139E-05	0.0003	1	93%	90	110	0%	
Vanadium	A	mg/L	0.04654	0.04654		0.05	0	0	0.0043468	0.0043468	1	93%	90	110	0%	
Zinc	A	mg/L	0.04861	0.04861		0.05	0	0	0.0011598	0.0011598	1	97%	90	110	0%	
Iron, Ferrous	C	mg/L	1.124	1.124		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985167	CCB	ICPMS-6020-W-	CCB		1/19/2022 12:57:	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-2.564E-05	-2.564E-05		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00005595	0.00005595		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	3.337E-09	3.337E-09		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	2.137E-06	2.137E-06		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	-2.663E-06	-2.663E-06		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	0.0005824	0.0005824		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	1.792E-06	1.792E-06		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	-0.0003228	-0.0003228		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	-8.865E-07	-8.865E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.0000106	-0.0000106		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	-1.878E-06	-1.878E-06		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	-1.316E-05	-1.316E-05		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	-2.542E-05	-2.542E-05		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	9.255E-07	9.255E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	9.919E-07	9.919E-07		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	-0.0004386	-0.0004386		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	0.0003167	0.0003167		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	4.206E-06	4.206E-06		0	0	0	0.0001444	0.001	1	0%				0%
Mercury	A	mg/L	8.156E-06	8.156E-06		0	0	0	0.000066	0.001	0.02	0%				0%
Molybdenum	A	mg/L	7.645E-06	7.645E-06		0	0	0	8.338E-05	0.001	0.1	0%				0%
Nickel	A	mg/L	-1.023E-05	-1.023E-05		0	0	0	0.0002531	0.001	1	0%				0%
Potassium	A	mg/L	-0.01288	-0.01288		0	0	0	0.207399	0.207399	50	0%				0%
Selenium	A	mg/L	0.00001531	0.00001531		0	0	0	0.0001415	0.001	1	0%				0%
Silicon	A	mg/L	0.0004649	0.0004649		0	0	0	0.0146174	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.0000122	0.0000122		0	0	0	1.123E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	0.02955	0.02955		0	0	0	0.0809273	0.0809273	50	0%				0%
Strontium	A	mg/L	-1.015E-06	-1.015E-06		0	0	0	0.0001825	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.00003635	0.00003635		0	0	0	0.0002991	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00004573	0.00004573		0	0	0	0.0010473	0.0010473	1	0%	0	0		0%
Tin	A	mg/L	-0.0001833	-0.0001833		0	0	0	0.0022388	0.0022388	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00000747	0.00000747		0	0	0	0.0002974	0.001	1	0%	0	0		0%
Uranium	A	mg/L	1.996E-06	1.996E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.000124	0.000124		0	0	0	0.0043468	0.0043468	1	0%	0	0		0%
Zinc	A	mg/L	-0.0001295	-0.0001295		0	0	0	0.0011598	0.0011598	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-2.542E-05	-2.542E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985168	B21121613-001	ICPMS-6020-W-	PDS1		1/19/2022 1:03:4	1.03	162360	12/20/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.7425	0.764775		0.0515	0.7256	0	0.0032934	0.0032934	1		75	125	0%	A
Antimony	A	mg/L	0.04482	0.0461646		0.0515	0	0	0.0010094	0.0022013	0.1	90%	75	125	0%	
Arsenic	A	mg/L	0.04471	0.0460513		0.0515	0.0002728	0	0.0002757	0.001	1	89%	75	125	0%	
Barium	A	mg/L	0.05086	0.0523858		0.0515	0.006222	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.03675	0.0378525		0.0515	0	0	0.0001610	0.01	1	73%	75	125	0%	S
Boron	A	mg/L	0.2122	0.218566		0.0515	0.1833	0	0.0151101	0.0151101	1	68%	75	125	0%	S
Cadmium	A	mg/L	0.04341	0.0447123		0.0515	0	0	4.704E-05	0.005	1	87%	75	125	0%	
Calcium	A	mg/L	41.55	42.7965		51.5	4.68	0	0.1136585	0.1136585	150	74%	75	125	0%	S
Cerium	A	mg/L	0.04724	0.0486572		0.0515	0.0007694	0	0.0000515	0.001	0.1	93%	75	125	0%	
Chromium	A	mg/L	0.04829	0.0497387		0.0515	0.006728	0	0.0015862	0.0015862	1	84%	75	125	0%	
Cobalt	A	mg/L	0.04416	0.0454848		0.0515	0.0005254	0	7.416E-05	0.001	1	87%	75	125	0%	
Copper	A	mg/L	0.04615	0.0475345		0.0515	0	0	0.0020394	0.0035794	1	92%	75	125	0%	
Iron	A	mg/L	4.697	4.83791		5.15	0.675	0	0.0052839	0.0052839	5	81%	75	125	0%	
Lanthanum	A	mg/L	0.0002148	0.00022124		0.0515	0.0002204	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04422	0.0455466		0.0515	0.0002825	0	7.947E-05	0.001	1	88%	82	120	0%	
Magnesium	A	mg/L	53.39	54.9917		51.5	8.141	0	0.0083967	0.0083967	50	91%	75	125	0%	
Manganese	A	mg/L	0.05941	0.0611923		0.0515	0.01634	0	0.0002203	0.001	1	87%	75	125	0%	
Molybdenum	A	mg/L	0.05166	0.0532098		0.0515	0.0007119	0	0.0001816	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.04525	0.0466075		0.0515	0	0	0.0024926	0.0024926	1	91%	75	125	0%	
Potassium	A	mg/L	43.4	44.702		51.5	2.872	0	0.0269042	0.0269042	50	81%	75	125	0%	
Selenium	A	mg/L	0.0457	0.047071		0.0515	0	0	0.0006030	0.001	1	91%	75	125	0%	
Silicon	A	mg/L	31.45	32.3935		0.206	32.28	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.02093	0.0215579		0.0206	0	0	4.446E-05	0.001	0.04	105%	75	125	0%	
Sodium	A	mg/L	133.1	137.093		51.5	93.05	0	0.7550177	0.7550177	50	86%	75	125	0%	
Strontium	A	mg/L	0.1064	0.109592		0.0515	0.05878	0	0.0001302	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.0482	0.049646		0.0515	0	0	0.0001147	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.05081	0.0523343		0.0515	0	0	0.0042745	0.0042745	1	102%	75	125	0%	
Tin	A	mg/L	0.04519	0.0465457		0.0515	0	0	0.001151	0.001151	0.1	90%	75	125	0%	
Titanium	A	mg/L	0.08286	0.0853458		0.0515	0.04094	0	0.0001683	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.04418	0.0455054		0.0515	0	0	8.702E-05	0.0003	1	88%	75	125	0%	
Vanadium	A	mg/L	0.08735	0.0899705		0.0515	0.04636	0	0.0021717	0.0021717	1	85%	75	125	0%	
Zinc	A	mg/L	0.04312	0.0444136		0.0515	0	0	0.0067511	0.0067511	1	86%	75	125	0%	
Silica	C	mg/L	67.27784	69.2961752		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	67.27784	69.2961752		0.0515	0	0	0.0117246	0.0117246	5	134556%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985169	B21121613-001	ICPMS-6020-W- MS4			1/19/2022 1:09:2	1	162360	12/20/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.53	1.53		0.5	0.7256	0	0.0031975	0.0031975	1	161%	75	125	0%	S
Antimony	A	mg/L	0.09734	0.09734		0.1	0	0	0.00098	0.0021372	0.1	97%	75	125	0%	
Arsenic	A	mg/L	0.09507	0.09507		0.1	0.0002728	0	0.0002677	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.09726	0.09726		0.1	0.006222	0	0.0002408	0.001	1	91%	75	125	0%	
Beryllium	A	mg/L	0.04008	0.04008		0.05	0	0	0.0001563	0.01	1	80%	75	125	0%	
Boron	A	mg/L	0.2785	0.2785		0.1	0.1833	0	0.01467	0.01467	1	95%	75	125	0%	
Cadmium	A	mg/L	0.04623	0.04623		0.05	0	0	4.567E-05	0.005	1	92%	75	125	0%	
Calcium	A	mg/L	8.584	8.584		5	4.68	0	0.1103481	0.1103481	150	78%	75	125	0%	
Cerium	A	mg/L	0.103	0.103		0.1	0.0007694	0	0.00005	0.001	0.1	102%	75	125	0%	
Chromium	A	mg/L	0.1001	0.1001		0.1	0.006728	0	0.00154	0.00154	1	93%	75	125	0%	
Cobalt	A	mg/L	0.09414	0.09414		0.1	0.0005254	0	0.000072	0.001	1	94%	75	125	0%	
Copper	A	mg/L	0.1014	0.1014		0.1	0	0	0.00198	0.0034752	1	101%	75	125	0%	
Iron	A	mg/L	1.124	1.124		0.5	0.675	0	0.00513	0.00513	5	90%	75	125	0%	
Lanthanum	A	mg/L	0.1025	0.1025		0.1	0.0002204	0	0.000055	0.001	0.1	102%	75	125	0%	
Lead	A	mg/L	0.09675	0.09675		0.1	0.0002825	0	7.716E-05	0.001	1	96%	88	115	0%	
Magnesium	A	mg/L	12.69	12.69		5	8.141	0	0.0081522	0.0081522	50	91%	75	125	0%	
Manganese	A	mg/L	0.4914	0.4914		0.5	0.01634	0	0.0002139	0.001	1	95%	75	125	0%	
Molybdenum	A	mg/L	0.1023	0.1023		0.1	0.0007119	0	0.0001763	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.09915	0.09915		0.1	0	0	0.0024200	0.0024200	1	99%	75	125	0%	
Potassium	A	mg/L	6.962	6.962		5	2.872	0	0.0261205	0.0261205	50	82%	75	125	0%	
Selenium	A	mg/L	0.09291	0.09291		0.1	0	0	0.0005855	0.001	1	93%	75	125	0%	
Silicon	A	mg/L	30.46	30.46		1	32.28	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009911	0.009911		0.01	0	0	4.316E-05	0.001	0.04	99%	75	125	0%	
Sodium	A	mg/L	93.73	93.73		5	93.05	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.1581	0.1581		0.1	0.05878	0	0.0001264	0.001	1	99%	75	125	0%	
Thallium	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001114	0.001	1	103%	75	125	0%	
Thorium	A	mg/L	0.1057	0.1057		0.1	0	0	0.00415	0.00415	1	106%	75	125	0%	
Tin	A	mg/L	0.09758	0.09758		0.1	0	0	0.0011175	0.0011175	0.1	98%	75	125	0%	
Titanium	A	mg/L	0.1307	0.1307		0.1	0.04094	0	0.0001634	0.001	1	90%	75	125	0%	
Uranium	A	mg/L	0.0988	0.0988		0.1	0	0	8.449E-05	0.0003	1	99%	75	125	0%	
Vanadium	A	mg/L	0.1402	0.1402		0.1	0.04636	0	0.0021085	0.0021085	1	94%	75	125	0%	
Zinc	A	mg/L	0.0957	0.0957		0.1	0	0	0.0065544	0.0065544	1	96%	75	125	0%	
Silica	C	mg/L	65.160032	65.160032		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	65.160032	65.160032		2.14	0	0	0.0113831	0.0113831	5	3045%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985170	B21121613-001	ICPMS-6020-W-MSD4			1/19/2022 1:14:5	1	162360	12/20/2021	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.482	1.482		0.5	0.7256	1.53	0.0031975	0.0031975	1	151%	75	125	3%	S
Antimony	A	mg/L	0.09632	0.09632		0.1	0	0.09734	0.00098	0.0021372	0.1	96%	75	125	1%	
Arsenic	A	mg/L	0.09479	0.09479		0.1	0.0002728	0.09507	0.0002677	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.09702	0.09702		0.1	0.006222	0.09726	0.0002408	0.001	1	91%	75	125	0%	
Beryllium	A	mg/L	0.03908	0.03908		0.05	0	0.04008	0.0001563	0.01	1	78%	75	125	3%	
Boron	A	mg/L	0.2627	0.2627		0.1	0.1833	0.2785	0.01467	0.01467	1	79%	75	125	6%	
Cadmium	A	mg/L	0.04626	0.04626		0.05	0	0.04623	4.567E-05	0.005	1	93%	75	125	0%	
Calcium	A	mg/L	8.945	8.945		5	4.68	8.584	0.1103481	0.1103481	150	85%	75	125	4%	
Cerium	A	mg/L	0.102	0.102		0.1	0.0007694	0.103	0.00005	0.001	0.1	101%	75	125	1%	
Chromium	A	mg/L	0.1016	0.1016		0.1	0.006728	0.1001	0.00154	0.00154	1	95%	75	125	1%	
Cobalt	A	mg/L	0.09659	0.09659		0.1	0.0005254	0.09414	0.000072	0.001	1	96%	75	125	3%	
Copper	A	mg/L	0.1017	0.1017		0.1	0	0.1014	0.00198	0.0034752	1	102%	75	125	0%	
Iron	A	mg/L	1.129	1.129		0.5	0.675	1.124	0.00513	0.00513	5	91%	75	125	0%	
Lanthanum	A	mg/L	0.09923	0.09923		0.1	0.0002204	0.1025	0.000055	0.001	0.1	99%	75	125	3%	
Lead	A	mg/L	0.09689	0.09689		0.1	0.0002825	0.09675	7.716E-05	0.001	1	97%	88	115	0%	
Magnesium	A	mg/L	12.16	12.16		5	8.141	12.69	0.0081522	0.0081522	50	80%	75	125	4%	
Manganese	A	mg/L	0.4899	0.4899		0.5	0.01634	0.4914	0.0002139	0.001	1	95%	75	125	0%	
Molybdenum	A	mg/L	0.1053	0.1053		0.1	0.0007119	0.1023	0.0001763	0.001	0.1	105%	75	125	3%	
Nickel	A	mg/L	0.09788	0.09788		0.1	0	0.09915	0.0024200	0.0024200	1	98%	75	125	1%	
Potassium	A	mg/L	7.154	7.154		5	2.872	6.962	0.0261205	0.0261205	50	86%	75	125	3%	
Selenium	A	mg/L	0.09697	0.09697		0.1	0	0.09291	0.0005855	0.001	1	97%	75	125	4%	
Silicon	A	mg/L	33.21	33.21		1	32.28	30.46	0.0053212	0.0053212	0.4		75	125	9%	A
Silver	A	mg/L	0.0102	0.0102		0.01	0	0.009911	4.316E-05	0.001	0.04	102%	75	125	3%	
Sodium	A	mg/L	94.54	94.54		5	93.05	93.73	0.7330269	0.7330269	50		75	125	1%	A
Strontium	A	mg/L	0.1644	0.1644		0.1	0.05878	0.1581	0.0001264	0.001	1	106%	75	125	4%	
Thallium	A	mg/L	0.1036	0.1036		0.1	0	0.1033	0.0001114	0.001	1	104%	75	125	0%	
Thorium	A	mg/L	0.1047	0.1047		0.1	0	0.1057	0.00415	0.00415	1	105%	75	125	1%	
Tin	A	mg/L	0.0988	0.0988		0.1	0	0.09758	0.0011175	0.0011175	0.1	99%	75	125	1%	
Titanium	A	mg/L	0.1261	0.1261		0.1	0.04094	0.1307	0.0001634	0.001	1	85%	75	125	4%	
Uranium	A	mg/L	0.09639	0.09639		0.1	0	0.0988	8.449E-05	0.0003	1	96%	75	125	2%	
Vanadium	A	mg/L	0.1433	0.1433		0.1	0.04636	0.1402	0.0021085	0.0021085	1	97%	75	125	2%	
Zinc	A	mg/L	0.09489	0.09489		0.1	0	0.0957	0.0065544	0.0065544	1	95%	75	125	1%	
Silica	C	mg/L	71.042832	71.042832		0	0	65.160032	0.0113831	0.0113831	5	0%	0	0	9%	
Silicon as SiO2	C	mg/L	71.042832	71.042832		2.14	0	65.160032	0.0113831	0.0113831	5	3320%	75	125	9%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985171	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 1:20:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002394	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.0000347	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00002452	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.228E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	8.822E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-2.643E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	3.904E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.348E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	6.592E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	8.147E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.003185	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	5.278E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	8.298E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0004456	0.0004456		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	5.739E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00007319	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	0.00002086	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985172	B21121616-001	ICPMS-6020-W-	SAMP		1/19/2022 1:26:1	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001498	0.0001498		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0001651	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0001418	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.0168	0.0168		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002539	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.000152	0.000152		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001623	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00004098	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0002318	0.0002318		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0008616	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00006629	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-4.975E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1019	0.1019		0	0	0	0.0001264	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985172	B21121616-001	ICPMS-6020-W-	SAMP		1/19/2022 1:26:1	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	B	mg/L	0.000169	0.000169		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0001742	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	9.845E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.004965	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985173	B21121622-001	ICPMS-6020-W-	SAMP		1/19/2022 1:32:0	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0002319	0.0002319		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0008118	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.001421	0.001421		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.02703	0.02703		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001635	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.001069	0.001069		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Copper	B	mg/L	0.002546	0.002546		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Lanthanum	B	mg/L	0.0004916	0.0004916		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.00826	0.00826		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.001951	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001618	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-3.894E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1509	0.1509		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.000141	0.000141		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Thorium	B	mg/L	0.0003238	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0004435	0.0004435		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.06934	0.06934		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985174	B21121622-002	ICPMS-6020-W-	SAMP		1/19/2022 1:37:4	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00005462	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00007404	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0002417	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985174	B21121622-002	ICPMS-6020-W-	SAMP		1/19/2022 1:37:4	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	B	mg/L	0.007637	0.007637		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001143	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0003025	0.0003025		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001077	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0001132	0.0001132		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.001205	0.001205		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.0008456	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001173	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.356E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1343	0.1343		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00009268	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00008225	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00003242	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.09456	0.09456		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985175	B21121622-003	ICPMS-6020-W-	SAMP		1/19/2022 1:43:2	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00001692	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00005877	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00004992	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003049	0.003049		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002257	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	1.745E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Copper	B	mg/L	0.0001763	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	2.172E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0002784	0.0002784		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.002836	0.002836		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0000937	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.761E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07504	0.07504		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00006516	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00005214	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00000782	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985175	B21121622-003	ICPMS-6020-W-	SAMP		1/19/2022 1:43:2	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	B	mg/L	0.00816	0.00816		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985176	B21121623-001	ICPMS-6020-W-	SAMP		1/19/2022 1:49:1	1	162360	12/20/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00005183	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000145	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0009841	0.0009841		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.003457	0.003457		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002191	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.00009192	0.00009192		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.001024	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00002541	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.001064	0.001064		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.001255	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00004585	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-2.172E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.08631	0.08631		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00005021	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004748	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00001922	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.001438	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985177	B21121957-001	ICPMS-6020-W-	SAMP		1/19/2022 1:54:5	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00008207	0.00008207		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.00006596	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00007358	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.002042	0.002042		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001894	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	2.706E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985177	B21121957-001	ICPMS-6020-W- SAMP			1/19/2022 1:54:5	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	B	mg/L	0.0003313	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	4.434E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Molybdenum	B	mg/L	0.001054	0.001054		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.0002367	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.0001721	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.882E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.06671	0.06671		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00004048	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00003527	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	6.631E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.01215	0.01215		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985178	B21121957-001	ICPMS-6020-W- SD			1/19/2022 2:00:3	5	162497	12/27/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.002488	0		0	0	0.004864	0.0159875	0.0159875	1	0%	0	0		
Antimony	A	mg/L	0.00002524	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.00002032	0		0	0	0	0.0013383	0.0013383	1	0%	0	0		
Barium	A	mg/L	0.0005721	0.0028605		0	0	0.002042	0.0012039	0.0012039	1	0%	0	0		N
Beryllium	A	mg/L	-6.933E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.01137	0		0	0	0.05816	0.07335	0.07335	1	0%	0	0		
Cadmium	A	mg/L	0.00002262	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	1.199	5.995		0	0	5.876	0.5517403	0.5517403	150	0%	0	0	2%	
Cerium	A	mg/L	3.454E-06	0		0	0	0	0.00025	0.001	0.1	0%	0	0		
Chromium	A	mg/L	0.0006161	0		0	0	0.003264	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	6.697E-06	0		0	0	0	0.00036	0.001	1	0%	0	0		
Copper	A	mg/L	0.0002387	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.003757	0		0	0	0.01726	0.02565	0.02565	5	0%	0	0		
Lanthanum	A	mg/L	1.759E-06	0		0	0	0	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00004032	0		0	0	8.207E-05	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.48	7.4		0	0	7.536	0.0407608	0.0407608	50	0%	0	0	2%	
Manganese	A	mg/L	0.0002195	0.0010975		0	0	0.0008687	0.0010695	0.0010695	1	0%	0	0		N
Molybdenum	A	mg/L	0.0002146	0.001073		0	0	0.001054	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.00006789	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985178	B21121957-001	ICPMS-6020-W- SD			1/19/2022 2:00:3	5	162497	12/27/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	A	mg/L	0.2774	1.387		0	0	1.433	0.1306027	0.1306027	50	0%	0	0	3%	
Selenium	A	mg/L	0.00002468	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	4.227	21.135		0	0	21.75	0.026606	0.026606	0.4	0%	0	0	3%	
Silver	A	mg/L	-7.267E-05	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		
Sodium	A	mg/L	6.351	31.755		0	0	34.52	3.6651346	3.6651346	50	0%	0	0		N
Strontium	A	mg/L	0.01275	0.06375		0	0	0.06671	0.0006322	0.001	1	0%	0	0	5%	
Thallium	A	mg/L	0.00003567	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	-2.253E-06	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002346	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.000335	0.001675		0	0	0.001999	0.0008168	0.001	1	0%	0	0		N
Uranium	A	mg/L	9.779E-07	0		0	0	0	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.003874	0.01937		0	0	0.01937	0.0105423	0.0105423	1	0%	0	0		N
Zinc	A	mg/L	0.005497	0		0	0	0.01215	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	9.0423984	45.211992		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	9.0423984	45.211992		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985179	CCV	ICPMS-6020-W- CCV			1/19/2022 2:06:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.03756	0.03756		0.05	0	0	0.0006548	0.001	1	75%	90	110	0%	S
Antimony	A	mg/L	0.04524	0.04524		0.05	0	0	0.0002987	0.001	0.1	90%	90	110	0%	
Arsenic	A	mg/L	0.04861	0.04861		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04541	0.04541		0.05	0	0	0.0001321	0.001	1	91%	90	110	0%	
Beryllium	A	mg/L	0.03682	0.03682		0.05	0	0	7.465E-05	0.001	1	74%	90	110	0%	S
Boron	A	mg/L	0.03565	0.03565		0.05	0	0	0.0030032	0.0030032	1	71%	90	110	0%	S
Cadmium	A	mg/L	0.04678	0.04678		0.05	0	0	5.139E-05	0.001	1	94%	90	110	0%	
Calcium	A	mg/L	10.09	10.09		12.5	0	0	0.0749796	0.0749796	50	81%	90	110	0%	S
Cerium	A	mg/L	0.04899	0.04899		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.0439	0.0439		0.05	0	0	0.0005481	0.001	1	88%	90	110	0%	S
Cobalt	A	mg/L	0.04433	0.04433		0.05	0	0	4.756E-05	0.001	1	89%	90	110	0%	S
Copper	A	mg/L	0.04732	0.04732		0.05	0	0	0.0003828	0.001	1	95%	90	110	0%	
Iron	A	mg/L	1.079	1.079		1.3	0	0	0.0046291	0.0046291	5	83%	90	110	0%	S
Lanthanum	A	mg/L	0.04896	0.04896		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04597	0.04597		0.05	0	0	6.264E-05	0.001	1	92%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985179	CCV	ICPMS-6020-W- CCV			1/19/2022 2:06:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lithium	A	mg/L	0.2878	0.2878		0.625	0	0	0.0052105	0.0052105	2.5	46%	90	110	0%	S
Magnesium	A	mg/L	10.26	10.26		12.5	0	0	0.0118993	0.0118993	50	82%	90	110	0%	S
Manganese	A	mg/L	0.04365	0.04365		0.05	0	0	0.0001444	0.001	1	87%	90	110	0%	S
Mercury	A	mg/L	0.0009007	0.0009007		0.001	0	0	0.000066	0.001	0.02	90%	90	110	0%	
Molybdenum	A	mg/L	0.05084	0.05084		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.04634	0.04634		0.05	0	0	0.0002531	0.001	1	93%	90	110	0%	
Potassium	A	mg/L	9.529	9.529		12.5	0	0	0.207399	0.207399	50	76%	90	110	0%	S
Selenium	A	mg/L	0.05288	0.05288		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.2198	0.2198		0.2	0	0	0.0146174	0.1	0.4	110%	90	110	0%	
Silver	A	mg/L	0.02102	0.02102		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	10.45	10.45		12.5	0	0	0.0809273	0.0809273	50	84%	90	110	0%	S
Strontium	A	mg/L	0.05126	0.05126		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05067	0.05067		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05245	0.05245		0.05	0	0	0.0010473	0.0010473	1	105%	90	110	0%	
Tin	A	mg/L	0.04452	0.04452		0.05	0	0	0.0022388	0.0022388	0.1	89%	90	110	0%	S
Titanium	A	mg/L	0.03986	0.03986		0.05	0	0	0.0002974	0.001	1	80%	90	110	0%	S
Uranium	A	mg/L	0.04525	0.04525		0.05	0	0	3.139E-05	0.0003	1	90%	90	110	0%	
Vanadium	A	mg/L	0.04456	0.04456		0.05	0	0	0.0043468	0.0043468	1	89%	90	110	0%	S
Zinc	A	mg/L	0.04732	0.04732		0.05	0	0	0.0011598	0.0011598	1	95%	90	110	0%	
Iron, Ferrous	C	mg/L	1.079	1.079		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985180	CCB	ICPMS-6020-W- CCB			1/19/2022 2:12:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-4.314E-05	-4.314E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00006202	0.00006202		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00001029	0.00001029		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	2.698E-06	2.698E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	3.545E-06	3.545E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0003272	0.0003272		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	1.634E-06	1.634E-06		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0001894	-0.0001894		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-7.381E-07	-7.381E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.729E-05	-1.729E-05		0	0	0	0.0005481	0.001	1	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985180	CCB	ICPMS-6020-W-	CCB		1/19/2022 2:12:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cobalt	A	mg/L	-7.859E-07	-7.859E-07		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-1.534E-05	-1.534E-05		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-4.669E-05	-4.669E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	4.451E-07	4.451E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.127E-06	1.127E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.0006693	0.0006693		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.0004189	0.0004189		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	2.445E-06	2.445E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	7.148E-06	7.148E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	8.264E-06	8.264E-06		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.633E-05	-1.633E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.007694	-0.007694		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00003774	0.00003774		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.03156	0.03156		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	8.521E-06	8.521E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.06035	0.06035		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	-4.286E-07	-4.286E-07		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003278	0.00003278		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00004508	0.00004508		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-8.168E-05	-8.168E-05		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003013	0.00003013		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	2.703E-06	2.703E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0001146	0.0001146		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-5.009E-05	-5.009E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-4.669E-05	-4.669E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985181	B21121957-001	ICPMS-6020-W-	PDS1		1/19/2022 2:17:5	1.03	162497	12/27/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0425	0.043775		0.0515	0.004864	0	0.0032934	0.0032934	1	76%	75	125	0%	
Antimony	A	mg/L	0.04531	0.0466693		0.0515	0	0	0.0010094	0.0022013	0.1	91%	75	125	0%	
Arsenic	A	mg/L	0.0452	0.046556		0.0515	0	0	0.0002757	0.001	1	90%	75	125	0%	
Barium	A	mg/L	0.04702	0.0484306		0.0515	0.002042	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.03565	0.0367195		0.0515	0	0	0.0001610	0.01	1	71%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985181	B21121957-001	ICPMS-6020-W-	PDS1		1/19/2022 2:17:5	1.03	162497	12/27/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.0923	0.095069		0.0515	0.05816	0	0.0151101	0.0151101	1	72%	75	125	0%	S
Cadmium	A	mg/L	0.04306	0.0443518		0.0515	0	0	4.704E-05	0.005	1	86%	75	125	0%	
Calcium	A	mg/L	42.35	43.6205		51.5	5.876	0	0.1136585	0.1136585	150	73%	75	125	0%	S
Cerium	A	mg/L	0.04659	0.0479877		0.0515	0	0	0.0000515	0.001	0.1	93%	75	125	0%	
Chromium	A	mg/L	0.04531	0.0466693		0.0515	0.003264	0	0.0015862	0.0015862	1	84%	75	125	0%	
Cobalt	A	mg/L	0.04412	0.0454436		0.0515	0	0	7.416E-05	0.001	1	88%	75	125	0%	
Copper	A	mg/L	0.04458	0.0459174		0.0515	0	0	0.0020394	0.0035794	1	89%	75	125	0%	
Iron	A	mg/L	3.966	4.08498		5.15	0.01726	0	0.0052839	0.0052839	5	79%	75	125	0%	
Lanthanum	A	mg/L	4.298E-06	0		0.0515	0	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04649	0.0478847		0.0515	8.207E-05	0	7.947E-05	0.001	1	93%	80	120	0%	
Magnesium	A	mg/L	50.66	52.1798		51.5	7.536	0	0.0083967	0.0083967	50	87%	75	125	0%	
Manganese	A	mg/L	0.04429	0.0456187		0.0515	0.0008687	0	0.0002203	0.001	1	87%	75	125	0%	
Molybdenum	A	mg/L	0.05227	0.0538381		0.0515	0.001054	0	0.0001816	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.044	0.04532		0.0515	0	0	0.0024926	0.0024926	1	88%	75	125	0%	
Potassium	A	mg/L	40.51	41.7253		51.5	1.433	0	0.0269042	0.0269042	50	78%	75	125	0%	
Selenium	A	mg/L	0.0449	0.046247		0.0515	0	0	0.0006030	0.001	1	90%	75	125	0%	
Silicon	A	mg/L	20.21	20.8163		0.206	21.75	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.02113	0.0217639		0.0206	0	0	4.446E-05	0.001	0.04	106%	75	125	0%	
Sodium	A	mg/L	73.88	76.0964		51.5	34.52	0	0.7550177	0.7550177	50	81%	75	125	0%	
Strontium	A	mg/L	0.1119	0.115257		0.0515	0.06671	0	0.0001302	0.001	1	94%	75	125	0%	
Thallium	A	mg/L	0.04945	0.0509335		0.0515	0	0	0.0001147	0.001	1	99%	75	125	0%	
Thorium	A	mg/L	0.05078	0.0523034		0.0515	0	0	0.0042745	0.0042745	1	102%	75	125	0%	
Tin	A	mg/L	0.04615	0.0475345		0.0515	0	0	0.001151	0.001151	0.1	92%	75	125	0%	
Titanium	A	mg/L	0.04482	0.0461646		0.0515	0.001999	0	0.0001683	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.04647	0.0478641		0.0515	0	0	8.702E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.06209	0.0639527		0.0515	0.01937	0	0.0021717	0.0021717	1	87%	75	125	0%	
Zinc	A	mg/L	0.0507	0.052221		0.0515	0.01215	0	0.0067511	0.0067511	1	78%	75	125	0%	
Silica	C	mg/L	43.233232	44.530229		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	43.233232	44.530229		0.0515	0	0	0.0117246	0.0117246	5	86466%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985182	B21121957-001	ICPMS-6020-W-	MS4		1/19/2022 2:23:3	1	162497	12/27/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985182	B21121957-001	ICPMS-6020-W- MS4			1/19/2022 2:23:3	1	162497	12/27/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.4167	0.4167		0.5	0.004864	0	0.0031975	0.0031975	1	82%	75	125	0%	
Antimony	A	mg/L	0.1	0.1		0.1	0	0	0.00098	0.0021372	0.1	100%	75	125	0%	
Arsenic	A	mg/L	0.09195	0.09195		0.1	0	0	0.0002677	0.001	1	92%	75	125	0%	
Barium	A	mg/L	0.09482	0.09482		0.1	0.002042	0	0.0002408	0.001	1	93%	75	125	0%	
Beryllium	A	mg/L	0.04012	0.04012		0.05	0	0	0.0001563	0.01	1	80%	75	125	0%	
Boron	A	mg/L	0.1441	0.1441		0.1	0.05816	0	0.01467	0.01467	1	86%	75	125	0%	
Cadmium	A	mg/L	0.04715	0.04715		0.05	0	0	4.567E-05	0.005	1	94%	75	125	0%	
Calcium	A	mg/L	10.82	10.82		5	5.876	0	0.1103481	0.1103481	150	99%	75	125	0%	
Cerium	A	mg/L	0.09922	0.09922		0.1	0	0	0.00005	0.001	0.1	99%	75	125	0%	
Chromium	A	mg/L	0.09271	0.09271		0.1	0.003264	0	0.00154	0.00154	1	89%	75	125	0%	
Cobalt	A	mg/L	0.09743	0.09743		0.1	0	0	0.000072	0.001	1	97%	75	125	0%	
Copper	A	mg/L	0.0967	0.0967		0.1	0	0	0.00198	0.0034752	1	97%	75	125	0%	
Iron	A	mg/L	0.4902	0.4902		0.5	0.01726	0	0.00513	0.00513	5	95%	75	125	0%	
Lanthanum	A	mg/L	0.0985	0.0985		0.1	0	0	0.000055	0.001	0.1	98%	75	125	0%	
Lead	A	mg/L	0.09951	0.09951		0.1	8.207E-05	0	7.716E-05	0.001	1	99%	88	115	0%	
Magnesium	A	mg/L	12.06	12.06		5	7.536	0	0.0081522	0.0081522	50	90%	75	125	0%	
Manganese	A	mg/L	0.4528	0.4528		0.5	0.0008687	0	0.0002139	0.001	1	90%	75	125	0%	
Molybdenum	A	mg/L	0.1064	0.1064		0.1	0.001054	0	0.0001763	0.001	0.1	105%	75	125	0%	
Nickel	A	mg/L	0.09457	0.09457		0.1	0	0	0.0024200	0.0024200	1	95%	75	125	0%	
Potassium	A	mg/L	5.385	5.385		5	1.433	0	0.0261205	0.0261205	50	79%	75	125	0%	
Selenium	A	mg/L	0.1047	0.1047		0.1	0	0	0.0005855	0.001	1	105%	75	125	0%	
Silicon	A	mg/L	25.29	25.29		1	21.75	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.01082	0.01082		0.01	0	0	4.316E-05	0.001	0.04	108%	75	125	0%	
Sodium	A	mg/L	36.73	36.73		5	34.52	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.1711	0.1711		0.1	0.06671	0	0.0001264	0.001	1	104%	75	125	0%	
Thallium	A	mg/L	0.1033	0.1033		0.1	0	0	0.0001114	0.001	1	103%	75	125	0%	
Thorium	A	mg/L	0.1053	0.1053		0.1	0	0	0.00415	0.00415	1	105%	75	125	0%	
Tin	A	mg/L	0.1023	0.1023		0.1	0	0	0.0011175	0.0011175	0.1	102%	75	125	0%	
Titanium	A	mg/L	0.0884	0.0884		0.1	0.001999	0	0.0001634	0.001	1	86%	75	125	0%	
Uranium	A	mg/L	0.09911	0.09911		0.1	0	0	8.449E-05	0.0003	1	99%	75	125	0%	
Vanadium	A	mg/L	0.1085	0.1085		0.1	0.01937	0	0.0021085	0.0021085	1	89%	75	125	0%	
Zinc	A	mg/L	0.09638	0.09638		0.1	0.01215	0	0.0065544	0.0065544	1	84%	75	125	0%	
Silica	C	mg/L	54.100368	54.100368		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	54.100368	54.100368		2.14	0	0	0.0113831	0.0113831	5	2528%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985183	B21121957-001	ICPMS-6020-W-MSD4			1/19/2022 2:29:0	1	162497	12/27/2021	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.3989	0.3989		0.5	0.004864	0.4167	0.0031975	0.0031975	1	79%	75	125	4%	
Antimony	A	mg/L	0.09694	0.09694		0.1	0	0.1	0.00098	0.0021372	0.1	97%	75	125	3%	
Arsenic	A	mg/L	0.0962	0.0962		0.1	0	0.09195	0.0002677	0.001	1	96%	75	125	5%	
Barium	A	mg/L	0.09262	0.09262		0.1	0.002042	0.09482	0.0002408	0.001	1	91%	75	125	2%	
Beryllium	A	mg/L	0.0384	0.0384		0.05	0	0.04012	0.0001563	0.01	1	77%	75	125	4%	
Boron	A	mg/L	0.1395	0.1395		0.1	0.05816	0.1441	0.01467	0.01467	1	81%	75	125	3%	
Cadmium	A	mg/L	0.04515	0.04515		0.05	0	0.04715	4.567E-05	0.005	1	90%	75	125	4%	
Calcium	A	mg/L	10.43	10.43		5	5.876	10.82	0.1103481	0.1103481	150	91%	75	125	4%	
Cerium	A	mg/L	0.1048	0.1048		0.1	0	0.09922	0.00005	0.001	0.1	105%	75	125	5%	
Chromium	A	mg/L	0.09651	0.09651		0.1	0.003264	0.09271	0.00154	0.00154	1	93%	75	125	4%	
Cobalt	A	mg/L	0.09568	0.09568		0.1	0	0.09743	0.000072	0.001	1	96%	75	125	2%	
Copper	A	mg/L	0.09974	0.09974		0.1	0	0.0967	0.00198	0.0034752	1	100%	75	125	3%	
Iron	A	mg/L	0.456	0.456		0.5	0.01726	0.4902	0.00513	0.00513	5	88%	75	125	7%	
Lanthanum	A	mg/L	0.1029	0.1029		0.1	0	0.0985	0.000055	0.001	0.1	103%	75	125	4%	
Lead	A	mg/L	0.09607	0.09607		0.1	8.207E-05	0.09951	7.716E-05	0.001	1	96%	88	115	4%	
Magnesium	A	mg/L	12.14	12.14		5	7.536	12.06	0.0081522	0.0081522	50	92%	75	125	1%	
Manganese	A	mg/L	0.4679	0.4679		0.5	0.0008687	0.4528	0.0002139	0.001	1	93%	75	125	3%	
Molybdenum	A	mg/L	0.1084	0.1084		0.1	0.001054	0.1064	0.0001763	0.001	0.1	107%	75	125	2%	
Nickel	A	mg/L	0.09719	0.09719		0.1	0	0.09457	0.0024200	0.0024200	1	97%	75	125	3%	
Potassium	A	mg/L	5.413	5.413		5	1.433	5.385	0.0261205	0.0261205	50	80%	75	125	1%	
Selenium	A	mg/L	0.09844	0.09844		0.1	0	0.1047	0.0005855	0.001	1	98%	75	125	6%	
Silicon	A	mg/L	23.3	23.3		1	21.75	25.29	0.0053212	0.0053212	0.4		75	125	8%	A
Silver	A	mg/L	0.01069	0.01069		0.01	0	0.01082	4.316E-05	0.001	0.04	107%	75	125	1%	
Sodium	A	mg/L	37.4	37.4		5	34.52	36.73	0.7330269	0.7330269	50		75	125	2%	A
Strontium	A	mg/L	0.1672	0.1672		0.1	0.06671	0.1711	0.0001264	0.001	1	100%	75	125	2%	
Thallium	A	mg/L	0.1097	0.1097		0.1	0	0.1033	0.0001114	0.001	1	110%	75	125	6%	
Thorium	A	mg/L	0.1095	0.1095		0.1	0	0.1053	0.00415	0.00415	1	109%	75	125	4%	
Tin	A	mg/L	0.09897	0.09897		0.1	0	0.1023	0.0011175	0.0011175	0.1	99%	75	125	3%	
Titanium	A	mg/L	0.08443	0.08443		0.1	0.001999	0.0884	0.0001634	0.001	1	82%	75	125	5%	
Uranium	A	mg/L	0.09803	0.09803		0.1	0	0.09911	8.449E-05	0.0003	1	98%	75	125	1%	
Vanadium	A	mg/L	0.1142	0.1142		0.1	0.01937	0.1085	0.0021085	0.0021085	1	95%	75	125	5%	
Zinc	A	mg/L	0.1056	0.1056		0.1	0.01215	0.09638	0.0065544	0.0065544	1	93%	75	125	9%	
Silica	C	mg/L	49.84336	49.84336		0	0	54.100368	0.0113831	0.0113831	5	0%	0	0	8%	
Silicon as SiO2	C	mg/L	49.84336	49.84336		2.14	0	54.100368	0.0113831	0.0113831	5	2329%	75	125	8%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985184	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 2:34:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00002161	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001496	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0000176	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00000658	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	1.051E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-9.543E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	4.616E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.832E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001295	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.008E-05	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.02315	0.02315		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	J
Silver	A	mg/L	4.778E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	8.373E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0005687	0.0005687		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	7.057E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00007642	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	0.00003928	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985185	B21121957-001I	ICPMS-6020-W-	SAMP		1/19/2022 2:40:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00003965	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00002724	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0001134	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	B	mg/L	0.002125	0.002125		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00001269	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	2.552E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Copper	B	mg/L	0.0005441	0.0005441		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Mercury	B	mg/L	2.018E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0008784	0.0008784		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0001524	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	B	mg/L	-7.455E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.06214	0.06214		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0002752	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985185	B21121957-001I	ICPMS-6020-W- SAMP			1/19/2022 2:40:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thorium	B	mg/L	0.00001497	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	6.618E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.008454	0.008454		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985186	B21121957-001I	ICPMS-6020-W- SD			1/19/2022 2:46:0	5	R373351		0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001109	0.005545		0	0	0.001899	0.0032741	0.0032741	1	0%				N
Antimony	A	mg/L	0.00001227	0		0	0	0	0.0014934	0.0014934	0.1	0%				
Arsenic	A	mg/L	0.00001735	0		0	0	0	0.0009071	0.001	1	0%				
Barium	A	mg/L	0.0004578	0.002289		0	0	0.002125	0.0006604	0.001	1	0%				N
Beryllium	A	mg/L	-1.587E-05	0		0	0	0	0.0003733	0.001	1	0%				
Boron	A	mg/L	0.01156	0.0578		0	0	0.06528	0.0150159	0.0150159	1	0%				N
Cadmium	A	mg/L	0.00000451	0		0	0	0	0.000257	0.001	1	0%				
Calcium	A	mg/L	1.338	6.69		0	0	7.188	0.3748981	0.3748981	50	0%			7%	
Cerium	A	mg/L	1.291E-06	0		0	0	0	0.0000731	0.001	0.1	0%				
Chromium	A	mg/L	0.0006063	0.0030315		0	0	0.002869	0.0027407	0.0027407	1	0%				N
Cobalt	A	mg/L	1.411E-06	0		0	0	0	0.0002378	0.001	1	0%				
Copper	A	mg/L	0.000333	0		0	0	0.0005441	0.001914	0.001914	1	0%				
Iron	A	mg/L	0.00215	0		0	0	0.007755	0.0231453	0.0231453	5	0%				
Lanthanum	A	mg/L	1.789E-06	0		0	0	0	8.415E-05	0.001	0.1	0%				
Lead	A	mg/L	0.0000181	0		0	0	0	0.0003132	0.001	1	0%				
Lithium	A	mg/L	0.0003263	0		0	0	0	0.0260526	0.0260526	2.5	0%				
Magnesium	A	mg/L	1.387	6.935		0	0	7.629	0.0594967	0.0594967	50	0%			10%	
Manganese	A	mg/L	0.0001571	0.0007855		0	0	0.0007952	0.0007221	0.001	1	0%				N
Mercury	A	mg/L	1.002E-06	0		0	0	0	0.00033	0.001	0.02	0%				
Molybdenum	A	mg/L	0.0001991	0.0009955		0	0	0.0008784	0.0004169	0.001	0.1	0%				N
Nickel	A	mg/L	0.00005759	0		0	0	0	0.0012656	0.0012656	1	0%				
Potassium	A	mg/L	0.2704	1.352		0	0	1.604	1.0369948	1.0369948	50	0%				N
Selenium	A	mg/L	0.00005051	0		0	0	0.0001632	0.0007077	0.001	1	0%				
Silicon	A	mg/L	5.359	26.795		0	0	22.47	0.0730871	0.1	0.4	0%			18%	R
Silver	A	mg/L	-0.0000726	0		0	0	0	5.615E-05	0.001	0.04	0%				
Sodium	A	mg/L	5.975	29.875		0	0	32.82	0.4046363	0.4046363	50	0%			9%	
Strontium	A	mg/L	0.0121	0.0605		0	0	0.06214	0.0009125	0.001	1	0%			3%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985186	B21121957-001I	ICPMS-6020-W- SD			1/19/2022 2:46:0	5	R373351			0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Thallium	A	mg/L	0.0001228	0		0	0	0	0.0014956	0.0014956	1	0%				
Thorium	A	mg/L	7.558E-06	0		0	0	0	0.0052364	0.0052364	1	0%				
Tin	A	mg/L	0.005687	0.028435		0	0	0.04075	0.011194	0.011194	0.1	0%				N
Titanium	A	mg/L	0.0003362	0.001681		0	0	0.001768	0.0014871	0.0014871	1	0%				N
Uranium	A	mg/L	1.518E-06	0		0	0	0	0.000157	0.0003	1	0%				
Vanadium	A	mg/L	0.003692	0		0	0	0.01909	0.0217338	0.0217338	1	0%				
Zinc	A	mg/L	0.003064	0.01532		0	0	0.008454	0.0057989	0.0057989	1	0%				N
Iron, Ferrous	C	mg/L	0.00215	0		0	0	0	0.0231453	0.0231453	5	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985187	B21121957-001I	ICPMS-6020-W- MS			1/19/2022 2:51:5	1.03	R373351			1E+07	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04124	0.0424772		0.05	0.001899	0	0.0006745	0.001	1	81%	75	125	0%	
Antimony	A	mg/L	0.04957	0.0510571		0.05	0	0	0.0003076	0.001	0.1	102%	75	125	0%	
Arsenic	A	mg/L	0.04924	0.0507172		0.05	0	0	0.0001869	0.001	1	101%	75	125	0%	
Barium	A	mg/L	0.04895	0.0504185		0.05	0.002125	0	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.03868	0.0398404		0.05	0	0	7.689E-05	0.001	1	80%	75	125	0%	
Boron	A	mg/L	0.08987	0.0925661		0.05	0.06528	0	0.0030933	0.0030933	1	55%	75	125	0%	S
Cadmium	A	mg/L	0.04498	0.0463294		0.05	0	0	5.293E-05	0.001	1	93%	75	125	0%	
Calcium	A	mg/L	47.18	48.5954		50	7.188	0	0.0772290	0.0772290	50	83%	75	125	0%	
Cerium	A	mg/L	0.04742	0.0488426		0.05	0	0	1.506E-05	0.001	0.1	98%	75	125	0%	
Chromium	A	mg/L	0.04512	0.0464736		0.05	0.002869	0	0.0005646	0.001	1	87%	75	125	0%	
Cobalt	A	mg/L	0.04498	0.0463294		0.05	0	0	4.899E-05	0.001	1	93%	75	125	0%	
Copper	A	mg/L	0.04396	0.0452788		0.05	0.0005441	0	0.0003943	0.001	1	89%	75	125	0%	
Iron	A	mg/L	4.286	4.41458		5.05	0.007755	0	0.0047679	0.0047679	5	87%	75	125	0%	
Lanthanum	A	mg/L	5.222E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.0457	0.047071		0.05	0	0	6.452E-05	0.001	1	94%	88	115	0%	
Lithium	A	mg/L	1.285	1.32355		0.05	0	0	0.0053668	0.0053668	2.5	2647%	75	125	0%	S
Magnesium	A	mg/L	49.42	50.9026		50	7.629	0	0.0122563	0.0122563	50	87%	75	125	0%	
Manganese	A	mg/L	0.04556	0.0469268		0.05	0.0007952	0	0.0001487	0.001	1	92%	75	125	0%	
Mercury	A	mg/L	0.0009503	0.00097881		0.001	0	0	6.798E-05	0.001	0.02	98%	75	125	0%	
Molybdenum	A	mg/L	0.05042	0.0519326		0.05	0.0008784	0	8.588E-05	0.001	0.1	102%	75	125	0%	
Nickel	A	mg/L	0.04489	0.0462367		0.05	0	0	0.0002607	0.001	1	92%	75	125	0%	
Potassium	A	mg/L	41.91	43.1673		50	1.604	0	0.2136209	0.2136209	50	83%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985187	B21121957-001I	ICPMS-6020-W- MS			1/19/2022 2:51:5	1.03	R373351		1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Selenium	A	mg/L	0.05083	0.0523549		0.05	0.0001632	0	0.0001458	0.001	1	104%	75	125	0%	
Silicon	A	mg/L	21.48	22.1244		0.2	22.47	0	0.0150559	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.02093	0.0215579		0.02	0	0	1.157E-05	0.001	0.04	108%	75	125	0%	
Sodium	A	mg/L	70.94	73.0682		50	32.82	0	0.0833551	0.0833551	50	80%	75	125	0%	E
Strontium	A	mg/L	0.1102	0.113506		0.05	0.06214	0	0.000188	0.001	1	103%	75	125	0%	
Thallium	A	mg/L	0.04601	0.0473903		0.05	0	0	0.0003081	0.001	1	95%	75	125	0%	
Thorium	A	mg/L	0.04928	0.0507584		0.05	0	0	0.0010787	0.0010787	1	102%	75	125	0%	
Tin	A	mg/L	0.08382	0.0863346		0.05	0.04075	0	0.002306	0.002306	0.1	91%	75	125	0%	
Titanium	A	mg/L	0.0465	0.047895		0.05	0.001768	0	0.0003063	0.001	1	92%	75	125	0%	
Uranium	A	mg/L	0.04542	0.0467826		0.05	0	0	3.233E-05	0.0003	1	94%	75	125	0%	
Vanadium	A	mg/L	0.06255	0.0644265		0.05	0.01909	0	0.0044772	0.0044772	1	91%	75	125	0%	
Zinc	A	mg/L	0.05356	0.0551668		0.05	0.008454	0	0.0011946	0.0011946	1	93%	75	125	0%	
Iron, Ferrous	C	mg/L	4.286	4.41458		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985188	B21121957-001I	ICPMS-6020-W- MSD			1/19/2022 2:57:3	1.03	R373351		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04195	0.0432085		0.05	0.001899	0.0424772	0.0006745	0.001	1	83%	75	125	2%	
Antimony	A	mg/L	0.05084	0.0523652		0.05	0	0.0510571	0.0003076	0.001	0.1	105%	75	125	3%	
Arsenic	A	mg/L	0.04862	0.0500786		0.05	0	0.0507172	0.0001869	0.001	1	100%	75	125	1%	
Barium	A	mg/L	0.04894	0.0504082		0.05	0.002125	0.0504185	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.03939	0.0405717		0.05	0	0.0398404	7.689E-05	0.001	1	81%	75	125	2%	
Boron	A	mg/L	0.09295	0.0957385		0.05	0.06528	0.0925661	0.0030933	0.0030933	1	61%	75	125	3%	S
Cadmium	A	mg/L	0.04655	0.0479465		0.05	0	0.0463294	5.293E-05	0.001	1	96%	75	125	3%	
Calcium	A	mg/L	46.8	48.204		50	7.188	48.5954	0.0772290	0.0772290	50	82%	75	125	1%	
Cerium	A	mg/L	0.04855	0.0500065		0.05	0	0.0488426	1.506E-05	0.001	0.1	100%	75	125	2%	
Chromium	A	mg/L	0.04635	0.0477405		0.05	0.002869	0.0464736	0.0005646	0.001	1	90%	75	125	3%	
Cobalt	A	mg/L	0.04462	0.0459586		0.05	0	0.0463294	4.899E-05	0.001	1	92%	75	125	1%	
Copper	A	mg/L	0.04496	0.0463088		0.05	0.0005441	0.0452788	0.0003943	0.001	1	92%	75	125	2%	
Iron	A	mg/L	4.13	4.2539		5.05	0.007755	4.41458	0.0047679	0.0047679	5	84%	75	125	4%	
Lanthanum	A	mg/L	5.033E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125		S
Lead	A	mg/L	0.04551	0.0468753		0.05	0	0.047071	6.452E-05	0.001	1	94%	88	115	0%	
Lithium	A	mg/L	1.622	1.67066		0.05	0	1.32355	0.0053668	0.0053668	2.5	3341%	75	125	23%	SR
Magnesium	A	mg/L	50.67	52.1901		50	7.629	50.9026	0.0122563	0.0122563	50	89%	75	125	2%	E

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985188	B21121957-001I	ICPMS-6020-W- MSD			1/19/2022 2:57:3	1.03	R373351		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Manganese	A	mg/L	0.04623	0.0476169		0.05	0.0007952	0.0469268	0.0001487	0.001	1	94%	75	125	1%	
Mercury	A	mg/L	0.0009139	0.00094132		0.001	0	0.0009788	6.798E-05	0.001	0.02	94%	75	125		
Molybdenum	A	mg/L	0.04895	0.0504185		0.05	0.0008784	0.0519326	8.588E-05	0.001	0.1	99%	75	125	3%	
Nickel	A	mg/L	0.04498	0.0463294		0.05	0	0.0462367	0.0002607	0.001	1	93%	75	125	0%	
Potassium	A	mg/L	43.08	44.3724		50	1.604	43.1673	0.2136209	0.2136209	50	86%	75	125	3%	
Selenium	A	mg/L	0.04988	0.0513764		0.05	0.0001632	0.0523549	0.0001458	0.001	1	102%	75	125	2%	
Silicon	A	mg/L	21.07	21.7021		0.2	22.47	22.1244	0.0150559	0.1	0.4		75	125	2%	AE
Silver	A	mg/L	0.01986	0.0204558		0.02	0	0.0215579	1.157E-05	0.001	0.04	102%	75	125	5%	
Sodium	A	mg/L	72.73	74.9119		50	32.82	73.0682	0.0833551	0.0833551	50	84%	75	125	2%	E
Strontium	A	mg/L	0.1063	0.109489		0.05	0.06214	0.113506	0.000188	0.001	1	95%	75	125	4%	
Thallium	A	mg/L	0.04665	0.0480495		0.05	0	0.0473903	0.0003081	0.001	1	96%	75	125	1%	
Thorium	A	mg/L	0.04924	0.0507172		0.05	0	0.0507584	0.0010787	0.0010787	1	101%	75	125	0%	
Tin	A	mg/L	0.08824	0.0908872		0.05	0.04075	0.0863346	0.002306	0.002306	0.1	100%	75	125	5%	
Titanium	A	mg/L	0.04909	0.0505627		0.05	0.001768	0.047895	0.0003063	0.001	1	98%	75	125	5%	
Uranium	A	mg/L	0.04537	0.0467311		0.05	0	0.0467826	3.233E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.06374	0.0656522		0.05	0.01909	0.0644265	0.0044772	0.0044772	1	93%	75	125	2%	
Zinc	A	mg/L	0.05284	0.0544252		0.05	0.008454	0.0551668	0.0011946	0.0011946	1	92%	75	125	1%	
Iron, Ferrous	C	mg/L	4.13	4.2539		0	0	4.41458	0.0047679	0.0047679	5	0%	0	0	4%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985189	Rinse	ICPMS-6020-W- SAMP			1/19/2022 3:03:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001673	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	6.135E-06	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00001748	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.918E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	2.522E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Copper	A	mg/L	-9.06E-06	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	6.415E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.025E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003033	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-6.69E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0.008082	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	7.039E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985189	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 3:03:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	8.502E-06	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002418	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00000516	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00006198	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Zinc	B	mg/L	-5.184E-05	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985190	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:08:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00003395	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000339	0.000339		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Arsenic	B	mg/L	0.000356	0.000356		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.01718	0.01718		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	4.575E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	0.00006938	0.00006938		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.0004991	0.0004991		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Mercury	B	mg/L	5.463E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0002202	0.0002202		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.002106	0.002106		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-7.359E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.09094	0.09094		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001669	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00006185	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	4.861E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.004768	0.004768		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985191	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:14:4	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0005666	0.0005666		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0005342	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0005552	0.0005552		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985191	B21121959-001	ICPMS-6020-W-	SAMP		1/19/2022 3:14:4	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	B	mg/L	0.01884	0.01884		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000262	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0005996	0.0005996		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.00538	0.00538		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D
Lanthanum	B	mg/L	0.0001739	0.0001739		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.0004003	0.0004003		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.004049	0.004049		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.00007171	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	0.00002615	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1061	0.1061		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0000855	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.000127	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00001859	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Zinc	B	mg/L	0.007762	0.007762		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985192	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:20:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	6.927E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0001421	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.00106	0.00106		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003179	0.003179		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	1.814E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	0.00001639	0.00001639		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Copper	B	mg/L	0.00008461	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Mercury	B	mg/L	0.000035	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0006096	0.0006096		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0009743	0.0009743		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	B	mg/L	-7.357E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.07238	0.07238		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0001094	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	8.174E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.00001663	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Zinc	B	mg/L	0.002469	0.002469		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985192	B21121961-001	ICPMS-6020-W- SAMP			1/19/2022 3:20:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14985193	CCV	ICPMS-6020-W- CCV			1/19/2022 3:26:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04274	0.04274		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.05002	0.05002		0.05	0	0	0.0002987	0.001	0.1	100%	90	110	0%	
Arsenic	A	mg/L	0.04861	0.04861		0.05	0	0	0.0001814	0.001	1	97%	90	110	0%	
Barium	A	mg/L	0.04987	0.04987		0.05	0	0	0.0001321	0.001	1	100%	90	110	0%	
Beryllium	A	mg/L	0.0412	0.0412		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S
Boron	A	mg/L	0.04035	0.04035		0.05	0	0	0.0030032	0.0030032	1	81%	90	110	0%	S
Cadmium	A	mg/L	0.04664	0.04664		0.05	0	0	5.139E-05	0.001	1	93%	90	110	0%	
Calcium	A	mg/L	11	11		12.5	0	0	0.0749796	0.0749796	50	88%	90	110	0%	S
Cerium	A	mg/L	0.04934	0.04934		0.05	0	0	1.462E-05	0.001	0.1	99%	90	110	0%	
Chromium	A	mg/L	0.04526	0.04526		0.05	0	0	0.0005481	0.001	1	91%	90	110	0%	
Cobalt	A	mg/L	0.04786	0.04786		0.05	0	0	4.756E-05	0.001	1	96%	90	110	0%	
Copper	A	mg/L	0.04753	0.04753		0.05	0	0	0.0003828	0.001	1	95%	90	110	0%	
Iron	A	mg/L	1.118	1.118		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04947	0.04947		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.04865	0.04865		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3635	0.3635		0.625	0	0	0.0052105	0.0052105	2.5	58%	90	110	0%	S
Magnesium	A	mg/L	10.4	10.4		12.5	0	0	0.0118993	0.0118993	50	83%	90	110	0%	S
Manganese	A	mg/L	0.04701	0.04701		0.05	0	0	0.0001444	0.001	1	94%	90	110	0%	
Mercury	A	mg/L	0.0009494	0.0009494		0.001	0	0	0.000066	0.001	0.02	95%	90	110	0%	
Molybdenum	A	mg/L	0.05093	0.05093		0.05	0	0	8.338E-05	0.001	0.1	102%	90	110	0%	
Nickel	A	mg/L	0.0468	0.0468		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	10.16	10.16		12.5	0	0	0.207399	0.207399	50	81%	90	110	0%	S
Selenium	A	mg/L	0.05217	0.05217		0.05	0	0	0.0001415	0.001	1	104%	90	110	0%	
Silicon	A	mg/L	0.2036	0.2036		0.2	0	0	0.0146174	0.1	0.4	102%	90	110	0%	
Silver	A	mg/L	0.02104	0.02104		0.02	0	0	1.123E-05	0.001	0.04	105%	90	110	0%	
Sodium	A	mg/L	10.6	10.6		12.5	0	0	0.0809273	0.0809273	50	85%	90	110	0%	S
Strontium	A	mg/L	0.05264	0.05264		0.05	0	0	0.0001825	0.001	1	105%	90	110	0%	
Thallium	A	mg/L	0.05038	0.05038		0.05	0	0	0.0002991	0.001	1	101%	90	110	0%	
Thorium	A	mg/L	0.05042	0.05042		0.05	0	0	0.0010473	0.0010473	1	101%	90	110	0%	
Tin	A	mg/L	0.04847	0.04847		0.05	0	0	0.0022388	0.0022388	0.1	97%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985193	CCV	ICPMS-6020-W- CCV			1/19/2022 3:26:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Titanium	A	mg/L	0.04337	0.04337		0.05	0	0	0.0002974	0.001	1	87%	90	110	0%	S
Uranium	A	mg/L	0.04752	0.04752		0.05	0	0	3.139E-05	0.0003	1	95%	90	110	0%	
Vanadium	A	mg/L	0.04633	0.04633		0.05	0	0	0.0043468	0.0043468	1	93%	90	110	0%	
Zinc	A	mg/L	0.04726	0.04726		0.05	0	0	0.0011598	0.0011598	1	95%	90	110	0%	
Iron, Ferrous	C	mg/L	1.118	1.118		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985194	CCB	ICPMS-6020-W- CCB			1/19/2022 3:31:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-6.036E-05	-6.036E-05		0	0	0	0.0006548	0.001	1	0%			0%	
Antimony	A	mg/L	0.00005372	0.00005372		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	5.451E-06	5.451E-06		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	-1.627E-06	-1.627E-06		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	-9.666E-06	-9.666E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.000407	0.000407		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	4.283E-07	4.283E-07		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-0.0006494	-0.0006494		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	-1.371E-07	-1.371E-07		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-2.435E-06	-2.435E-06		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	-1.201E-06	-1.201E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-8.531E-06	-8.531E-06		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	-6.424E-05	-6.424E-05		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	9.524E-07	9.524E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	7.104E-07	7.104E-07		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	0.002188	0.002188		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	0.001076	0.001076		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	4.415E-06	4.415E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	3.797E-06	3.797E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.0000988	0.0000988		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-2.248E-06	-2.248E-06		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.009519	-0.009519		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00004496	0.00004496		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	0.02851	0.02851		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0.00000654	0.00000654		0	0	0	1.123E-05	0.001	0.04	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985194	CCB	ICPMS-6020-W-	CCB		1/19/2022 3:31:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Sodium	A	mg/L	0.03202	0.03202		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	1.636E-06	1.636E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005303	0.00005303		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003702	0.00003702		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0.0000121	0.0000121		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00002495	0.00002495		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	1.852E-06	1.852E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0.0001102	0.0001102		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-0.000023	-0.000023		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	-6.424E-05	-6.424E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985195	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:37:3	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0009578	0.0009578		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00006244	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.000176	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Barium	B	mg/L	0.003599	0.003599		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002125	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.0001111	0.0001111		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.00046	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Cobalt	B	mg/L	0.000543	0.000543		0	0	0	0.000072	0.001	1	0%	0	0	0%	J
Copper	B	mg/L	0.0008815	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.0000293	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.4757	0.4757		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.000735	0.000735		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.001159	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Selenium	B	mg/L	0.00005671	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-1.329E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07957	0.07957		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.0000424	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.0001089	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0000197	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.0009671	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985195	B21121961-001	ICPMS-6020-W-	SAMP		1/19/2022 3:37:3	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Zinc	B	mg/L	0.002521	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985196	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:43:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.00004699	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0004111	0.0004111		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Barium	B	mg/L	0.01538	0.01538		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.001491	0.001491		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Manganese	B	mg/L	0.2022	0.2022		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	0.00004793	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.002919	0.002919		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Silver	B	mg/L	-7.403E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.1566	0.1566		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00006599	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00001179	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.0001359	0.0001359		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985197	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:49:0	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001378	0.0001378		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0002411	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.0007481	0.0007481		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.01455	0.01455		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002051	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	0.00008193	0.00008193		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.001329	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Cobalt	B	mg/L	0.001528	0.001528		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.00137	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	0.00003313	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.1322	0.1322		0	0	0	0.0002139	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985197	B21121965-001	ICPMS-6020-W-	SAMP		1/19/2022 3:49:0	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Molybdenum	B	mg/L	0.003117	0.003117		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.005108	0.005108		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0001912	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-0.0000571	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.1651	0.1651		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00002646	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004851	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.0001453	0.0001453		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.01919	0.01919		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.002828	0		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985198	B21121967-001	ICPMS-6020-W-	SAMP		1/19/2022 3:54:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	0.0001154	0.0001154		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Antimony	B	mg/L	0.0002757	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0004376	0.0004376		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.0539	0.0539		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cerium	B	mg/L	9.369E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Cobalt	B	mg/L	0.002019	0.002019		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Manganese	B	mg/L	0.3441	0.3441		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	5.192E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Molybdenum	B	mg/L	0.0004638	0.0004638		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Silver	B	mg/L	-7.513E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.2792	0.2792		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00003833	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00009567	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	0.0000544	0.0000544		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Zinc	B	mg/L	0.01745	0.01745		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985199	B21121967-001	ICPMS-6020-W-	SAMP		1/19/2022 4:00:3	1	162497	12/27/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0007202	0.0007202		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.006248	0.006248		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	
Antimony	B	mg/L	0.0004776	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Barium	B	mg/L	0.05518	0.05518		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0002641	0.0002641		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	J
Cerium	B	mg/L	0.0003277	0.0003277		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.002324	0.002324		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.002398	0.002398		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.007111	0.007111		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	D
Lanthanum	B	mg/L	0.0001533	0.0001533		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	J
Manganese	B	mg/L	0.3455	0.3455		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	B	mg/L	0.0005134	0.0005134		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.0123	0.0123		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.00224	0.00224		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-5.674E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.291	0.291		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00002111	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00004758	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	0.00006401	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.009736	0.009736		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.03718	0.03718		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985200	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:06:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Lead	A	mg/L	5.803E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	6.264E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Barium	B	mg/L	0.003086	0.003086		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	3.334E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	B	mg/L	5.968E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Mercury	B	mg/L	0.00000233	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	H
Thallium	B	mg/L	0.00003344	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	-1.012E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Uranium	B	mg/L	7.828E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985200	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:06:1	1	R373351			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985201	B21121968-001	ICPMS-6020-W-	SAMP		1/19/2022 4:12:0	1	162497	12/27/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Lead	A	mg/L	0.00001009	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.00002372	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Arsenic	B	mg/L	0.00008562	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	B	mg/L	0.003137	0.003137		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.00002472	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	B	mg/L	1.199E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Chromium	B	mg/L	0.003014	0.003014		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Cobalt	B	mg/L	0.00005439	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Copper	B	mg/L	0.0001733	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Lanthanum	B	mg/L	2.484E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Manganese	B	mg/L	0.0005496	0.0005496		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	B	mg/L	0.0004337	0.0004337		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Nickel	B	mg/L	0.003308	0.003308		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Selenium	B	mg/L	0.0001442	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-6.892E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	B	mg/L	0.07273	0.07273		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00001427	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Thorium	B	mg/L	0.00001736	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Uranium	B	mg/L	7.722E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Vanadium	B	mg/L	0.02079	0.02079		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D
Zinc	B	mg/L	0.008699	0.008699		0	0	0	0.0065544	0.0065544	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985202	CCV	ICPMS-6020-W-	CCV		1/19/2022 4:17:4	1	R373351			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Aluminum	A	mg/L	0.046	0.046		0.05	0	0	0.0006548	0.001	1	92%	90	110	0%	
Antimony	A	mg/L	0.04902	0.04902		0.05	0	0	0.0002987	0.001	0.1	98%	90	110	0%	
Arsenic	A	mg/L	0.04779	0.04779		0.05	0	0	0.0001814	0.001	1	96%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985202	CCV	ICPMS-6020-W- CCV			1/19/2022 4:17:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.04784	0.04784		0.05	0	0	0.0001321	0.001	1	96%	90	110	0%	
Beryllium	A	mg/L	0.04571	0.04571		0.05	0	0	7.465E-05	0.001	1	91%	90	110	0%	
Boron	A	mg/L	0.04567	0.04567		0.05	0	0	0.0030032	0.0030032	1	91%	90	110	0%	
Cadmium	A	mg/L	0.04785	0.04785		0.05	0	0	5.139E-05	0.001	1	96%	90	110	0%	
Calcium	A	mg/L	12.16	12.16		12.5	0	0	0.0749796	0.0749796	50	97%	90	110	0%	
Cerium	A	mg/L	0.04863	0.04863		0.05	0	0	1.462E-05	0.001	0.1	97%	90	110	0%	
Chromium	A	mg/L	0.04615	0.04615		0.05	0	0	0.0005481	0.001	1	92%	90	110	0%	
Cobalt	A	mg/L	0.04915	0.04915		0.05	0	0	4.756E-05	0.001	1	98%	90	110	0%	
Copper	A	mg/L	0.04597	0.04597		0.05	0	0	0.0003828	0.001	1	92%	90	110	0%	
Iron	A	mg/L	1.201	1.201		1.3	0	0	0.0046291	0.0046291	5	92%	90	110	0%	
Lanthanum	A	mg/L	0.04893	0.04893		0.05	0	0	1.683E-05	0.001	0.1	98%	90	110	0%	
Lead	A	mg/L	0.04753	0.04753		0.05	0	0	6.264E-05	0.001	1	95%	90	110	0%	
Lithium	A	mg/L	0.4781	0.4781		0.625	0	0	0.0052105	0.0052105	2.5	76%	90	110	0%	S
Magnesium	A	mg/L	11.12	11.12		12.5	0	0	0.0118993	0.0118993	50	89%	90	110	0%	S
Manganese	A	mg/L	0.04899	0.04899		0.05	0	0	0.0001444	0.001	1	98%	90	110	0%	
Mercury	A	mg/L	0.0009248	0.0009248		0.001	0	0	0.000066	0.001	0.02	92%	90	110	0%	
Molybdenum	A	mg/L	0.04879	0.04879		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.04684	0.04684		0.05	0	0	0.0002531	0.001	1	94%	90	110	0%	
Potassium	A	mg/L	10.96	10.96		12.5	0	0	0.207399	0.207399	50	88%	90	110	0%	S
Selenium	A	mg/L	0.05064	0.05064		0.05	0	0	0.0001415	0.001	1	101%	90	110	0%	
Silicon	A	mg/L	0.2559	0.2559		0.2	0	0	0.0146174	0.1	0.4	128%	90	110	0%	S
Silver	A	mg/L	0.01972	0.01972		0.02	0	0	1.123E-05	0.001	0.04	99%	90	110	0%	
Sodium	A	mg/L	11.26	11.26		12.5	0	0	0.0809273	0.0809273	50	90%	90	110	0%	
Strontium	A	mg/L	0.05117	0.05117		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.0481	0.0481		0.05	0	0	0.0002991	0.001	1	96%	90	110	0%	
Thorium	A	mg/L	0.04853	0.04853		0.05	0	0	0.0010473	0.0010473	1	97%	90	110	0%	
Tin	A	mg/L	0.04899	0.04899		0.05	0	0	0.0022388	0.0022388	0.1	98%	90	110	0%	
Titanium	A	mg/L	0.04693	0.04693		0.05	0	0	0.0002974	0.001	1	94%	90	110	0%	
Uranium	A	mg/L	0.04538	0.04538		0.05	0	0	3.139E-05	0.0003	1	91%	90	110	0%	
Vanadium	A	mg/L	0.0478	0.0478		0.05	0	0	0.0043468	0.0043468	1	96%	90	110	0%	
Zinc	A	mg/L	0.04722	0.04722		0.05	0	0	0.0011598	0.0011598	1	94%	90	110	0%	
Iron, Ferrous	C	mg/L	1.201	1.201		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985203	CCB	ICPMS-6020-W-	CCB		1/19/2022 4:23:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	-3.132E-05	-3.132E-05		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00005319	0.00005319		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	-5.29E-06	-5.29E-06		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	-4.432E-07	-4.432E-07		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	-1.312E-05	-1.312E-05		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	0.0007944	0.0007944		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	1.282E-06	1.282E-06		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.0001727	0.0001727		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	1.391E-06	1.391E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-2.437E-05	-2.437E-05		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	-1.322E-07	-1.322E-07		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	-1.299E-05	-1.299E-05		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	-5.788E-05	-5.788E-05		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	5.346E-07	5.346E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	8.738E-07	8.738E-07		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	0.0009	0.0009		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	0.0008226	0.0008226		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	0.00001855	0.00001855		0	0	0	0.0001444	0.001	1	0%				0%
Mercury	A	mg/L	6.469E-06	6.469E-06		0	0	0	0.000066	0.001	0.02	0%				0%
Molybdenum	A	mg/L	6.015E-06	6.015E-06		0	0	0	8.338E-05	0.001	0.1	0%				0%
Nickel	A	mg/L	-1.605E-05	-1.605E-05		0	0	0	0.0002531	0.001	1	0%				0%
Potassium	A	mg/L	-0.006594	-0.006594		0	0	0	0.207399	0.207399	50	0%				0%
Selenium	A	mg/L	0.00002005	0.00002005		0	0	0	0.0001415	0.001	1	0%				0%
Silicon	A	mg/L	0.06429	0.06429		0	0	0	0.0146174	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	-6.451E-07	-6.451E-07		0	0	0	1.123E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	0.02797	0.02797		0	0	0	0.0809273	0.0809273	50	0%				0%
Strontium	A	mg/L	2.017E-06	2.017E-06		0	0	0	0.0001825	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.00002786	0.00002786		0	0	0	0.0002991	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00003466	0.00003466		0	0	0	0.0010473	0.0010473	1	0%	0	0		0%
Tin	A	mg/L	0.00007451	0.00007451		0	0	0	0.0022388	0.0022388	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00003498	0.00003498		0	0	0	0.0002974	0.001	1	0%	0	0		0%
Uranium	A	mg/L	3.173E-06	3.173E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.0001396	0.0001396		0	0	0	0.0043468	0.0043468	1	0%	0	0		0%
Zinc	A	mg/L	-0.0001025	-0.0001025		0	0	0	0.0011598	0.0011598	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	-5.788E-05	-5.788E-05		0	0	0	0.0046291	0.0046291	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985204	BLANK	ICPMS-6020-W-	SAMP		1/19/2022 4:29:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0	0		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Boron	A	mg/L	0	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Cadmium	A	mg/L	0	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Calcium	A	mg/L	0	0		0	0	0	0.0749796	0.0749796	50	0%	0	0	0%	L
Cerium	A	mg/L	0	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Iron	A	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Lanthanum	A	mg/L	0	0		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Lithium	A	mg/L	0	0		0	0	0	0.0052105	0.0052105	2.5	0%	0	0	0%	L
Magnesium	A	mg/L	0	0		0	0	0	0.0118993	0.0118993	50	0%	0	0	0%	L
Manganese	A	mg/L	0	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Potassium	A	mg/L	0	0		0	0	0	0.207399	0.207399	50	0%	0	0	0%	L
Selenium	A	mg/L	0	0		0	0	0	0.0001415	0.001	1	0%	0	0	0%	
Silicon	A	mg/L	0	0		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	0	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Sodium	A	mg/L	0	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Strontium	A	mg/L	0	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	0	0		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	L
Titanium	A	mg/L	0	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	0	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	A	mg/L	0	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985205	0.025 PPB STD	ICPMS-6020B-C Cal1			1/19/2022 4:35:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00007578	0.00007578		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00001622	0.00001622		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	0.0000192	0.0000192		0.000025	0	0		0.001		77%	80	120	0%	S
Barium	A	mg/L	0.00002175	0.00002175		0.000025	0	0		0.0003		87%	80	120	0%	
Beryllium	A	mg/L	0.00003446	0.00003446		0.000025	0	0		0.001		138%	80	120	0%	S
Boron	A	mg/L	-0.0002005	-0.0002005		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.00002788	0.00002788		0.000025	0	0		0.001		112%	80	120	0%	
Calcium	A	mg/L	0.00685	0.00685		0	0	0		1		0%			0%	
Chromium	A	mg/L	8.259E-08	8.259E-08		0.000025	0	0		0.001		0%	80	120	0%	S
Cobalt	A	mg/L	0.00002387	0.00002387		0.000025	0	0		0.001		95%	80	120	0%	
Copper	A	mg/L	2.22E-08	2.22E-08		0	0	0		0.005		0%			0%	
Iron	A	mg/L	0.0005772	0.0005772		0	0	0		0.01		0%			0%	
Lanthanum	A	mg/L	0.00002455	0.00002455		0.000025	0	0		0.001		98%	80	120	0%	
Lead	A	mg/L	0.00002401	0.00002401		0.000025	0	0		0.001		96%	80	120	0%	
Magnesium	A	mg/L	0.004452	0.004452		0	0	0		1		0%			0%	
Manganese	A	mg/L	0.00002133	0.00002133		0	0	0		0.001		0%			0%	
Mercury	A	mg/L	-5.818E-07	-5.818E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00003663	0.00003663		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	8.179E-06	8.179E-06		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.004117	0.004117		0.00625	0	0		1		66%	80	120	0%	S
Selenium	A	mg/L	0.00002815	0.00002815		0.000025	0	0		0.005		113%	80	120	0%	
Silicon	A	mg/L	-0.01609	-0.01609		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.0000109	0.0000109		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	-0.001795	-0.001795		0.00625	0	0		1		-29%	80	120	0%	S
Strontium	A	mg/L	0.00002657	0.00002657		0	0	0		0.001		0%	80	120	0%	
Thallium	A	mg/L	0.0000191	0.0000191		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00001114	0.00001114		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002413	-0.002413		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00002252	0.00002252		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00002298	0.00002298		0.000025	0	0		0.001		92%	80	120	0%	
Vanadium	A	mg/L	0.00004879	0.00004879		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00002792	0.00002792		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.0005772	0.0005772		0.000025	0	0		0.01	5	2309%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0344326	-0.0344326		0.0000535	0	0		0.214	0.9	-64360%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985206	0.05 PPB STD	ICPMS-6020B-C	Cal2		1/19/2022 4:40:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00006563	0.00006563		0	0	0		0.01		0%			0%	
Antimony	A	mg/L	0.00006236	0.00006236		0.00005	0	0		0.001		125%	80	120	0%	S
Arsenic	A	mg/L	0.00004931	0.00004931		0.00005	0	0		0.001		99%	80	120	0%	
Barium	A	mg/L	0.00005927	0.00005927		0.00005	0	0		0.0003		119%	80	120	0%	
Beryllium	A	mg/L	0.00004913	0.00004913		0.00005	0	0		0.001		98%	80	120	0%	
Boron	A	mg/L	-0.0003987	-0.0003987		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0000613	0.0000613		0.00005	0	0		0.001		123%	80	120	0%	S
Calcium	A	mg/L	0.01401	0.01401		0.0125	0	0		1		112%	80	120	0%	
Chromium	A	mg/L	0.00006062	0.00006062		0.00005	0	0		0.001		121%	80	120	0%	S
Cobalt	A	mg/L	0.00005715	0.00005715		0	0	0		0.001		0%			0%	
Copper	A	mg/L	0.00003771	0.00003771		0.00005	0	0		0.005		75%	80	120	0%	S
Iron	A	mg/L	0.001396	0.001396		0.00125	0	0		0.01		112%	80	120	0%	
Lanthanum	A	mg/L	0.00005363	0.00005363		0.00005	0	0		0.001		107%	80	120	0%	
Lead	A	mg/L	0.00005194	0.00005194		0.00005	0	0		0.001		104%	80	120	0%	
Magnesium	A	mg/L	0.01249	0.01249		0.0125	0	0		1		100%	80	120	0%	
Manganese	A	mg/L	0.00004738	0.00004738		0.00005	0	0		0.001		95%	80	120	0%	
Mercury	A	mg/L	-5.592E-07	-5.592E-07		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004636	0.00004636		0.00005	0	0		0.001		93%	80	120	0%	
Nickel	A	mg/L	0.00005083	0.00005083		0	0	0		0.005		0%			0%	
Potassium	A	mg/L	0.008203	0.008203		0.0125	0	0		1		66%	80	120	0%	S
Selenium	A	mg/L	0.00005621	0.00005621		0.00005	0	0		0.005		112%	80	120	0%	
Silicon	A	mg/L	-0.02523	-0.02523		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.00001906	0.00001906		0.00002	0	0		0.001		95%	80	120	0%	
Sodium	A	mg/L	-0.0003585	-0.0003585		0.0125	0	0		1		-3%	80	120	0%	S
Strontium	A	mg/L	0.00005241	0.00005241		0.00005	0	0		0.001		105%	80	120	0%	
Thallium	A	mg/L	0.00005005	0.00005005		0	0	0		0.001		0%			0%	
Thorium	A	mg/L	0.00003159	0.00003159		0	0	0		0.05		0%			0%	
Tin	A	mg/L	-0.002379	-0.002379		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.00007451	0.00007451		0	0	0		0.001		0%			0%	
Uranium	A	mg/L	0.00005103	0.00005103		0.00005	0	0		0.001		102%	80	120	0%	
Vanadium	A	mg/L	0.00005954	0.00005954		0	0	0		0.005		0%			0%	
Zinc	A	mg/L	0.00001975	0.00001975		0	0	0		0.01		0%			0%	
Iron, Ferrous	C	mg/L	0.001396	0.001396		0.00005	0	0		0.01	5	2792%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0539922	-0.0539922		0.00428	0	0		0.214	0.9	-1262%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985207	0.10 PPB STD	ICPMS-6020B-C	Cal3		1/19/2022 4:46:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0005498	0.0005498		0.0001	0	0		0.01		550%	80	120	0%	S
Antimony	A	mg/L	0.0001139	0.0001139		0.0001	0	0		0.001		114%	80	120	0%	
Arsenic	A	mg/L	0.0001016	0.0001016		0.0001	0	0		0.001		102%	80	120	0%	
Barium	A	mg/L	0.0001161	0.0001161		0.0001	0	0		0.0003		116%	80	120	0%	
Beryllium	A	mg/L	0.0001021	0.0001021		0.0001	0	0		0.001		102%	80	120	0%	
Boron	A	mg/L	-0.0003879	-0.0003879		0	0	0		0.1		0%			0%	
Cadmium	A	mg/L	0.0001261	0.0001261		0.0001	0	0		0.001		126%	80	120	0%	S
Calcium	A	mg/L	0.0322	0.0322		0.025	0	0		1		129%	80	120	0%	S
Chromium	A	mg/L	0.0001228	0.0001228		0.0001	0	0		0.001		123%	80	120	0%	S
Cobalt	A	mg/L	0.0001219	0.0001219		0.0001	0	0		0.001		122%	80	120	0%	S
Copper	A	mg/L	0.0001264	0.0001264		0.0001	0	0		0.005		126%	80	120	0%	S
Iron	A	mg/L	0.003252	0.003252		0.0025	0	0		0.01		130%	80	120	0%	S
Lanthanum	A	mg/L	0.000117	0.000117		0.0001	0	0		0.001		117%	80	120	0%	
Lead	A	mg/L	0.0001157	0.0001157		0.0001	0	0		0.001		116%	80	120	0%	
Magnesium	A	mg/L	0.02632	0.02632		0.025	0	0		1		105%	80	120	0%	
Manganese	A	mg/L	0.0001246	0.0001246		0.0001	0	0		0.001		125%	80	120	0%	S
Mercury	A	mg/L	1.939E-07	1.939E-07		0.000002	0	0		0.001		10%	80	120	0%	S
Molybdenum	A	mg/L	0.000115	0.000115		0.0001	0	0		0.001		115%	80	120	0%	
Nickel	A	mg/L	0.0001355	0.0001355		0.0001	0	0		0.005		136%	80	120	0%	S
Potassium	A	mg/L	0.02323	0.02323		0.025	0	0		1		93%	80	120	0%	
Selenium	A	mg/L	0.00006625	0.00006625		0.0001	0	0		0.005		66%	80	120	0%	S
Silicon	A	mg/L	-0.0347	-0.0347		0.0004	0	0		0.1		-8675%	80	120	0%	S
Silver	A	mg/L	0.00004745	0.00004745		0.00004	0	0		0.001		119%	80	120	0%	
Sodium	A	mg/L	0.02364	0.02364		0.025	0	0		1		95%	80	120	0%	
Strontium	A	mg/L	0.0001219	0.0001219		0.0001	0	0		0.001		122%	80	120	0%	S
Thallium	A	mg/L	0.0001065	0.0001065		0.0001	0	0		0.001		107%	80	120	0%	
Thorium	A	mg/L	0.00008275	0.00008275		0.0001	0	0		0.05		83%	80	120	0%	
Tin	A	mg/L	-0.002339	-0.002339		0.0001	0	0		0.001		-2339%	80	120	0%	S
Titanium	A	mg/L	0.000142	0.000142		0.0001	0	0		0.001		142%	80	120	0%	S
Uranium	A	mg/L	0.0001109	0.0001109		0.0001	0	0		0.001		111%	80	120	0%	
Vanadium	A	mg/L	0.00009245	0.00009245		0.0001	0	0		0.005		92%	80	120	0%	
Zinc	A	mg/L	0.0002357	0.0002357		0.0001	0	0		0.01		236%	80	120	0%	S
Iron, Ferrous	C	mg/L	0.003252	0.003252		0.0001	0	0		0.01	5	3252%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.074258	-0.074258		0.00856	0	0		0.214	0.9	-868%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985208	0.5 PPB STD	ICPMS-6020B-C Cal4			1/19/2022 4:52:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0005409	0.0005409		0.0005	0	0		0.01		108%	80	120	0%	
Antimony	A	mg/L	0.0004376	0.0004376		0.0005	0	0		0.001		88%	80	120	0%	
Arsenic	A	mg/L	0.0004641	0.0004641		0.0005	0	0		0.001		93%	80	120	0%	
Barium	A	mg/L	0.0004505	0.0004505		0.0005	0	0		0.0003		90%	80	120	0%	
Beryllium	A	mg/L	0.0004772	0.0004772		0.0005	0	0		0.001		95%	80	120	0%	
Boron	A	mg/L	-4.613E-05	-4.613E-05		0.0005	0	0		0.1		-9%	80	120	0%	S
Cadmium	A	mg/L	0.0005062	0.0005062		0.0005	0	0		0.001		101%	80	120	0%	
Calcium	A	mg/L	0.1172	0.1172		0.125	0	0		1		94%	80	120	0%	
Chromium	A	mg/L	0.0004889	0.0004889		0.0005	0	0		0.001		98%	80	120	0%	
Cobalt	A	mg/L	0.0004615	0.0004615		0.0005	0	0		0.001		92%	80	120	0%	
Copper	A	mg/L	0.0005308	0.0005308		0.0005	0	0		0.005		106%	80	120	0%	
Iron	A	mg/L	0.01287	0.01287		0.0125	0	0		0.01		103%	80	120	0%	
Lanthanum	A	mg/L	0.0004984	0.0004984		0.0005	0	0		0.001		100%	80	120	0%	
Lead	A	mg/L	0.0004926	0.0004926		0.0005	0	0		0.001		99%	80	120	0%	
Magnesium	A	mg/L	0.1212	0.1212		0.125	0	0		1		97%	80	120	0%	
Manganese	A	mg/L	0.0005026	0.0005026		0.0005	0	0		0.001		101%	80	120	0%	
Mercury	A	mg/L	6.952E-06	6.952E-06		0.00001	0	0		0.001		70%	80	120	0%	S
Molybdenum	A	mg/L	0.0005041	0.0005041		0.0005	0	0		0.001		101%	80	120	0%	
Nickel	A	mg/L	0.0005091	0.0005091		0.0005	0	0		0.005		102%	80	120	0%	
Potassium	A	mg/L	0.1082	0.1082		0.125	0	0		1		87%	80	120	0%	
Selenium	A	mg/L	0.0006428	0.0006428		0.0005	0	0		0.005		129%	80	120	0%	S
Silicon	A	mg/L	-0.04016	-0.04016		0.002	0	0		0.1		-2008%	80	120	0%	S
Silver	A	mg/L	0.0002072	0.0002072		0.0002	0	0		0.001		104%	80	120	0%	
Sodium	A	mg/L	0.1151	0.1151		0.125	0	0		1		92%	80	120	0%	
Strontium	A	mg/L	0.0005141	0.0005141		0.0005	0	0		0.001		103%	80	120	0%	
Thallium	A	mg/L	0.0004841	0.0004841		0.0005	0	0		0.001		97%	80	120	0%	
Thorium	A	mg/L	0.0004087	0.0004087		0.0005	0	0		0.05		82%	80	120	0%	
Tin	A	mg/L	-0.001964	-0.001964		0.0005	0	0		0.001		-393%	80	120	0%	S
Titanium	A	mg/L	0.0004574	0.0004574		0.0005	0	0		0.001		91%	80	120	0%	
Uranium	A	mg/L	0.0004703	0.0004703		0.0005	0	0		0.001		94%	80	120	0%	
Vanadium	A	mg/L	0.0004522	0.0004522		0.0005	0	0		0.005		90%	80	120	0%	
Zinc	A	mg/L	0.000531	0.000531		0.0005	0	0		0.01		106%	80	120	0%	
Iron, Ferrous	C	mg/L	0.01287	0.01287		0.0005	0	0		0.01	5	2574%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.0859424	-0.0859424		0.0428	0	0		0.214	0.9	-201%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985209	1 PPB STD	ICPMS-6020B-C	Cal5		1/19/2022 4:58:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001138	0.001138		0.001	0	0		0.01		114%	80	120	0%	
Antimony	A	mg/L	0.001072	0.001072		0.001	0	0		0.001		107%	80	120	0%	
Arsenic	A	mg/L	0.001102	0.001102		0.001	0	0		0.001		110%	80	120	0%	
Barium	A	mg/L	0.001087	0.001087		0.001	0	0		0.0003		109%	80	120	0%	
Beryllium	A	mg/L	0.001082	0.001082		0.001	0	0		0.001		108%	80	120	0%	
Boron	A	mg/L	0.0005368	0.0005368		0.001	0	0		0.1		54%	80	120	0%	S
Cadmium	A	mg/L	0.001144	0.001144		0.001	0	0		0.001		114%	80	120	0%	
Calcium	A	mg/L	0.2689	0.2689		0.25	0	0		1		108%	80	120	0%	
Chromium	A	mg/L	0.001126	0.001126		0.001	0	0		0.001		113%	80	120	0%	
Cobalt	A	mg/L	0.001082	0.001082		0.001	0	0		0.001		108%	80	120	0%	
Copper	A	mg/L	0.00121	0.00121		0.001	0	0		0.005		121%	80	120	0%	S
Iron	A	mg/L	0.02912	0.02912		0.025	0	0		0.01		116%	80	120	0%	
Lanthanum	A	mg/L	0.001109	0.001109		0.001	0	0		0.001		111%	80	120	0%	
Lead	A	mg/L	0.001126	0.001126		0.001	0	0		0.001		113%	80	120	0%	
Magnesium	A	mg/L	0.2842	0.2842		0.25	0	0		1		114%	80	120	0%	
Manganese	A	mg/L	0.001133	0.001133		0.001	0	0		0.001		113%	80	120	0%	
Mercury	A	mg/L	0.00002074	0.00002074		0.00002	0	0		0.001		104%	80	120	0%	
Molybdenum	A	mg/L	0.001233	0.001233		0.001	0	0		0.001		123%	80	120	0%	S
Nickel	A	mg/L	0.001213	0.001213		0.001	0	0		0.005		121%	80	120	0%	S
Potassium	A	mg/L	0.2453	0.2453		0.25	0	0		1		98%	80	120	0%	
Selenium	A	mg/L	0.001332	0.001332		0.001	0	0		0.005		133%	80	120	0%	S
Silicon	A	mg/L	-0.04743	-0.04743		0.004	0	0		0.1		-1186%	80	120	0%	S
Silver	A	mg/L	0.0004491	0.0004491		0.0004	0	0		0.001		112%	80	120	0%	
Sodium	A	mg/L	0.269	0.269		0.25	0	0		1		108%	80	120	0%	
Strontium	A	mg/L	0.001087	0.001087		0.001	0	0		0.001		109%	80	120	0%	
Thallium	A	mg/L	0.001136	0.001136		0.001	0	0		0.001		114%	80	120	0%	
Thorium	A	mg/L	0.001007	0.001007		0.001	0	0		0.05		101%	80	120	0%	
Tin	A	mg/L	-0.001281	-0.001281		0.001	0	0		0.001		-128%	80	120	0%	S
Titanium	A	mg/L	0.001099	0.001099		0.001	0	0		0.001		110%	80	120	0%	
Uranium	A	mg/L	0.001077	0.001077		0.001	0	0		0.001		108%	80	120	0%	
Vanadium	A	mg/L	0.001083	0.001083		0.001	0	0		0.005		108%	80	120	0%	
Zinc	A	mg/L	0.001159	0.001159		0.001	0	0		0.01		116%	80	120	0%	
Iron, Ferrous	C	mg/L	0.02912	0.02912		0.001	0	0		0.01	5	2912%	80	120	0%	S
Silicon as SiO2	C	mg/L	-0.1015002	-0.1015002		0.0856	0	0		0.214	0.9	-119%	80	120	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985210	10 PPB STD	ICPMS-6020B-C Cal6			1/19/2022 5:04:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009137	0.009137		0.01	0	0		0.01		91%	90	110	0%	
Antimony	A	mg/L	0.009517	0.009517		0.01	0	0		0.001		95%	90	110	0%	
Arsenic	A	mg/L	0.01016	0.01016		0.01	0	0		0.001		102%	90	110	0%	
Barium	A	mg/L	0.009545	0.009545		0.01	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.008806	0.008806		0.01	0	0		0.001		88%	90	110	0%	S
Boron	A	mg/L	0.008351	0.008351		0.01	0	0		0.1		84%	90	110	0%	S
Cadmium	A	mg/L	0.009646	0.009646		0.01	0	0		0.001		96%	90	110	0%	
Calcium	A	mg/L	2.514	2.514		2.5	0	0		1		101%	90	110	0%	
Chromium	A	mg/L	0.009875	0.009875		0.01	0	0		0.001		99%	90	110	0%	
Cobalt	A	mg/L	0.00941	0.00941		0.01	0	0		0.001		94%	90	110	0%	
Copper	A	mg/L	0.01062	0.01062		0.01	0	0		0.005		106%	90	110	0%	
Iron	A	mg/L	0.2549	0.2549		0.25	0	0		0.01		102%	90	110	0%	
Lanthanum	A	mg/L	0.009559	0.009559		0.01	0	0		0.001		96%	90	110	0%	
Lead	A	mg/L	0.009571	0.009571		0.01	0	0		0.001		96%	90	110	0%	
Magnesium	A	mg/L	2.322	2.322		2.5	0	0		1		93%	90	110	0%	
Manganese	A	mg/L	0.009762	0.009762		0.01	0	0		0.001		98%	90	110	0%	
Mercury	A	mg/L	0.000192	0.000192		0.0002	0	0		0.001		96%	90	110	0%	
Molybdenum	A	mg/L	0.01057	0.01057		0.01	0	0		0.001		106%	90	110	0%	
Nickel	A	mg/L	0.01035	0.01035		0.01	0	0		0.005		103%	90	110	0%	
Potassium	A	mg/L	2.232	2.232		2.5	0	0		1		89%	90	110	0%	S
Selenium	A	mg/L	0.01152	0.01152		0.01	0	0		0.005		115%	90	110	0%	S
Silicon	A	mg/L	-0.0001659	-0.0001659		0.04	0	0		0.1		0%	90	110	0%	S
Silver	A	mg/L	0.004	0.004		0.004	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	2.374	2.374		2.5	0	0		1		95%	90	110	0%	
Strontium	A	mg/L	0.01004	0.01004		0.01	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.0102	0.0102		0.01	0	0		0.001		102%	90	110	0%	
Thorium	A	mg/L	0.0099	0.0099		0.01	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.007551	0.007551		0.01	0	0		0.001		76%	90	110	0%	S
Titanium	A	mg/L	0.009082	0.009082		0.01	0	0		0.001		91%	90	110	0%	
Uranium	A	mg/L	0.009236	0.009236		0.01	0	0		0.001		92%	90	110	0%	
Vanadium	A	mg/L	0.009719	0.009719		0.01	0	0		0.005		97%	90	110	0%	
Zinc	A	mg/L	0.009726	0.009726		0.01	0	0		0.01		97%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2549	0.2549		0.01	0	0		0.01	5	2549%	90	110	0%	S
Silicon as SiO2	C	mg/L	-0.0003550	-0.0003550		0.856	0	0		0.214	0.9	0%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985211	50 PPB STD	ICPMS-6020B-C Cal7			1/19/2022 5:10:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04903	0.04903		0.05	0	0		0.01		98%	90	110	0%	
Antimony	A	mg/L	0.04857	0.04857		0.05	0	0		0.001		97%	90	110	0%	
Arsenic	A	mg/L	0.05059	0.05059		0.05	0	0		0.001		101%	90	110	0%	
Barium	A	mg/L	0.048	0.048		0.05	0	0		0.0003		96%	90	110	0%	
Beryllium	A	mg/L	0.04942	0.04942		0.05	0	0		0.001		99%	90	110	0%	
Boron	A	mg/L	0.04814	0.04814		0.05	0	0		0.1		96%	90	110	0%	
Cadmium	A	mg/L	0.04991	0.04991		0.05	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	12.42	12.42		12.5	0	0		1		99%	90	110	0%	
Chromium	A	mg/L	0.04986	0.04986		0.05	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	0.0472	0.0472		0.05	0	0		0.001		94%	90	110	0%	
Copper	A	mg/L	0.05079	0.05079		0.05	0	0		0.005		102%	90	110	0%	
Iron	A	mg/L	1.283	1.283		1.25	0	0		0.01		103%	90	110	0%	
Lanthanum	A	mg/L	0.0493	0.0493		0.05	0	0		0.001		99%	90	110	0%	
Lead	A	mg/L	0.04947	0.04947		0.05	0	0		0.001		99%	90	110	0%	
Magnesium	A	mg/L	11.84	11.84		12.5	0	0		1		95%	90	110	0%	
Manganese	A	mg/L	0.04967	0.04967		0.05	0	0		0.001		99%	90	110	0%	
Mercury	A	mg/L	0.00101	0.00101		0.001	0	0		0.001		101%	90	110	0%	
Molybdenum	A	mg/L	0.05107	0.05107		0.05	0	0		0.001		102%	90	110	0%	
Nickel	A	mg/L	0.05045	0.05045		0.05	0	0		0.005		101%	90	110	0%	
Potassium	A	mg/L	11.19	11.19		12.5	0	0		1		90%	90	110	0%	
Selenium	A	mg/L	0.05315	0.05315		0.05	0	0		0.005		106%	90	110	0%	
Silicon	A	mg/L	0.1888	0.1888		0.2	0	0		0.1		94%	90	110	0%	
Silver	A	mg/L	0.01992	0.01992		0.02	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	12.72	12.72		12.5	0	0		1		102%	90	110	0%	
Strontium	A	mg/L	0.04963	0.04963		0.05	0	0		0.001		99%	90	110	0%	
Thallium	A	mg/L	0.0519	0.0519		0.05	0	0		0.001		104%	90	110	0%	
Thorium	A	mg/L	0.05179	0.05179		0.05	0	0		0.05		104%	90	110	0%	
Tin	A	mg/L	0.04721	0.04721		0.05	0	0		0.001		94%	90	110	0%	
Titanium	A	mg/L	0.0468	0.0468		0.05	0	0		0.001		94%	90	110	0%	
Uranium	A	mg/L	0.04879	0.04879		0.05	0	0		0.001		98%	90	110	0%	
Vanadium	A	mg/L	0.04936	0.04936		0.05	0	0		0.005		99%	90	110	0%	
Zinc	A	mg/L	0.05073	0.05073		0.05	0	0		0.01		101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.283	1.283		0.05	0	0		0.01	5	2566%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.404032	0.404032		4.28	0	0		0.214	0.9	9%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985212	100 PPB STD	ICPMS-6020B-C Cal8			1/19/2022 5:16:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.1006	0.1006		0.1	0	0		0.01		101%	90	110	0%	
Antimony	A	mg/L	0.1008	0.1008		0.1	0	0		0.001		101%	90	110	0%	
Arsenic	A	mg/L	0.09969	0.09969		0.1	0	0		0.001		100%	90	110	0%	
Barium	A	mg/L	0.101	0.101		0.1	0	0		0.0003		101%	90	110	0%	
Beryllium	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.1011	0.1011		0.1	0	0		0.1		101%	90	110	0%	
Cadmium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Calcium	A	mg/L	23.77	23.77		25	0	0		1		95%	90	110	0%	
Chromium	A	mg/L	0.1001	0.1001		0.1	0	0		0.001		100%	90	110	0%	
Cobalt	A	mg/L	0.1015	0.1015		0.1	0	0		0.001		101%	90	110	0%	
Copper	A	mg/L	0.09954	0.09954		0.1	0	0		0.005		100%	90	110	0%	
Iron	A	mg/L	2.602	2.602		2.5	0	0		0.01		104%	90	110	0%	
Lanthanum	A	mg/L	0.1004	0.1004		0.1	0	0		0.001		100%	90	110	0%	
Lead	A	mg/L	0.1003	0.1003		0.1	0	0		0.001		100%	90	110	0%	
Magnesium	A	mg/L	24.39	24.39		25	0	0		1		98%	90	110	0%	
Manganese	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Mercury	A	mg/L	0.001996	0.001996		0.002	0	0		0.001		100%	90	110	0%	
Molybdenum	A	mg/L	0.09941	0.09941		0.1	0	0		0.001		99%	90	110	0%	
Nickel	A	mg/L	0.09974	0.09974		0.1	0	0		0.005		100%	90	110	0%	
Potassium	A	mg/L	24.09	24.09		25	0	0		1		96%	90	110	0%	
Selenium	A	mg/L	0.09827	0.09827		0.1	0	0		0.005		98%	90	110	0%	
Silicon	A	mg/L	0.4104	0.4104		0.4	0	0		0.1		103%	90	110	0%	
Silver	A	mg/L	0.04004	0.04004		0.04	0	0		0.001		100%	90	110	0%	
Sodium	A	mg/L	24.63	24.63		25	0	0		1		99%	90	110	0%	
Strontium	A	mg/L	0.1002	0.1002		0.1	0	0		0.001		100%	90	110	0%	
Thallium	A	mg/L	0.09903	0.09903		0.1	0	0		0.001		99%	90	110	0%	
Thorium	A	mg/L	0.09912	0.09912		0.1	0	0		0.05		99%	90	110	0%	
Tin	A	mg/L	0.1017	0.1017		0.1	0	0		0.001		102%	90	110	0%	
Titanium	A	mg/L	0.1017	0.1017		0.1	0	0		0.001		102%	90	110	0%	
Uranium	A	mg/L	0.1007	0.1007		0.1	0	0		0.001		101%	90	110	0%	
Vanadium	A	mg/L	0.1003	0.1003		0.1	0	0		0.005		100%	90	110	0%	
Zinc	A	mg/L	0.09966	0.09966		0.1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	2.602	2.602		0.1	0	0		0.01	5	2602%	90	110	0%	S
Silicon as SiO2	C	mg/L	0.878256	0.878256		8.56	0	0		0.214	0.9	10%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985213	1000 PPB STD	ICPMS-6020B-C	Cal10		1/19/2022 5:21:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	1.017	1.017		1	0	0		0.01		102%	90	110	0%	
Antimony	A	mg/L	0.0001085	0.0001085		0	0	0		0.001		0%			0%	
Arsenic	A	mg/L	1.01	1.01		1	0	0		0.001		101%	90	110	0%	
Barium	A	mg/L	0.9526	0.9526		1	0	0		0.0003		95%	90	110	0%	
Beryllium	A	mg/L	0.995	0.995		1	0	0		0.001		100%	90	110	0%	
Boron	A	mg/L	0.9843	0.9843		1	0	0		0.1		98%	90	110	0%	
Cadmium	A	mg/L	0.9848	0.9848		1	0	0		0.001		98%	90	110	0%	
Calcium	A	mg/L	50.63	50.63		50	0	0		1		101%	90	110	0%	
Chromium	A	mg/L	1.068	1.068		1	0	0		0.001		107%	90	110	0%	
Cobalt	A	mg/L	1.043	1.043		1	0	0		0.001		104%	90	110	0%	
Copper	A	mg/L	1.007	1.007		1	0	0		0.005		101%	90	110	0%	
Iron	A	mg/L	6.003	6.003		6	0	0		0.01		100%	90	110	0%	
Lanthanum	A	mg/L	0.00001252	0.00001252		0	0	0		0.001		0%			0%	
Lead	A	mg/L	0.9456	0.9456		1	0	0		0.001		95%	90	110	0%	
Magnesium	A	mg/L	50.48	50.48		50	0	0		1		101%	90	110	0%	
Manganese	A	mg/L	1.027	1.027		1	0	0		0.001		103%	90		0%	
Mercury	A	mg/L	0.00001021	0.00001021		0	0	0		0.001		0%			0%	
Molybdenum	A	mg/L	0.00004479	0.00004479		0	0	0		0.001		0%			0%	
Nickel	A	mg/L	1.037	1.037		1	0	0		0.005		104%	90	110	0%	
Potassium	A	mg/L	50.79	50.79		50	0	0		1		102%	90	110	0%	
Selenium	A	mg/L	0.9916	0.9916		1	0	0		0.005		99%	90	110	0%	
Silicon	A	mg/L	-0.06033	-0.06033		0	0	0		0.1		0%			0%	
Silver	A	mg/L	0.3453	0.3453		0	0	0		0.001		0%			0%	
Sodium	A	mg/L	50.14	50.14		50	0	0		1		100%	90	110	0%	
Strontium	A	mg/L	1.018	1.018		1	0	0		0.001		102%	90	110	0%	
Thallium	A	mg/L	0.9263	0.9263		1	0	0		0.001		93%	90	110	0%	
Thorium	A	mg/L	0.9589	0.9589		1	0	0		0.05		96%	90	110	0%	
Tin	A	mg/L	-0.002332	-0.002332		0	0	0		0.001		0%			0%	
Titanium	A	mg/L	0.006022	0.006022		1	0	0		0.001		1%	90	110	0%	S
Uranium	A	mg/L	0.9586	0.9586		1	0	0		0.001		96%	90	110	0%	
Vanadium	A	mg/L	1.065	1.065		1	0	0		0.005		106%	90	110	0%	
Zinc	A	mg/L	0.9985	0.9985		1	0	0		0.01		100%	90	110	0%	
Iron, Ferrous	C	mg/L	6.003	6.003		0	0	0		0.01	5	0%			0%	
Silicon as SiO2	C	mg/L	-0.1291062	-0.1291062		0	0	0		0.214	0.9	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985214	100	ppb Bromine ICPMS-6020-W-	SAMP		1/19/2022 5:27:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.009077	0.009077		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	0.00002214	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.000143	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.0001376	0.0001376		0	0	0	0.0001321	0.001	1	0%	0	0	0%	J
Beryllium	A	mg/L	0.0001928	0.0001928		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	J
Cadmium	A	mg/L	0.0000985	0.0000985		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	0.00000391	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.0001453	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.0001107	0.0001107		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0001956	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0001171	0.0001171		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.0001192	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	0.00000398	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00001768	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002128	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.001581	0.001581		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.0000991	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003628	0.0003628		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00008862	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0001259	0.0001259		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Boron	B	mg/L	0.005777	0.005777		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	D
Iron	B	mg/L	0.001235	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.001235	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.03946	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.0002959	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	0.00001983	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.0006131	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985215	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:33:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001119	0.001119		0	0	0	0.0006548	0.001	1	0%	0	0	0%	
Antimony	A	mg/L	-1.692E-06	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001964	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985215	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:33:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Barium	A	mg/L	0.00004017	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Beryllium	A	mg/L	0.00005676	0		0	0	0	7.465E-05	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001977	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	8.56E-07	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001121	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00001346	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001657	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001299	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	7.373E-06	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.344E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	7.478E-06	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-1.223E-07	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.0001701	0.0001701		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00001544	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002095	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	5.939E-06	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001554	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Boron	B	mg/L	0.001265	0		0	0	0	0.0030032	0.0030032	1	0%	0	0	0%	L
Iron	B	mg/L	0.0003575	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.0003575	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.1272	0.1272		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00005305	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-0.0000792	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00004756	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985216	QCS	ICPMS-6020-W-	ICV		1/19/2022 5:38:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.2541	0.2541		0.25	0	0	0.0006548	0.001	1	102%	90	110	0%	
Antimony	A	mg/L	0.04968	0.04968		0.05	0	0	0.0002987	0.001	0.1	99%	90	110	0%	
Arsenic	A	mg/L	0.0509	0.0509		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.05037	0.05037		0.05	0	0	0.0001321	0.001	1	101%	90	110	0%	
Beryllium	A	mg/L	0.02504	0.02504		0.025	0	0	7.465E-05	0.001	1	100%	90	110	0%	
Boron	A	mg/L	0.05056	0.05056		0.05	0	0	0.0030032	0.0030032	1	101%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985216	QCS	ICPMS-6020-W- ICV			1/19/2022 5:38:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cadmium	A	mg/L	0.02705	0.02705		0.025	0	0	5.139E-05	0.001	1	108%	90	110	0%	
Calcium	A	mg/L	2.601	2.601		2.5	0	0	0.0749796	0.0749796	50	104%	90	110	0%	
Cerium	A	mg/L	0.05227	0.05227		0.05	0	0	1.462E-05	0.001	0.1	105%	90	110	0%	
Chromium	A	mg/L	0.05148	0.05148		0.05	0	0	0.0005481	0.001	1	103%	90	110	0%	
Cobalt	A	mg/L	0.04982	0.04982		0.05	0	0	4.756E-05	0.001	1	100%	90	110	0%	
Copper	A	mg/L	0.05452	0.05452		0.05	0	0	0.0003828	0.001	1	109%	90	110	0%	
Iron	A	mg/L	0.2453	0.2453		0.25	0	0	0.0046291	0.0046291	5	98%	90	110	0%	
Lanthanum	A	mg/L	0.05103	0.05103		0.05	0	0	1.683E-05	0.001	0.1	102%	90	110	0%	
Lead	A	mg/L	0.05076	0.05076		0.05	0	0	6.264E-05	0.001	1	102%	90	110	0%	
Lithium	A	mg/L	0.04488	0.04488		0.05	0	0	0.0052105	0.0052105	2.5	90%	90	110	0%	
Magnesium	A	mg/L	2.403	2.403		2.5	0	0	0.0118993	0.0118993	50	96%	90	110	0%	
Manganese	A	mg/L	0.2541	0.2541		0.25	0	0	0.0001444	0.001	1	102%	90	110	0%	
Mercury	A	mg/L	0.0009787	0.0009787		0.001	0	0	0.0000666	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.04802	0.04802		0.05	0	0	8.338E-05	0.001	0.1	96%	90	110	0%	
Nickel	A	mg/L	0.05286	0.05286		0.05	0	0	0.0002531	0.001	1	106%	90	110	0%	
Potassium	A	mg/L	2.413	2.413		2.5	0	0	0.207399	0.207399	50	97%	90	110	0%	
Selenium	A	mg/L	0.05295	0.05295		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.565	0.565		0.5	0	0	0.0146174	0.1	0.4	113%	90	110	0%	S
Silver	A	mg/L	0.02492	0.02492		0.025	0	0	1.123E-05	0.001	0.04	100%	90	110	0%	
Sodium	A	mg/L	2.489	2.489		2.5	0	0	0.0809273	0.0809273	50	100%	90	110	0%	
Strontium	A	mg/L	0.04863	0.04863		0.05	0	0	0.0001825	0.001	1	97%	90	110	0%	
Thallium	A	mg/L	0.05363	0.05363		0.05	0	0	0.0002991	0.001	1	107%	90	110	0%	
Thorium	A	mg/L	0.05313	0.05313		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04942	0.04942		0.05	0	0	0.0022388	0.0022388	0.1	99%	90	110	0%	
Titanium	A	mg/L	0.04851	0.04851		0.05	0	0	0.0002974	0.001	1	97%	90	110	0%	
Uranium	A	mg/L	0.05216	0.05216		0.05	0	0	3.139E-05	0.0003	1	104%	90	110	0%	
Vanadium	A	mg/L	0.05067	0.05067		0.05	0	0	0.0043468	0.0043468	1	101%	90	110	0%	
Zinc	A	mg/L	0.05368	0.05368		0.05	0	0	0.0011598	0.0011598	1	107%	90	110	0%	
Iron, Ferrous	C	mg/L	0.2453	0.2453		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985217	ICSA	ICPMS-6020-W- ICSA			1/19/2022 5:44:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985217	ICSA	ICPMS-6020-W- ICSA			1/19/2022 5:44:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	36.35	36.35		40	0	0	0.0006548	0.001	1	91%	80	120	0%	
Antimony	A	mg/L	0.0000504	0.0000504		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.00006899	0.00006899		0	0	0	0.0001814	0.001	1	0%			0%	
Barium	A	mg/L	0.0000704	0.0000704		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00001687	0.00001687		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	0.0006054	0.0006054		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.0001979	0.0001979		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	106.6	106.6		120	0	0	0.0749796	0.0749796	50	89%	80	120	0%	
Cerium	A	mg/L	4.632E-06	4.632E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.0008709	0.0008709		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	0.0003529	0.0003529		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	0.00002341	0.00002341		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	90.8	90.8		100	0	0	0.0046291	0.0046291	5	91%	80	120	0%	
Lanthanum	A	mg/L	0.00001013	0.00001013		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001918	0.00001918		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0001796	-0.0001796		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	38.62	38.62		50	0	0	0.0118993	0.0118993	50	77%			0%	
Manganese	A	mg/L	0.0001812	0.0001812		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	5.591E-06	5.591E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7712	0.7712		0.8	0	0	8.338E-05	0.001	0.1	96%	80	120	0%	
Nickel	A	mg/L	0.0001704	0.0001704		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	35.3	35.3		50	0	0	0.207399	0.207399	50	71%			0%	
Selenium	A	mg/L	0.0001392	0.0001392		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.06645	-0.06645		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.00005844	0.00005844		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	96.16	96.16		100	0	0	0.0809273	0.0809273	50	96%			0%	
Strontium	A	mg/L	0.001214	0.001214		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0001769	0.0001769		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0001569	0.0001569		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002146	-0.002146		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7884	0.7884		0.8	0	0	0.0002974	0.001	1	99%			0%	
Uranium	A	mg/L	6.311E-06	6.311E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	-0.0001624	-0.0001624		0	0	0	0.0043468	0.0043468	1	0%			0%	
Zinc	A	mg/L	0.0004544	0.0004544		0	0	0	0.0011598	0.0011598	1	0%			0%	
Iron, Ferrous	C	mg/L	90.8	90.8		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985218	ICSAB	ICPMS-6020-W- ICSAB			1/19/2022 5:50:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	34.29	34.29		40	0	0	0.0006548	0.001	1	86%	80	120	0%	
Antimony	A	mg/L	0.00001619	0.00001619		0	0	0	0.0002987	0.001	0.1	0%			0%	
Arsenic	A	mg/L	0.01042	0.01042		0.01	0	0	0.0001814	0.001	1	104%	80	120	0%	
Barium	A	mg/L	0.00006868	0.00006868		0	0	0	0.0001321	0.001	1	0%			0%	
Beryllium	A	mg/L	0.00002178	0.00002178		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-0.000295	-0.000295		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	0.009732	0.009732		0.01	0	0	5.139E-05	0.001	1	97%	80	120	0%	
Calcium	A	mg/L	96.84	96.84		120	0	0	0.0749796	0.0749796	50	81%	80	120	0%	
Cerium	A	mg/L	4.297E-06	4.297E-06		0	0	0	1.462E-05	0.001	0.1	0%			0%	
Chromium	A	mg/L	0.02019	0.02019		0.02	0	0	0.0005481	0.001	1	101%	80	120	0%	
Cobalt	A	mg/L	0.01893	0.01893		0.02	0	0	4.756E-05	0.001	1	95%	80	120	0%	
Copper	A	mg/L	0.01951	0.01951		0.02	0	0	0.0003828	0.001	1	98%	80	120	0%	
Iron	A	mg/L	86.81	86.81		100	0	0	0.0046291	0.0046291	5	87%	80	120	0%	
Lanthanum	A	mg/L	8.962E-06	8.962E-06		0	0	0	1.683E-05	0.001	0.1	0%			0%	
Lead	A	mg/L	0.00001885	0.00001885		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.0005909	-0.0005909		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	36	36		40	0	0	0.0118993	0.0118993	50	90%	80	120	0%	
Manganese	A	mg/L	0.01844	0.01844		0.02	0	0	0.0001444	0.001	1	92%	80	120	0%	
Mercury	A	mg/L	1.381E-06	1.381E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.7958	0.7958		0.8	0	0	8.338E-05	0.001	0.1	99%	80	120	0%	
Nickel	A	mg/L	0.01986	0.01986		0.02	0	0	0.0002531	0.001	1	99%	80	120	0%	
Potassium	A	mg/L	32.99	32.99		40	0	0	0.207399	0.207399	50	82%	80	120	0%	
Selenium	A	mg/L	0.01098	0.01098		0.01	0	0	0.0001415	0.001	1	110%	80	120	0%	
Silicon	A	mg/L	-0.06594	-0.06594		0	0	0	0.0146174	0.1	0.4	0%			0%	
Silver	A	mg/L	0.004843	0.004843		0.005	0	0	1.123E-05	0.001	0.04	97%	80	120	0%	
Sodium	A	mg/L	92.37	92.37		100	0	0	0.0809273	0.0809273	50	92%	80	120	0%	
Strontium	A	mg/L	0.001226	0.001226		0	0	0	0.0001825	0.001	1	0%			0%	
Thallium	A	mg/L	0.0001433	0.0001433		0	0	0	0.0002991	0.001	1	0%			0%	
Thorium	A	mg/L	0.0000863	0.0000863		0	0	0	0.0010473	0.0010473	1	0%			0%	
Tin	A	mg/L	-0.002154	-0.002154		0	0	0	0.0022388	0.0022388	0.1	0%			0%	
Titanium	A	mg/L	0.7268	0.7268		0.8	0	0	0.0002974	0.001	1	91%	80	120	0%	
Uranium	A	mg/L	2.057E-06	2.057E-06		0	0	0	3.139E-05	0.0003	1	0%			0%	
Vanadium	A	mg/L	0.01855	0.01855		0.02	0	0	0.0043468	0.0043468	1	93%	80	120	0%	
Zinc	A	mg/L	0.01011	0.01011		0.01	0	0	0.0011598	0.0011598	1	101%	80	120	0%	
Iron, Ferrous	C	mg/L	86.81	86.81		0	0	0	0.0046291	0.0046291	5	0%			0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985219	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 5:56:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0008047	0.0008047		0	0	0	0.0006548	0.001	1	0%	0	0	0%	J
Antimony	A	mg/L	0.00001088	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00004529	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00007118	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00006788	0.00006788		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	A	mg/L	0.00001098	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00006033	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00005198	0.00005198		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.00005872	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00005762	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Manganese	A	mg/L	0.00006848	0		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	-8.672E-08	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001032	0.0001032		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.00004375	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.00003135	0.00003135		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00006096	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001686	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.0000593	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00005118	0.00005118		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Iron	B	mg/L	0.002587	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Iron, Ferrous	B	mg/L	0.002587	0		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	L
Sodium	B	mg/L	0.02861	0		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	L
Thorium	B	mg/L	0.00004952	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-9.041E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00008212	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985220	CCV	ICPMS-6020-W-	CCV		1/19/2022 6:01:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04523	0.04523		0.05	0	0	0.0006548	0.001	1	90%	90	110	0%	
Antimony	A	mg/L	0.04601	0.04601		0.05	0	0	0.0002987	0.001	0.1	92%	90	110	0%	
Arsenic	A	mg/L	0.05165	0.05165		0.05	0	0	0.0001814	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.04814	0.04814		0.05	0	0	0.0001321	0.001	1	96%	90	110	0%	
Beryllium	A	mg/L	0.04103	0.04103		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985220	CCV	ICPMS-6020-W-	CCV		1/19/2022 6:01:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Boron	A	mg/L	0.04033	0.04033		0.05	0	0	0.0030032	0.0030032	1	81%	90	110	0%	S
Cadmium	A	mg/L	0.04959	0.04959		0.05	0	0	5.139E-05	0.001	1	99%	90	110	0%	
Calcium	A	mg/L	11.07	11.07		12.5	0	0	0.0749796	0.0749796	50	89%	90	110	0%	S
Cerium	A	mg/L	0.04877	0.04877		0.05	0	0	1.462E-05	0.001	0.1	98%	90	110	0%	
Chromium	A	mg/L	0.05099	0.05099		0.05	0	0	0.0005481	0.001	1	102%	90	110	0%	
Cobalt	A	mg/L	0.04717	0.04717		0.05	0	0	4.756E-05	0.001	1	94%	90	110	0%	
Copper	A	mg/L	0.05247	0.05247		0.05	0	0	0.0003828	0.001	1	105%	90	110	0%	
Iron	A	mg/L	1.168	1.168		1.3	0	0	0.0046291	0.0046291	5	90%	90	110	0%	
Lanthanum	A	mg/L	0.0493	0.0493		0.05	0	0	1.683E-05	0.001	0.1	99%	90	110	0%	
Lead	A	mg/L	0.04831	0.04831		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3681	0.3681		0.625	0	0	0.0052105	0.0052105	2.5	59%	90	110	0%	S
Magnesium	A	mg/L	10.9	10.9		12.5	0	0	0.0118993	0.0118993	50	87%	90	110	0%	S
Manganese	A	mg/L	0.04665	0.04665		0.05	0	0	0.0001444	0.001	1	93%	90	110	0%	
Mercury	A	mg/L	0.0009892	0.0009892		0.001	0	0	0.0000666	0.001	0.02	99%	90	110	0%	
Molybdenum	A	mg/L	0.05025	0.05025		0.05	0	0	8.338E-05	0.001	0.1	100%	90	110	0%	
Nickel	A	mg/L	0.05192	0.05192		0.05	0	0	0.0002531	0.001	1	104%	90	110	0%	
Potassium	A	mg/L	10.64	10.64		12.5	0	0	0.207399	0.207399	50	85%	90	110	0%	S
Selenium	A	mg/L	0.05446	0.05446		0.05	0	0	0.0001415	0.001	1	109%	90	110	0%	
Silicon	A	mg/L	0.1795	0.1795		0.2	0	0	0.0146174	0.1	0.4	90%	90	110	0%	
Silver	A	mg/L	0.02012	0.02012		0.02	0	0	1.123E-05	0.001	0.04	101%	90	110	0%	
Sodium	A	mg/L	11.79	11.79		12.5	0	0	0.0809273	0.0809273	50	94%	90	110	0%	
Strontium	A	mg/L	0.0513	0.0513		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.0508	0.0508		0.05	0	0	0.0002991	0.001	1	102%	90	110	0%	
Thorium	A	mg/L	0.05132	0.05132		0.05	0	0	0.0010473	0.0010473	1	103%	90	110	0%	
Tin	A	mg/L	0.04699	0.04699		0.05	0	0	0.0022388	0.0022388	0.1	94%	90	110	0%	
Titanium	A	mg/L	0.04643	0.04643		0.05	0	0	0.0002974	0.001	1	93%	90	110	0%	
Uranium	A	mg/L	0.04786	0.04786		0.05	0	0	3.139E-05	0.0003	1	96%	90	110	0%	
Vanadium	A	mg/L	0.0486	0.0486		0.05	0	0	0.0043468	0.0043468	1	97%	90	110	0%	
Zinc	A	mg/L	0.0519	0.0519		0.05	0	0	0.0011598	0.0011598	1	104%	90	110	0%	
Iron, Ferrous	C	mg/L	1.168	1.168		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985221	CCB	ICPMS-6020-W-	CCB		1/19/2022 6:07:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985221	CCB	ICPMS-6020-W- CCB			1/19/2022 6:07:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0001734	0.0001734		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00003263	0.00003263		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	1.997E-06	1.997E-06		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	3.884E-06	3.884E-06		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	0.00002558	0.00002558		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	-0.0001061	-0.0001061		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	5.024E-07	5.024E-07		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.0003661	0.0003661		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	1.103E-06	1.103E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	0.00001348	0.00001348		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	2.286E-06	2.286E-06		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	4.363E-07	4.363E-07		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	0.0008886	0.0008886		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	1.779E-07	1.779E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	1.919E-06	1.919E-06		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	-0.0007969	-0.0007969		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	-0.0005714	-0.0005714		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	-6.216E-06	-6.216E-06		0	0	0	0.0001444	0.001	1	0%				0%
Mercury	A	mg/L	4.956E-06	4.956E-06		0	0	0	0.000066	0.001	0.02	0%				0%
Molybdenum	A	mg/L	0.00002203	0.00002203		0	0	0	8.338E-05	0.001	0.1	0%				0%
Nickel	A	mg/L	-1.837E-05	-1.837E-05		0	0	0	0.0002531	0.001	1	0%				0%
Potassium	A	mg/L	0.001241	0.001241		0	0	0	0.207399	0.207399	50	0%				0%
Selenium	A	mg/L	0.00005299	0.00005299		0	0	0	0.0001415	0.001	1	0%				0%
Silicon	A	mg/L	-0.06969	-0.06969		0	0	0	0.0146174	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.00001094	0.00001094		0	0	0	1.123E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	-0.01214	-0.01214		0	0	0	0.0809273	0.0809273	50	0%				0%
Strontium	A	mg/L	1.881E-06	1.881E-06		0	0	0	0.0001825	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.00009062	0.00009062		0	0	0	0.0002991	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.0000314	0.0000314		0	0	0	0.0010473	0.0010473	1	0%	0	0		0%
Tin	A	mg/L	0.0002201	0.0002201		0	0	0	0.0022388	0.0022388	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00000503	0.00000503		0	0	0	0.0002974	0.001	1	0%	0	0		0%
Uranium	A	mg/L	2.046E-06	2.046E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	-0.0001168	-0.0001168		0	0	0	0.0043468	0.0043468	1	0%	0	0		0%
Zinc	A	mg/L	-4.588E-06	-4.588E-06		0	0	0	0.0011598	0.0011598	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	0.0008886	0.0008886		0	0	0	0.0046291	0.0046291	5	0%	0	0		0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985222	B22010751-001	ICPMS-6020-W-	SAMP		1/19/2022 6:13:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.003026	0.003026		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00007415	0.00007415		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Aluminum	B	mg/L	0.007666	0.007666		0	0	0	0.0006548	0.001	1	0%	0	0	0%	U
Antimony	B	mg/L	0.0001937	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	B	mg/L	0.0005006	0.0005006		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	B	mg/L	0.07784	0.07784		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	B	mg/L	0.0000741	0.0000741		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	J
Cerium	B	mg/L	0.00001642	0.00001642		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Chromium	B	mg/L	0.001328	0.001328		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	B	mg/L	0.0009353	0.0009353		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	J
Iron	B	mg/L	0.007702	0.007702		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	UD
Iron, Ferrous	B	mg/L	0.007702	0.007702		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	UD
Manganese	B	mg/L	0.1321	0.1321		0	0	0	0.0001444	0.001	1	0%	0	0	0%	
Mercury	B	mg/L	6.791E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	B	mg/L	0.001579	0.001579		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	B	mg/L	0.007172	0.007172		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	B	mg/L	-7.111E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	B	mg/L	0.3701	0.3701		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	B	mg/L	0.00008374	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Thorium	B	mg/L	0.00005992	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Titanium	B	mg/L	0.001696	0.001696		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	B	mg/L	0.0002716	0.0002716		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Vanadium	B	mg/L	0.009638	0.009638		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.009536	0.009536		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987728	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:19:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.0004223	0.0004223		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	J
Arsenic	A	mg/L	0.001495	0.001495		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02037	0.02037		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.754E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.856E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002148	0.002148		0	0	0	0.0005481	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987728	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:19:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Cobalt	A	mg/L	0.00002415	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002148	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	0.0001167	0.0001167		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Mercury	A	mg/L	0.00001857	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.004748	0.004748		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0003526	0.0003526		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-6.939E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1131	0.1131		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005609	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001362	0.001362		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002638	0.0002638		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Sodium	B	mg/L	41.12	41.12		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000147	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.009093	0.009093		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.004286	0.004286		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987729	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:25:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.001501	0.001501		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02173	0.02173		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002234	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00005411	0.00005411		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Cobalt	A	mg/L	0.00005673	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00002107	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00004372	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.008162	0.008162		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00559	0.00559		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001159	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.0000344	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1269	0.1269		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003037	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Titanium	A	mg/L	0.003366	0.003366		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002998	0.0002998		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987729	B22010971-001	ICPMS-6020-W-	SAMP		1/19/2022 6:25:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	B	mg/L	0.0004418	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Chromium	B	mg/L	0.00269	0.00269		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0006115	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0004916	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	49.45	49.45		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00009433	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0104	0.0104		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987730	B22010971-001	ICPMS-6020-W-	SD		1/19/2022 6:30:5	5	162992	1/17/2022 1:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.007542	0.03771		0	0	0.03352	0.0159875	0.0159875	1	0%	0	0		N
Antimony	A	mg/L	0.00008447	0		0	0	0	0.0049	0.0106858	0.1	0%	0	0		
Arsenic	A	mg/L	0.0003024	0.001512		0	0	0.001501	0.0013383	0.0013383	1	0%	0	0		N
Barium	A	mg/L	0.004657	0.023285		0	0	0.02173	0.0012039	0.0012039	1	0%	0	0	7%	
Beryllium	A	mg/L	3.695E-06	0		0	0	0	0.0007817	0.01	1	0%	0	0		
Boron	A	mg/L	0.007351	0		0	0	0.03606	0.07335	0.07335	1	0%	0	0		
Cadmium	A	mg/L	0.0000259	0		0	0	0	0.0002284	0.005	1	0%	0	0		
Calcium	A	mg/L	2.357	11.785		0	0	11.99	0.5517403	0.5517403	150	0%	0	0	2%	
Cerium	A	mg/L	0.0000134	0		0	0	5.411E-05	0.00025	0.001	0.1	0%	0	0		
Chromium	A	mg/L	0.0004723	0		0	0	0.00269	0.0077	0.0077	1	0%	0	0		
Cobalt	A	mg/L	0.00001001	0		0	0	0	0.00036	0.001	1	0%	0	0		
Copper	A	mg/L	0.0001438	0		0	0	0	0.0099	0.017376	1	0%	0	0		
Iron	A	mg/L	0.006265	0.031325		0	0	0.03101	0.02565	0.02565	5	0%	0	0		N
Lanthanum	A	mg/L	5.415E-06	0		0	0	0	0.000275	0.001	0.1	0%	0	0		
Lead	A	mg/L	0.00001384	0		0	0	0	0.0003858	0.001	1	0%	0	0		
Magnesium	A	mg/L	1.796	8.98		0	0	9.482	0.0407608	0.0407608	50	0%	0	0	5%	
Manganese	A	mg/L	0.001454	0.00727		0	0	0.008162	0.0010695	0.0010695	1	0%	0	0		N
Molybdenum	A	mg/L	0.001152	0.00576		0	0	0.00559	0.0008814	0.001	0.1	0%	0	0		N
Nickel	A	mg/L	0.0001076	0		0	0	0	0.0121000	0.0121000	1	0%	0	0		
Potassium	A	mg/L	0.5349	2.6745		0	0	3.116	0.1306027	0.1306027	50	0%	0	0	15%	R
Selenium	A	mg/L	0.0000302	0		0	0	0	0.0029274	0.0029274	1	0%	0	0		
Silicon	A	mg/L	4.7	23.5		0	0	23.35	0.026606	0.026606	0.4	0%	0	0	1%	
Silver	A	mg/L	-0.0000642	0		0	0	0	0.0002158	0.001	0.04	0%	0	0		

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987730	B22010971-001	ICPMS-6020-W- SD			1/19/2022 6:30:5	5	162992	1/17/2022 1:	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Sodium	A	mg/L	8.799	43.995		0	0	49.45	3.6651346	3.6651346	50	0%	0	0	12%	R
Strontium	A	mg/L	0.02489	0.12445		0	0	0.1269	0.0006322	0.001	1	0%	0	0	2%	
Thallium	A	mg/L	0.00002316	0		0	0	0	0.0005569	0.001	1	0%	0	0		
Thorium	A	mg/L	-9.021E-07	0		0	0	0	0.02075	0.02075	1	0%	0	0		
Tin	A	mg/L	-0.002334	0		0	0	0	0.0055874	0.0055874	0.1	0%	0	0		
Titanium	A	mg/L	0.0006318	0.003159		0	0	0.003366	0.0008168	0.001	1	0%	0	0		N
Uranium	A	mg/L	0.00006062	0		0	0	0.0002998	0.0004224	0.0004224	1	0%	0	0		
Vanadium	A	mg/L	0.001713	0		0	0	0.0104	0.0105423	0.0105423	1	0%	0	0		
Zinc	A	mg/L	0.001992	0		0	0	0.02303	0.0327721	0.0327721	1	0%	0	0		
Silica	C	mg/L	10.05424	50.2712		0	0	0	0.0569155	0.0569155	5	0%	0	0		N
Silicon as SiO2	C	mg/L	10.05424	50.2712		0	0	0	0.0569155	0.0569155	5	0%	0	0		N

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987731	B22010971-001	ICPMS-6020-W- PDS1			1/19/2022 6:36:3	1.03	162992	1/17/2022 1:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.07638	0.0786714		0.0515	0.03352	0	0.0032934	0.0032934	1	88%	75	125	0%	
Antimony	A	mg/L	0.04363	0.0449389		0.0515	0	0	0.0010094	0.0022013	0.1	87%	75	125	0%	
Arsenic	A	mg/L	0.04882	0.0502846		0.0515	0.001501	0	0.0002757	0.001	1	95%	75	125	0%	
Barium	A	mg/L	0.06633	0.0683199		0.0515	0.02173	0	0.0002480	0.001	1	90%	75	125	0%	
Beryllium	A	mg/L	0.04028	0.0414884		0.0515	0	0	0.0001610	0.01	1	81%	75	125	0%	
Boron	A	mg/L	0.07992	0.0823176		0.0515	0.03606	0	0.0151101	0.0151101	1	90%	75	125	0%	
Cadmium	A	mg/L	0.04277	0.0440531		0.0515	0	0	4.704E-05	0.005	1	86%	75	125	0%	
Calcium	A	mg/L	53.27	54.8681		51.5	11.99	0	0.1136585	0.1136585	150	83%	75	125	0%	
Cerium	A	mg/L	0.04726	0.0486778		0.0515	5.411E-05	0	0.0000515	0.001	0.1	94%	75	125	0%	
Chromium	A	mg/L	0.0524	0.053972		0.0515	0.00269	0	0.0015862	0.0015862	1	100%	75	125	0%	
Cobalt	A	mg/L	0.04328	0.0445784		0.0515	0	0	7.416E-05	0.001	1	87%	75	125	0%	
Copper	A	mg/L	0.04877	0.0502331		0.0515	0	0	0.0020394	0.0035794	1	98%	75	125	0%	
Iron	A	mg/L	4.426	4.55878		5.15	0.03101	0	0.0052839	0.0052839	5	88%	75	125	0%	
Lanthanum	A	mg/L	0.00002805	0		0.0515	0	0	5.665E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04618	0.0475654		0.0515	0	0	7.947E-05	0.001	1	92%	80	120	0%	
Magnesium	A	mg/L	59.06	60.8318		51.5	9.482	0	0.0083967	0.0083967	50	100%	75	125	0%	
Manganese	A	mg/L	0.05494	0.0565882		0.0515	0.008162	0	0.0002203	0.001	1	94%	75	125	0%	
Molybdenum	A	mg/L	0.05399	0.0556097		0.0515	0.00559	0	0.0001816	0.001	0.1	97%	75	125	0%	
Nickel	A	mg/L	0.04955	0.0510365		0.0515	0	0	0.0024926	0.0024926	1	99%	75	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987731	B22010971-001	ICPMS-6020-W-	PDS1		1/19/2022 6:36:3	1.03	162992	1/17/2022 1:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Potassium	A	mg/L	46.55	47.9465		51.5	3.116	0	0.0269042	0.0269042	50	87%	75	125	0%	
Selenium	A	mg/L	0.04651	0.0479053		0.0515	0	0	0.0006030	0.001	1	93%	75	125	0%	
Silicon	A	mg/L	23.03	23.7209		0.206	23.35	0	0.0054808	0.0054808	0.4		0	0	0%	A
Silver	A	mg/L	0.01972	0.0203116		0.0206	0	0	4.446E-05	0.001	0.04	99%	75	125	0%	
Sodium	A	mg/L	94.03	96.8509		51.5	49.45	0	0.7550177	0.7550177	50	92%	75	125	0%	
Strontium	A	mg/L	0.1668	0.171804		0.0515	0.1269	0	0.0001302	0.001	1	87%	75	125	0%	
Thallium	A	mg/L	0.0486	0.050058		0.0515	0	0	0.0001147	0.001	1	97%	75	125	0%	
Thorium	A	mg/L	0.05176	0.0533128		0.0515	0	0	0.0042745	0.0042745	1	104%	75	125	0%	
Tin	A	mg/L	0.04411	0.0454333		0.0515	0	0	0.001151	0.001151	0.1	88%	75	125	0%	
Titanium	A	mg/L	0.05231	0.0538793		0.0515	0.003366	0	0.0001683	0.001	1	98%	75	125	0%	
Uranium	A	mg/L	0.04688	0.0482864		0.0515	0.0002998	0	8.702E-05	0.0003	1	93%	75	125	0%	
Vanadium	A	mg/L	0.0568	0.058504		0.0515	0.0104	0	0.0021717	0.0021717	1	93%	75	125	0%	
Zinc	A	mg/L	0.04786	0.0492958		0.0515	0.02303	0	0.0067511	0.0067511	1	51%	75	125	0%	S
Silica	C	mg/L	49.265776	50.7437493		0	0	0	0.0117246	0.0117246	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	49.265776	50.7437493		0.0515	0	0	0.0117246	0.0117246	5	98532%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987732	B22010971-001	ICPMS-6020-W-	MS4		1/19/2022 6:42:1	1	162992	1/17/2022 1:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5082	0.5082		0.5	0.03352	0	0.0031975	0.0031975	1	95%	75	125	0%	
Antimony	A	mg/L	0.09497	0.09497		0.1	0	0	0.00098	0.0021372	0.1	95%	75	125	0%	
Arsenic	A	mg/L	0.1006	0.1006		0.1	0.001501	0	0.0002677	0.001	1	99%	75	125	0%	
Barium	A	mg/L	0.114	0.114		0.1	0.02173	0	0.0002408	0.001	1	92%	75	125	0%	
Beryllium	A	mg/L	0.04324	0.04324		0.05	0	0	0.0001563	0.01	1	86%	75	125	0%	
Boron	A	mg/L	0.1366	0.1366		0.1	0.03606	0	0.01467	0.01467	1	101%	75	125	0%	
Cadmium	A	mg/L	0.04716	0.04716		0.05	0	0	4.567E-05	0.005	1	94%	75	125	0%	
Calcium	A	mg/L	16.85	16.85		5	11.99	0	0.1103481	0.1103481	150	97%	75	125	0%	
Cerium	A	mg/L	0.1012	0.1012		0.1	5.411E-05	0	0.00005	0.001	0.1	101%	75	125	0%	
Chromium	A	mg/L	0.106	0.106		0.1	0.00269	0	0.00154	0.00154	1	103%	75	125	0%	
Cobalt	A	mg/L	0.09581	0.09581		0.1	0	0	0.000072	0.001	1	96%	75	125	0%	
Copper	A	mg/L	0.1072	0.1072		0.1	0	0	0.00198	0.0034752	1	107%	75	125	0%	
Iron	A	mg/L	0.489	0.489		0.5	0.03101	0	0.00513	0.00513	5	92%	75	125	0%	
Lanthanum	A	mg/L	0.1005	0.1005		0.1	0	0	0.000055	0.001	0.1	100%	75	125	0%	
Lead	A	mg/L	0.09976	0.09976		0.1	0	0	7.716E-05	0.001	1	100%	88	115	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987732	B22010971-001	ICPMS-6020-W- MS4			1/19/2022 6:42:1	1	162992	1/17/2022 1:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Magnesium	A	mg/L	13.83	13.83		5	9.482	0	0.0081522	0.0081522	50	87%	75	125	0%	
Manganese	A	mg/L	0.5204	0.5204		0.5	0.008162	0	0.0002139	0.001	1	102%	75	125	0%	
Molybdenum	A	mg/L	0.1048	0.1048		0.1	0.00559	0	0.0001763	0.001	0.1	99%	75	125	0%	
Nickel	A	mg/L	0.1073	0.1073		0.1	0	0	0.0024200	0.0024200	1	107%	75	125	0%	
Potassium	A	mg/L	7.66	7.66		5	3.116	0	0.0261205	0.0261205	50	91%	75	125	0%	
Selenium	A	mg/L	0.09983	0.09983		0.1	0	0	0.0005855	0.001	1	100%	75	125	0%	
Silicon	A	mg/L	23.92	23.92		1	23.35	0	0.0053212	0.0053212	0.4		75	125	0%	A
Silver	A	mg/L	0.009808	0.009808		0.01	0	0	4.316E-05	0.001	0.04	98%	75	125	0%	
Sodium	A	mg/L	49.97	49.97		5	49.45	0	0.7330269	0.7330269	50		75	125	0%	A
Strontium	A	mg/L	0.2204	0.2204		0.1	0.1269	0	0.0001264	0.001	1	93%	75	125	0%	
Thallium	A	mg/L	0.09843	0.09843		0.1	0	0	0.0001114	0.001	1	98%	75	125	0%	
Thorium	A	mg/L	0.105	0.105		0.1	0	0	0.00415	0.00415	1	105%	75	125	0%	
Tin	A	mg/L	0.1006	0.1006		0.1	0	0	0.0011175	0.0011175	0.1	101%	75	125	0%	
Titanium	A	mg/L	0.09638	0.09638		0.1	0.003366	0	0.0001634	0.001	1	93%	75	125	0%	
Uranium	A	mg/L	0.1	0.1		0.1	0.0002998	0	8.449E-05	0.0003	1	100%	75	125	0%	
Vanadium	A	mg/L	0.1125	0.1125		0.1	0.0104	0	0.0021085	0.0021085	1	102%	75	125	0%	
Zinc	A	mg/L	0.1006	0.1006		0.1	0.02303	0	0.0065544	0.0065544	1	78%	75	125	0%	
Silica	C	mg/L	51.169664	51.169664		0	0	0	0.0113831	0.0113831	5	0%	0	0	0%	
Silicon as SiO2	C	mg/L	51.169664	51.169664		2.14	0	0	0.0113831	0.0113831	5	2391%	75	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987733	B22010971-001	ICPMS-6020-W- MSD4			1/19/2022 6:47:5	1	162992	1/17/2022 1:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.5032	0.5032		0.5	0.03352	0.5082	0.0031975	0.0031975	1	94%	75	125	1%	
Antimony	A	mg/L	0.09441	0.09441		0.1	0	0.09497	0.00098	0.0021372	0.1	94%	75	125	1%	
Arsenic	A	mg/L	0.1024	0.1024		0.1	0.001501	0.1006	0.0002677	0.001	1	101%	75	125	2%	
Barium	A	mg/L	0.1095	0.1095		0.1	0.02173	0.114	0.0002408	0.001	1	88%	75	125	4%	
Beryllium	A	mg/L	0.0428	0.0428		0.05	0	0.04324	0.0001563	0.01	1	86%	75	125	1%	
Boron	A	mg/L	0.1277	0.1277		0.1	0.03606	0.1366	0.01467	0.01467	1	92%	75	125	7%	
Cadmium	A	mg/L	0.04575	0.04575		0.05	0	0.04716	4.567E-05	0.005	1	91%	75	125	3%	
Calcium	A	mg/L	16.64	16.64		5	11.99	16.85	0.1103481	0.1103481	150	93%	75	125	1%	
Cerium	A	mg/L	0.1016	0.1016		0.1	5.411E-05	0.1012	0.00005	0.001	0.1	102%	75	125	0%	
Chromium	A	mg/L	0.1076	0.1076		0.1	0.00269	0.106	0.00154	0.00154	1	105%	75	125	1%	
Cobalt	A	mg/L	0.09415	0.09415		0.1	0	0.09581	0.000072	0.001	1	94%	75	125	2%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987733	B22010971-001	ICPMS-6020-W-MSD4			1/19/2022 6:47:5	1	162992	1/17/2022 1:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.1082	0.1082		0.1	0	0.1072	0.00198	0.0034752	1	108%	75	125	1%	
Iron	A	mg/L	0.4919	0.4919		0.5	0.03101	0.489	0.00513	0.00513	5	92%	75	125	1%	
Lanthanum	A	mg/L	0.1022	0.1022		0.1	0	0.1005	0.000055	0.001	0.1	102%	75	125	2%	
Lead	A	mg/L	0.09603	0.09603		0.1	0	0.09976	7.716E-05	0.001	1	96%	88	115	4%	
Magnesium	A	mg/L	14.37	14.37		5	9.482	13.83	0.0081522	0.0081522	50	98%	75	125	4%	
Manganese	A	mg/L	0.5155	0.5155		0.5	0.008162	0.5204	0.0002139	0.001	1	101%	75	125	1%	
Molybdenum	A	mg/L	0.1047	0.1047		0.1	0.00559	0.1048	0.0001763	0.001	0.1	99%	75	125	0%	
Nickel	A	mg/L	0.1066	0.1066		0.1	0	0.1073	0.0024200	0.0024200	1	107%	75	125	1%	
Potassium	A	mg/L	7.498	7.498		5	3.116	7.66	0.0261205	0.0261205	50	88%	75	125	2%	
Selenium	A	mg/L	0.09929	0.09929		0.1	0	0.09983	0.0005855	0.001	1	99%	75	125	1%	
Silicon	A	mg/L	24.56	24.56		1	23.35	23.92	0.0053212	0.0053212	0.4		75	125	3%	A
Silver	A	mg/L	0.009975	0.009975		0.01	0	0.009808	4.316E-05	0.001	0.04	100%	75	125	2%	
Sodium	A	mg/L	51.73	51.73		5	49.45	49.97	0.7330269	0.7330269	50		75	125	3%	A
Strontium	A	mg/L	0.2223	0.2223		0.1	0.1269	0.2204	0.0001264	0.001	1	95%	75	125	1%	
Thallium	A	mg/L	0.1028	0.1028		0.1	0	0.09843	0.0001114	0.001	1	103%	75	125	4%	
Thorium	A	mg/L	0.1095	0.1095		0.1	0	0.105	0.00415	0.00415	1	109%	75	125	4%	
Tin	A	mg/L	0.1001	0.1001		0.1	0	0.1006	0.0011175	0.0011175	0.1	100%	75	125	0%	
Titanium	A	mg/L	0.09454	0.09454		0.1	0.003366	0.09638	0.0001634	0.001	1	91%	75	125	2%	
Uranium	A	mg/L	0.09582	0.09582		0.1	0.0002998	0.1	8.449E-05	0.0003	1	96%	75	125	4%	
Vanadium	A	mg/L	0.1113	0.1113		0.1	0.0104	0.1125	0.0021085	0.0021085	1	101%	75	125	1%	
Zinc	A	mg/L	0.1022	0.1022		0.1	0.02303	0.1006	0.0065544	0.0065544	1	79%	75	125	2%	
Silica	C	mg/L	52.538752	52.538752		0	0	51.169664	0.0113831	0.0113831	5	0%	0	0	3%	
Silicon as SiO2	C	mg/L	52.538752	52.538752		2.14	0	51.169664	0.0113831	0.0113831	5	2455%	75	125	3%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987734	Rinse	ICPMS-6020-W-SAMP			1/19/2022 6:54:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00001203	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	
Arsenic	A	mg/L	0.00001473	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00003987	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	7.042E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	3.653E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-1.179E-05	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	6.979E-06	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987734	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 6:54:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Copper	A	mg/L	0.00001029	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001118	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	1.164E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00002029	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	-2.491E-06	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.00001326	0.00001326		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.00002151	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0003563	0.0003563		0	0	0	0.0002991	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00001586	0		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001339	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Sodium	B	mg/L	0.1688	0.1688		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00005949	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-5.902E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00005399	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987735	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 6:59:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	5.386E-08	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0004752	0.0004752		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.006174	0.006174		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.268E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.545E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.00195	0.00195		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Cobalt	A	mg/L	0.00002238	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0006316	0.0006316		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	3.547E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	-4.537E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0007275	0.0007275		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0002213	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-6.599E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1201	0.1201		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002706	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.001521	0.001521		0	0	0	0.0002974	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987735	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 6:59:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.000032	0.000032		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Sodium	B	mg/L	37.15	37.15		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-4.427E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.009589	0.009589		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.009863	0.009863		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987736	B22010972-001	ICPMS-6020-W-	SAMP		1/19/2022 7:05:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0005148	0.0005148		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.005705	0.005705		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	7.582E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00003357	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Cobalt	A	mg/L	0.0000649	0		0	0	0	0.000072	0.001	1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00001516	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002195	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0008469	0.0008469		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.001212	0.001212		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001091	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	0.0005388	0.0005388		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	J
Strontium	A	mg/L	0.1301	0.1301		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000112	0.000112		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J
Titanium	A	mg/L	0.00799	0.00799		0	0	0	0.0001634	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00003595	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Antimony	B	mg/L	0.00001793	0		0	0	0	0.00098	0.0021372	0.1	0%	0	0	0%	L
Chromium	B	mg/L	0.002293	0.002293		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0002056	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0004531	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	37.71	37.71		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0001139	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.009729	0.009729		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987737	B22010973-001	ICPMS-6020-W- SAMP			1/19/2022 7:11:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Antimony	A	mg/L	0.00003666	0		0	0	0	0.0002987	0.001	0.1	0%	0	0	0%	U
Arsenic	A	mg/L	0.0001602	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	A	mg/L	0.002402	0.002402		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	8.545E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.888E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.00006629	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Cobalt	A	mg/L	0.00003216	0		0	0	0	4.756E-05	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002244	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	0.00001314	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	1.065E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0169	0.0169		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0002432	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-7.323E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.09147	0.09147		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.000129	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Titanium	A	mg/L	0.0005931	0.0005931		0	0	0	0.0002974	0.001	1	0%	0	0	0%	J
Uranium	A	mg/L	6.999E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	41.82	41.82		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.393E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	-9.172E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UL
Zinc	B	mg/L	0.003723	0.003723		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987738	CCV	ICPMS-6020-W- CCV			1/19/2022 7:17:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04441	0.04441		0.05	0	0	0.0006548	0.001	1	89%	90	110	0%	S
Antimony	A	mg/L	0.04537	0.04537		0.05	0	0	0.0002987	0.001	0.1	91%	90	110	0%	
Arsenic	A	mg/L	0.05055	0.05055		0.05	0	0	0.0001814	0.001	1	101%	90	110	0%	
Barium	A	mg/L	0.0472	0.0472		0.05	0	0	0.0001321	0.001	1	94%	90	110	0%	
Beryllium	A	mg/L	0.04339	0.04339		0.05	0	0	7.465E-05	0.001	1	87%	90	110	0%	S
Boron	A	mg/L	0.04388	0.04388		0.05	0	0	0.0030032	0.0030032	1	88%	90	110	0%	S
Cadmium	A	mg/L	0.0492	0.0492		0.05	0	0	5.139E-05	0.001	1	98%	90	110	0%	
Calcium	A	mg/L	11.09	11.09		12.5	0	0	0.0749796	0.0749796	50	89%	90	110	0%	S
Cerium	A	mg/L	0.04726	0.04726		0.05	0	0	1.462E-05	0.001	0.1	95%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987738	CCV	ICPMS-6020-W- CCV			1/19/2022 7:17:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Chromium	A	mg/L	0.0495	0.0495		0.05	0	0	0.0005481	0.001	1	99%	90	110	0%	
Cobalt	A	mg/L	0.04545	0.04545		0.05	0	0	4.756E-05	0.001	1	91%	90	110	0%	
Copper	A	mg/L	0.05161	0.05161		0.05	0	0	0.0003828	0.001	1	103%	90	110	0%	
Iron	A	mg/L	1.124	1.124		1.3	0	0	0.0046291	0.0046291	5	86%	90	110	0%	S
Lanthanum	A	mg/L	0.04731	0.04731		0.05	0	0	1.683E-05	0.001	0.1	95%	90	110	0%	
Lead	A	mg/L	0.04833	0.04833		0.05	0	0	6.264E-05	0.001	1	97%	90	110	0%	
Lithium	A	mg/L	0.3358	0.3358		0.625	0	0	0.0052105	0.0052105	2.5	54%	90	110	0%	S
Magnesium	A	mg/L	11.25	11.25		12.5	0	0	0.0118993	0.0118993	50	90%	90	110	0%	
Manganese	A	mg/L	0.04475	0.04475		0.05	0	0	0.0001444	0.001	1	89%	90	110	0%	S
Mercury	A	mg/L	0.0009825	0.0009825		0.001	0	0	0.000066	0.001	0.02	98%	90	110	0%	
Molybdenum	A	mg/L	0.0507	0.0507		0.05	0	0	8.338E-05	0.001	0.1	101%	90	110	0%	
Nickel	A	mg/L	0.05159	0.05159		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	10.46	10.46		12.5	0	0	0.207399	0.207399	50	84%	90	110	0%	S
Selenium	A	mg/L	0.05519	0.05519		0.05	0	0	0.0001415	0.001	1	110%	90	110	0%	
Silicon	A	mg/L	0.1827	0.1827		0.2	0	0	0.0146174	0.1	0.4	91%	90	110	0%	
Silver	A	mg/L	0.02078	0.02078		0.02	0	0	1.123E-05	0.001	0.04	104%	90	110	0%	
Sodium	A	mg/L	11.35	11.35		12.5	0	0	0.0809273	0.0809273	50	91%	90	110	0%	
Strontium	A	mg/L	0.05146	0.05146		0.05	0	0	0.0001825	0.001	1	103%	90	110	0%	
Thallium	A	mg/L	0.05134	0.05134		0.05	0	0	0.0002991	0.001	1	103%	90	110	0%	
Thorium	A	mg/L	0.05302	0.05302		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04571	0.04571		0.05	0	0	0.0022388	0.0022388	0.1	91%	90	110	0%	
Titanium	A	mg/L	0.04504	0.04504		0.05	0	0	0.0002974	0.001	1	90%	90	110	0%	
Uranium	A	mg/L	0.04829	0.04829		0.05	0	0	3.139E-05	0.0003	1	97%	90	110	0%	
Vanadium	A	mg/L	0.04773	0.04773		0.05	0	0	0.0043468	0.0043468	1	95%	90	110	0%	
Zinc	A	mg/L	0.05092	0.05092		0.05	0	0	0.0011598	0.0011598	1	102%	90	110	0%	
Iron, Ferrous	C	mg/L	1.124	1.124		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987739	CCB	ICPMS-6020-W- CCB			1/19/2022 7:22:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	6.281E-06	6.281E-06		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00003508	0.00003508		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	-2.457E-06	-2.457E-06		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	6.179E-06	6.179E-06		0	0	0	0.0001321	0.001	1	0%				0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987739	CCB	ICPMS-6020-W- CCB			1/19/2022 7:22:4	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Beryllium	A	mg/L	8.688E-06	8.688E-06		0	0	0	7.465E-05	0.001	1	0%			0%	
Boron	A	mg/L	-8.952E-05	-8.952E-05		0	0	0	0.0030032	0.0030032	1	0%			0%	
Cadmium	A	mg/L	-7.987E-07	-7.987E-07		0	0	0	5.139E-05	0.001	1	0%			0%	
Calcium	A	mg/L	-1.213E-05	-1.213E-05		0	0	0	0.0749796	0.0749796	50	0%			0%	
Cerium	A	mg/L	1.066E-06	1.066E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	0.00001546	0.00001546		0	0	0	0.0005481	0.001	1	0%			0%	
Cobalt	A	mg/L	1.537E-06	1.537E-06		0	0	0	4.756E-05	0.001	1	0%			0%	
Copper	A	mg/L	-6.68E-06	-6.68E-06		0	0	0	0.0003828	0.001	1	0%			0%	
Iron	A	mg/L	0.00001212	0.00001212		0	0	0	0.0046291	0.0046291	5	0%			0%	
Lanthanum	A	mg/L	2.185E-07	2.185E-07		0	0	0	1.683E-05	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	1.088E-06	1.088E-06		0	0	0	6.264E-05	0.001	1	0%			0%	
Lithium	A	mg/L	-0.001319	-0.001319		0	0	0	0.0052105	0.0052105	2.5	0%			0%	
Magnesium	A	mg/L	-6.097E-05	-6.097E-05		0	0	0	0.0118993	0.0118993	50	0%			0%	
Manganese	A	mg/L	3.659E-06	3.659E-06		0	0	0	0.0001444	0.001	1	0%			0%	
Mercury	A	mg/L	2.438E-06	2.438E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.00001647	0.00001647		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.484E-05	-1.484E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	0.0001462	0.0001462		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.00000508	0.00000508		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.07078	-0.07078		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	2.414E-06	2.414E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.003892	0.003892		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	2.094E-06	2.094E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00008098	0.00008098		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003931	0.00003931		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	-6.128E-06	-6.128E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	1.345E-06	1.345E-06		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	3.353E-06	3.353E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-2.434E-05	-2.434E-05		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-3.251E-05	-3.251E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.00001212	0.00001212		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987740	B22010973-001	ICPMS-6020-W- SD			1/19/2022 7:28:3	5	R373351			0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.001237	0.006185		0	0	0.001899	0.0032741	0.0032741	1	0%				N
Antimony	A	mg/L	8.824E-06	0		0	0	0	0.0014934	0.0014934	0.1	0%				
Arsenic	A	mg/L	0.00003076	0		0	0	0	0.0009071	0.001	1	0%				
Barium	A	mg/L	0.000506	0.00253		0	0	0.002402	0.0006604	0.001	1	0%				N
Beryllium	A	mg/L	1.027E-06	0		0	0	0	0.0003733	0.001	1	0%				
Boron	A	mg/L	0.0119	0.0595		0	0	0.07135	0.0150159	0.0150159	1	0%				N
Cadmium	A	mg/L	2.035E-06	0		0	0	0	0.000257	0.001	1	0%				
Calcium	A	mg/L	2.377	11.885		0	0	13.36	0.3748981	0.3748981	50	0%			12%	R
Cerium	A	mg/L	2.079E-06	0		0	0	0	0.0000731	0.001	0.1	0%				
Chromium	A	mg/L	0.00003123	0		0	0	0	0.0027407	0.0027407	1	0%				
Cobalt	A	mg/L	9.487E-06	0		0	0	0	0.0002378	0.001	1	0%				
Copper	A	mg/L	0.00007861	0		0	0	0	0.001914	0.001914	1	0%				
Iron	A	mg/L	0.004006	0		0	0	0.02104	0.0231453	0.0231453	5	0%				
Lanthanum	A	mg/L	1.883E-06	0		0	0	0	8.415E-05	0.001	0.1	0%				
Lead	A	mg/L	9.711E-06	0		0	0	0	0.0003132	0.001	1	0%				
Lithium	A	mg/L	-0.001643	0		0	0	0	0.0260526	0.0260526	2.5	0%				
Magnesium	A	mg/L	2.435	12.175		0	0	12.68	0.0594967	0.0594967	50	0%			4%	
Manganese	A	mg/L	0.004683	0.023415		0	0	0.02525	0.0007221	0.001	1	0%			8%	
Mercury	A	mg/L	1.332E-06	0		0	0	0	0.00033	0.001	0.02	0%				
Molybdenum	A	mg/L	0.003363	0.016815		0	0	0.0169	0.0004169	0.001	0.1	0%			1%	
Nickel	A	mg/L	0.00004001	0		0	0	0	0.0012656	0.0012656	1	0%				
Potassium	A	mg/L	0.6455	3.2275		0	0	3.441	1.0369948	1.0369948	50	0%				N
Selenium	A	mg/L	3.048E-06	0		0	0	0	0.0007077	0.001	1	0%				
Silicon	A	mg/L	1.87	9.35		0	0	9.901	0.0730871	0.1	0.4	0%			6%	
Silver	A	mg/L	-7.154E-05	0		0	0	0	5.615E-05	0.001	0.04	0%				
Sodium	A	mg/L	8.047	40.235		0	0	41.82	0.4046363	0.4046363	50	0%			4%	
Strontium	A	mg/L	0.01705	0.08525		0	0	0.09147	0.0009125	0.001	1	0%			7%	
Thallium	A	mg/L	0.00006174	0		0	0	0	0.0014956	0.0014956	1	0%				
Thorium	A	mg/L	2.337E-06	0		0	0	0	0.0052364	0.0052364	1	0%				
Tin	A	mg/L	-0.002389	0		0	0	0	0.011194	0.011194	0.1	0%				
Titanium	A	mg/L	0.0001944	0		0	0	0.0005931	0.0014871	0.0014871	1	0%				
Uranium	A	mg/L	0.00000178	0		0	0	0	0.000157	0.0003	1	0%				
Vanadium	A	mg/L	-3.968E-05	0		0	0	0	0.0217338	0.0217338	1	0%				
Zinc	A	mg/L	0.001765	0.008825		0	0	0.003723	0.0057989	0.0057989	1	0%				N
Iron, Ferrous	C	mg/L	0.004006	0		0	0	0	0.0231453	0.0231453	5	0%				

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987741	B22010973-001	ICPMS-6020-W- MS			1/19/2022 7:34:1	1.03	R373351		1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04654	0.0479362		0.05	0.001899	0	0.0006745	0.001	1	92%	75	125	0%	
Antimony	A	mg/L	0.04734	0.0487602		0.05	0	0	0.0003076	0.001	0.1	98%	75	125	0%	
Arsenic	A	mg/L	0.05232	0.0538896		0.05	0	0	0.0001869	0.001	1	108%	75	125	0%	
Barium	A	mg/L	0.04955	0.0510365		0.05	0.002402	0	0.0001360	0.001	1	97%	75	125	0%	
Beryllium	A	mg/L	0.04163	0.0428789		0.05	0	0	7.689E-05	0.001	1	86%	75	125	0%	
Boron	A	mg/L	0.0982	0.101146		0.05	0.07135	0	0.0030933	0.0030933	1	60%	75	125	0%	S
Cadmium	A	mg/L	0.04677	0.0481731		0.05	0	0	5.293E-05	0.001	1	96%	75	125	0%	
Calcium	A	mg/L	57.01	58.7203		50	13.36	0	0.0772290	0.0772290	50	91%	75	125	0%	E
Cerium	A	mg/L	0.04656	0.0479568		0.05	0	0	1.506E-05	0.001	0.1	96%	75	125	0%	
Chromium	A	mg/L	0.04885	0.0503155		0.05	0	0	0.0005646	0.001	1	101%	75	125	0%	
Cobalt	A	mg/L	0.04431	0.0456393		0.05	0	0	4.899E-05	0.001	1	91%	75	125	0%	
Copper	A	mg/L	0.04922	0.0506966		0.05	0	0	0.0003943	0.001	1	101%	75	125	0%	
Iron	A	mg/L	4.491	4.62573		5.05	0.02104	0	0.0047679	0.0047679	5	91%	75	125	0%	
Lanthanum	A	mg/L	3.924E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125	0%	S
Lead	A	mg/L	0.04621	0.0475963		0.05	0	0	6.452E-05	0.001	1	95%	88	115	0%	
Lithium	A	mg/L	1.55	1.5965		0.05	0	0	0.0053668	0.0053668	2.5	3193%	75	125	0%	S
Magnesium	A	mg/L	59.85	61.6455		50	12.68	0	0.0122563	0.0122563	50	98%	75	125	0%	E
Manganese	A	mg/L	0.06645	0.0684435		0.05	0.02525	0	0.0001487	0.001	1	86%	75	125	0%	
Mercury	A	mg/L	0.0009295	0.00095739		0.001	0	0	6.798E-05	0.001	0.02	96%	75	125	0%	
Molybdenum	A	mg/L	0.06495	0.0668985		0.05	0.0169	0	8.588E-05	0.001	0.1	100%	75	125	0%	
Nickel	A	mg/L	0.05022	0.0517266		0.05	0	0	0.0002607	0.001	1	103%	75	125	0%	
Potassium	A	mg/L	47.91	49.3473		50	3.441	0	0.2136209	0.2136209	50	92%	75	125	0%	
Selenium	A	mg/L	0.05413	0.0557539		0.05	0	0	0.0001458	0.001	1	112%	75	125	0%	
Silicon	A	mg/L	9.718	10.00954		0.2	9.901	0	0.0150559	0.1	0.4		75	125	0%	AE
Silver	A	mg/L	0.02013	0.0207339		0.02	0	0	1.157E-05	0.001	0.04	104%	75	125	0%	
Sodium	A	mg/L	89.69	92.3807		50	41.82	0	0.0833551	0.0833551	50	101%	75	125	0%	E
Strontium	A	mg/L	0.1309	0.134827		0.05	0.09147	0	0.000188	0.001	1	87%	75	125	0%	
Thallium	A	mg/L	0.04678	0.0481834		0.05	0	0	0.0003081	0.001	1	96%	75	125	0%	
Thorium	A	mg/L	0.05148	0.0530244		0.05	0	0	0.0010787	0.0010787	1	106%	75	125	0%	
Tin	A	mg/L	0.04533	0.0466899		0.05	0	0	0.002306	0.002306	0.1	93%	75	125	0%	
Titanium	A	mg/L	0.04958	0.0510674		0.05	0.0005931	0	0.0003063	0.001	1	101%	75	125	0%	
Uranium	A	mg/L	0.04722	0.0486366		0.05	0	0	3.233E-05	0.0003	1	97%	75	125	0%	
Vanadium	A	mg/L	0.04876	0.0502228		0.05	0	0	0.0044772	0.0044772	1	100%	75	125	0%	
Zinc	A	mg/L	0.0527	0.054281		0.05	0.003723	0	0.0011946	0.0011946	1	101%	75	125	0%	
Iron, Ferrous	C	mg/L	4.491	4.62573		0	0	0	0.0047679	0.0047679	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987742	B22010973-001	ICPMS-6020-W- MSD			1/19/2022 7:39:5	1.03	R373351		1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0471	0.048513		0.05	0.001899	0.0479362	0.0006745	0.001	1	93%	75	125	1%	
Antimony	A	mg/L	0.04524	0.0465972		0.05	0	0.0487602	0.0003076	0.001	0.1	93%	75	125	5%	
Arsenic	A	mg/L	0.05064	0.0521592		0.05	0	0.0538896	0.0001869	0.001	1	104%	75	125	3%	
Barium	A	mg/L	0.04744	0.0488632		0.05	0.002402	0.0510365	0.0001360	0.001	1	93%	75	125	4%	
Beryllium	A	mg/L	0.04351	0.0448153		0.05	0	0.0428789	7.689E-05	0.001	1	90%	75	125	4%	
Boron	A	mg/L	0.1003	0.103309		0.05	0.07135	0.101146	0.0030933	0.0030933	1	64%	75	125	2%	S
Cadmium	A	mg/L	0.04675	0.0481525		0.05	0	0.0481731	5.293E-05	0.001	1	96%	75	125	0%	
Calcium	A	mg/L	62.63	64.5089		50	13.36	58.7203	0.0772290	0.0772290	50	102%	75	125	9%	E
Cerium	A	mg/L	0.04645	0.0478435		0.05	0	0.0479568	1.506E-05	0.001	0.1	96%	75	125	0%	
Chromium	A	mg/L	0.04751	0.0489353		0.05	0	0.0503155	0.0005646	0.001	1	98%	75	125	3%	
Cobalt	A	mg/L	0.04466	0.0459998		0.05	0	0.0456393	4.899E-05	0.001	1	92%	75	125	1%	
Copper	A	mg/L	0.04844	0.0498932		0.05	0	0.0506966	0.0003943	0.001	1	100%	75	125	2%	
Iron	A	mg/L	4.697	4.83791		5.05	0.02104	4.62573	0.0047679	0.0047679	5	95%	75	125	4%	
Lanthanum	A	mg/L	2.724E-06	0		0.05	0	0	1.733E-05	0.001	0.1	0%	75	125		S
Lead	A	mg/L	0.04472	0.0460616		0.05	0	0.0475963	6.452E-05	0.001	1	92%	88	115	3%	
Lithium	A	mg/L	1.911	1.96833		0.05	0	1.5965	0.0053668	0.0053668	2.5	3937%	75	125	21%	SR
Magnesium	A	mg/L	60.05	61.8515		50	12.68	61.6455	0.0122563	0.0122563	50	98%	75	125	0%	E
Manganese	A	mg/L	0.06918	0.0712554		0.05	0.02525	0.0684435	0.0001487	0.001	1	92%	75	125	4%	
Mercury	A	mg/L	0.0009323	0.00096027		0.001	0	0.0009574	6.798E-05	0.001	0.02	96%	75	125		
Molybdenum	A	mg/L	0.06309	0.0649827		0.05	0.0169	0.0668985	8.588E-05	0.001	0.1	96%	75	125	3%	
Nickel	A	mg/L	0.04923	0.0507069		0.05	0	0.0517266	0.0002607	0.001	1	101%	75	125	2%	
Potassium	A	mg/L	49.57	51.0571		50	3.441	49.3473	0.2136209	0.2136209	50	95%	75	125	3%	
Selenium	A	mg/L	0.05212	0.0536836		0.05	0	0.0557539	0.0001458	0.001	1	107%	75	125	4%	
Silicon	A	mg/L	9.629	9.91787		0.2	9.901	10.00954	0.0150559	0.1	0.4		75	125	1%	AE
Silver	A	mg/L	0.01846	0.0190138		0.02	0	0.0207339	1.157E-05	0.001	0.04	95%	75	125	9%	
Sodium	A	mg/L	88.79	91.4537		50	41.82	92.3807	0.0833551	0.0833551	50	99%	75	125	1%	E
Strontium	A	mg/L	0.1316	0.135548		0.05	0.09147	0.134827	0.000188	0.001	1	88%	75	125	1%	
Thallium	A	mg/L	0.04548	0.0468444		0.05	0	0.0481834	0.0003081	0.001	1	94%	75	125	3%	
Thorium	A	mg/L	0.04986	0.0513558		0.05	0	0.0530244	0.0010787	0.0010787	1	103%	75	125	3%	
Tin	A	mg/L	0.04472	0.0460616		0.05	0	0.0466899	0.002306	0.002306	0.1	92%	75	125	1%	
Titanium	A	mg/L	0.0505	0.052015		0.05	0.0005931	0.0510674	0.0003063	0.001	1	103%	75	125	2%	
Uranium	A	mg/L	0.04561	0.0469783		0.05	0	0.0486366	3.233E-05	0.0003	1	94%	75	125	3%	
Vanadium	A	mg/L	0.04773	0.0491619		0.05	0	0.0502228	0.0044772	0.0044772	1	98%	75	125	2%	
Zinc	A	mg/L	0.04923	0.0507069		0.05	0.003723	0.054281	0.0011946	0.0011946	1	94%	75	125	7%	
Iron, Ferrous	C	mg/L	4.697	4.83791		0	0	4.62573	0.0047679	0.0047679	5	0%	0	0	4%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987743	Rinse	ICPMS-6020-W-	SAMP		1/19/2022 7:45:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.00001338	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.00004641	0		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	9.118E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	
Cerium	A	mg/L	2.862E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	
Chromium	A	mg/L	-3.329E-06	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00001497	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00001366	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	
Mercury	A	mg/L	5.313E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.00003944	0		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.00001078	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	3.692E-06	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.00001891	0		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0002581	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001009	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Sodium	B	mg/L	0.1877	0.1877		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00004663	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Vanadium	B	mg/L	-3.935E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	L
Zinc	B	mg/L	0.00004373	0		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987744	B22010973-001	ICPMS-6020-W-	SAMP		1/19/2022 7:51:2	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001808	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.002224	0.002224		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.0000164	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00001213	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	2.326E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.0005464	0.0005464		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.03634	0.03634		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01697	0.01697		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001054	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.115E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.08926	0.08926		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001205	0.0001205		0	0	0	0.0001114	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987744	B22010973-001	ICPMS-6020-W-	SAMP		1/19/2022 7:51:2	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	8.269E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.0003211	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.000245	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0003549	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	44.16	44.16		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0001256	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.00009366	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987745	B22010974-001	ICPMS-6020-W-	SAMP		1/19/2022 7:57:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001835	0.0001835		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004237	0.004237		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	4.469E-07	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.041E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002346	0.002346		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0009274	0.0009274		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.000013	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	3.203E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0001568	0.0001568		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0004575	0.0004575		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-7.221E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.06815	0.06815		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0001626	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00002085	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	33.07	33.07		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000148	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01638	0.01638		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.01009	0.01009		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987746	B22010974-001	ICPMS-6020-W-	SAMP		1/19/2022 8:02:5	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0002383	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.005203	0.005203		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001661	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00002199	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00001129	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.000045	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.0005501	0.0005501		0	0	0	0.0002139	0.001	1	0%	0	0	0%	J
Molybdenum	A	mg/L	0.0002208	0.0002208		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0002097	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-5.752E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.07434	0.07434		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004377	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00002291	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.002658	0.002658		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.001114	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.000542	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	36.3	36.3		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0000555	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01634	0.01634		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987747	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:08:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001893	0.0001893		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.006483	0.006483		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.327E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.558E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.002314	0.002314		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.003321	0.003321		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.0001017	0.0001017		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	J
Mercury	A	mg/L	3.218E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0003374	0.0003374		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.0005084	0.0005084		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-6.808E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987747	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:08:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Strontium	A	mg/L	0.08035	0.08035		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00009329	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00001534	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	37.12	37.12		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.848E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01616	0.01616		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.06036	0.06036		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987748	B22010975-001	ICPMS-6020-W-	SAMP		1/19/2022 8:14:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001211	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.007012	0.007012		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	9.902E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00002909	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.0000135	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.0002573	0.0002573		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	J
Manganese	A	mg/L	0.001276	0.001276		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.0004291	0.0004291		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	J
Selenium	A	mg/L	0.0002123	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-0.0000355	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.08663	0.08663		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00002491	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00001662	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.002853	0.002853		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.001833	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0006995	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	39.84	39.84		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00003938	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01683	0.01683		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987749	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:20:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001833	0.0001833		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.00235	0.00235		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	2.642E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.643E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	9.257E-07	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0001231	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	6.843E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	2.055E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.006435	0.006435		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0001794	0		0	0	0	0.0002531	0.001	1	0%	0	0	0%	U
Silver	A	mg/L	-7.393E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1518	0.1518		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00005763	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	5.533E-06	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	39.61	39.61		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-1.811E-05	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	-4.646E-05	0		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UL
Zinc	B	mg/L	0.007801	0.007801		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987750	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:25:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001751	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.002256	0.002256		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001219	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00000386	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	1.847E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00006073	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.382	0.382		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.007846	0.007846		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.00003347	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.729E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1675	0.1675		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	8.642E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987750	B22010976-001	ICPMS-6020-W-	SAMP		1/19/2022 8:25:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	5.908E-06	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Chromium	B	mg/L	0.0001263	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0003139	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.0002419	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	40.9	40.9		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.0000234	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.0002822	0		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	L

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987751	CCV	ICPMS-6020-W-	CCV		1/19/2022 8:31:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.0426	0.0426		0.05	0	0	0.0006548	0.001	1	85%	90	110	0%	S
Antimony	A	mg/L	0.04351	0.04351		0.05	0	0	0.0002987	0.001	0.1	87%	90	110	0%	S
Arsenic	A	mg/L	0.05167	0.05167		0.05	0	0	0.0001814	0.001	1	103%	90	110	0%	
Barium	A	mg/L	0.04601	0.04601		0.05	0	0	0.0001321	0.001	1	92%	90	110	0%	
Beryllium	A	mg/L	0.04097	0.04097		0.05	0	0	7.465E-05	0.001	1	82%	90	110	0%	S
Boron	A	mg/L	0.04096	0.04096		0.05	0	0	0.0030032	0.0030032	1	82%	90	110	0%	S
Cadmium	A	mg/L	0.04933	0.04933		0.05	0	0	5.139E-05	0.001	1	99%	90	110	0%	
Calcium	A	mg/L	11.24	11.24		12.5	0	0	0.0749796	0.0749796	50	90%	90	110	0%	
Cerium	A	mg/L	0.04809	0.04809		0.05	0	0	1.462E-05	0.001	0.1	96%	90	110	0%	
Chromium	A	mg/L	0.04988	0.04988		0.05	0	0	0.0005481	0.001	1	100%	90	110	0%	
Cobalt	A	mg/L	0.04323	0.04323		0.05	0	0	4.756E-05	0.001	1	86%	90	110	0%	S
Copper	A	mg/L	0.05222	0.05222		0.05	0	0	0.0003828	0.001	1	104%	90	110	0%	
Iron	A	mg/L	1.146	1.146		1.3	0	0	0.0046291	0.0046291	5	88%	90	110	0%	S
Lanthanum	A	mg/L	0.04778	0.04778		0.05	0	0	1.683E-05	0.001	0.1	96%	90	110	0%	
Lead	A	mg/L	0.04649	0.04649		0.05	0	0	6.264E-05	0.001	1	93%	90	110	0%	
Lithium	A	mg/L	0.3167	0.3167		0.625	0	0	0.0052105	0.0052105	2.5	51%	90	110	0%	S
Magnesium	A	mg/L	11.08	11.08		12.5	0	0	0.0118993	0.0118993	50	89%	90	110	0%	S
Manganese	A	mg/L	0.04338	0.04338		0.05	0	0	0.0001444	0.001	1	87%	90	110	0%	S
Mercury	A	mg/L	0.0009135	0.0009135		0.001	0	0	0.000066	0.001	0.02	91%	90	110	0%	
Molybdenum	A	mg/L	0.04959	0.04959		0.05	0	0	8.338E-05	0.001	0.1	99%	90	110	0%	
Nickel	A	mg/L	0.05091	0.05091		0.05	0	0	0.0002531	0.001	1	102%	90	110	0%	
Potassium	A	mg/L	10.42	10.42		12.5	0	0	0.207399	0.207399	50	83%	90	110	0%	S
Selenium	A	mg/L	0.05314	0.05314		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987751	CCV	ICPMS-6020-W- CCV			1/19/2022 8:31:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silicon	A	mg/L	0.1847	0.1847		0.2	0	0	0.0146174	0.1	0.4	92%	90	110	0%	
Silver	A	mg/L	0.02031	0.02031		0.02	0	0	1.123E-05	0.001	0.04	102%	90	110	0%	
Sodium	A	mg/L	11.64	11.64		12.5	0	0	0.0809273	0.0809273	50	93%	90	110	0%	
Strontium	A	mg/L	0.0509	0.0509		0.05	0	0	0.0001825	0.001	1	102%	90	110	0%	
Thallium	A	mg/L	0.05176	0.05176		0.05	0	0	0.0002991	0.001	1	104%	90	110	0%	
Thorium	A	mg/L	0.05314	0.05314		0.05	0	0	0.0010473	0.0010473	1	106%	90	110	0%	
Tin	A	mg/L	0.04355	0.04355		0.05	0	0	0.0022388	0.0022388	0.1	87%	90	110	0%	S
Titanium	A	mg/L	0.04187	0.04187		0.05	0	0	0.0002974	0.001	1	84%	90	110	0%	S
Uranium	A	mg/L	0.04621	0.04621		0.05	0	0	3.139E-05	0.0003	1	92%	90	110	0%	
Vanadium	A	mg/L	0.04936	0.04936		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.04999	0.04999		0.05	0	0	0.0011598	0.0011598	1	100%	90	110	0%	
Iron, Ferrous	C	mg/L	1.146	1.146		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987752	CCB	ICPMS-6020-W- CCB			1/19/2022 8:37:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	8.433E-06	8.433E-06		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00003581	0.00003581		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	-2.095E-08	-2.095E-08		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	0.00000518	0.00000518		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	3.047E-06	3.047E-06		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	-0.0002623	-0.0002623		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	0.00000191	0.00000191		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.001245	0.001245		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	2.702E-06	2.702E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	-0.0000118	-0.0000118		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	8.971E-07	8.971E-07		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	0.0001656	0.0001656		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	0.00009195	0.00009195		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	1.291E-06	1.291E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	1.616E-06	1.616E-06		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	-0.001122	-0.001122		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	0.001016	0.001016		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	3.493E-06	3.493E-06		0	0	0	0.0001444	0.001	1	0%				0%

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987752	CCB	ICPMS-6020-W-	CCB		1/19/2022 8:37:1	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Mercury	A	mg/L	2.706E-06	2.706E-06		0	0	0	0.000066	0.001	0.02	0%			0%	
Molybdenum	A	mg/L	0.0000154	0.0000154		0	0	0	8.338E-05	0.001	0.1	0%			0%	
Nickel	A	mg/L	-1.779E-05	-1.779E-05		0	0	0	0.0002531	0.001	1	0%			0%	
Potassium	A	mg/L	-0.004509	-0.004509		0	0	0	0.207399	0.207399	50	0%			0%	
Selenium	A	mg/L	0.0000396	0.0000396		0	0	0	0.0001415	0.001	1	0%			0%	
Silicon	A	mg/L	-0.06996	-0.06996		0	0	0	0.0146174	0.1	0.4	0%	0	0	0%	
Silver	A	mg/L	5.028E-06	5.028E-06		0	0	0	1.123E-05	0.001	0.04	0%			0%	
Sodium	A	mg/L	0.008883	0.008883		0	0	0	0.0809273	0.0809273	50	0%			0%	
Strontium	A	mg/L	6.638E-06	6.638E-06		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.0000424	0.0000424		0	0	0	0.0002991	0.001	1	0%	0	0	0%	
Thorium	A	mg/L	0.00003349	0.00003349		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	
Tin	A	mg/L	3.383E-06	3.383E-06		0	0	0	0.0022388	0.0022388	0.1	0%	0	0	0%	
Titanium	A	mg/L	0.00003369	0.00003369		0	0	0	0.0002974	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	4.589E-06	4.589E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Vanadium	A	mg/L	-0.000019	-0.000019		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	
Zinc	A	mg/L	-2.297E-05	-2.297E-05		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	
Iron, Ferrous	C	mg/L	0.00009195	0.00009195		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987753	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:43:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0006565	0.0006565		0	0	0	0.0001814	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004028	0.004028		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	5.116E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	2.977E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0003294	0		0	0	0	0.0005481	0.001	1	0%	0	0	0%	U
Copper	A	mg/L	0.0002842	0		0	0	0	0.0003828	0.001	1	0%	0	0	0%	U
Lead	A	mg/L	4.955E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	2.954E-06	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.01069	0.01069		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.002291	0.002291		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-7.365E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2401	0.2401		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00004416	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987753	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:43:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Uranium	A	mg/L	0.00007029	0.00007029		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Thorium	B	mg/L	-7.618E-06	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.007898	0.007898		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.003131	0.003131		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987754	B22010977-001	ICPMS-6020-W-	SAMP		1/19/2022 8:48:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0006889	0.0006889		0	0	0	0.0002677	0.001	1	0%	0	0	0%	J
Barium	A	mg/L	0.004263	0.004263		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00002529	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	7.348E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	5.799E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00001199	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.2234	0.2234		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01176	0.01176		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0001951	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.385E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.2346	0.2346		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001355	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.00007752	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	24.74	24.74		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.0005189	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0002497	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.002444	0.002444		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	D
Thorium	B	mg/L	0.00007654	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.008397	0.008397		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987755	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 8:54:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987755	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 8:54:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.003839	0.003839		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02585	0.02585		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.288E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.799E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0015	0.0015		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.0007056	0.0007056		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	0.00001098	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	0.00008625	0.00008625		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	J
Molybdenum	A	mg/L	0.01138	0.01138		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.001085	0.001085		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-7.181E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.2907	0.2907		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00003445	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.0003595	0.0003595		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	
Thorium	B	mg/L	0.00001569	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01359	0.01359		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.002307	0.002307		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987756	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 9:00:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.003468	0.003468		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.02617	0.02617		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00000728	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	7.197E-06	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	0.00000328	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00003061	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.001179	0.001179		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.01261	0.01261		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.000703	0.000703		0	0	0	0.0005855	0.001	1	0%	0	0	0%	J
Silver	A	mg/L	-5.907E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.3023	0.3023		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	1.192E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0003748	0.0003748		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987756	B22010978-001	ICPMS-6020-W-	SAMP		1/19/2022 9:00:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Calcium	B	mg/L	22.38	22.38		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001688	0.001688		0	0	0	0.00154	0.00154	1	0%	0	0	0%	D
Copper	B	mg/L	0.0009747	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.001324	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Thorium	B	mg/L	0.00003897	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01367	0.01367		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987757	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:06:0	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001371	0		0	0	0	0.0001814	0.001	1	0%	0	0	0%	U
Barium	A	mg/L	0.006268	0.006268		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	3.018E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	0.0001061	0.0001061		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	J
Chromium	A	mg/L	0.001078	0.001078		0	0	0	0.0005481	0.001	1	0%	0	0	0%	
Copper	A	mg/L	0.00118	0.00118		0	0	0	0.0003828	0.001	1	0%	0	0	0%	
Lead	A	mg/L	0.00003943	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	-5.781E-07	0		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	
Molybdenum	A	mg/L	0.0005137	0.0005137		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	J
Nickel	A	mg/L	0.001358	0.001358		0	0	0	0.0002531	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.609E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.1871	0.1871		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001591	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.00001404	0		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	U
Sodium	B	mg/L	39.91	39.91		0	0	0	0.0809273	0.0809273	50	0%	0	0	0%	D
Thorium	B	mg/L	-0.0000195	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.008278	0.008278		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	UD
Zinc	B	mg/L	0.002956	0.002956		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987758	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:11:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987758	B22010979-001	ICPMS-6020-W-	SAMP		1/19/2022 9:11:4	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.0001473	0		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.004623	0.004623		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	0.00001648	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00001556	0		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	
Lanthanum	A	mg/L	7.163E-06	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00002209	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.009943	0.009943		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.00181	0.00181		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0002735	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-6.577E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.1871	0.1871		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-4.722E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0000117	0		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	
Calcium	B	mg/L	15.3	15.3		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001181	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.0007731	0		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	L
Nickel	B	mg/L	0.001187	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Sodium	B	mg/L	42.1	42.1		0	0	0	0.7330269	0.7330269	50	0%	0	0	0%	D
Thorium	B	mg/L	0.00001985	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.008106	0.008106		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987759	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:17:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.002028	0.002028		0	0	0	0.0001814	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.009896	0.009896		0	0	0	0.0001321	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.084E-06	0		0	0	0	5.139E-05	0.001	1	0%	0	0	0%	U
Cerium	A	mg/L	1.262E-06	0		0	0	0	1.462E-05	0.001	0.1	0%	0	0	0%	U
Chromium	A	mg/L	0.0005989	0.0005989		0	0	0	0.0005481	0.001	1	0%	0	0	0%	J
Copper	A	mg/L	0.0009875	0.0009875		0	0	0	0.0003828	0.001	1	0%	0	0	0%	J
Lead	A	mg/L	4.665E-06	0		0	0	0	6.264E-05	0.001	1	0%	0	0	0%	U
Mercury	A	mg/L	0.000162	0.000162		0	0	0	0.000066	0.001	0.02	0%	0	0	0%	J
Molybdenum	A	mg/L	0.003798	0.003798		0	0	0	8.338E-05	0.001	0.1	0%	0	0	0%	
Nickel	A	mg/L	0.0005303	0.0005303		0	0	0	0.0002531	0.001	1	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987759	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:17:2	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Silver	A	mg/L	-6.732E-05	0		0	0	0	1.123E-05	0.001	0.04	0%	0	0	0%	U
Strontium	A	mg/L	0.3007	0.3007		0	0	0	0.0001825	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	0.00001861	0		0	0	0	0.0002991	0.001	1	0%	0	0	0%	U
Uranium	A	mg/L	0.000193	0.000193		0	0	0	3.139E-05	0.0003	1	0%	0	0	0%	J
Thorium	B	mg/L	-0.00002	0		0	0	0	0.0010473	0.0010473	1	0%	0	0	0%	U
Vanadium	B	mg/L	0.01451	0.01451		0	0	0	0.0043468	0.0043468	1	0%	0	0	0%	D
Zinc	B	mg/L	0.00246	0.00246		0	0	0	0.0011598	0.0011598	1	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987760	B22010980-001	ICPMS-6020-W-	SAMP		1/19/2022 9:23:1	1	162992	1/17/2022 1:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Arsenic	A	mg/L	0.002094	0.002094		0	0	0	0.0002677	0.001	1	0%	0	0	0%	
Barium	A	mg/L	0.01035	0.01035		0	0	0	0.0002408	0.001	1	0%	0	0	0%	
Cadmium	A	mg/L	6.939E-06	0		0	0	0	4.567E-05	0.005	1	0%	0	0	0%	
Cerium	A	mg/L	0.00005458	0.00005458		0	0	0	0.00005	0.001	0.1	0%	0	0	0%	J
Lanthanum	A	mg/L	0.00002055	0		0	0	0	0.000055	0.001	0.1	0%	0	0	0%	
Lead	A	mg/L	0.00005154	0		0	0	0	7.716E-05	0.001	1	0%	0	0	0%	U
Manganese	A	mg/L	0.007486	0.007486		0	0	0	0.0002139	0.001	1	0%	0	0	0%	
Molybdenum	A	mg/L	0.004412	0.004412		0	0	0	0.0001763	0.001	0.1	0%	0	0	0%	
Selenium	A	mg/L	0.0003921	0		0	0	0	0.0005855	0.001	1	0%	0	0	0%	
Silver	A	mg/L	-4.771E-05	0		0	0	0	4.316E-05	0.001	0.04	0%	0	0	0%	
Strontium	A	mg/L	0.3142	0.3142		0	0	0	0.0001264	0.001	1	0%	0	0	0%	
Thallium	A	mg/L	-2.104E-06	0		0	0	0	0.0001114	0.001	1	0%	0	0	0%	
Uranium	A	mg/L	0.0002051	0.0002051		0	0	0	8.449E-05	0.0003	1	0%	0	0	0%	J
Calcium	B	mg/L	38.91	38.91		0	0	0	0.1103481	0.1103481	150	0%	0	0	0%	D
Chromium	B	mg/L	0.001488	0		0	0	0	0.00154	0.00154	1	0%	0	0	0%	L
Copper	B	mg/L	0.002473	0.002473		0	0	0	0.00198	0.0034752	1	0%	0	0	0%	JL
Nickel	B	mg/L	0.0006631	0		0	0	0	0.0024200	0.0024200	1	0%	0	0	0%	L
Thorium	B	mg/L	0.00001382	0		0	0	0	0.00415	0.00415	1	0%	0	0	0%	L
Vanadium	B	mg/L	0.01544	0.01544		0	0	0	0.0021085	0.0021085	1	0%	0	0	0%	D

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987761	CCV	ICPMS-6020-W-CCV			1/19/2022 9:28:5	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.04806	0.04806		0.05	0	0	0.0006548	0.001	1	96%	90	110	0%	
Antimony	A	mg/L	0.04566	0.04566		0.05	0	0	0.0002987	0.001	0.1	91%	90	110	0%	
Arsenic	A	mg/L	0.05083	0.05083		0.05	0	0	0.0001814	0.001	1	102%	90	110	0%	
Barium	A	mg/L	0.04768	0.04768		0.05	0	0	0.0001321	0.001	1	95%	90	110	0%	
Beryllium	A	mg/L	0.04642	0.04642		0.05	0	0	7.465E-05	0.001	1	93%	90	110	0%	
Boron	A	mg/L	0.04771	0.04771		0.05	0	0	0.0030032	0.0030032	1	95%	90	110	0%	
Cadmium	A	mg/L	0.04977	0.04977		0.05	0	0	5.139E-05	0.001	1	100%	90	110	0%	
Calcium	A	mg/L	12.83	12.83		12.5	0	0	0.0749796	0.0749796	50	103%	90	110	0%	
Cerium	A	mg/L	0.0476	0.0476		0.05	0	0	1.462E-05	0.001	0.1	95%	90	110	0%	
Chromium	A	mg/L	0.0507	0.0507		0.05	0	0	0.0005481	0.001	1	101%	90	110	0%	
Cobalt	A	mg/L	0.04775	0.04775		0.05	0	0	4.756E-05	0.001	1	95%	90	110	0%	
Copper	A	mg/L	0.05106	0.05106		0.05	0	0	0.0003828	0.001	1	102%	90	110	0%	
Iron	A	mg/L	1.31	1.31		1.3	0	0	0.0046291	0.0046291	5	101%	90	110	0%	
Lanthanum	A	mg/L	0.04776	0.04776		0.05	0	0	1.683E-05	0.001	0.1	96%	90	110	0%	
Lead	A	mg/L	0.04667	0.04667		0.05	0	0	6.264E-05	0.001	1	93%	90	110	0%	
Lithium	A	mg/L	0.4496	0.4496		0.625	0	0	0.0052105	0.0052105	2.5	72%	90	110	0%	S
Magnesium	A	mg/L	12.29	12.29		12.5	0	0	0.0118993	0.0118993	50	98%	90	110	0%	
Manganese	A	mg/L	0.04748	0.04748		0.05	0	0	0.0001444	0.001	1	95%	90	110	0%	
Mercury	A	mg/L	0.0009722	0.0009722		0.001	0	0	0.000066	0.001	0.02	97%	90	110	0%	
Molybdenum	A	mg/L	0.0488	0.0488		0.05	0	0	8.338E-05	0.001	0.1	98%	90	110	0%	
Nickel	A	mg/L	0.05173	0.05173		0.05	0	0	0.0002531	0.001	1	103%	90	110	0%	
Potassium	A	mg/L	11.46	11.46		12.5	0	0	0.207399	0.207399	50	92%	90	110	0%	
Selenium	A	mg/L	0.05308	0.05308		0.05	0	0	0.0001415	0.001	1	106%	90	110	0%	
Silicon	A	mg/L	0.2617	0.2617		0.2	0	0	0.0146174	0.1	0.4	131%	90	110	0%	S
Silver	A	mg/L	0.01962	0.01962		0.02	0	0	1.123E-05	0.001	0.04	98%	90	110	0%	
Sodium	A	mg/L	13.18	13.18		12.5	0	0	0.0809273	0.0809273	50	105%	90	110	0%	
Strontium	A	mg/L	0.04926	0.04926		0.05	0	0	0.0001825	0.001	1	99%	90	110	0%	
Thallium	A	mg/L	0.04912	0.04912		0.05	0	0	0.0002991	0.001	1	98%	90	110	0%	
Thorium	A	mg/L	0.05042	0.05042		0.05	0	0	0.0010473	0.0010473	1	101%	90	110	0%	
Tin	A	mg/L	0.04663	0.04663		0.05	0	0	0.0022388	0.0022388	0.1	93%	90	110	0%	
Titanium	A	mg/L	0.04764	0.04764		0.05	0	0	0.0002974	0.001	1	95%	90	110	0%	
Uranium	A	mg/L	0.04638	0.04638		0.05	0	0	3.139E-05	0.0003	1	93%	90	110	0%	
Vanadium	A	mg/L	0.04968	0.04968		0.05	0	0	0.0043468	0.0043468	1	99%	90	110	0%	
Zinc	A	mg/L	0.05045	0.05045		0.05	0	0	0.0011598	0.0011598	1	101%	90	110	0%	
Iron, Ferrous	C	mg/L	1.31	1.31		0	0	0	0.0046291	0.0046291	5	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14987762	CCB	ICPMS-6020-W-	CCB		1/19/2022 9:36:3	1	R373351		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Aluminum	A	mg/L	0.00005606	0.00005606		0	0	0	0.0006548	0.001	1	0%				0%
Antimony	A	mg/L	0.00001663	0.00001663		0	0	0	0.0002987	0.001	0.1	0%				0%
Arsenic	A	mg/L	2.074E-06	2.074E-06		0	0	0	0.0001814	0.001	1	0%				0%
Barium	A	mg/L	0.00001031	0.00001031		0	0	0	0.0001321	0.001	1	0%				0%
Beryllium	A	mg/L	5.112E-06	5.112E-06		0	0	0	7.465E-05	0.001	1	0%				0%
Boron	A	mg/L	-9.162E-05	-9.162E-05		0	0	0	0.0030032	0.0030032	1	0%				0%
Cadmium	A	mg/L	5.291E-06	5.291E-06		0	0	0	5.139E-05	0.001	1	0%				0%
Calcium	A	mg/L	0.004921	0.004921		0	0	0	0.0749796	0.0749796	50	0%				0%
Cerium	A	mg/L	5.077E-06	5.077E-06		0	0	0	1.462E-05	0.001	0.1	0%	0	0		0%
Chromium	A	mg/L	0.00001239	0.00001239		0	0	0	0.0005481	0.001	1	0%				0%
Cobalt	A	mg/L	0.00000337	0.00000337		0	0	0	4.756E-05	0.001	1	0%				0%
Copper	A	mg/L	0.0001997	0.0001997		0	0	0	0.0003828	0.001	1	0%				0%
Iron	A	mg/L	0.0002125	0.0002125		0	0	0	0.0046291	0.0046291	5	0%				0%
Lanthanum	A	mg/L	2.385E-06	2.385E-06		0	0	0	1.683E-05	0.001	0.1	0%	0	0		0%
Lead	A	mg/L	4.461E-06	4.461E-06		0	0	0	6.264E-05	0.001	1	0%				0%
Lithium	A	mg/L	-0.001346	-0.001346		0	0	0	0.0052105	0.0052105	2.5	0%				0%
Magnesium	A	mg/L	0.003667	0.003667		0	0	0	0.0118993	0.0118993	50	0%				0%
Manganese	A	mg/L	0.000018	0.000018		0	0	0	0.0001444	0.001	1	0%				0%
Mercury	A	mg/L	0.00000137	0.00000137		0	0	0	0.000066	0.001	0.02	0%				0%
Molybdenum	A	mg/L	0.00001018	0.00001018		0	0	0	8.338E-05	0.001	0.1	0%				0%
Nickel	A	mg/L	-0.0000101	-0.0000101		0	0	0	0.0002531	0.001	1	0%				0%
Potassium	A	mg/L	0.006194	0.006194		0	0	0	0.207399	0.207399	50	0%				0%
Selenium	A	mg/L	0.00000521	0.00000521		0	0	0	0.0001415	0.001	1	0%				0%
Silicon	A	mg/L	-0.02893	-0.02893		0	0	0	0.0146174	0.1	0.4	0%	0	0		0%
Silver	A	mg/L	0.00000255	0.00000255		0	0	0	1.123E-05	0.001	0.04	0%				0%
Sodium	A	mg/L	0.01755	0.01755		0	0	0	0.0809273	0.0809273	50	0%				0%
Strontium	A	mg/L	0.0000422	0.0000422		0	0	0	0.0001825	0.001	1	0%	0	0		0%
Thallium	A	mg/L	0.00001661	0.00001661		0	0	0	0.0002991	0.001	1	0%	0	0		0%
Thorium	A	mg/L	0.00001779	0.00001779		0	0	0	0.0010473	0.0010473	1	0%	0	0		0%
Tin	A	mg/L	0.00003747	0.00003747		0	0	0	0.0022388	0.0022388	0.1	0%	0	0		0%
Titanium	A	mg/L	0.00001919	0.00001919		0	0	0	0.0002974	0.001	1	0%	0	0		0%
Uranium	A	mg/L	5.737E-06	5.737E-06		0	0	0	3.139E-05	0.0003	1	0%	0	0		0%
Vanadium	A	mg/L	0.00001672	0.00001672		0	0	0	0.0043468	0.0043468	1	0%	0	0		0%
Zinc	A	mg/L	1.553E-06	1.553E-06		0	0	0	0.0011598	0.0011598	1	0%	0	0		0%
Iron, Ferrous	C	mg/L	0.0002125	0.0002125		0	0	0	0.0046291	0.0046291	5	0%	0	0		0%

Batch Summary Report

Batch Folder: D:\Data\220118ADoD.b\
 Analysis File: 220118ADoD.batch.bin
 Tune Step: #1 NO GAS
 #2 H2
 #3 He

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
1		2022-01-18 18:18:16	001BLKV.d	Rinse	BlkVrfy		1.0000
2		2022-01-18 18:23:59	002BLKV.d	Rinse	BlkVrfy		1.0000
3		2022-01-18 18:29:43	003BLKV.d	Rinse	BlkVrfy		1.0000
4		2022-01-18 18:35:28	004BLKV.d	Rinse	BlkVrfy		1.0000
5		2022-01-18 18:41:14	005CALB.d	BLANK	CalBlk	1	1.0000
6		2022-01-18 18:47:26	006CALB.d	0.025 PPB STD	CalStd	2	1.0000
7		2022-01-18 18:53:25	007CALB.d	0.05 PPB STD	CalStd	3	1.0000
8		2022-01-18 18:59:25	008CALB.d	0.10 PPB STD	CalStd	4	1.0000
9		2022-01-18 19:05:25	009CALB.d	0.5 PPB STD	CalStd	5	1.0000
10		2022-01-18 19:11:25	010CALB.d	1 PPB STD	CalStd	6	1.0000
11	On	2022-01-18 19:17:26	011CALB.d	10 PPB STD	CalStd	7	1.0000
12		2022-01-18 19:23:25	012CALB.d	50 PPB STD	CalStd	8	1.0000
13		2022-01-18 19:29:22	013CALB.d	100 PPB STD	CalStd	9	1.0000
14		2022-01-18 19:35:12	014CALB.d	1000 PPB STD	CalStd	10	1.0000
15		2022-01-18 19:40:51	015CALB.d	100 ppb Bromine	CalStd	11	1.0000
16		2022-01-18 19:46:41	016BLKV.d	Rinse	BlkVrfy		1.0000
17		2022-01-18 19:52:26	017_QCS.d	QCS	QCS		1.0000
18		2022-01-18 19:58:06	018_CCV.d	CCV	CCV		1.0000
19		2022-01-18 20:03:48	019BLKV.d	Rinse	BlkVrfy		1.0000
20		2022-01-18 20:09:33	020CALB.d	10 PPB STD	CalStd	7	1.0000
21		2022-01-18 20:15:24	021_QCS.d	QCS	QCS		1.0000
22		2022-01-18 20:21:07	022_CCV.d	CCV	CCV		1.0000
23		2022-01-18 20:26:51	023_CCB.d	CCB	CCB		1.0000
24		2022-01-18 20:32:37	024CALB.d	0.10 PPB STD	CalStd	4	1.0000
25		2022-01-18 21:19:02	025BLKV.d	Rinse	BlkVrfy		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
26		2022-01-18 21:24:49	026CALB.d	BLANK	CalBlk	1	1.0000
27		2022-01-18 21:30:42	027CALB.d	0.025 PPB STD	CalStd	2	1.0000
28		2022-01-18 21:36:33	028CALB.d	0.05 PPB STD	CalStd	3	1.0000
29	On	2022-01-18 21:42:24	029CALB.d	0.10 PPB STD	CalStd	4	1.0000
30		2022-01-18 21:48:15	030CALB.d	0.5 PPB STD	CalStd	5	1.0000
31		2022-01-18 21:54:07	031CALB.d	1 PPB STD	CalStd	6	1.0000
32		2022-01-18 21:59:59	032CALB.d	10 PPB STD	CalStd	7	1.0000
33		2022-01-18 22:05:50	033CALB.d	50 PPB STD	CalStd	8	1.0000
34		2022-01-18 22:11:40	034CALB.d	100 PPB STD	CalStd	9	1.0000
35		2022-01-18 22:17:24	035CALB.d	1000 PPB STD	CalStd	10	1.0000
36		2022-01-18 22:22:59	036CALB.d	100 ppb Bromine	CalStd	11	1.0000
37		2022-01-18 22:29:02	037BLKV.d	Rinse	BlkVrfy		1.0000
38	On	2022-01-18 22:34:49	038CALB.d	0.10 PPB STD	CalStd	4	1.0000
39		2022-01-18 22:40:39	039CALB.d	0.10 PPB STD	CalStd	4	1.0000
40		2022-01-18 22:46:30	040 QCS.d	QCS	QCS		1.0000
41		2022-01-18 22:52:14	041 CCV.d	CCV	CCV		1.0000
42		2022-01-18 22:57:57	042 CCB.d	CCB	CCB		1.0000
43		2022-01-18 23:03:43	043 LRB.d	LRB	LRB		1.0000
44		2022-01-18 23:09:28	044LFB.d	LFB	LFB		1.0300
45		2022-01-18 23:15:10	045ICSA.d	ICSA	ICSA		1.0000
46		2022-01-18 23:20:56	046ICSB.d	ICSAB	ICSB		1.0000
47		2022-01-18 23:26:40	047BLKV.d	Rinse	BlkVrfy		1.0000
48		2022-01-18 23:32:25	048 CCV.d	CCV	CCV		1.0000
49		2022-01-18 23:38:09	049 CCB.d	CCB	CCB		1.0000
50		2022-01-18 23:43:55	050BLKV.d	Rinse	BlkVrfy		1.0000
51		2022-01-18 23:49:40	051 ARF.d	MB-162360	AllRef		1.0000
52		2022-01-18 23:55:24	052 ARF.d	MB-162497	AllRef		1.0000
53		2022-01-19 00:01:08	053 ARF.d	MB-162992	AllRef		1.0000
54		2022-01-19 00:06:52	054LCS4.d	LCS4-162360	LCS4		1.0000
55		2022-01-19 00:12:26	055LCS4.d	LCS4-162497	LCS4		1.0000
56		2022-01-19 00:18:02	056LCS4.d	LCS4-162992	LCS4		1.0000
57		2022-01-19 00:23:38	057BLKV.d	Rinse	BlkVrfy		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
58		2022-01-19 00:29:22	058SMPL.d	B21121609-001A	Sample		1.0000
59		2022-01-19 00:35:03	059SMPL.d	B21121611-001H	Sample		1.0000
60		2022-01-19 00:40:47	060SMPL.d	B21121613-001A	Sample		1.0000
61		2022-01-19 00:46:30	061SMPL.d	B21121613-001ADIL	Sample		5.0000
62		2022-01-19 00:52:13	062_CCV.d	CCV	CCV		1.0000
63		2022-01-19 00:57:53	063_CCB.d	CCB	CCB		1.0000
64		2022-01-19 01:03:40	064_ARF.d	B21121613-001APDS1	AllRef		1.0300
65		2022-01-19 01:09:20	065MS4.d	B21121613-001AMS4	MS4		1.0000
66		2022-01-19 01:14:57	066MSD4.d	B21121613-001AMSD4	MSD4		1.0000
67		2022-01-19 01:20:32	067BLKV.d	Rinse	BlkVrfy		1.0000
68		2022-01-19 01:26:18	068SMPL.d	B21121616-001A	Sample		1.0000
69		2022-01-19 01:32:03	069SMPL.d	B21121622-001G	Sample		1.0000
70		2022-01-19 01:37:47	070SMPL.d	B21121622-002G	Sample		1.0000
71		2022-01-19 01:43:29	071SMPL.d	B21121622-003G	Sample		1.0000
72		2022-01-19 01:49:12	072SMPL.d	B21121623-001A	Sample		1.0000
73		2022-01-19 01:54:53	073SMPL.d	B21121957-001H	Sample		1.0000
74		2022-01-19 02:00:38	074SMPL.d	B21121957-001HDIL	Sample		5.0000
75		2022-01-19 02:06:24	075_CCV.d	CCV	CCV		1.0000
76		2022-01-19 02:12:07	076_CCB.d	CCB	CCB		1.0000
77		2022-01-19 02:17:53	077_ARF.d	B21121957-001HPDS1	AllRef		1.0300
78		2022-01-19 02:23:31	078MS4.d	B21121957-001HMS4	MS4		1.0000
79		2022-01-19 02:29:07	079MSD4.d	B21121957-001HMSD4	MSD4		1.0000
80		2022-01-19 02:34:40	080BLKV.d	Rinse	BlkVrfy		1.0000
81		2022-01-19 02:40:23	081SMPL.d	B21121957-001I	Sample		1.0000
82		2022-01-19 02:46:07	082_ARF.d	B21121957-001IDIL	AllRef		5.0000
83		2022-01-19 02:51:52	083MS.d	B21121957-001IMS	MS		1.0300
84		2022-01-19 02:57:36	084MSD.d	B21121957-001IMSD	MSD		1.0300
85		2022-01-19 03:03:14	085BLKV.d	Rinse	BlkVrfy		1.0000
86		2022-01-19 03:08:58	086SMPL.d	B21121959-001A	Sample		1.0000
87		2022-01-19 03:14:42	087SMPL.d	B21121959-001B	Sample		1.0000
88		2022-01-19 03:20:28	088SMPL.d	B21121961-001A	Sample		1.0000
89		2022-01-19 03:26:11	089_CCV.d	CCV	CCV		1.0000

Batch Summary Report

	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
90		2022-01-19 03:31:52	090 CCB.d	CCB	CCB		1.0000
91		2022-01-19 03:37:38	091SMPL.d	B21121961-001B	Sample		1.0000
92		2022-01-19 03:43:22	092SMPL.d	B21121965-001A	Sample		1.0000
93		2022-01-19 03:49:06	093SMPL.d	B21121965-001B	Sample		1.0000
94		2022-01-19 03:54:50	094SMPL.d	B21121967-001A	Sample		1.0000
95		2022-01-19 04:00:34	095SMPL.d	B21121967-001B	Sample		1.0000
96		2022-01-19 04:06:18	096SMPL.d	B21121968-001A	Sample		1.0000
97		2022-01-19 04:12:02	097SMPL.d	B21121968-001B	Sample		1.0000
98		2022-01-19 04:17:46	098 CCV.d	CCV	CCV		1.0000
99		2022-01-19 04:23:28	099 CCB.d	CCB	CCB		1.0000
100		2022-01-19 04:29:16	100CALB.d	BLANK	CalBlk	1	1.0000
101		2022-01-19 04:35:07	101CAL.S.d	0.025 PPB STD	CalStd	2	1.0000
102		2022-01-19 04:40:58	102CAL.S.d	0.05 PPB STD	CalStd	3	1.0000
103		2022-01-19 04:46:50	103CAL.S.d	0.10 PPB STD	CalStd	4	1.0000
104		2022-01-19 04:52:42	104CAL.S.d	0.5 PPB STD	CalStd	5	1.0000
105		2022-01-19 04:58:34	105CAL.S.d	1 PPB STD	CalStd	6	1.0000
106		2022-01-19 05:04:25	106CAL.S.d	10 PPB STD	CalStd	7	1.0000
107		2022-01-19 05:10:16	107CAL.S.d	50 PPB STD	CalStd	8	1.0000
108		2022-01-19 05:16:05	108CAL.S.d	100 PPB STD	CalStd	9	1.0000
109		2022-01-19 05:21:50	109CAL.S.d	1000 PPB STD	CalStd	10	1.0000
110		2022-01-19 05:27:26	110CAL.S.d	100 ppb Bromine	CalStd	11	1.0000
111		2022-01-19 05:33:14	111BLKV.d	Rinse	BlkVrfy		1.0000
112		2022-01-19 05:38:59	112 QCS.d	QCS	QCS		1.0000
113		2022-01-19 05:44:41	113ICSA.d	ICSA	ICSA		1.0000
114		2022-01-19 05:50:25	114ICSB.d	ICSAB	ICSB		1.0000
115		2022-01-19 05:56:09	115BLKV.d	Rinse	BlkVrfy		1.0000
116		2022-01-19 06:01:53	116 CCV.d	CCV	CCV		1.0000
117		2022-01-19 06:07:35	117 CCB.d	CCB	CCB		1.0000
118		2022-01-19 06:13:22	118SMPL.d	B22010751-001A	Sample		1.0000
119		2022-01-19 06:19:26	119SMPL.d	B22010971-001A	Sample		1.0000
120		2022-01-19 06:25:10	120SMPL.d	B22010971-001B	Sample		1.0000
121		2022-01-19 06:30:55	121SMPL.d	B22010971-001BDIL	Sample		5.0000

Batch Summary Report

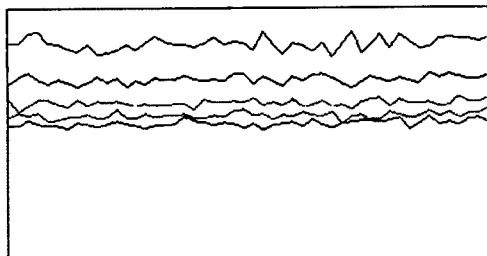
	Rjct	Acq. Date-Time	Data File	Sample Name	Type	Level	Dilution
122		2022-01-19 06:36:39	122 ARF.d	B22010971-001BPDS1	AllRef		1.0300
123		2022-01-19 06:42:19	123MS4.d	B22010971-001BMS4	MS4		1.0000
124		2022-01-19 06:47:54	124MSD4.d	B22010971-001BMSD4	MSD4		1.0000
125		2022-01-19 06:54:12	125BLKV.d	Rinse	BlkVrfy		1.0000
126		2022-01-19 06:59:56	126SMPL.d	B22010972-001A	Sample		1.0000
127		2022-01-19 07:05:40	127SMPL.d	B22010972-001B	Sample		1.0000
128		2022-01-19 07:11:23	128SMPL.d	B22010973-001A	Sample		1.0000
129		2022-01-19 07:17:08	129 CCV.d	CCV	CCV		1.0000
130		2022-01-19 07:22:48	130 CCB.d	CCB	CCB		1.0000
131		2022-01-19 07:28:36	131 ARF.d	B22010973-001ADIL	AllRef		5.0000
132		2022-01-19 07:34:19	132MS.d	B22010973-001AMS	MS		1.0300
133		2022-01-19 07:39:58	133MSD.d	B22010973-001AMSD	MSD		1.0300
134		2022-01-19 07:45:36	134BLKV.d	Rinse	BlkVrfy		1.0000
135		2022-01-19 07:51:23	135SMPL.d	B22010973-001B	Sample		1.0000
136		2022-01-19 07:57:08	136SMPL.d	B22010974-001A	Sample		1.0000
137		2022-01-19 08:02:52	137SMPL.d	B22010974-001B	Sample		1.0000
138		2022-01-19 08:08:35	138SMPL.d	B22010975-001A	Sample		1.0000
139		2022-01-19 08:14:19	139SMPL.d	B22010975-001B	Sample		1.0000
140		2022-01-19 08:20:05	140SMPL.d	B22010976-001A	Sample		1.0000
141		2022-01-19 08:25:49	141SMPL.d	B22010976-001B	Sample		1.0000
142		2022-01-19 08:31:32	142 CCV.d	CCV	CCV		1.0000
143		2022-01-19 08:37:14	143 CCB.d	CCB	CCB		1.0000
144		2022-01-19 08:43:02	144SMPL.d	B22010977-001A	Sample		1.0000
145		2022-01-19 08:48:48	145SMPL.d	B22010977-001B	Sample		1.0000
146		2022-01-19 08:54:34	146SMPL.d	B22010978-001A	Sample		1.0000
147		2022-01-19 09:00:19	147SMPL.d	B22010978-001B	Sample		1.0000
148		2022-01-19 09:06:02	148SMPL.d	B22010979-001A	Sample		1.0000
149		2022-01-19 09:11:45	149SMPL.d	B22010979-001B	Sample		1.0000
150		2022-01-19 09:17:28	150SMPL.d	B22010980-001A	Sample		1.0000
151		2022-01-19 09:23:10	151SMPL.d	B22010980-001B	Sample		1.0000
152		2022-01-19 09:28:53	152 CCV.d	CCV	CCV		1.0000
153		2022-01-19 09:36:39	153 CCB.d	CCB	CCB		1.0000

Tune Report

Operator Name eli
 Acq/Data Batch D:\Data\220118A.b
 Acq. Date-Time 2022-01-18 13:35:58
 Report Comment ICPMS206-B JPV
 Instrument Name G3281A JP12091601

[NO GAS]

Sensitivity



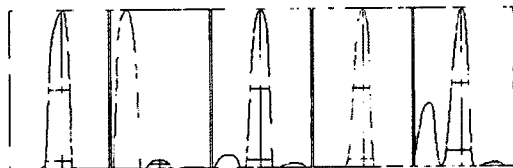
Mass	Range	Count	RSD%	Background
9	200000	172317	2.841	24.900
24	50000	31200	2.020	9.800
59	100000	71693	2.178	9.300
115	50000	28753	2.127	14.500
208	20000	10865	2.177	24.600

Sampling Period [sec] 0.514
 Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide 156 / 140 0.896 %
 Doubly Charged 70 / 140 1.228 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
9	176403.15	9.10	0.65	0.783
24	31101.33	24.00	0.62	0.744
59	71214.14	59.00	0.60	0.780
115	28593.56	115.05	0.52	0.760
208	10864.19	207.95	0.51	0.770

Integration Time [sec] 0.1
 Acquisition Time [sec] 37.4
 Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	---
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-3.9 V	Omega Lens	11.1 V	Deflect	16.8 V
Extract 2	-200.0 V	Cell Entrance	-50 V	Plate Bias	-60 V

Tune Report

Omega Bias -105 V Cell Exit -50 V

Cell Parameters

Use Gas No 3rd Gas Flow -- Energy Discrimination 5.0 V
 He Flow 0.0 mL/min OctP Bias -8.0 V
 H2 Flow 0.0 mL/min OctP RF 180 V

QP Parameters

Mass Gain 131 Axis Gain 1.0010 QP Bias -3.0 V
 Mass Offset 126 Axis Offset 0.09

Hardware Settings

Torch

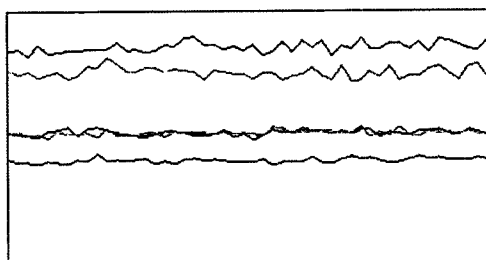
Torch H -0.1 mm Torch V -0.4 mm

EM

Discriminator 6.1 mV Analog HV 1610 V Pulse HV 996 V

[H2]

Sensitivity



Mass	Range	Count	RSD%	Background
9	50000	20388	2.241	0.500
24	10000	7591	2.790	0.100
59	50000	25945	2.150	0.400
115	50000	25913	1.996	0.800
208	10000	8610	2.290	0.500

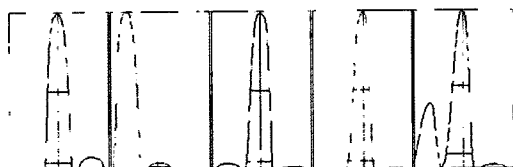
Sampling Period [sec] 0.514

Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide --
 Doubly Charged 70 / 140 1.116 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
9	20393.34	9.00	0.63	0.784
24	7757.23	23.95	0.63	0.744
59	25893.14	59.00	0.60	0.777
115	26342.09	115.05	0.52	0.758
208	8397.81	208.00	0.50	0.783

Integration Time [sec] 0.1

Acquisition Time [sec] 37.4

Y Axis Linear

Tune Parameters

Plasma Parameters

Tune Report

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Opton Gas	---	Auxiliary Gas	---
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-1.8 V	Omega Lens	12.2 V	Deflect	-3.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-48 V
Omega Bias	-100 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	2.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	3.5 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	131	Axis Gain	1.0010	QP Bias	-16.0 V
Mass Offset	126	Axis Offset	0.09		

Hardware Settings

Torch

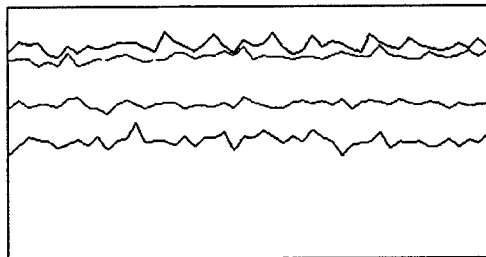
Torch H	-0.1 mm	Torch V	-0.4 mm
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EM

Discriminator	6.1 mV	Analog HV	1610 V	Pulse HV	996 V
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[He]

Sensitivity



Mass	Range	Count	RSD%	Background
24	1000	468	5.212	0.500
59	20000	16046	2.017	0.200
115	5000	4239	2.686	0.400
208	10000	6141	2.211	0.800

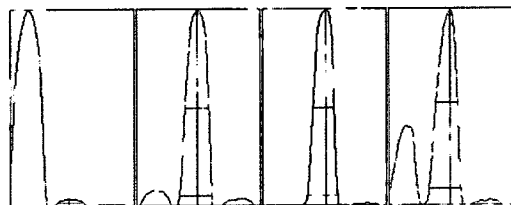
Sampling Period [sec] 0.412

Integration Time [sec] 0.1

Oxide/Doubly Charged Ratio

Oxide	---
Doubly Charged	70 / 140 1.535 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-5%
24	467.59	23.95	0.64	0.743
59	16068.62	59.00	0.59	0.772
115	4281.31	115.05	0.52	0.727
208	6156.48	208.00	0.51	0.760

Integration Time [sec] 0.1

Tune Report

Acquisition Time [sec] 29.92
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.80 L/min	Dilution Gas	0.12 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	---
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-1.9 V	Omega Lens	12.3 V	Deflect	0.0 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-48 V
Omega Bias	-120 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	131	Axis Gain	1.0010	QP Bias	-15.0 V
Mass Offset	126	Axis Offset	0.09		

Hardware Settings

Torch

Torch H	-0.1 mm	Torch V	-0.4 mm
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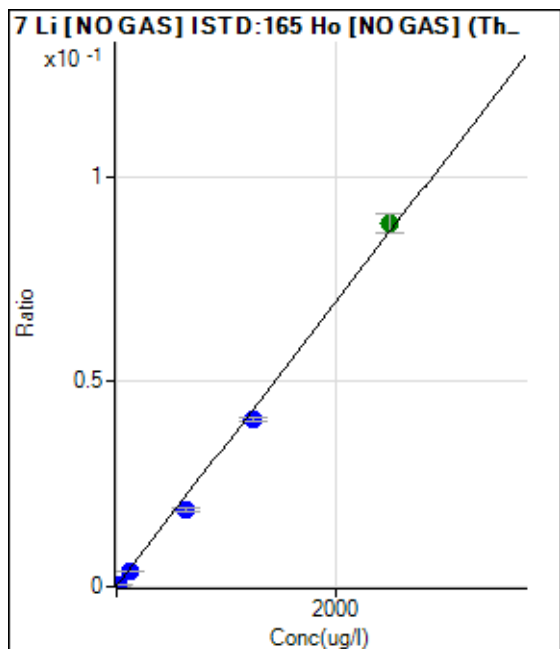
EM

Discriminator	6.1 mV	Analog HV	1610 V	Pulse HV	996 V
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Calibration for 039CAL.S.d

Batch Folder: D:\Data\220118ADoD.b\
 Analysis File: 220118ADoD.batch.bin
 DA Date-Time: 2022-01-19 06:52:31
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	026CALB.d	BLANK	2022-01-18 21:24:49
2	027CAL.S.d	0.025 PPB STD	2022-01-18 21:30:42
3	028CAL.S.d	0.05 PPB STD	2022-01-18 21:36:33
4	039CAL.S.d	0.10 PPB STD	2022-01-18 22:40:39
5	030CAL.S.d	0.5 PPB STD	2022-01-18 21:48:15
6	031CAL.S.d	1 PPB STD	2022-01-18 21:54:07
7	032CAL.S.d	10 PPB STD	2022-01-18 21:59:59
8	033CAL.S.d	50 PPB STD	2022-01-18 22:05:50
9	034CAL.S.d	100 PPB STD	2022-01-18 22:11:40
10	035CAL.S.d	1000 PPB STD	2022-01-18 22:17:24
11	036CAL.S.d	100 ppb Bromine	2022-01-18 22:22:59



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	1823.07	0.0001	P	2.0
2	<input type="checkbox"/>	0.031	0.090	1875.73	0.0001	P	6.6
3	<input type="checkbox"/>	0.625	0.278	2031.05	0.0001	P	2.5
4	<input type="checkbox"/>	1.250	2.137	3184.33	0.0002	P	10.6
5	<input type="checkbox"/>	6.250	4.966	4754.38	0.0003	P	2.3
6	<input type="checkbox"/>	12.500	11.807	8886.51	0.0005	P	0.8
7	<input type="checkbox"/>	125.000	110.323	65688.12	0.0039	P	1.9
8	<input type="checkbox"/>	625.000	541.283	321802.05	0.0188	P	5.4
9	<input type="checkbox"/>	1250.000	1177.920	695109.84	0.0408	P	1.6
10	<input type="checkbox"/>	2500.000	2557.710	1481995.49	0.0885	A	5.5
11	<input type="checkbox"/>			4381.02	0.0003	P	4.5

$y = 3.4577E-005 * x + 1.0744E-004$

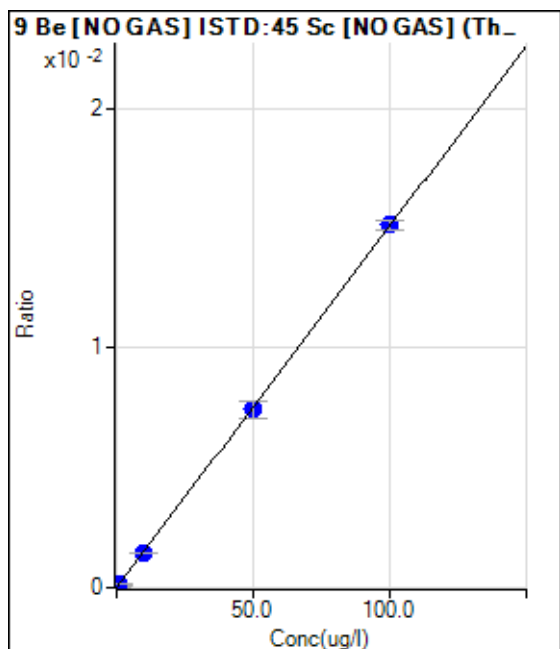
R = 0.9989

DL = 0.1832

BEC = 3.107

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	5.67	0.0000	P	72.0
2	<input type="checkbox"/>	0.025	0.012	8.67	0.0000	P	21.5
3	<input type="checkbox"/>	0.050	0.074	26.00	0.0000	P	20.4
4	<input type="checkbox"/>	0.100	0.104	37.99	0.0000	P	32.5
5	<input type="checkbox"/>	0.500	0.447	131.31	0.0001	P	13.1
6	<input type="checkbox"/>	1.000	1.142	328.27	0.0002	P	7.0
7	<input type="checkbox"/>	10.000	9.589	2776.34	0.0014	P	3.2
8	<input type="checkbox"/>	50.000	49.257	14537.12	0.0074	P	9.0
9	<input type="checkbox"/>	100.000	100.412	29851.32	0.0151	P	2.7
10	<input type="checkbox"/>			292077.64	0.1464	P	2.8
11	<input type="checkbox"/>			46.32	0.0000	P	34.0

$y = 1.5061E-004 * x + 3.0734E-006$

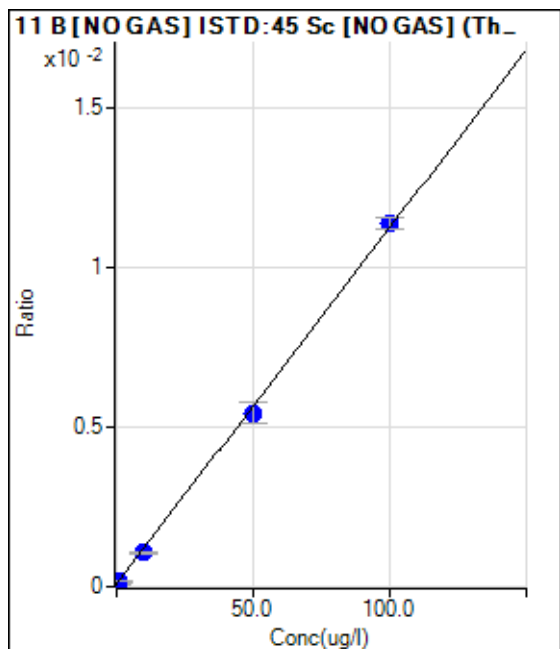
R = 1.0000

DL = 0.04406

BEC = 0.02041

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	163.30	0.0001	P	4.6
2	<input type="checkbox"/>			149.97	0.0001	P	18.1
3	<input type="checkbox"/>	0.050	-0.046	151.30	0.0001	P	8.9
4	<input type="checkbox"/>	0.100	0.917	387.93	0.0002	P	20.3
5	<input type="checkbox"/>	0.500	0.188	201.96	0.0001	P	18.6
6	<input type="checkbox"/>	1.000	0.741	319.27	0.0002	P	5.1
7	<input type="checkbox"/>	10.000	8.856	2060.39	0.0011	P	5.6
8	<input type="checkbox"/>	50.000	47.982	10626.50	0.0054	P	12.3
9	<input type="checkbox"/>	100.000	101.127	22416.00	0.0114	P	3.3
10	<input type="checkbox"/>			210425.69	0.1054	P	2.1
11	<input type="checkbox"/>			1341.79	0.0007	P	2.3

$y = 1.1146E-004 * x + 8.7509E-005$

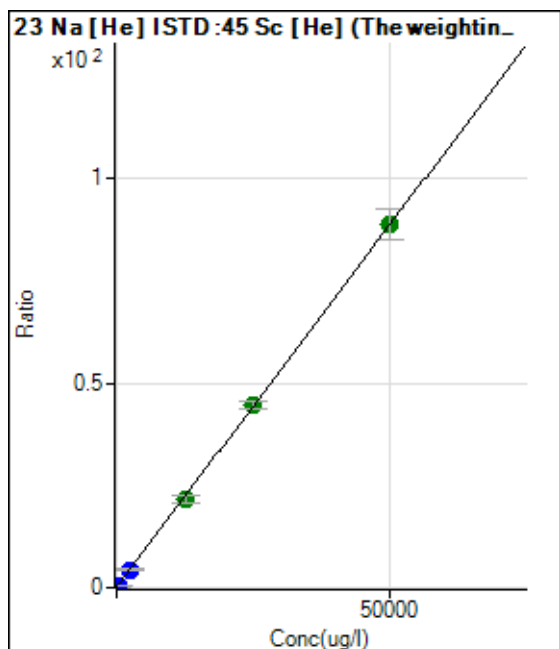
R = 0.9996

DL = 0.1077

BEC = 0.7851

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	6888.07	0.1369	P	2.2
2	<input type="checkbox"/>	6.250	2.419	7191.53	0.1412	P	2.7
3	<input type="checkbox"/>	12.500	11.980	8026.34	0.1581	P	6.6
4	<input type="checkbox"/>	25.000	28.077	10190.84	0.1866	P	4.3
5	<input type="checkbox"/>	125.000	123.450	18202.96	0.3555	P	2.6
6	<input type="checkbox"/>	250.000	276.556	31766.01	0.6266	P	1.5
7	<input type="checkbox"/>	2500.000	2436.365	238218.55	4.4506	P	3.1
8	<input type="checkbox"/>	12500.000	12027.441	1151302.24	21.4322	A	8.7
9	<input type="checkbox"/>	25000.000	25113.130	2451385.92	44.6011	A	4.0
10	<input type="checkbox"/>	50000.000	50064.627	4610801.77	88.7791	A	8.6
11	<input type="checkbox"/>			13090.55	0.2371	P	0.9

$y = 0.0018 * x + 0.1369$

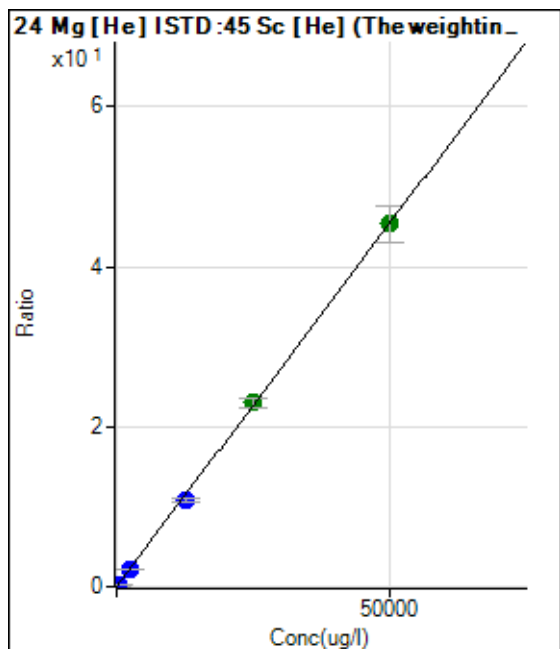
R = 1.0000

DL = 5.137

BEC = 77.33

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	13.31	0.0003	P	173.2
2	<input type="checkbox"/>	6.250	6.598	319.37	0.0063	P	21.6
3	<input type="checkbox"/>	12.500	12.814	602.16	0.0119	P	24.1
4	<input type="checkbox"/>	25.000	30.157	1510.42	0.0276	P	7.7
5	<input type="checkbox"/>	125.000	118.910	5536.64	0.1082	P	6.0
6	<input type="checkbox"/>	250.000	283.540	13035.84	0.2576	P	8.5
7	<input type="checkbox"/>	2500.000	2340.894	113664.56	2.1245	P	4.6
8	<input type="checkbox"/>	12500.000	11891.085	579537.13	10.7907	P	4.7
9	<input type="checkbox"/>	25000.000	25406.833	1266941.79	23.0555	A	5.2
10	<input type="checkbox"/>	50000.000	49956.613	2352638.64	45.3331	A	10.1
11	<input type="checkbox"/>			232.87	0.0042	P	31.3

$y = 9.0744E-004 * x + 2.6324E-004$

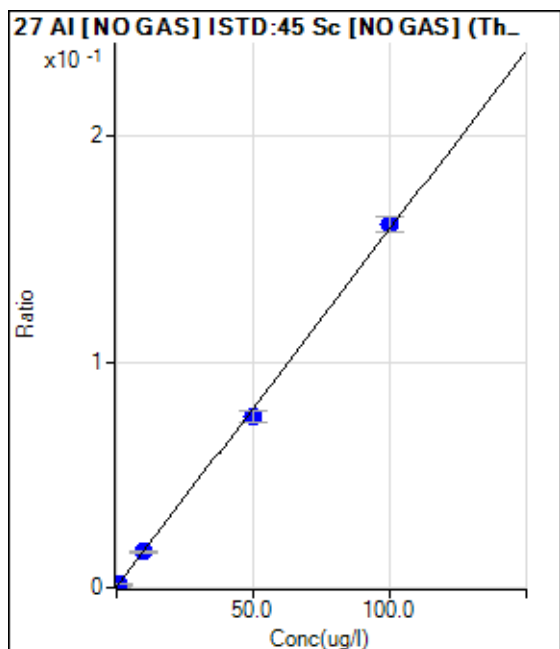
R = 0.9999

DL = 1.507

BEC = 0.2901

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	636.68	0.0003	P	9.6
2	<input type="checkbox"/>			595.57	0.0003	P	10.9
3	<input type="checkbox"/>	0.050	0.031	716.69	0.0004	P	4.2
4	<input type="checkbox"/>	0.100	0.285	1628.98	0.0008	P	8.8
5	<input type="checkbox"/>	0.500	0.475	2043.47	0.0011	P	1.0
6	<input type="checkbox"/>	1.000	1.057	3787.11	0.0020	P	0.8
7	<input type="checkbox"/>	10.000	9.772	30359.10	0.0158	P	3.3
8	<input type="checkbox"/>	50.000	47.574	148576.62	0.0757	P	6.2
9	<input type="checkbox"/>	100.000	101.235	317171.03	0.1608	P	4.1
10	<input type="checkbox"/>			2971298.01	1.4892	A	3.1
11	<input type="checkbox"/>			26249.07	0.0135	P	2.9

$y = 0.0016 * x + 3.4183E-004$

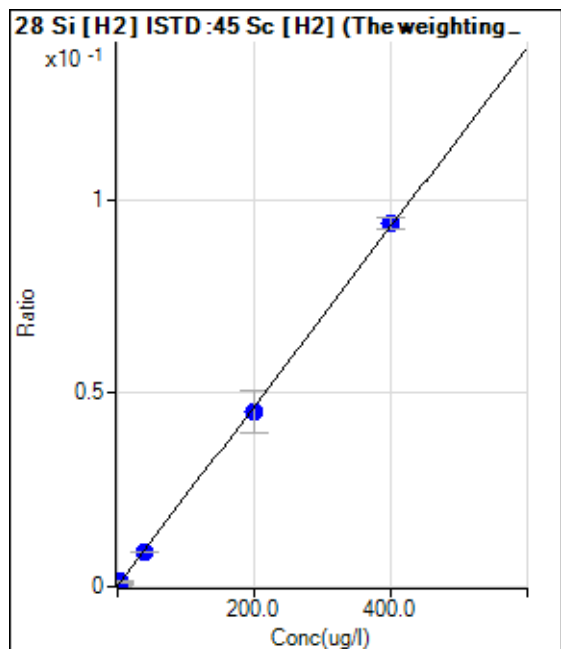
R = 0.9996

DL = 0.062

BEC = 0.2157

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	18.67	0.0002	P	18.4
2	<input type="checkbox"/>			21.33	0.0003	P	46.4
3	<input type="checkbox"/>	0.200	0.773	33.99	0.0004	P	49.4
4	<input type="checkbox"/>	0.400	0.930	38.66	0.0004	P	6.7
5	<input type="checkbox"/>	2.000	1.896	55.32	0.0007	P	25.4
6	<input type="checkbox"/>	4.000	4.531	105.98	0.0013	P	10.7
7	<input type="checkbox"/>	40.000	37.494	772.53	0.0089	P	1.9
8	<input type="checkbox"/>	200.000	193.666	4075.03	0.0451	P	24.1
9	<input type="checkbox"/>	400.000	403.412	8514.45	0.0936	P	3.2
10	<input type="checkbox"/>			66.66	0.0008	P	6.0
11	<input type="checkbox"/>			27.99	0.0003	P	22.3

$y = 2.3156E-004 * x + 2.2663E-004$

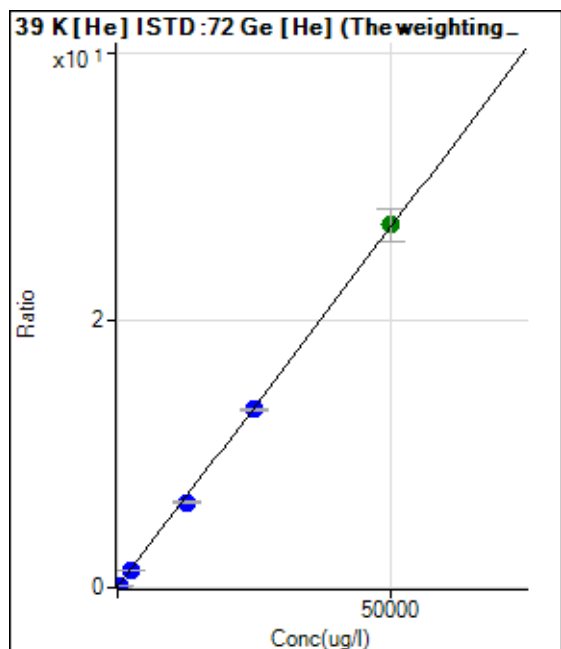
R = 0.9998

DL = 0.5417

BEC = 0.9787

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	2671.34	0.0354	P	3.8
2	<input type="checkbox"/>	6.250	3.803	2873.60	0.0374	P	9.0
3	<input type="checkbox"/>	12.500	12.098	3275.33	0.0419	P	4.0
4	<input type="checkbox"/>	25.000	30.697	4180.54	0.0520	P	1.4
5	<input type="checkbox"/>	125.000	119.152	7770.71	0.0997	P	4.7
6	<input type="checkbox"/>	250.000	245.317	13145.16	0.1677	P	3.1
7	<input type="checkbox"/>	2500.000	2347.001	100098.52	1.3011	P	3.6
8	<input type="checkbox"/>	12500.000	11818.011	514585.14	6.4086	P	1.0
9	<input type="checkbox"/>	25000.000	24664.679	1089567.74	13.3365	P	0.6
10	<input type="checkbox"/>	50000.000	50345.843	2093185.14	27.1857	A	8.7
11	<input type="checkbox"/>			25288.89	0.3081	P	2.3

$y = 5.3928E-004 * x + 0.0354$

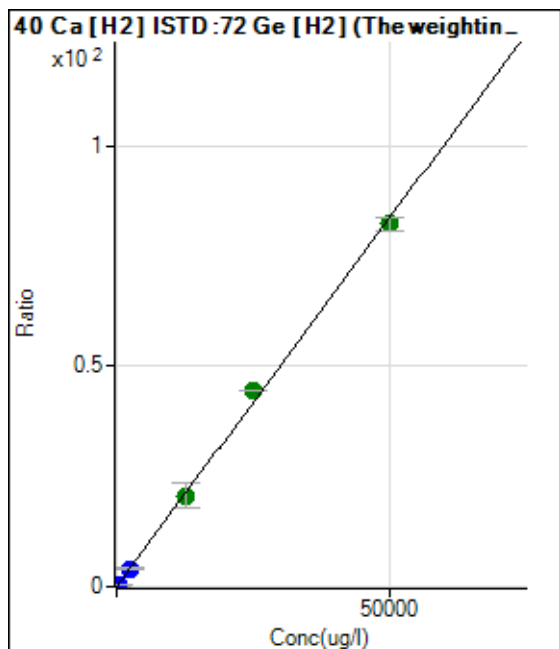
R = 0.9999

DL = 7.489

BEC = 65.64

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	564.73	0.0048	P	17.3
2	<input type="checkbox"/>	6.250	7.203	1917.51	0.0168	P	6.2
3	<input type="checkbox"/>	12.500	13.591	3235.39	0.0275	P	7.7
4	<input type="checkbox"/>	25.000	31.871	7044.70	0.0581	P	3.4
5	<input type="checkbox"/>	125.000	125.826	25162.98	0.2153	P	3.0
6	<input type="checkbox"/>	250.000	277.650	54513.35	0.4693	P	2.2
7	<input type="checkbox"/>	2500.000	2465.794	490797.02	4.1300	P	1.3
8	<input type="checkbox"/>	12500.000	12376.854	2558726.63	20.7109	A	25.8
9	<input type="checkbox"/>	25000.000	26655.154	5349149.08	44.5981	A	0.2
10	<input type="checkbox"/>	50000.000	49204.776	9959193.00	82.3230	A	3.6
11	<input type="checkbox"/>			2385.67	0.0190	P	8.5

$y = 0.0017 * x + 0.0048$

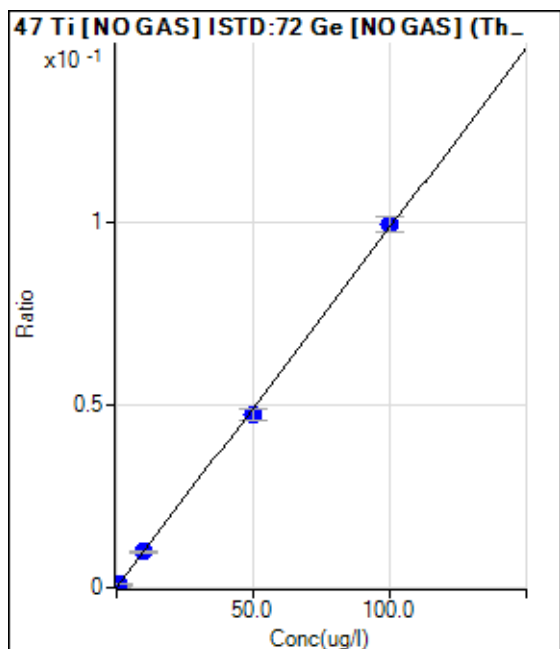
R = 0.9993

DL = 1.481

BEC = 2.853

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	23.32	0.0000	P	24.4
2	<input type="checkbox"/>	0.025	0.040	56.64	0.0001	P	10.9
3	<input type="checkbox"/>	0.050	0.073	83.29	0.0001	P	30.1
4	<input type="checkbox"/>	0.100	0.155	159.92	0.0002	P	8.8
5	<input type="checkbox"/>	0.500	0.517	443.12	0.0005	P	22.2
6	<input type="checkbox"/>	1.000	1.073	912.91	0.0011	P	11.7
7	<input type="checkbox"/>	10.000	10.074	8373.00	0.0100	P	5.9
8	<input type="checkbox"/>	50.000	48.278	41029.44	0.0476	P	6.6
9	<input type="checkbox"/>	100.000	100.853	86388.56	0.0995	P	4.1
10	<input type="checkbox"/>			4926.67	0.0058	P	4.6
11	<input type="checkbox"/>			73.30	0.0001	P	49.8

$y = 9.8638E-004 * x + 2.7563E-005$

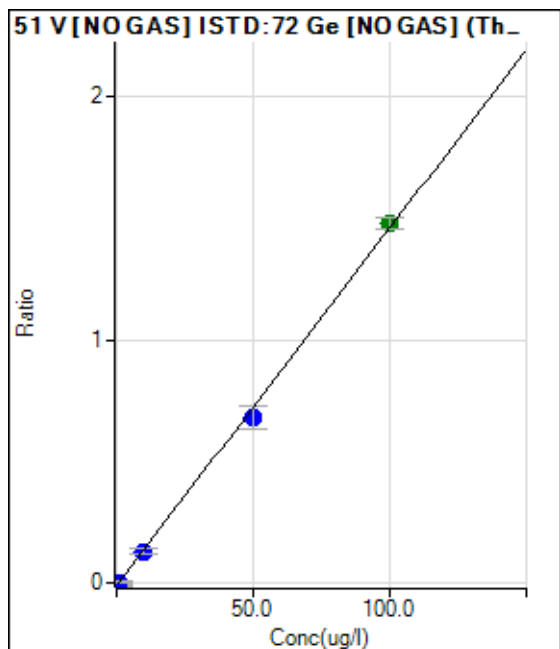
R = 0.9998

DL = 0.02042

BEC = 0.02794

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	-7327.59	-0.0086	P	-55.0
2	<input type="checkbox"/>			-10942.60	-0.0130	P	-55.2
3	<input type="checkbox"/>	0.050	-0.308	-11025.42	-0.0131	P	-38.8
4	<input type="checkbox"/>	0.100	-0.050	-8452.23	-0.0093	P	-91.9
5	<input type="checkbox"/>	0.500	0.043	-6583.91	-0.0080	P	-48.8
6	<input type="checkbox"/>	1.000	0.913	3955.09	0.0048	P	195.0
7	<input type="checkbox"/>	10.000	9.465	109251.67	0.1304	P	17.0
8	<input type="checkbox"/>	50.000	47.025	589142.58	0.6820	P	13.7
9	<input type="checkbox"/>	100.000	101.544	1287369.17	1.4827	A	3.3
10	<input type="checkbox"/>			13405754.74	15.9180	A	3.5
11	<input type="checkbox"/>			-10382.31	-0.0121	P	-40.5

$y = 0.0147 * x - 0.0086$

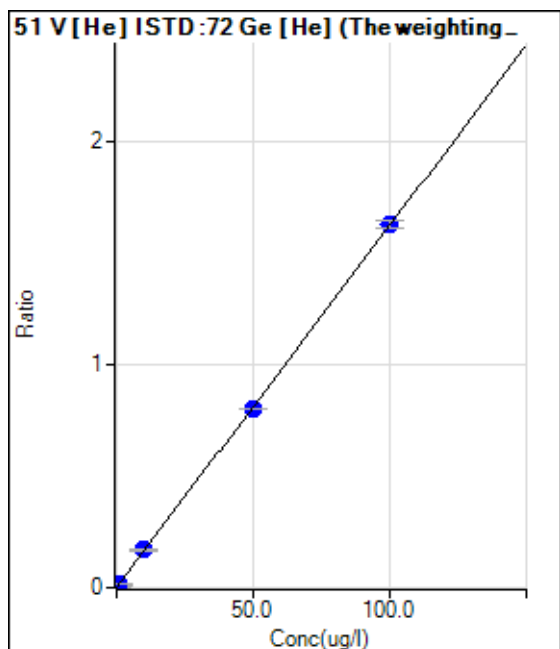
R = 0.9995

DL = 0.9674

BEC = -0.5859

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	83.33	0.0011	P	15.0
2	<input type="checkbox"/>			156.67	0.0020	P	15.7
3	<input type="checkbox"/>	0.050	0.084	192.23	0.0025	P	10.1
4	<input type="checkbox"/>	0.100	0.114	237.78	0.0030	P	24.1
5	<input type="checkbox"/>	0.500	0.488	703.35	0.0090	P	4.6
6	<input type="checkbox"/>	1.000	1.109	1498.97	0.0191	P	11.2
7	<input type="checkbox"/>	10.000	10.339	12985.00	0.1688	P	3.6
8	<input type="checkbox"/>	50.000	49.482	64549.37	0.8038	P	0.5
9	<input type="checkbox"/>	100.000	100.224	132916.55	1.6269	P	2.0
10	<input type="checkbox"/>			1347739.72	17.4941	A	8.0
11	<input type="checkbox"/>			256.67	0.0031	P	19.2

$y = 0.0162 * x + 0.0011$

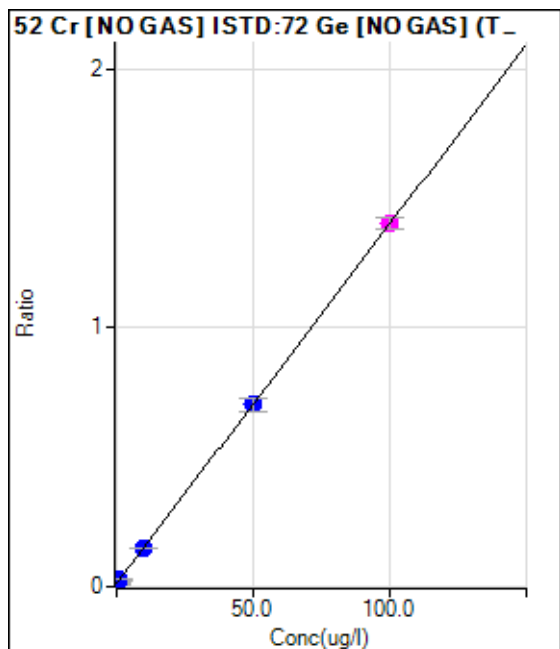
R = 1.0000

DL = 0.03074

BEC = 0.0681

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	9637.07	0.0114	P	5.1
2	<input type="checkbox"/>			9710.27	0.0115	P	3.4
3	<input type="checkbox"/>	0.050	0.076	10479.25	0.0125	P	2.5
4	<input type="checkbox"/>	0.100	0.041	10609.05	0.0120	P	4.7
5	<input type="checkbox"/>	0.500	0.561	15802.86	0.0192	P	2.7
6	<input type="checkbox"/>	1.000	1.086	22240.75	0.0265	P	3.6
7	<input type="checkbox"/>	10.000	9.859	124401.91	0.1482	P	3.2
8	<input type="checkbox"/>	50.000	49.762	604239.86	0.7018	P	6.8
9	<input type="checkbox"/>	100.000	100.132	1216072.12	1.4005	M	3.1
10	<input type="checkbox"/>			12421794.02	14.7448	A	2.4
11	<input type="checkbox"/>			11135.02	0.0129	P	5.3

$y = 0.0139 * x + 0.0114$

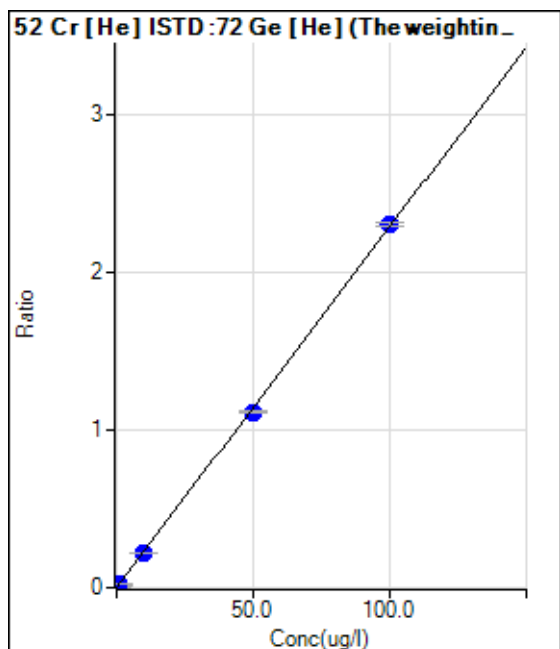
R = 1.0000

DL = 0.1251

BEC = 0.8218

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	136.40	0.0018	P	32.5
2	<input type="checkbox"/>			146.38	0.0019	P	33.5
3	<input type="checkbox"/>	0.050	0.066	259.49	0.0033	P	29.6
4	<input type="checkbox"/>	0.100	0.136	395.89	0.0049	P	0.5
5	<input type="checkbox"/>	0.500	0.484	1001.38	0.0128	P	21.0
6	<input type="checkbox"/>	1.000	1.188	2265.69	0.0289	P	10.3
7	<input type="checkbox"/>	10.000	9.712	17214.62	0.2236	P	1.6
8	<input type="checkbox"/>	50.000	48.760	89569.19	1.1155	P	1.9
9	<input type="checkbox"/>	100.000	100.647	187948.29	2.3006	P	1.1
10	<input type="checkbox"/>			1856579.95	24.1222	A	9.7
11	<input type="checkbox"/>			429.16	0.0052	P	22.0

$y = 0.0228 * x + 0.0018$

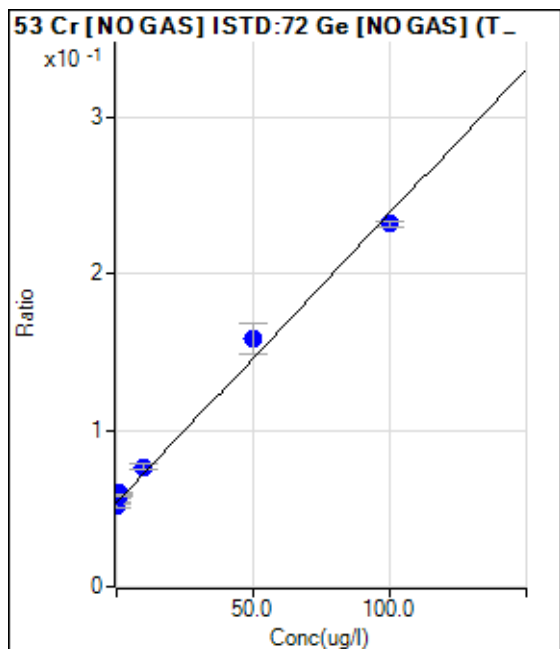
R = 0.9999

DL = 0.07704

BEC = 0.07902

Weight: 1/y

Min Conc: <None>



	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	45387.42	0.0537	P	1.1
2	<input type="checkbox"/>			48636.72	0.0578	P	1.8
3	<input type="checkbox"/>	0.050	1.974	48211.79	0.0573	P	1.7
4	<input type="checkbox"/>	0.100	-1.117	45772.87	0.0516	P	6.7
5	<input type="checkbox"/>	0.500	3.211	49112.37	0.0596	P	2.3
6	<input type="checkbox"/>	1.000	2.410	48830.37	0.0581	P	1.8
7	<input type="checkbox"/>	10.000	12.450	64441.99	0.0767	P	5.5
8	<input type="checkbox"/>	50.000	56.844	136481.03	0.1588	P	12.1
9	<input type="checkbox"/>	100.000	96.306	201201.99	0.2317	P	1.5
10	<input type="checkbox"/>			1529958.66	1.8162	A	2.7
11	<input type="checkbox"/>			48248.66	0.0560	P	3.8

$y = 0.0018 * x + 0.0537$

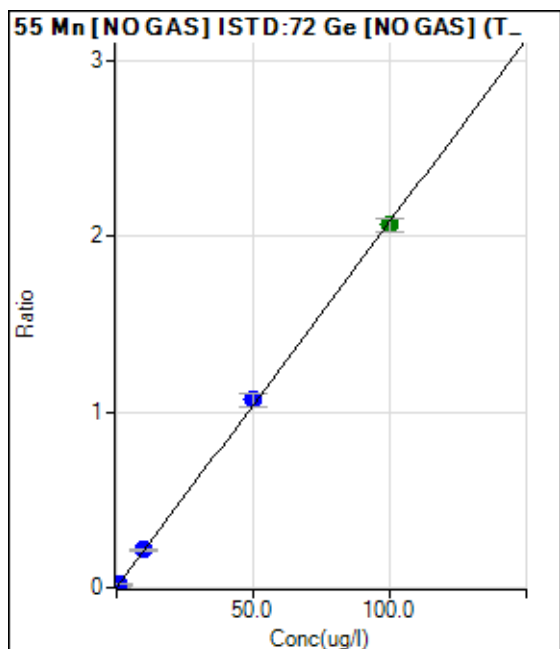
R = 0.9965

DL = 0.9934

BEC = 29.02

Weight: 1/y

Min Conc: <None>



	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	718.60	0.0008	P	17.7
2	<input type="checkbox"/>	0.025	0.020	1071.26	0.0013	P	8.7
3	<input type="checkbox"/>	0.050	0.053	1640.17	0.0019	P	3.6
4	<input type="checkbox"/>	0.100	0.123	3027.64	0.0034	P	9.8
5	<input type="checkbox"/>	0.500	0.512	9467.33	0.0115	P	5.4
6	<input type="checkbox"/>	1.000	1.143	20661.89	0.0246	P	3.6
7	<input type="checkbox"/>	10.000	10.226	179050.75	0.2133	P	4.1
8	<input type="checkbox"/>	50.000	51.418	920623.16	1.0692	P	6.7
9	<input type="checkbox"/>	100.000	99.267	1791371.05	2.0634	A	3.6
10	<input type="checkbox"/>			18279414.97	21.7001	A	2.0
11	<input type="checkbox"/>			2818.01	0.0033	P	10.6

$y = 0.0208 * x + 8.4802E-004$

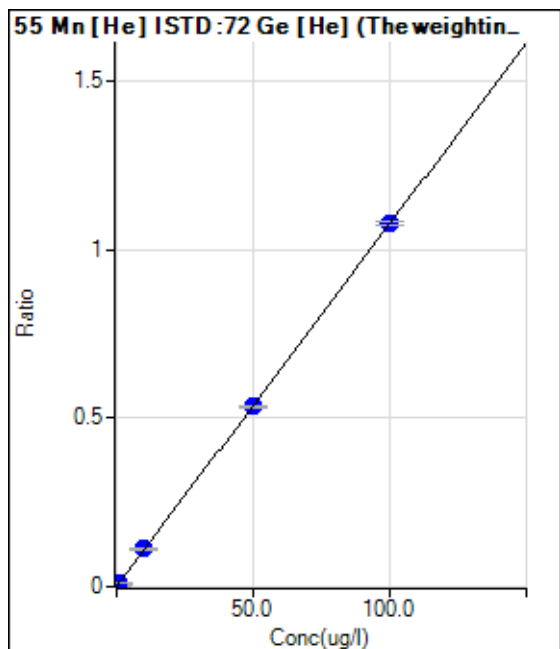
R = 0.9999

DL = 0.02162

BEC = 0.04081

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	5.00	0.0001	P	91.4
2	<input type="checkbox"/>	0.025	0.027	27.33	0.0004	P	3.6
3	<input type="checkbox"/>	0.050	0.053	49.67	0.0006	P	23.8
4	<input type="checkbox"/>	0.100	0.121	110.01	0.0014	P	9.5
5	<input type="checkbox"/>	0.500	0.478	406.05	0.0052	P	7.5
6	<input type="checkbox"/>	1.000	1.111	941.45	0.0120	P	1.8
7	<input type="checkbox"/>	10.000	10.463	8654.42	0.1126	P	5.2
8	<input type="checkbox"/>	50.000	49.726	42948.44	0.5348	P	0.8
9	<input type="checkbox"/>	100.000	100.090	87936.16	1.0764	P	1.2
10	<input type="checkbox"/>			871946.80	11.3261	P	8.9
11	<input type="checkbox"/>			89.34	0.0011	P	18.0

$y = 0.0108 * x + 6.6330E-005$

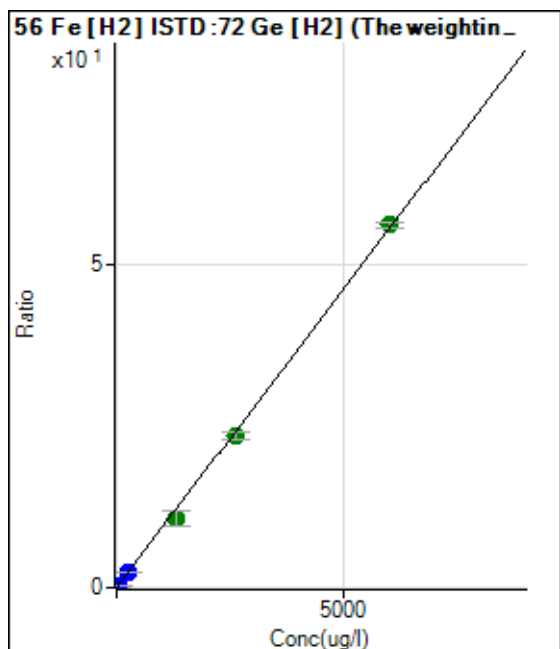
R = 1.0000

DL = 0.01692

BEC = 0.006168

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	346.51	0.0029	P	18.0
2	<input type="checkbox"/>	0.650	0.627	994.54	0.0087	P	11.5
3	<input type="checkbox"/>	1.300	1.241	1697.59	0.0144	P	7.4
4	<input type="checkbox"/>	2.600	3.092	3826.91	0.0315	P	5.5
5	<input type="checkbox"/>	13.000	12.815	14197.38	0.1215	P	2.4
6	<input type="checkbox"/>	26.000	27.311	29688.39	0.2556	P	4.4
7	<input type="checkbox"/>	260.000	244.756	269396.01	2.2672	P	2.6
8	<input type="checkbox"/>	1300.000	1159.729	1329085.85	10.7317	A	23.9
9	<input type="checkbox"/>	2600.000	2528.140	2803486.34	23.3911	A	4.9
10	<input type="checkbox"/>	6000.000	6062.186	6778809.85	56.0850	A	1.3
11	<input type="checkbox"/>			1685.93	0.0134	P	4.1

$y = 0.0093 * x + 0.0029$

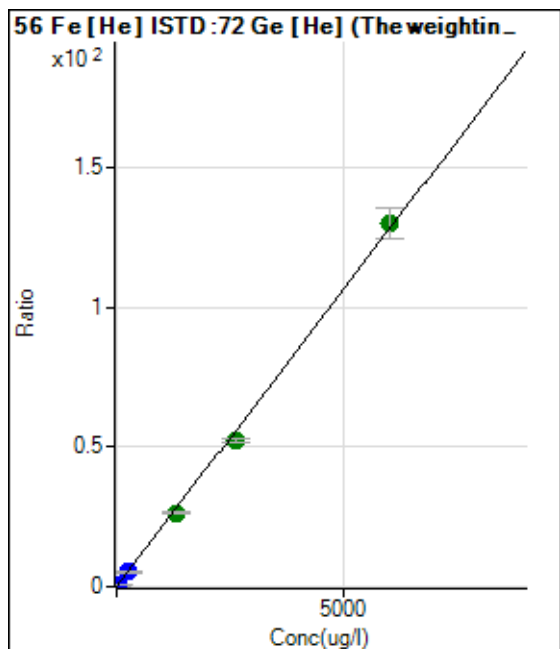
R = 0.9996

DL = 0.1713

BEC = 0.3167

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	586.39	0.0078	P	2.2
2	<input type="checkbox"/>	0.650	0.633	1634.28	0.0213	P	6.1
3	<input type="checkbox"/>	1.300	1.406	2950.49	0.0378	P	2.6
4	<input type="checkbox"/>	2.600	3.146	6026.46	0.0749	P	4.2
5	<input type="checkbox"/>	13.000	12.566	21511.54	0.2759	P	2.2
6	<input type="checkbox"/>	26.000	25.800	43756.62	0.5584	P	3.8
7	<input type="checkbox"/>	260.000	245.817	404031.18	5.2535	P	3.8
8	<input type="checkbox"/>	1300.000	1229.257	2107282.64	26.2403	A	2.6
9	<input type="checkbox"/>	2600.000	2440.470	4255076.90	52.0878	A	2.9
10	<input type="checkbox"/>	6000.000	6085.073	10000970.76	129.8642	A	8.5
11	<input type="checkbox"/>			2538.96	0.0309	P	6.6

$y = 0.0213 * x + 0.0078$

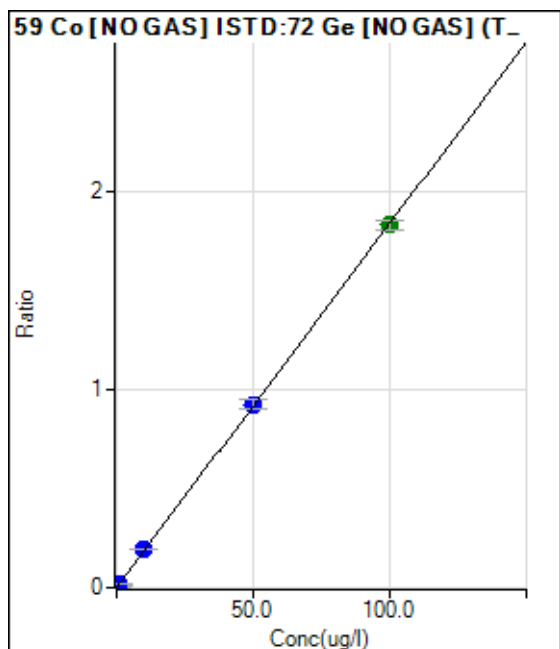
R = 0.9995

DL = 0.02409

BEC = 0.3641

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	69.86	0.0001	P	89.2
2	<input type="checkbox"/>	0.025	0.018	345.98	0.0004	P	6.2
3	<input type="checkbox"/>	0.050	0.051	855.00	0.0010	P	13.0
4	<input type="checkbox"/>	0.100	0.114	1922.98	0.0022	P	15.4
5	<input type="checkbox"/>	0.500	0.524	7972.85	0.0097	P	5.6
6	<input type="checkbox"/>	1.000	1.151	17784.26	0.0212	P	2.9
7	<input type="checkbox"/>	10.000	10.470	161177.06	0.1919	P	2.4
8	<input type="checkbox"/>	50.000	50.447	796732.62	0.9245	P	5.0
9	<input type="checkbox"/>	100.000	99.728	1586745.27	1.8276	A	2.4
10	<input type="checkbox"/>			15848731.70	18.8135	A	0.9
11	<input type="checkbox"/>			1566.99	0.0018	P	8.0

$y = 0.0183 * x + 8.3706E-005$

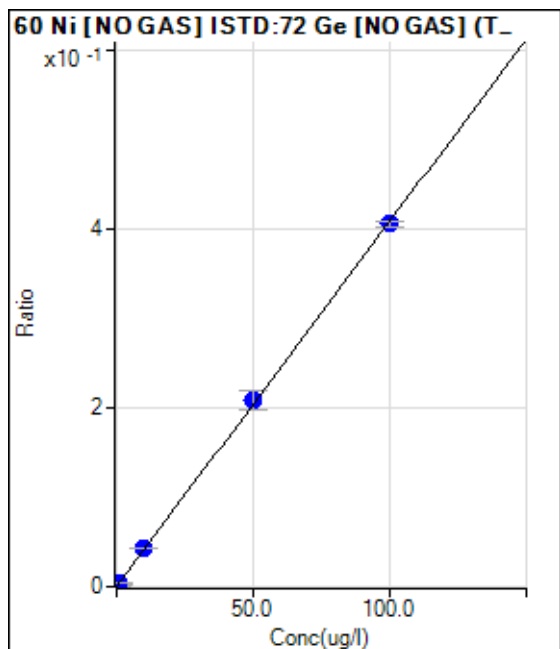
R = 1.0000

DL = 0.01223

BEC = 0.004568

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	63.21	0.0001	P	23.2
2	<input type="checkbox"/>	0.025	0.032	172.99	0.0002	P	27.7
3	<input type="checkbox"/>	0.050	0.049	229.55	0.0003	P	13.3
4	<input type="checkbox"/>	0.100	0.117	492.37	0.0006	P	8.7
5	<input type="checkbox"/>	0.500	0.559	1939.61	0.0024	P	6.0
6	<input type="checkbox"/>	1.000	1.184	4119.03	0.0049	P	4.4
7	<input type="checkbox"/>	10.000	10.545	36183.84	0.0431	P	4.2
8	<input type="checkbox"/>	50.000	51.103	179533.78	0.2086	P	10.1
9	<input type="checkbox"/>	100.000	99.392	352183.29	0.4056	P	1.7
10	<input type="checkbox"/>			3424739.05	4.0657	A	1.5
11	<input type="checkbox"/>			701.97	0.0008	P	22.0

$y = 0.0041 * x + 7.4605E-005$

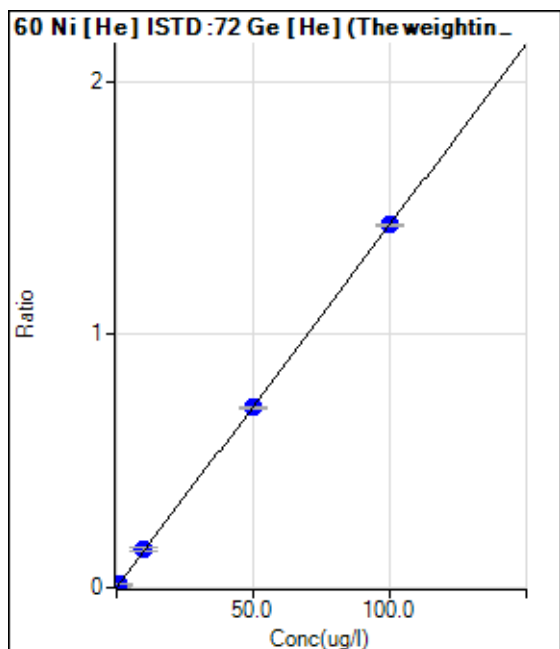
R = 0.9999

DL = 0.01272

BEC = 0.01828

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	27.78	0.0004	P	72.1
2	<input type="checkbox"/>	0.025	0.022	52.22	0.0007	P	22.5
3	<input type="checkbox"/>	0.050	0.044	77.78	0.0010	P	26.9
4	<input type="checkbox"/>	0.100	0.091	134.45	0.0017	P	12.6
5	<input type="checkbox"/>	0.500	0.508	595.57	0.0076	P	11.4
6	<input type="checkbox"/>	1.000	1.130	1296.73	0.0165	P	5.0
7	<input type="checkbox"/>	10.000	10.544	11618.53	0.1513	P	8.7
8	<input type="checkbox"/>	50.000	49.731	57191.59	0.7122	P	0.6
9	<input type="checkbox"/>	100.000	100.079	117066.10	1.4329	P	0.3
10	<input type="checkbox"/>			1145632.90	14.8676	P	7.5
11	<input type="checkbox"/>			225.56	0.0028	P	22.7

$y = 0.0143 * x + 3.6801E-004$

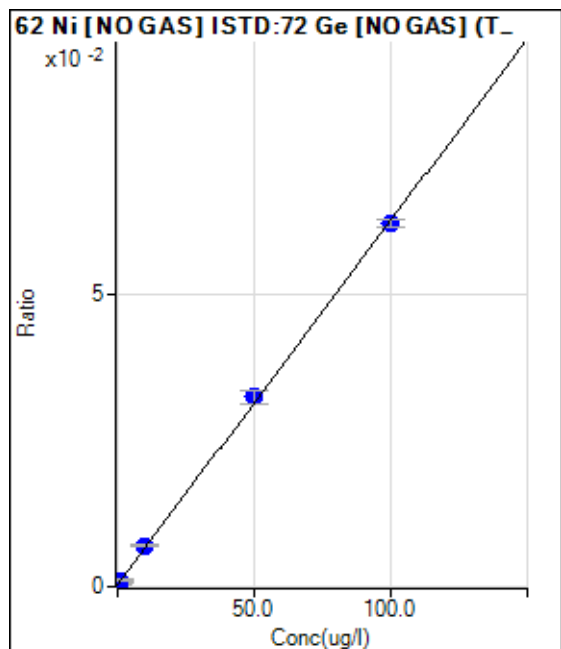
R = 1.0000

DL = 0.05558

BEC = 0.02571

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	279.45	0.0003	P	20.7
2	<input type="checkbox"/>	0.025	0.124	342.66	0.0004	P	2.5
3	<input type="checkbox"/>	0.050	0.220	392.56	0.0005	P	14.6
4	<input type="checkbox"/>	0.100	0.311	465.76	0.0005	P	5.4
5	<input type="checkbox"/>	0.500	0.675	618.79	0.0008	P	18.7
6	<input type="checkbox"/>	1.000	1.321	968.12	0.0012	P	16.9
7	<input type="checkbox"/>	10.000	10.818	5945.99	0.0071	P	6.3
8	<input type="checkbox"/>	50.000	51.518	27971.41	0.0325	P	7.7
9	<input type="checkbox"/>	100.000	99.155	54033.43	0.0622	P	2.1
10	<input type="checkbox"/>			528696.83	0.6276	P	1.6
11	<input type="checkbox"/>			439.14	0.0005	P	13.3

$y = 6.2428E-004 * x + 3.2977E-004$

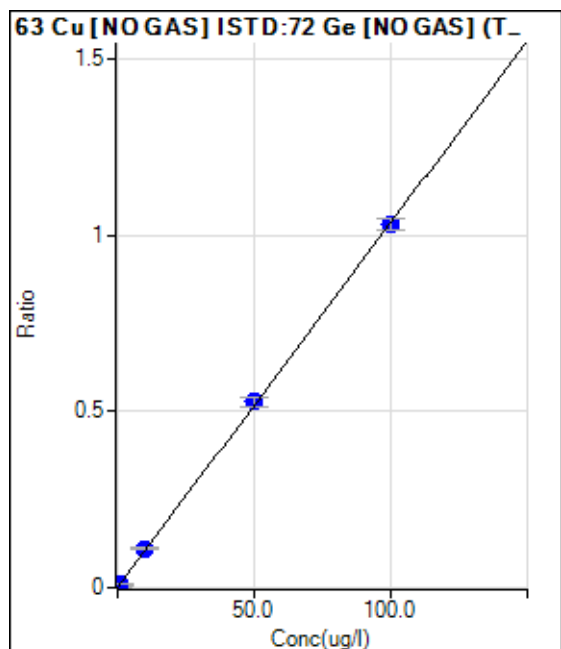
R = 0.9998

DL = 0.3275

BEC = 0.5282

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	469.91	0.0006	P	11.0
2	<input type="checkbox"/>	0.025	0.003	489.24	0.0006	P	2.3
3	<input type="checkbox"/>	0.050	0.026	690.55	0.0008	P	4.4
4	<input type="checkbox"/>	0.100	0.127	1656.43	0.0019	P	7.8
5	<input type="checkbox"/>	0.500	0.522	4905.76	0.0060	P	3.0
6	<input type="checkbox"/>	1.000	1.200	10879.38	0.0130	P	2.9
7	<input type="checkbox"/>	10.000	10.656	92930.05	0.1107	P	2.4
8	<input type="checkbox"/>	50.000	50.867	453206.89	0.5262	P	6.1
9	<input type="checkbox"/>	100.000	99.499	893125.13	1.0287	P	3.3
10	<input type="checkbox"/>			8318686.07	9.8770	A	2.5
11	<input type="checkbox"/>			1967.07	0.0023	P	4.1

$y = 0.0103 * x + 5.5546E-004$

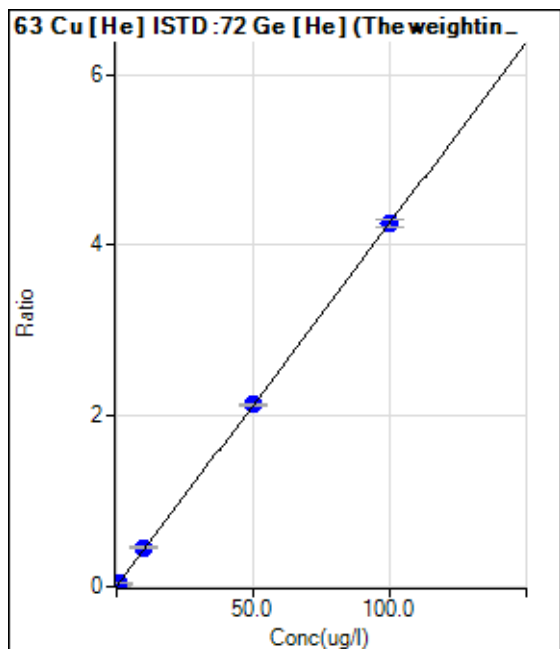
R = 0.9999

DL = 0.01781

BEC = 0.05375

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	198.29	0.0026	P	2.3
2	<input type="checkbox"/>	0.025	-0.006	182.30	0.0024	P	14.0
3	<input type="checkbox"/>	0.050	0.027	295.28	0.0038	P	4.0
4	<input type="checkbox"/>	0.100	0.123	630.22	0.0078	P	2.8
5	<input type="checkbox"/>	0.500	0.475	1778.74	0.0228	P	4.1
6	<input type="checkbox"/>	1.000	1.159	4065.02	0.0519	P	4.4
7	<input type="checkbox"/>	10.000	10.638	34973.86	0.4547	P	3.6
8	<input type="checkbox"/>	50.000	50.022	170910.11	2.1285	P	0.9
9	<input type="checkbox"/>	100.000	99.924	347139.46	4.2493	P	2.1
10	<input type="checkbox"/>			3300231.53	42.8200	A	7.2
11	<input type="checkbox"/>			735.87	0.0090	P	7.5

$y = 0.0425 * x + 0.0026$

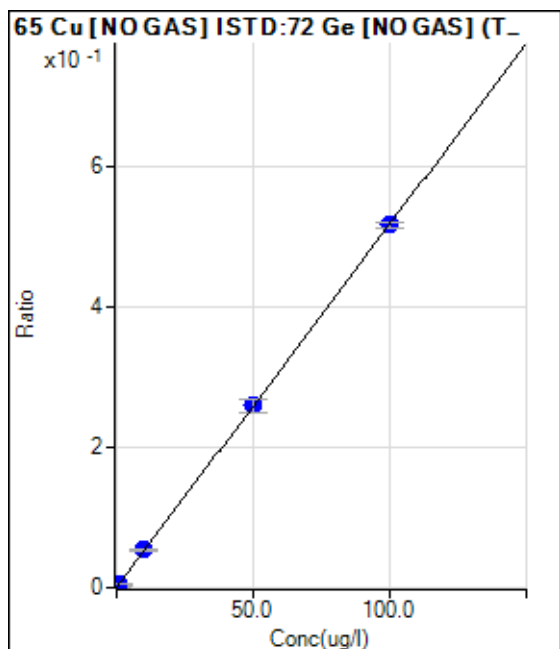
R = 1.0000

DL = 0.004251

BEC = 0.06182

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	238.62	0.0003	P	14.0
2	<input type="checkbox"/>	0.025	0.000	236.62	0.0003	P	5.9
3	<input type="checkbox"/>	0.050	0.025	347.27	0.0004	P	6.2
4	<input type="checkbox"/>	0.100	0.115	779.87	0.0009	P	2.8
5	<input type="checkbox"/>	0.500	0.511	2405.70	0.0029	P	1.3
6	<input type="checkbox"/>	1.000	1.153	5236.46	0.0062	P	4.1
7	<input type="checkbox"/>	10.000	10.453	45545.19	0.0543	P	3.9
8	<input type="checkbox"/>	50.000	50.069	222833.75	0.2588	P	7.3
9	<input type="checkbox"/>	100.000	99.918	448178.65	0.5162	P	1.6
10	<input type="checkbox"/>			4118243.51	4.8900	A	3.0
11	<input type="checkbox"/>			1013.17	0.0012	P	0.7

$y = 0.0052 * x + 2.8242E-004$

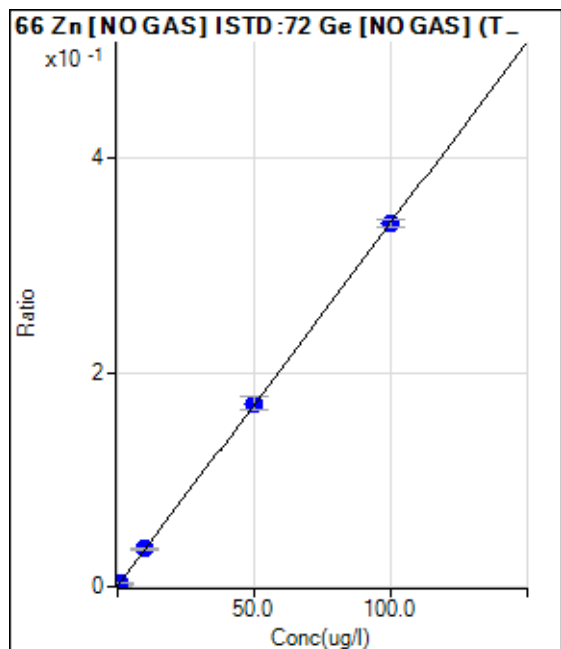
R = 1.0000

DL = 0.02296

BEC = 0.0547

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	489.00	0.0006	P	32.6
2	<input type="checkbox"/>			469.03	0.0006	P	15.4
3	<input type="checkbox"/>	0.050	0.020	545.49	0.0006	P	17.6
4	<input type="checkbox"/>	0.100	0.164	1007.94	0.0011	P	4.0
5	<input type="checkbox"/>	0.500	0.457	1756.46	0.0021	P	13.8
6	<input type="checkbox"/>	1.000	1.085	3576.23	0.0043	P	4.8
7	<input type="checkbox"/>	10.000	10.181	29477.01	0.0351	P	2.7
8	<input type="checkbox"/>	50.000	50.376	147620.92	0.1714	P	7.0
9	<input type="checkbox"/>	100.000	99.793	294292.96	0.3389	P	2.1
10	<input type="checkbox"/>			2776740.84	3.2975	A	4.1
11	<input type="checkbox"/>			2252.24	0.0026	P	13.4

$y = 0.0034 * x + 5.8099E-004$

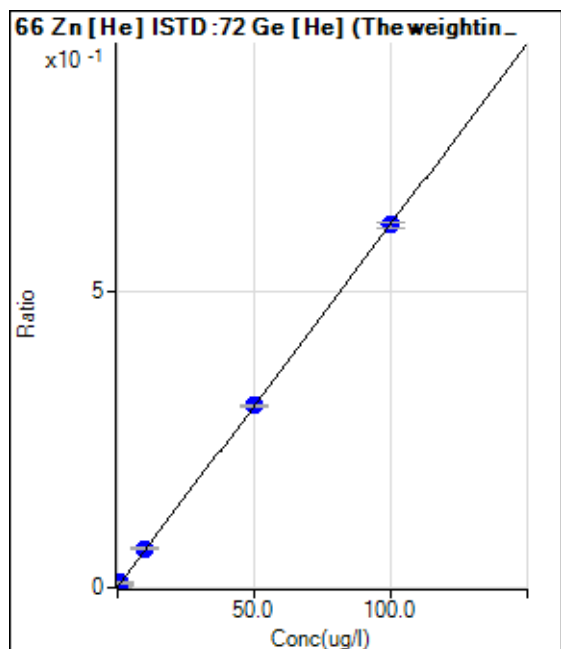
R = 1.0000

DL = 0.1678

BEC = 0.1713

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	91.11	0.0012	P	5.2
2	<input type="checkbox"/>			81.11	0.0011	P	28.8
3	<input type="checkbox"/>	0.050	0.026	106.66	0.0014	P	19.4
4	<input type="checkbox"/>	0.100	0.147	170.00	0.0021	P	12.5
5	<input type="checkbox"/>	0.500	0.460	314.45	0.0040	P	2.0
6	<input type="checkbox"/>	1.000	1.137	641.13	0.0082	P	12.0
7	<input type="checkbox"/>	10.000	10.565	5080.81	0.0661	P	3.4
8	<input type="checkbox"/>	50.000	50.094	24787.34	0.3087	P	0.9
9	<input type="checkbox"/>	100.000	99.896	50191.82	0.6144	P	1.8
10	<input type="checkbox"/>			481525.93	6.2583	P	9.9
11	<input type="checkbox"/>			404.45	0.0049	P	18.0

$y = 0.0061 * x + 0.0012$

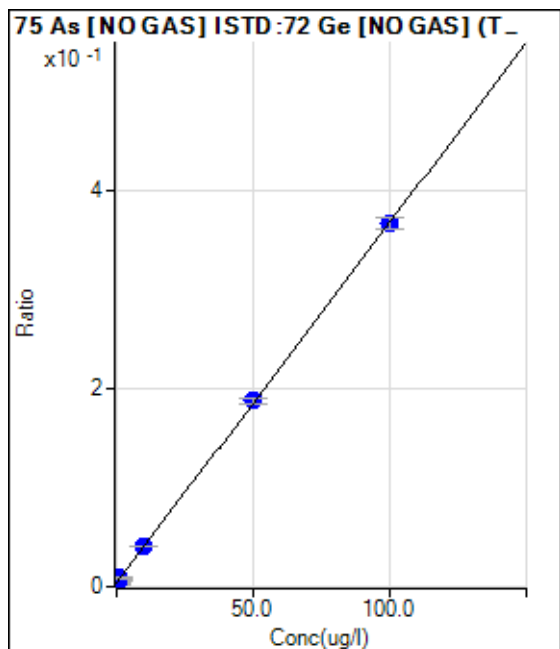
R = 1.0000

DL = 0.03069

BEC = 0.1966

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	3116.31	0.0037	P	51.3
2	<input type="checkbox"/>	0.025	0.324	4104.15	0.0049	P	41.4
3	<input type="checkbox"/>	0.050	0.280	3976.59	0.0047	P	19.9
4	<input type="checkbox"/>	0.100	-0.082	3024.85	0.0034	P	6.0
5	<input type="checkbox"/>	0.500	0.595	4840.07	0.0059	P	28.4
6	<input type="checkbox"/>	1.000	1.417	7450.14	0.0089	P	5.9
7	<input type="checkbox"/>	10.000	10.259	34476.57	0.0411	P	1.6
8	<input type="checkbox"/>	50.000	50.512	161686.78	0.1876	P	2.9
9	<input type="checkbox"/>	100.000	99.714	318347.29	0.3667	P	3.0
10	<input type="checkbox"/>			2975263.89	3.5315	A	0.7
11	<input type="checkbox"/>			6392.04	0.0074	P	30.0

$y = 0.0036 * x + 0.0037$

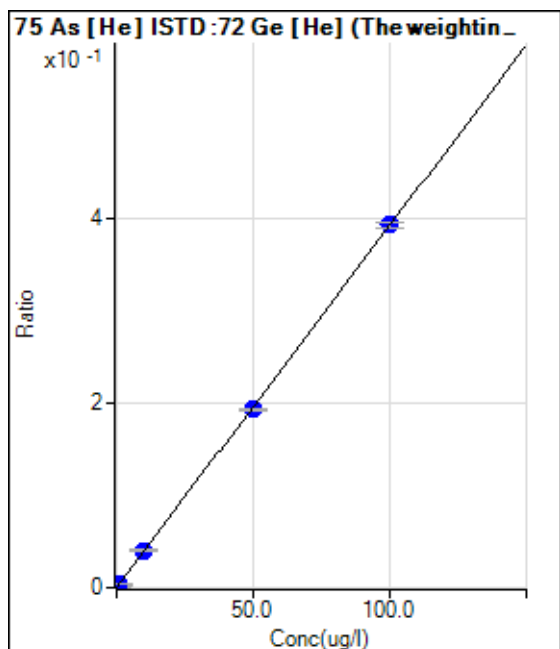
R = 1.0000

DL = 1.566

BEC = 1.018

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	5.00	0.0001	P	20.5
2	<input type="checkbox"/>	0.025	0.026	13.00	0.0002	P	20.1
3	<input type="checkbox"/>	0.050	0.058	23.00	0.0003	P	38.2
4	<input type="checkbox"/>	0.100	0.116	41.99	0.0005	P	22.2
5	<input type="checkbox"/>	0.500	0.471	148.97	0.0019	P	9.1
6	<input type="checkbox"/>	1.000	1.102	343.60	0.0044	P	3.2
7	<input type="checkbox"/>	10.000	10.325	3117.01	0.0405	P	5.2
8	<input type="checkbox"/>	50.000	49.393	15548.46	0.1936	P	1.1
9	<input type="checkbox"/>	100.000	100.270	32106.65	0.3930	P	1.6
10	<input type="checkbox"/>			317869.78	4.1263	P	8.0
11	<input type="checkbox"/>			57.66	0.0007	P	18.2

$y = 0.0039 * x + 6.6290E-005$

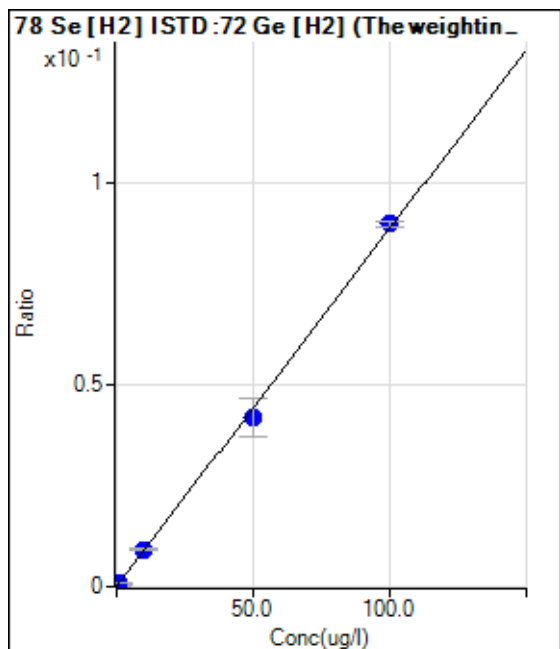
R = 1.0000

DL = 0.01042

BEC = 0.01692

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	2.33	0.0000	P	26.7
2	<input type="checkbox"/>	0.025	0.001	2.33	0.0000	P	66.6
3	<input type="checkbox"/>	0.050	0.042	6.67	0.0001	P	30.4
4	<input type="checkbox"/>	0.100	0.110	14.33	0.0001	P	38.2
5	<input type="checkbox"/>	0.500	0.420	45.66	0.0004	P	11.5
6	<input type="checkbox"/>	1.000	1.042	109.31	0.0009	P	7.8
7	<input type="checkbox"/>	10.000	10.348	1090.49	0.0092	P	3.9
8	<input type="checkbox"/>	50.000	47.153	5178.45	0.0417	P	22.8
9	<input type="checkbox"/>	100.000	101.389	10765.02	0.0897	P	1.6
10	<input type="checkbox"/>			103189.17	0.8536	P	0.7
11	<input type="checkbox"/>			30.66	0.0002	P	22.5

$y = 8.8493E-004 * x + 1.9751E-005$

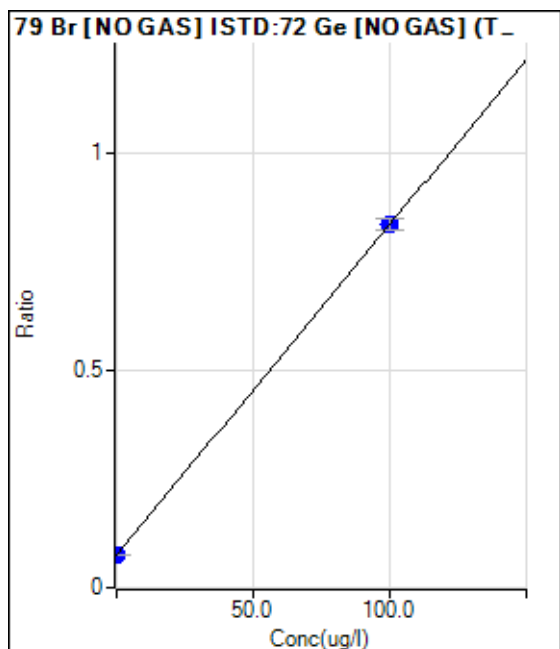
R = 0.9995

DL = 0.01788

BEC = 0.02232

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	63558.85	0.0752	P	2.7
2	<input type="checkbox"/>			66798.64	0.0794	P	0.3
3	<input type="checkbox"/>			65692.81	0.0781	P	0.9
4	<input type="checkbox"/>			66595.51	0.0751	P	3.7
5	<input type="checkbox"/>			65729.21	0.0798	P	0.5
6	<input type="checkbox"/>			64003.05	0.0762	P	3.2
7	<input type="checkbox"/>			65927.21	0.0785	P	1.1
8	<input type="checkbox"/>			66949.26	0.0777	P	7.7
9	<input type="checkbox"/>			68091.97	0.0784	P	3.2
10	<input type="checkbox"/>			70066.07	0.0831	P	1.5
11	<input type="checkbox"/>	100.000	100.000	720236.92	0.8359	P	3.2

$y = 0.0076 * x + 0.0752$

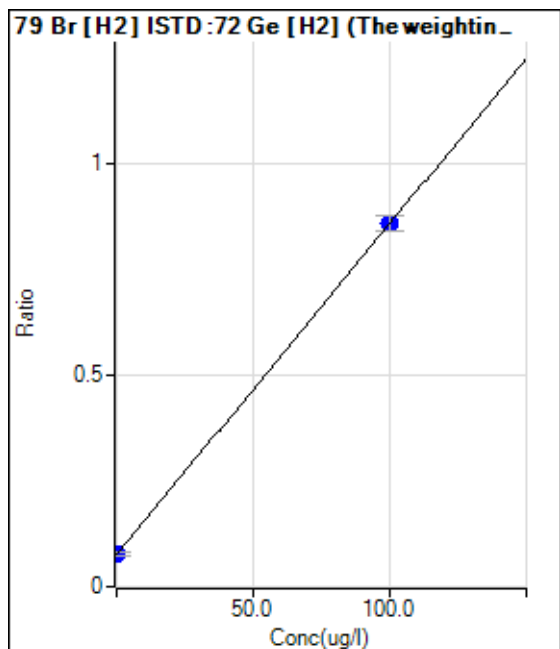
R = 1.0000

DL = 0.8109

BEC = 9.88

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	8938.12	0.0755	P	11.7
2	<input type="checkbox"/>			9327.51	0.0818	P	3.5
3	<input type="checkbox"/>			9314.22	0.0791	P	5.1
4	<input type="checkbox"/>			9490.69	0.0782	P	5.5
5	<input type="checkbox"/>			8918.14	0.0764	P	3.0
6	<input type="checkbox"/>			8755.02	0.0754	P	8.9
7	<input type="checkbox"/>			9017.98	0.0758	P	6.8
8	<input type="checkbox"/>			9447.42	0.0762	P	23.0
9	<input type="checkbox"/>			9803.56	0.0817	P	6.3
10	<input type="checkbox"/>			11461.37	0.0949	P	10.4
11	<input type="checkbox"/>	100.000	100.000	107446.53	0.8556	P	4.4

$y = 0.0078 * x + 0.0755$

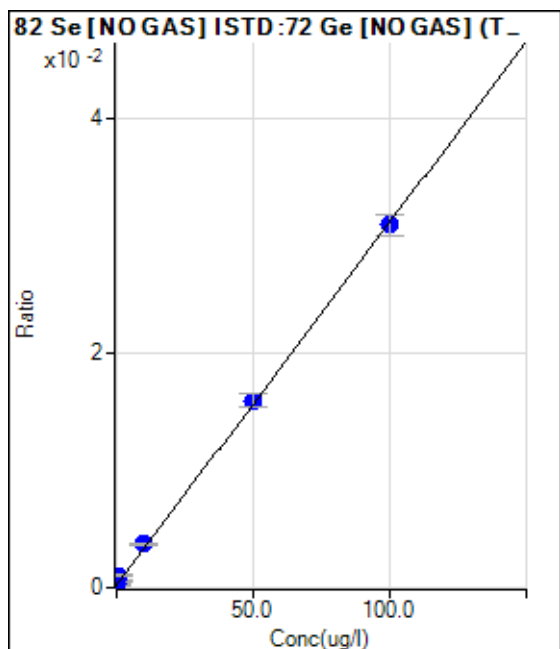
R = 1.0000

DL = 3.4

BEC = 9.678

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	168.34	0.0002	P	92.9
2	<input type="checkbox"/>	0.025	0.677	345.33	0.0004	P	49.0
3	<input type="checkbox"/>	0.050	0.762	368.63	0.0004	P	88.6
4	<input type="checkbox"/>	0.100	0.908	428.51	0.0005	P	42.6
5	<input type="checkbox"/>	0.500	1.375	516.35	0.0006	P	19.1
6	<input type="checkbox"/>	1.000	2.548	832.43	0.0010	P	15.8
7	<input type="checkbox"/>	10.000	11.324	3105.71	0.0037	P	7.1
8	<input type="checkbox"/>	50.000	50.902	13763.58	0.0159	P	6.9
9	<input type="checkbox"/>	100.000	99.395	26845.31	0.0309	P	5.9
10	<input type="checkbox"/>			258289.82	0.3065	P	0.8
11	<input type="checkbox"/>			1479.24	0.0017	P	17.9

$y = 3.0908E-004 * x + 2.0209E-004$

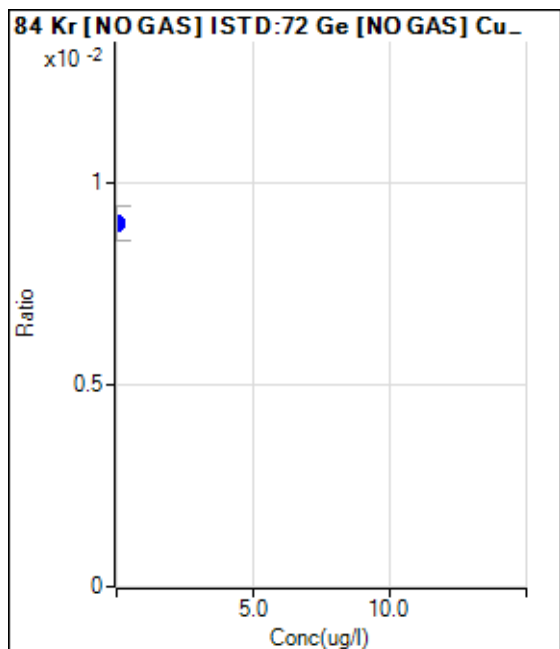
R = 0.9999

DL = 1.823

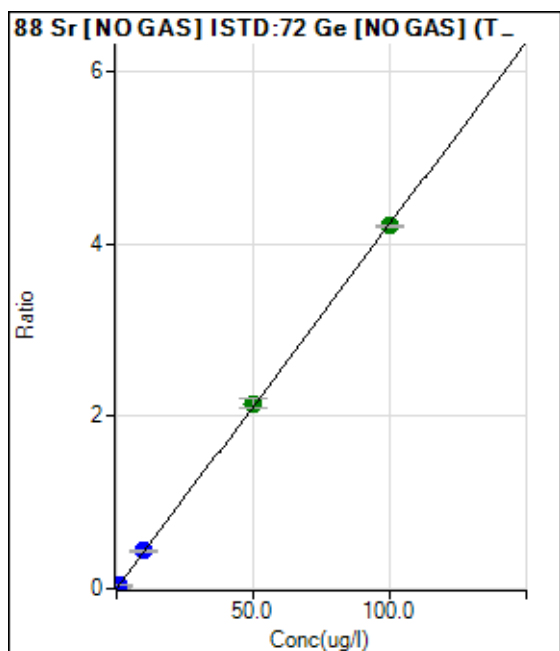
BEC = 0.6538

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000		7593.39	0.0090	P	9.4
2	<input type="checkbox"/>			7892.95	0.0094	P	14.1
3	<input type="checkbox"/>			7829.77	0.0093	P	12.9
4	<input type="checkbox"/>			8089.31	0.0091	P	10.2
5	<input type="checkbox"/>			7819.73	0.0095	P	2.2
6	<input type="checkbox"/>			7726.55	0.0092	P	3.9
7	<input type="checkbox"/>			10136.41	0.0121	P	4.5
8	<input type="checkbox"/>			18140.81	0.0211	P	5.1
9	<input type="checkbox"/>			29431.34	0.0339	P	2.6
10	<input type="checkbox"/>			218875.09	0.2597	P	2.9
11	<input type="checkbox"/>			7929.57	0.0092	P	4.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	345.99	0.0004	P	26.5
2	<input type="checkbox"/>	0.025	0.028	1354.05	0.0016	P	5.0
3	<input type="checkbox"/>	0.050	0.062	2535.18	0.0030	P	4.2
4	<input type="checkbox"/>	0.100	0.120	4854.47	0.0055	P	5.2
5	<input type="checkbox"/>	0.500	0.528	18736.93	0.0227	P	2.6
6	<input type="checkbox"/>	1.000	1.159	41493.50	0.0494	P	2.1
7	<input type="checkbox"/>	10.000	10.295	365540.52	0.4354	P	2.9
8	<input type="checkbox"/>	50.000	50.791	1848846.49	2.1465	A	5.4
9	<input type="checkbox"/>	100.000	99.573	3653296.99	4.2076	A	0.6
10	<input type="checkbox"/>			36391345.75	43.1989	A	3.3
11	<input type="checkbox"/>			3995.95	0.0046	P	3.3

$y = 0.0423 * x + 4.0784E-004$

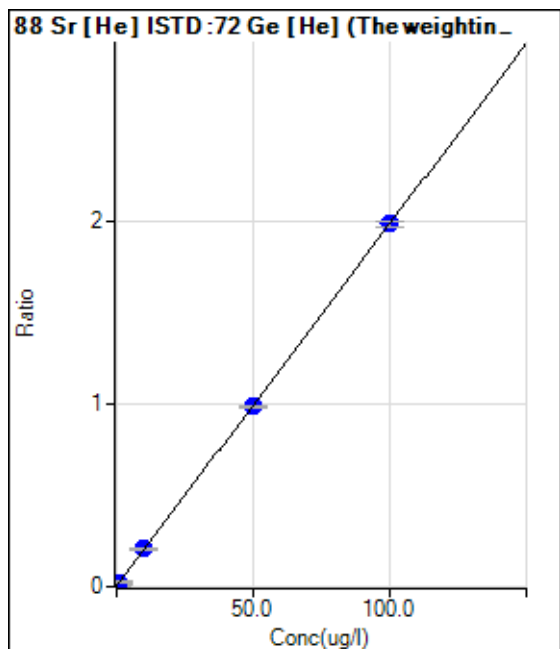
R = 1.0000

DL = 0.007675

BEC = 0.009652

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	240.00	0.0032	P	23.2
2	<input type="checkbox"/>	0.025	0.007	255.56	0.0033	P	11.9
3	<input type="checkbox"/>	0.050	0.054	331.12	0.0042	P	15.5
4	<input type="checkbox"/>	0.100	0.131	464.45	0.0058	P	5.1
5	<input type="checkbox"/>	0.500	0.539	1078.93	0.0138	P	0.9
6	<input type="checkbox"/>	1.000	1.117	1980.14	0.0252	P	8.2
7	<input type="checkbox"/>	10.000	10.427	16082.40	0.2092	P	5.7
8	<input type="checkbox"/>	50.000	49.679	79076.52	0.9848	P	1.2
9	<input type="checkbox"/>	100.000	100.116	161875.83	1.9815	P	1.8
10	<input type="checkbox"/>			1611412.55	20.9601	A	11.3
11	<input type="checkbox"/>			384.45	0.0047	P	5.7

$y = 0.0198 * x + 0.0032$

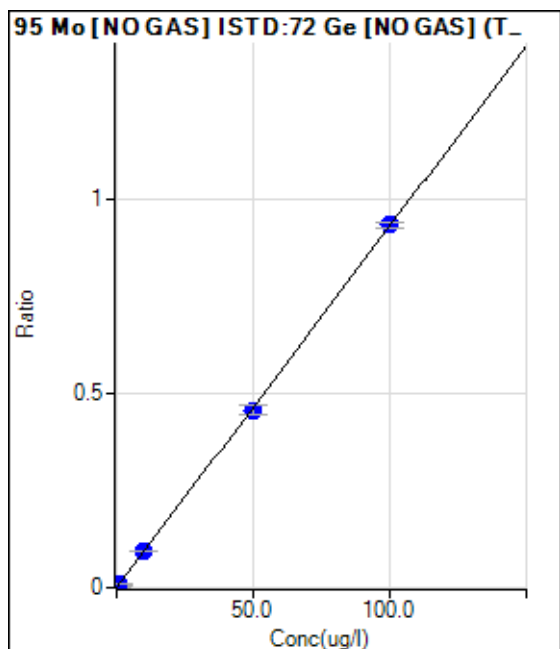
R = 1.0000

DL = 0.1121

BEC = 0.161

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	75.55	0.0001	P	27.9
2	<input type="checkbox"/>	0.025	0.032	327.78	0.0004	P	4.9
3	<input type="checkbox"/>	0.050	0.057	517.79	0.0006	P	10.9
4	<input type="checkbox"/>	0.100	0.125	1104.49	0.0012	P	15.2
5	<input type="checkbox"/>	0.500	0.510	3972.74	0.0048	P	0.2
6	<input type="checkbox"/>	1.000	1.160	9113.72	0.0108	P	1.7
7	<input type="checkbox"/>	10.000	10.235	79788.94	0.0950	P	2.6
8	<input type="checkbox"/>	50.000	49.012	391709.11	0.4547	P	5.4
9	<input type="checkbox"/>	100.000	100.469	809217.04	0.9320	P	1.9
10	<input type="checkbox"/>			546.68	0.0006	P	2.4
11	<input type="checkbox"/>			237.78	0.0003	P	10.6

$y = 0.0093 * x + 8.9557E-005$

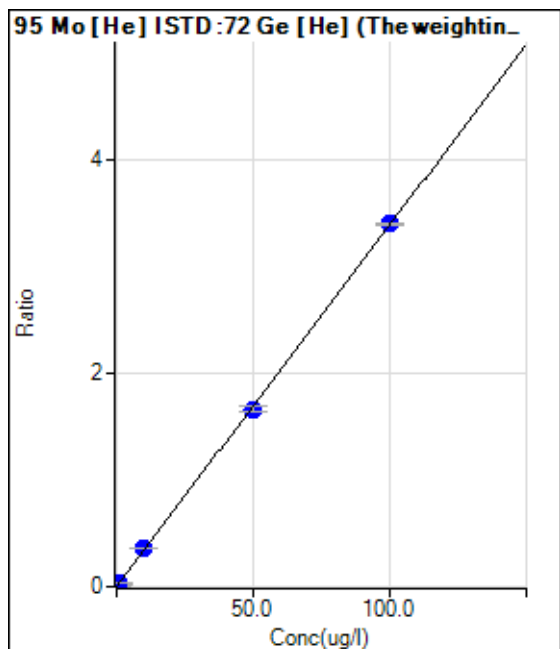
R = 0.9999

DL = 0.00807

BEC = 0.009655

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	35.56	0.0005	P	26.8
2	<input type="checkbox"/>	0.025	0.025	100.00	0.0013	P	25.7
3	<input type="checkbox"/>	0.050	0.057	187.78	0.0024	P	19.4
4	<input type="checkbox"/>	0.100	0.116	353.34	0.0044	P	7.2
5	<input type="checkbox"/>	0.500	0.484	1312.29	0.0168	P	3.7
6	<input type="checkbox"/>	1.000	1.090	2928.06	0.0374	P	3.0
7	<input type="checkbox"/>	10.000	10.503	27374.03	0.3557	P	2.2
8	<input type="checkbox"/>	50.000	49.172	133539.43	1.6635	P	3.1
9	<input type="checkbox"/>	100.000	100.363	277332.08	3.3947	P	0.8
10	<input type="checkbox"/>			156.67	0.0020	P	18.0
11	<input type="checkbox"/>			70.00	0.0009	P	39.5

$y = 0.0338 * x + 4.7090E-004$

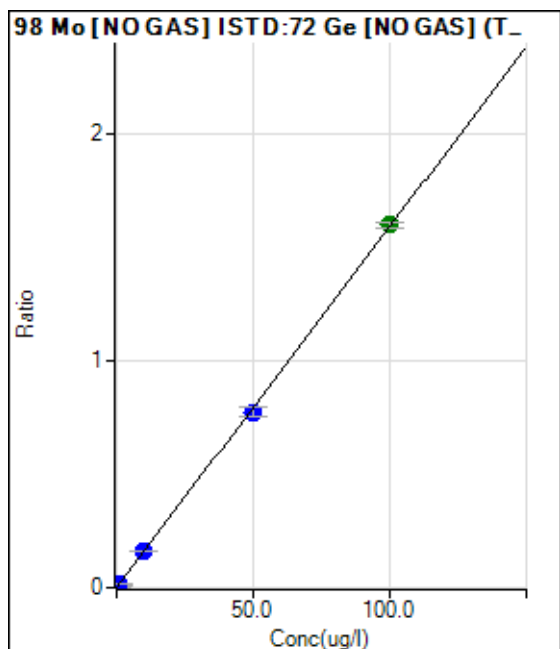
R = 0.9999

DL = 0.0112

BEC = 0.01392

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	154.52	0.0002	P	3.5
2	<input type="checkbox"/>	0.025	0.023	467.59	0.0006	P	2.1
3	<input type="checkbox"/>	0.050	0.052	851.92	0.0010	P	5.8
4	<input type="checkbox"/>	0.100	0.112	1732.89	0.0020	P	8.1
5	<input type="checkbox"/>	0.500	0.496	6641.76	0.0081	P	5.3
6	<input type="checkbox"/>	1.000	1.097	14770.23	0.0176	P	2.7
7	<input type="checkbox"/>	10.000	10.101	134758.07	0.1605	P	3.4
8	<input type="checkbox"/>	50.000	48.766	667004.94	0.7742	P	5.0
9	<input type="checkbox"/>	100.000	100.606	1386610.72	1.5970	A	1.3
10	<input type="checkbox"/>			1100.83	0.0013	P	9.6
11	<input type="checkbox"/>			305.08	0.0004	P	24.5

$y = 0.0159 * x + 1.8269E-004$

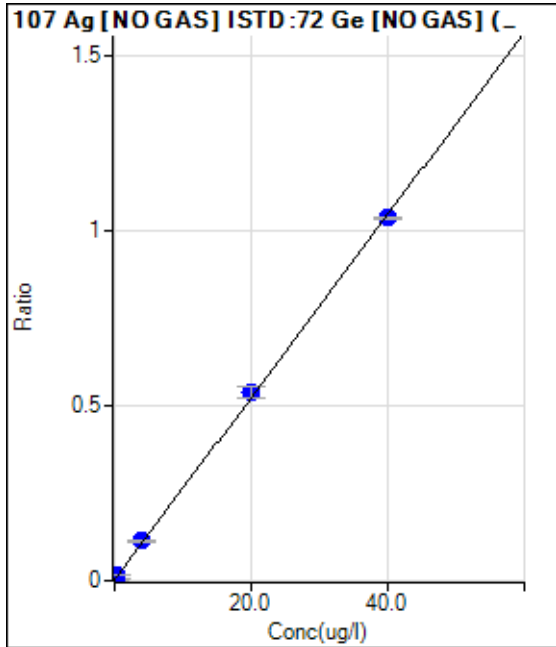
R = 0.9999

DL = 0.001195

BEC = 0.01151

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	1719.09	0.0020	P	9.1
2	<input type="checkbox"/>	0.010	0.014	2023.07	0.0024	P	2.8
3	<input type="checkbox"/>	0.020	0.022	2199.05	0.0026	P	2.9
4	<input type="checkbox"/>	0.040	0.046	2871.02	0.0032	P	7.2
5	<input type="checkbox"/>	0.200	0.215	6310.66	0.0077	P	3.9
6	<input type="checkbox"/>	0.400	0.473	12080.12	0.0144	P	1.2
7	<input type="checkbox"/>	4.000	4.301	95999.06	0.1144	P	3.4
8	<input type="checkbox"/>	20.000	20.579	464508.87	0.5395	P	6.9
9	<input type="checkbox"/>	40.000	39.680	901524.22	1.0383	P	0.7
10	<input type="checkbox"/>			8109684.46	9.6169	A	7.4
11	<input type="checkbox"/>			8445.22	0.0098	P	3.6

$y = 0.0261 * x + 0.0020$

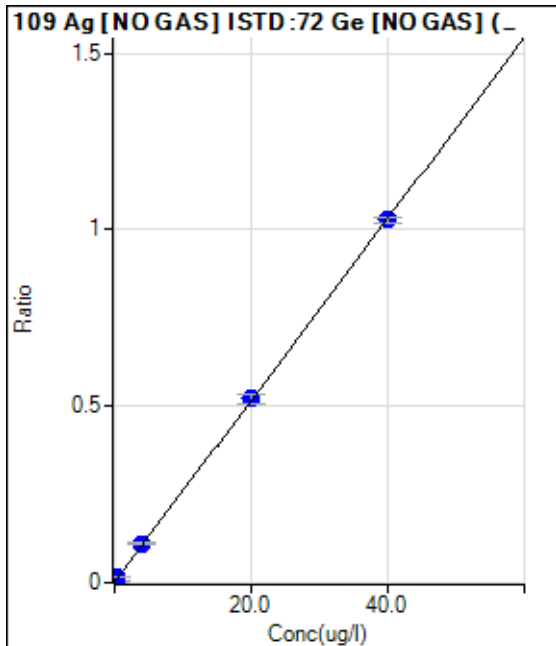
R = 0.9998

DL = 0.02123

BEC = 0.0779

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	1685.09	0.0020	P	3.1
2	<input type="checkbox"/>	0.010	0.012	1947.73	0.0023	P	2.7
3	<input type="checkbox"/>	0.020	0.027	2253.05	0.0027	P	0.9
4	<input type="checkbox"/>	0.040	0.047	2837.70	0.0032	P	8.9
5	<input type="checkbox"/>	0.200	0.208	6049.94	0.0073	P	1.0
6	<input type="checkbox"/>	0.400	0.464	11685.90	0.0139	P	1.1
7	<input type="checkbox"/>	4.000	4.224	92856.67	0.1106	P	3.0
8	<input type="checkbox"/>	20.000	20.159	448326.55	0.5204	P	5.5
9	<input type="checkbox"/>	40.000	39.897	892445.25	1.0279	P	1.8
10	<input type="checkbox"/>			7810660.44	9.2670	A	6.4
11	<input type="checkbox"/>			8287.85	0.0096	P	5.8

$y = 0.0257 * x + 0.0020$

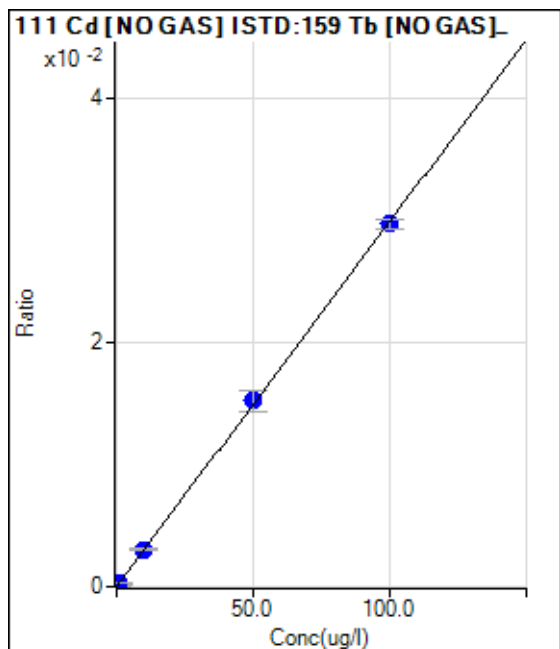
R = 1.0000

DL = 0.007144

BEC = 0.07751

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	-40.03	0.0000	P	-185.4
2	<input type="checkbox"/>	0.025	0.024	91.46	0.0000	P	85.8
3	<input type="checkbox"/>	0.050	0.063	302.29	0.0000	P	12.4
4	<input type="checkbox"/>	0.100	0.101	535.94	0.0000	P	6.6
5	<input type="checkbox"/>	0.500	0.483	2583.17	0.0001	P	7.6
6	<input type="checkbox"/>	1.000	1.083	5911.89	0.0003	P	4.3
7	<input type="checkbox"/>	10.000	10.250	55459.81	0.0031	P	2.3
8	<input type="checkbox"/>	50.000	50.963	276233.54	0.0152	P	11.1
9	<input type="checkbox"/>	100.000	99.493	540763.00	0.0298	P	2.3
10	<input type="checkbox"/>			5094140.13	0.2861	A	4.4
11	<input type="checkbox"/>			675.29	0.0000	P	20.9

$y = 2.9923E-004 * x - 2.1563E-006$

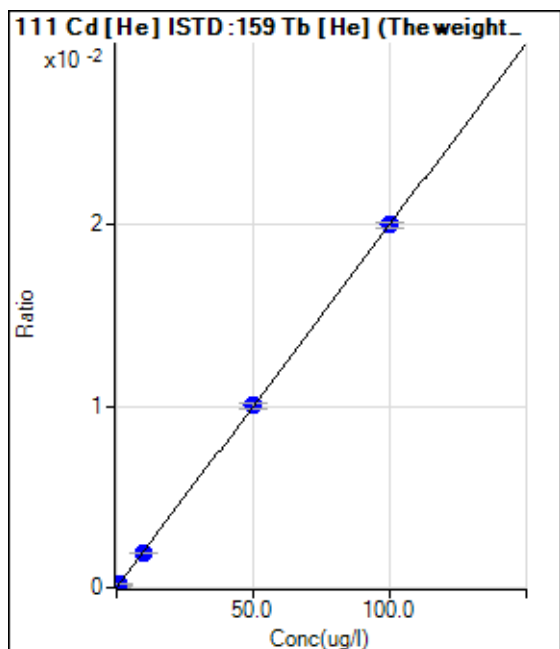
R = 0.9999

DL = 0.04007

BEC = -0.007206

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	0.67	0.0000	P	173.2
2	<input type="checkbox"/>	0.025	0.019	27.33	0.0000	P	28.9
3	<input type="checkbox"/>	0.050	0.051	72.65	0.0000	P	7.9
4	<input type="checkbox"/>	0.100	0.109	150.64	0.0000	P	17.1
5	<input type="checkbox"/>	0.500	0.497	693.22	0.0001	P	6.8
6	<input type="checkbox"/>	1.000	1.075	1519.11	0.0002	P	3.2
7	<input type="checkbox"/>	10.000	9.647	13469.61	0.0019	P	2.1
8	<input type="checkbox"/>	50.000	50.085	68463.05	0.0100	P	2.1
9	<input type="checkbox"/>	100.000	99.992	136778.89	0.0200	P	1.9
10	<input type="checkbox"/>			1314244.87	0.2058	M	5.7
11	<input type="checkbox"/>			133.97	0.0000	P	17.7

$y = 1.9973E-004 * x + 9.5666E-008$

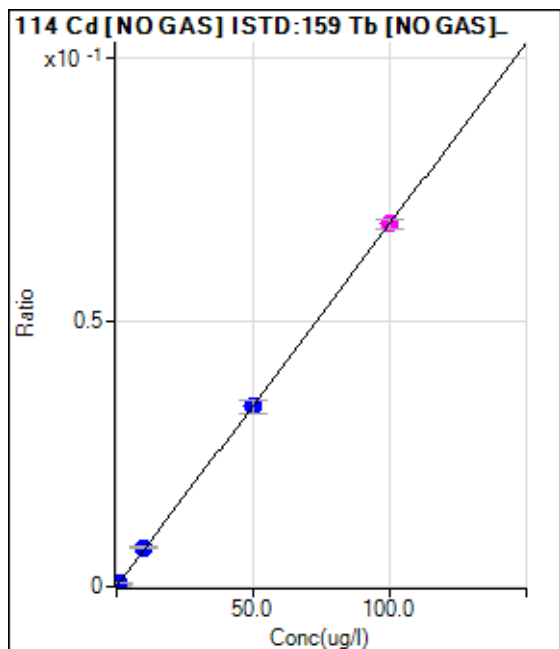
R = 1.0000

DL = 0.002489

BEC = 0.000479

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	-250.96	0.0000	P	-105.5
2	<input type="checkbox"/>	0.025	0.017	-31.82	0.0000	P	-210.1
3	<input type="checkbox"/>	0.050	0.062	520.24	0.0000	P	12.4
4	<input type="checkbox"/>	0.100	0.106	1128.60	0.0001	P	18.9
5	<input type="checkbox"/>	0.500	0.510	6093.82	0.0003	P	1.7
6	<input type="checkbox"/>	1.000	1.155	14289.17	0.0008	P	2.9
7	<input type="checkbox"/>	10.000	10.659	131903.21	0.0073	P	4.1
8	<input type="checkbox"/>	50.000	49.706	617846.98	0.0340	P	7.7
9	<input type="checkbox"/>	100.000	100.080	1245274.71	0.0686	M	2.9
10	<input type="checkbox"/>			11943790.38	0.6708	A	5.2
11	<input type="checkbox"/>			1178.08	0.0001	P	8.3

$y = 6.8521E-004 * x - 1.3616E-005$

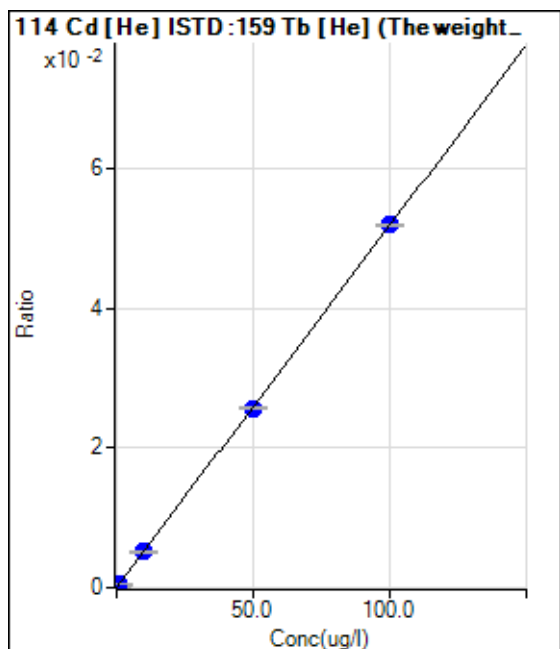
R = 1.0000

DL = 0.06292

BEC = -0.01987

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	-33.69	0.0000	P	-33.8
2	<input type="checkbox"/>	0.025	0.034	88.02	0.0000	P	6.4
3	<input type="checkbox"/>	0.050	0.060	186.75	0.0000	P	9.5
4	<input type="checkbox"/>	0.100	0.143	476.68	0.0001	P	25.1
5	<input type="checkbox"/>	0.500	0.519	1842.71	0.0003	P	3.6
6	<input type="checkbox"/>	1.000	1.096	3981.94	0.0006	P	2.9
7	<input type="checkbox"/>	10.000	9.917	35828.84	0.0051	P	5.8
8	<input type="checkbox"/>	50.000	49.519	175549.09	0.0257	P	1.0
9	<input type="checkbox"/>	100.000	100.248	355718.01	0.0519	P	0.5
10	<input type="checkbox"/>			3371579.26	0.5280	A	6.1
11	<input type="checkbox"/>			360.65	0.0001	P	3.0

$y = 5.1812E-004 * x - 4.7883E-006$

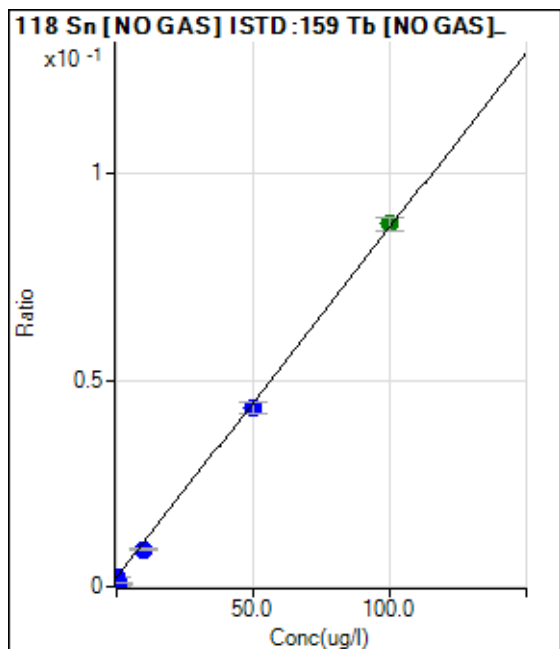
R = 1.0000

DL = 0.009358

BEC = -0.009242

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	41708.59	0.0023	P	4.1
2	<input type="checkbox"/>	0.025	-2.492	3147.43	0.0002	P	6.7
3	<input type="checkbox"/>	0.050	-2.446	3813.02	0.0002	P	7.9
4	<input type="checkbox"/>	0.100	-2.386	4970.97	0.0003	P	4.0
5	<input type="checkbox"/>	0.500	-1.981	10958.83	0.0006	P	4.9
6	<input type="checkbox"/>	1.000	-1.339	21078.92	0.0011	P	1.8
7	<input type="checkbox"/>	10.000	7.975	163535.01	0.0090	P	3.2
8	<input type="checkbox"/>	50.000	48.328	785361.96	0.0432	P	6.0
9	<input type="checkbox"/>	100.000	101.079	1596763.76	0.0879	A	3.6
10	<input type="checkbox"/>			3693.12	0.0002	P	0.7
11	<input type="checkbox"/>			4841.17	0.0003	P	3.3

$y = 8.4718E-004 * x + 0.0023$

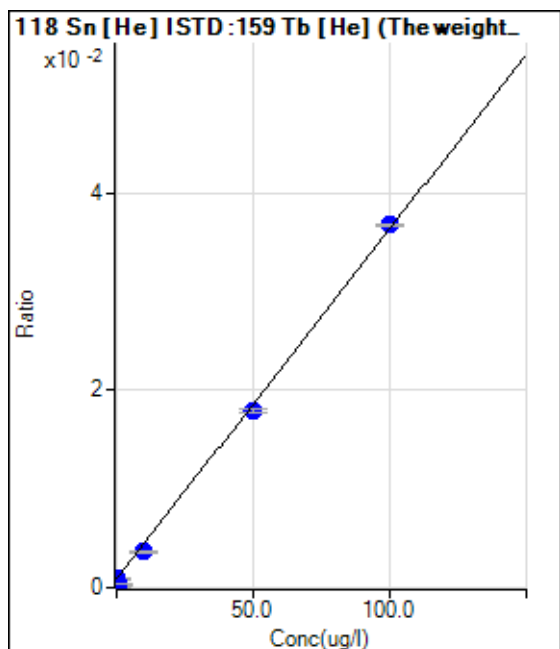
R = 0.9997

DL = 0.3322

BEC = 2.694

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	6259.04	0.0009	P	2.7
2	<input type="checkbox"/>	0.025	-2.311	467.79	0.0001	P	4.1
3	<input type="checkbox"/>	0.050	-2.277	563.35	0.0001	P	20.3
4	<input type="checkbox"/>	0.100	-2.210	712.24	0.0001	P	2.1
5	<input type="checkbox"/>	0.500	-1.878	1544.53	0.0002	P	7.0
6	<input type="checkbox"/>	1.000	-1.236	3177.01	0.0004	P	2.3
7	<input type="checkbox"/>	10.000	7.789	25495.81	0.0036	P	2.3
8	<input type="checkbox"/>	50.000	48.019	122550.80	0.0179	P	1.7
9	<input type="checkbox"/>	100.000	101.250	251870.37	0.0368	P	0.8
10	<input type="checkbox"/>			625.57	0.0001	P	4.5
11	<input type="checkbox"/>			763.36	0.0001	P	6.3

$y = 3.5444E-004 * x + 8.8699E-004$

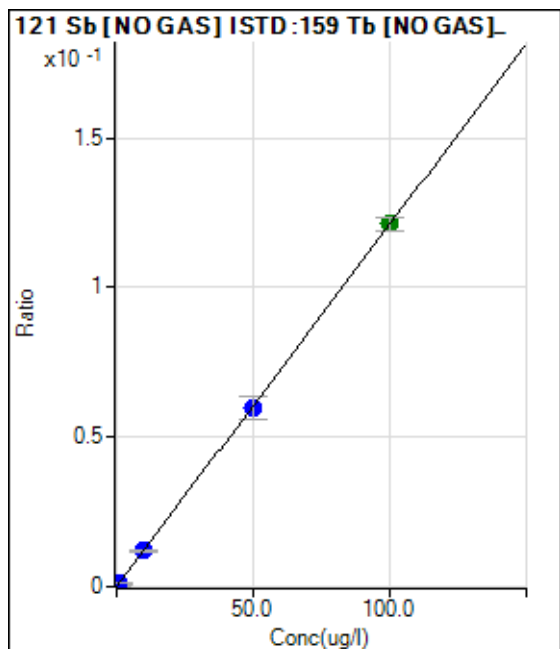
R = 0.9997

DL = 0.2018

BEC = 2.503

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	165.56	0.0000	P	10.2
2	<input type="checkbox"/>	0.025	0.026	733.36	0.0000	P	7.8
3	<input type="checkbox"/>	0.050	0.052	1312.29	0.0001	P	1.9
4	<input type="checkbox"/>	0.100	0.117	2856.95	0.0002	P	11.3
5	<input type="checkbox"/>	0.500	0.476	10606.91	0.0006	P	1.6
6	<input type="checkbox"/>	1.000	1.074	24012.43	0.0013	P	2.3
7	<input type="checkbox"/>	10.000	9.850	215770.84	0.0119	P	2.1
8	<input type="checkbox"/>	50.000	49.599	1085598.81	0.0600	P	12.7
9	<input type="checkbox"/>	100.000	100.215	2202168.58	0.1212	A	3.5
10	<input type="checkbox"/>			3055.88	0.0002	P	8.1
11	<input type="checkbox"/>			752.25	0.0000	P	8.8

$y = 0.0012 * x + 9.0595E-006$

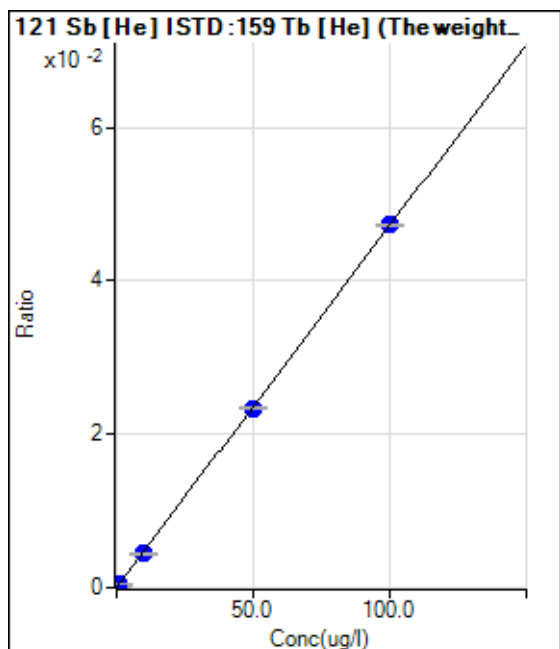
R = 1.0000

DL = 0.002302

BEC = 0.007488

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	34.44	0.0000	P	42.3
2	<input type="checkbox"/>	0.025	0.021	101.11	0.0000	P	16.9
3	<input type="checkbox"/>	0.050	0.056	218.89	0.0000	P	22.4
4	<input type="checkbox"/>	0.100	0.120	421.12	0.0001	P	9.3
5	<input type="checkbox"/>	0.500	0.481	1617.87	0.0002	P	10.3
6	<input type="checkbox"/>	1.000	0.984	3312.59	0.0005	P	8.3
7	<input type="checkbox"/>	10.000	9.319	30711.55	0.0044	P	4.0
8	<input type="checkbox"/>	50.000	49.592	160024.29	0.0234	P	0.8
9	<input type="checkbox"/>	100.000	100.272	323846.52	0.0473	P	0.7
10	<input type="checkbox"/>			335.56	0.0001	P	27.8
11	<input type="checkbox"/>			130.00	0.0000	P	15.9

$y = 4.7146E-004 * x + 4.8602E-006$

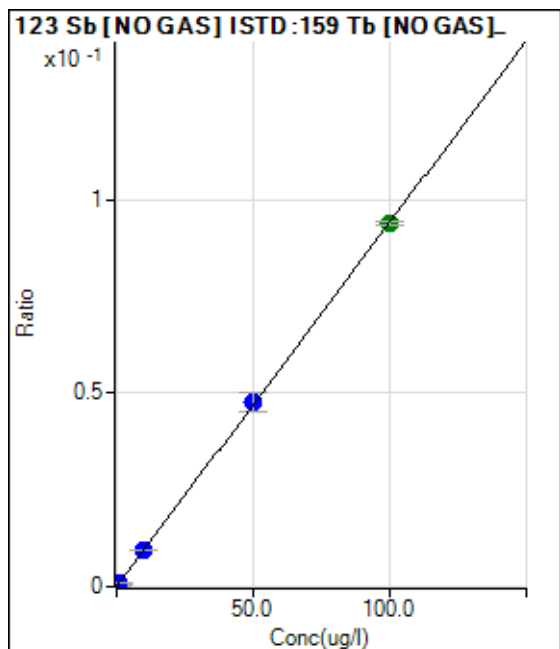
R = 1.0000

DL = 0.01307

BEC = 0.01031

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	154.45	0.0000	P	25.5
2	<input type="checkbox"/>	0.025	0.024	571.13	0.0000	P	8.4
3	<input type="checkbox"/>	0.050	0.048	973.37	0.0001	P	5.6
4	<input type="checkbox"/>	0.100	0.115	2211.28	0.0001	P	9.3
5	<input type="checkbox"/>	0.500	0.459	7998.72	0.0004	P	1.8
6	<input type="checkbox"/>	1.000	1.062	18495.14	0.0010	P	3.4
7	<input type="checkbox"/>	10.000	9.970	169954.01	0.0094	P	1.5
8	<input type="checkbox"/>	50.000	50.645	863958.81	0.0477	P	10.4
9	<input type="checkbox"/>	100.000	99.680	1704450.01	0.0938	A	1.2
10	<input type="checkbox"/>			2643.57	0.0001	P	6.0
11	<input type="checkbox"/>			597.80	0.0000	P	6.5

$y = 9.4133E-004 * x + 8.4529E-006$

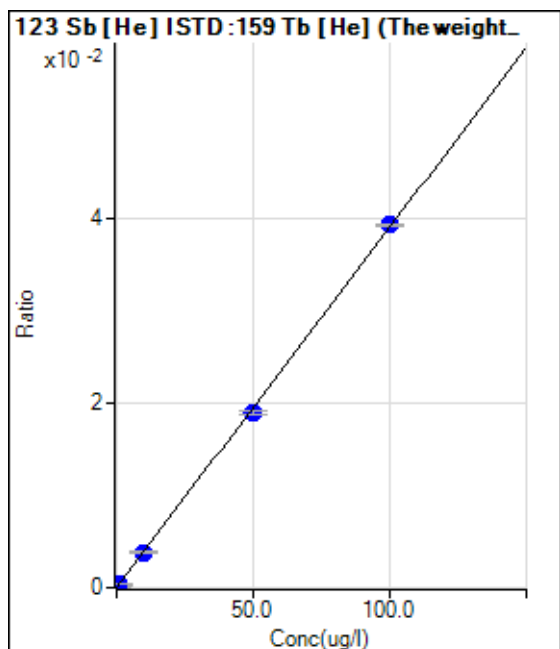
R = 1.0000

DL = 0.006881

BEC = 0.00898

Weight: 1/y

Min Conc: <None>



	R _{jt}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	23.33	0.0000	P	38.9
2	<input type="checkbox"/>	0.025	0.031	106.67	0.0000	P	37.5
3	<input type="checkbox"/>	0.050	0.058	184.45	0.0000	P	10.3
4	<input type="checkbox"/>	0.100	0.100	291.12	0.0000	P	7.7
5	<input type="checkbox"/>	0.500	0.459	1274.51	0.0002	P	4.1
6	<input type="checkbox"/>	1.000	1.035	2879.17	0.0004	P	8.4
7	<input type="checkbox"/>	10.000	9.832	26813.68	0.0038	P	5.3
8	<input type="checkbox"/>	50.000	48.601	129822.28	0.0190	P	2.0
9	<input type="checkbox"/>	100.000	100.716	269271.97	0.0393	P	0.5
10	<input type="checkbox"/>			295.56	0.0000	P	10.5
11	<input type="checkbox"/>			106.67	0.0000	P	42.0

$y = 3.9031E-004 * x + 3.3184E-006$

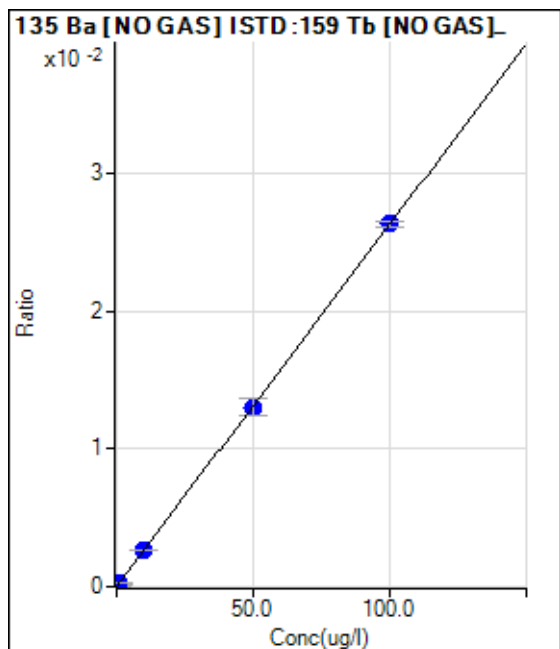
R = 0.9999

DL = 0.009913

BEC = 0.008502

Weight: 1/y

Min Conc: <None>



	Rj t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	13.31	0.0000	P	42.9
2	<input type="checkbox"/>	0.025	0.031	163.01	0.0000	P	67.4
3	<input type="checkbox"/>	0.050	0.066	326.02	0.0000	P	9.9
4	<input type="checkbox"/>	0.100	0.105	535.62	0.0000	P	7.4
5	<input type="checkbox"/>	0.500	0.529	2535.21	0.0001	P	6.2
6	<input type="checkbox"/>	1.000	1.110	5360.32	0.0003	P	6.2
7	<input type="checkbox"/>	10.000	9.870	46893.21	0.0026	P	0.5
8	<input type="checkbox"/>	50.000	49.591	236025.42	0.0130	P	9.4
9	<input type="checkbox"/>	100.000	100.216	477841.72	0.0263	P	1.8
10	<input type="checkbox"/>			4529106.02	0.2543	A	4.4
11	<input type="checkbox"/>			592.17	0.0000	P	5.1

$y = 2.6249E-004 * x + 7.2779E-007$

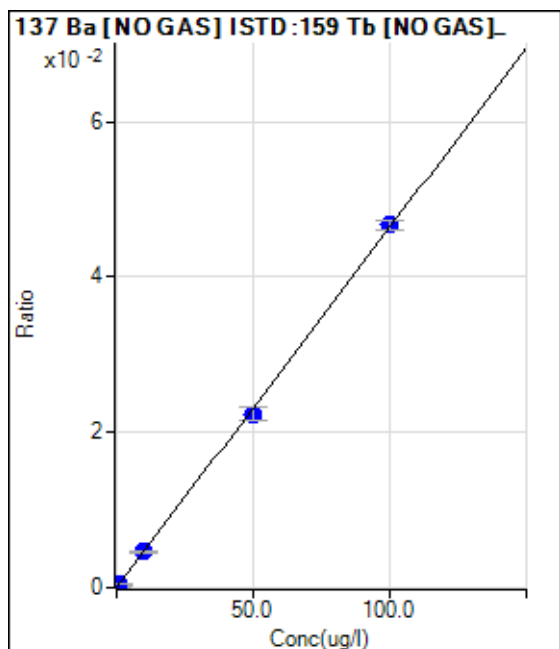
R = 1.0000

DL = 0.003567

BEC = 0.002773

Weight: 1/y

Min Conc: <None>



	Rj t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	46.57	0.0000	P	86.5
2	<input type="checkbox"/>	0.025	0.020	216.24	0.0000	P	22.7
3	<input type="checkbox"/>	0.050	0.053	492.37	0.0000	P	18.0
4	<input type="checkbox"/>	0.100	0.116	1064.61	0.0001	P	15.9
5	<input type="checkbox"/>	0.500	0.497	4222.23	0.0002	P	8.2
6	<input type="checkbox"/>	1.000	1.087	9294.41	0.0005	P	3.5
7	<input type="checkbox"/>	10.000	9.926	83229.02	0.0046	P	1.4
8	<input type="checkbox"/>	50.000	48.354	406525.19	0.0224	P	7.5
9	<input type="checkbox"/>	100.000	100.829	848340.93	0.0467	P	2.9
10	<input type="checkbox"/>			7855709.56	0.4410	A	4.8
11	<input type="checkbox"/>			1014.70	0.0001	P	14.6

$y = 4.6316E-004 * x + 2.5378E-006$

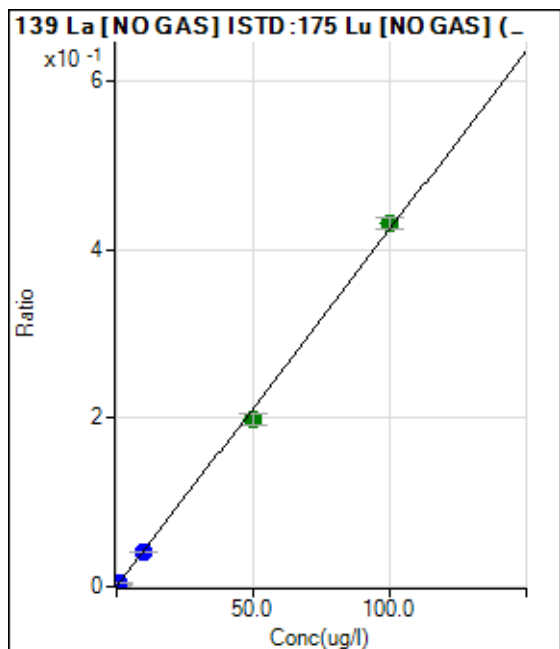
R = 0.9998

DL = 0.01422

BEC = 0.005479

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	73.41	0.0000	P	50.9
2	<input type="checkbox"/>	0.025	0.023	1935.45	0.0001	P	9.4
3	<input type="checkbox"/>	0.050	0.052	4318.36	0.0002	P	8.8
4	<input type="checkbox"/>	0.100	0.114	9385.73	0.0005	P	5.7
5	<input type="checkbox"/>	0.500	0.501	39241.64	0.0021	P	3.3
6	<input type="checkbox"/>	1.000	1.084	87982.57	0.0046	P	2.7
7	<input type="checkbox"/>	10.000	9.855	788882.90	0.0418	P	1.2
8	<input type="checkbox"/>	50.000	46.819	3766364.23	0.1987	A	6.1
9	<input type="checkbox"/>	100.000	101.604	7856290.70	0.4311	A	3.1
10	<input type="checkbox"/>			961.02	0.0001	P	9.0
11	<input type="checkbox"/>			76.74	0.0000	P	60.3

$y = 0.0042 * x + 3.8538E-006$

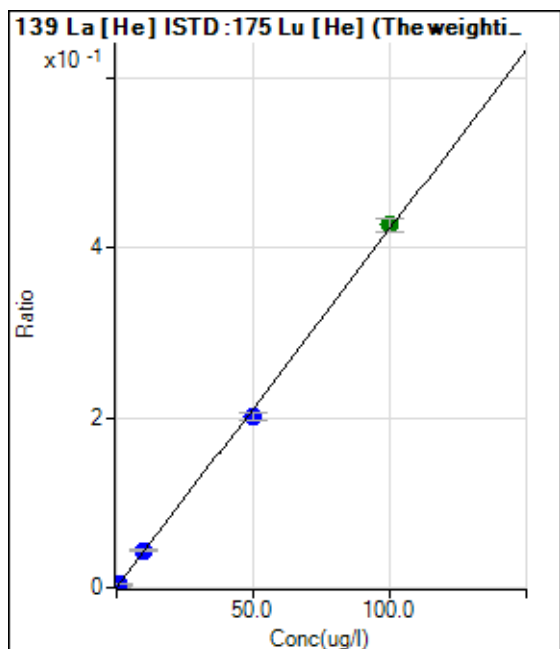
R = 0.9994

DL = 0.001388

BEC = 0.0009082

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	0.00	0.0000	P	
2	<input type="checkbox"/>	0.025	0.025	440.46	0.0001	P	21.3
3	<input type="checkbox"/>	0.050	0.047	860.91	0.0002	P	20.9
4	<input type="checkbox"/>	0.100	0.113	2028.88	0.0005	P	5.7
5	<input type="checkbox"/>	0.500	0.480	8644.51	0.0020	P	1.6
6	<input type="checkbox"/>	1.000	1.153	20036.53	0.0049	P	4.5
7	<input type="checkbox"/>	10.000	10.446	179368.18	0.0441	P	2.3
8	<input type="checkbox"/>	50.000	47.503	848884.24	0.2004	P	4.6
9	<input type="checkbox"/>	100.000	101.203	1761922.97	0.4270	A	3.9
10	<input type="checkbox"/>			130.13	0.0000	P	78.3
11	<input type="checkbox"/>			50.05	0.0000	P	36.8

$y = 0.0042 * x + 0.0000E+000$

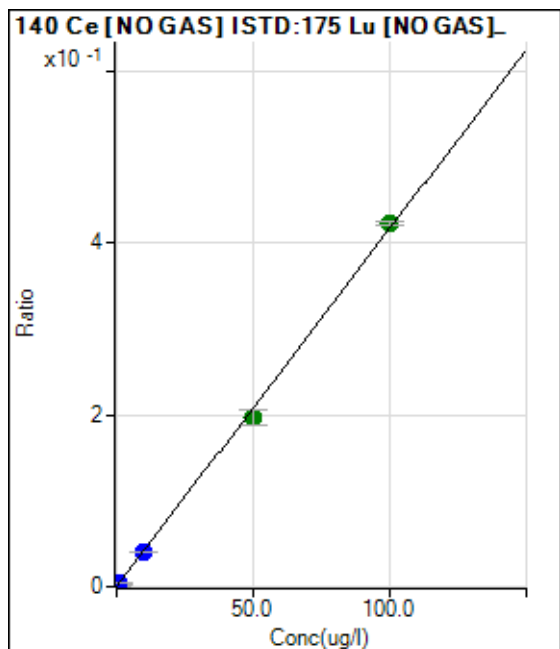
R = 0.9996

DL = 0

BEC = 0

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	63.40	0.0000	P	25.4
2	<input type="checkbox"/>	0.025	0.023	1872.03	0.0001	P	4.9
3	<input type="checkbox"/>	0.050	0.052	4204.88	0.0002	P	2.7
4	<input type="checkbox"/>	0.100	0.113	9185.46	0.0005	P	2.0
5	<input type="checkbox"/>	0.500	0.498	38258.47	0.0021	P	0.9
6	<input type="checkbox"/>	1.000	1.095	87093.74	0.0046	P	1.7
7	<input type="checkbox"/>	10.000	9.822	770822.66	0.0409	P	1.8
8	<input type="checkbox"/>	50.000	47.257	3726770.83	0.1966	A	9.5
9	<input type="checkbox"/>	100.000	101.388	7687049.23	0.4218	A	1.2
10	<input type="checkbox"/>			1728.54	0.0001	P	2.6
11	<input type="checkbox"/>			273.62	0.0000	P	19.2

$y = 0.0042 * x + 3.3497E-006$

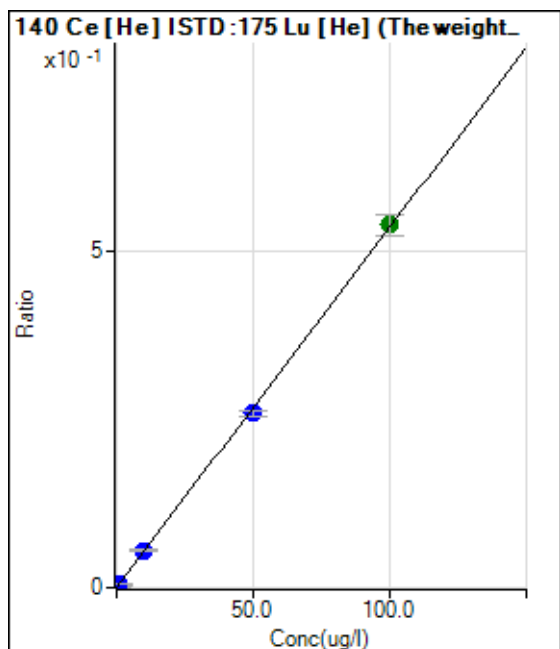
R = 0.9995

DL = 0.0006146

BEC = 0.0008051

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	20.02	0.0000	P	46.4
2	<input type="checkbox"/>	0.025	0.026	610.64	0.0001	P	18.1
3	<input type="checkbox"/>	0.050	0.050	1184.60	0.0003	P	10.0
4	<input type="checkbox"/>	0.100	0.112	2562.85	0.0006	P	6.8
5	<input type="checkbox"/>	0.500	0.460	10544.32	0.0025	P	3.9
6	<input type="checkbox"/>	1.000	1.156	25556.69	0.0062	P	3.3
7	<input type="checkbox"/>	10.000	10.364	226154.93	0.0556	P	3.5
8	<input type="checkbox"/>	50.000	48.496	1101728.25	0.2601	P	3.2
9	<input type="checkbox"/>	100.000	100.714	2227787.16	0.5401	A	5.6
10	<input type="checkbox"/>			593.96	0.0002	P	10.3
11	<input type="checkbox"/>			33.37	0.0000	P	63.6

$y = 0.0054 * x + 4.7545E-006$

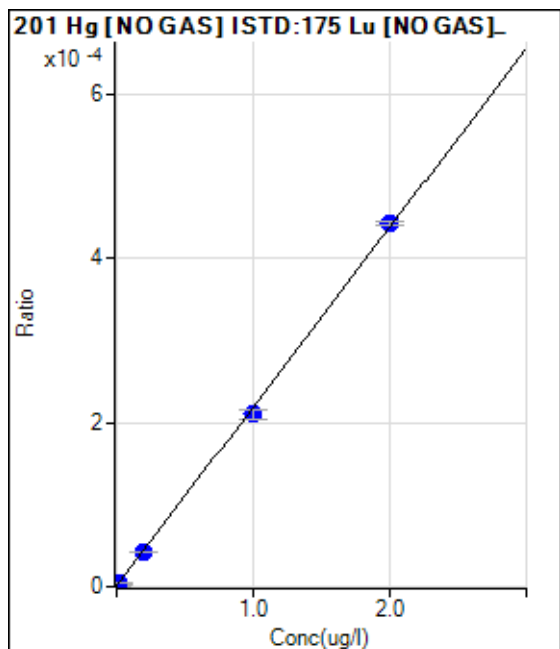
R = 0.9998

DL = 0.001233

BEC = 0.0008865

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	13.33	0.0000	P	52.5
2	<input type="checkbox"/>			22.00	0.0000	P	24.2
3	<input type="checkbox"/>	0.001	0.002	22.00	0.0000	P	28.1
4	<input type="checkbox"/>	0.002	0.004	29.33	0.0000	P	27.7
5	<input type="checkbox"/>	0.010	0.010	52.32	0.0000	P	14.3
6	<input type="checkbox"/>	0.020	0.021	100.98	0.0000	P	11.0
7	<input type="checkbox"/>	0.200	0.191	797.20	0.0000	P	2.7
8	<input type="checkbox"/>	1.000	0.960	3981.73	0.0002	P	5.3
9	<input type="checkbox"/>	2.000	2.021	8049.53	0.0004	P	1.2
10	<input type="checkbox"/>			55.66	0.0000	P	5.0
11	<input type="checkbox"/>			29.32	0.0000	P	9.8

$y = 2.1819E-004 * x + 7.0060E-007$

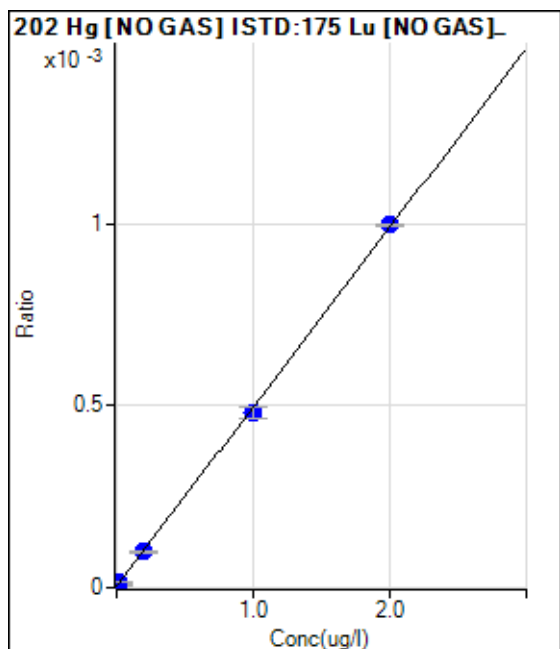
R = 0.9997

DL = 0.005055

BEC = 0.003211

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	70.99	0.0000	P	17.2
2	<input type="checkbox"/>			72.32	0.0000	P	19.0
3	<input type="checkbox"/>	0.001	0.000	73.32	0.0000	P	12.0
4	<input type="checkbox"/>	0.002	0.002	93.98	0.0000	P	23.2
5	<input type="checkbox"/>	0.010	0.009	148.64	0.0000	P	6.6
6	<input type="checkbox"/>	0.020	0.023	287.28	0.0000	P	6.6
7	<input type="checkbox"/>	0.200	0.195	1883.74	0.0001	P	4.1
8	<input type="checkbox"/>	1.000	0.970	9139.59	0.0005	P	6.2
9	<input type="checkbox"/>	2.000	2.015	18185.92	0.0010	P	0.6
10	<input type="checkbox"/>			202.96	0.0000	P	8.2
11	<input type="checkbox"/>			109.65	0.0000	P	7.3

$y = 4.9327E-004 * x + 3.7441E-006$

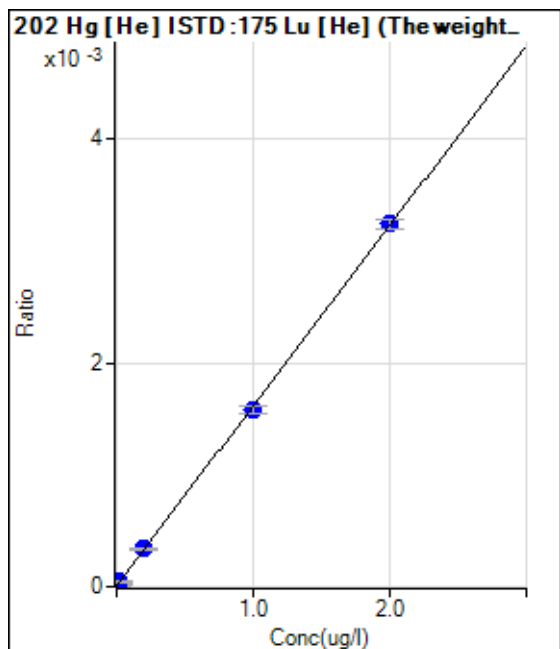
R = 0.9999

DL = 0.003912

BEC = 0.00759

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	25.00	0.0000	P	36.0
2	<input type="checkbox"/>			36.66	0.0000	P	20.0
3	<input type="checkbox"/>	0.001	0.001	34.66	0.0000	P	29.1
4	<input type="checkbox"/>	0.002	0.003	44.32	0.0000	P	11.6
5	<input type="checkbox"/>	0.010	0.010	97.65	0.0000	P	11.1
6	<input type="checkbox"/>	0.020	0.023	179.63	0.0000	P	9.4
7	<input type="checkbox"/>	0.200	0.204	1362.46	0.0003	P	3.9
8	<input type="checkbox"/>	1.000	0.978	6686.81	0.0016	P	4.3
9	<input type="checkbox"/>	2.000	2.011	13373.19	0.0032	P	2.7
10	<input type="checkbox"/>			95.31	0.0000	P	20.1
11	<input type="checkbox"/>			58.32	0.0000	P	9.0

$y = 0.0016 * x + 6.0600E-006$

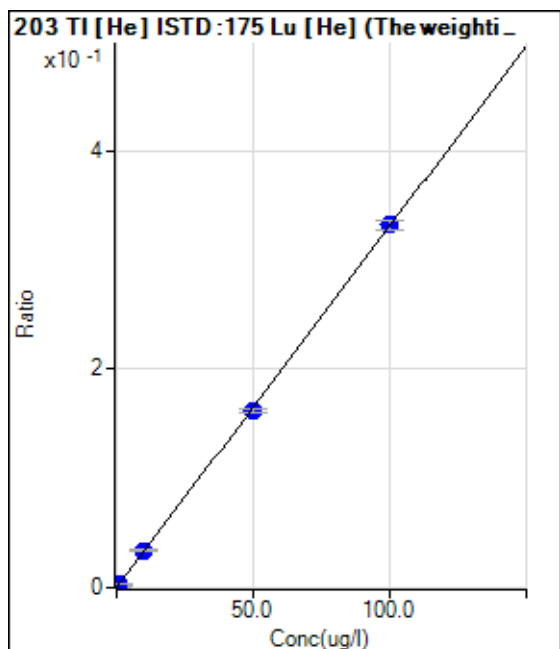
R = 0.9999

DL = 0.004071

BEC = 0.003767

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	90.65	0.0000	P	20.8
2	<input type="checkbox"/>	0.025	0.022	388.60	0.0001	P	13.7
3	<input type="checkbox"/>	0.050	0.053	856.52	0.0002	P	5.6
4	<input type="checkbox"/>	0.100	0.121	1797.76	0.0004	P	2.5
5	<input type="checkbox"/>	0.500	0.496	7074.94	0.0017	P	1.5
6	<input type="checkbox"/>	1.000	1.119	15302.69	0.0037	P	4.7
7	<input type="checkbox"/>	10.000	10.308	138616.96	0.0341	P	4.0
8	<input type="checkbox"/>	50.000	49.110	687375.91	0.1623	P	1.9
9	<input type="checkbox"/>	100.000	100.413	1369146.39	0.3317	P	2.5
10	<input type="checkbox"/>			13293744.48	3.4881	A	7.7
11	<input type="checkbox"/>			1905.75	0.0004	P	1.9

$y = 0.0033 * x + 2.1771E-005$

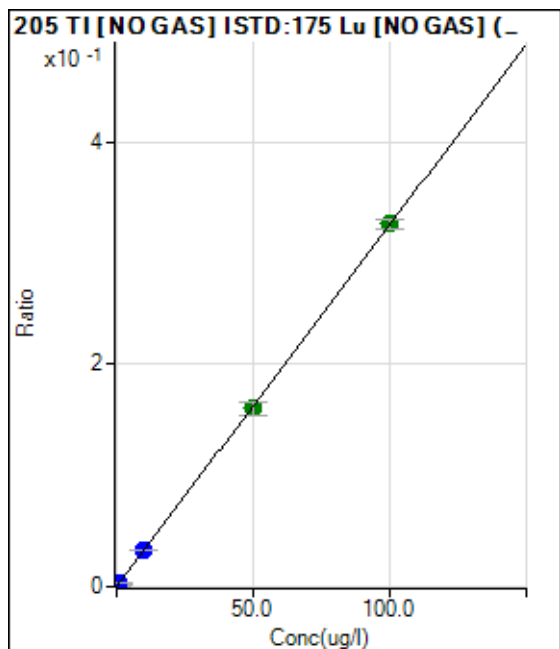
R = 0.9999

DL = 0.004117

BEC = 0.00659

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	304.45	0.0000	P	12.2
2	<input type="checkbox"/>	0.025	0.024	1781.23	0.0001	P	1.1
3	<input type="checkbox"/>	0.050	0.053	3637.14	0.0002	P	1.7
4	<input type="checkbox"/>	0.100	0.115	7504.16	0.0004	P	7.6
5	<input type="checkbox"/>	0.500	0.511	30949.45	0.0017	P	1.2
6	<input type="checkbox"/>	1.000	1.113	69484.56	0.0036	P	0.2
7	<input type="checkbox"/>	10.000	10.180	625052.96	0.0331	P	1.9
8	<input type="checkbox"/>	50.000	49.266	3040418.39	0.1603	A	7.1
9	<input type="checkbox"/>	100.000	100.348	5950839.98	0.3265	A	2.5
10	<input type="checkbox"/>			57622814.70	3.2009	A	2.7
11	<input type="checkbox"/>			8047.76	0.0004	P	1.0

$y = 0.0033 * x + 1.6066E-005$

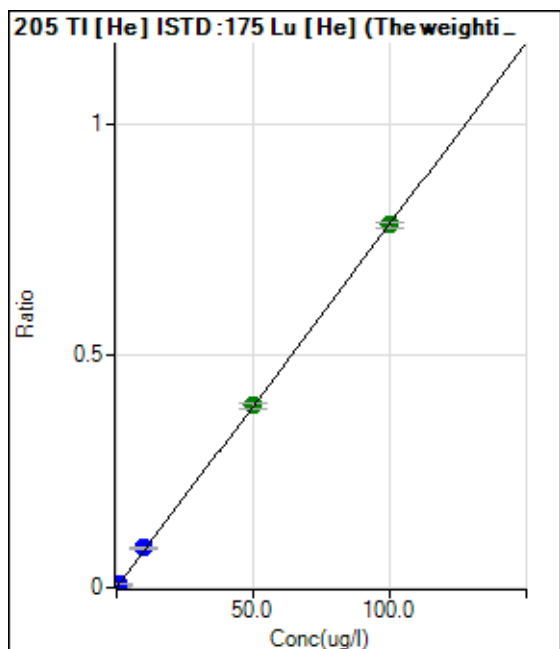
R = 1.0000

DL = 0.001811

BEC = 0.004937

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	220.63	0.0001	P	4.2
2	<input type="checkbox"/>	0.025	0.026	1061.83	0.0003	P	3.3
3	<input type="checkbox"/>	0.050	0.052	2002.41	0.0005	P	4.1
4	<input type="checkbox"/>	0.100	0.118	4171.09	0.0010	P	0.3
5	<input type="checkbox"/>	0.500	0.495	16762.64	0.0039	P	0.5
6	<input type="checkbox"/>	1.000	1.182	38305.30	0.0093	P	6.1
7	<input type="checkbox"/>	10.000	10.995	350452.67	0.0862	P	3.6
8	<input type="checkbox"/>	50.000	50.038	1660066.77	0.3919	A	3.2
9	<input type="checkbox"/>	100.000	99.879	3229377.98	0.7822	A	1.3
10	<input type="checkbox"/>			31536648.62	8.2742	A	7.2
11	<input type="checkbox"/>			4501.13	0.0011	P	1.4

$y = 0.0078 * x + 5.2966E-005$

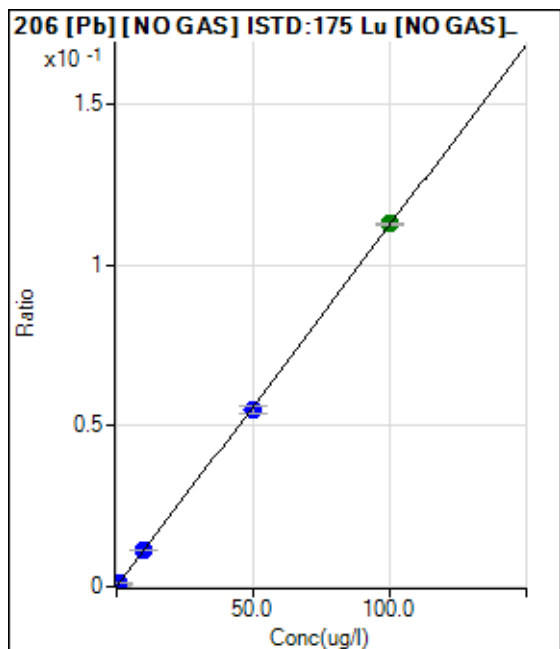
R = 1.0000

DL = 0.0008592

BEC = 0.006763

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	62.22	0.0000	P	26.2
2	<input type="checkbox"/>	0.025	0.023	556.68	0.0000	P	7.2
3	<input type="checkbox"/>	0.050	0.055	1240.06	0.0001	P	0.7
4	<input type="checkbox"/>	0.100	0.113	2516.90	0.0001	P	4.6
5	<input type="checkbox"/>	0.500	0.508	10581.57	0.0006	P	0.7
6	<input type="checkbox"/>	1.000	1.120	24115.99	0.0013	P	1.8
7	<input type="checkbox"/>	10.000	10.152	215330.13	0.0114	P	0.2
8	<input type="checkbox"/>	50.000	49.005	1044691.19	0.0551	P	4.6
9	<input type="checkbox"/>	100.000	100.481	2058486.60	0.1130	A	0.9
10	<input type="checkbox"/>			19235519.99	1.0686	A	1.9
11	<input type="checkbox"/>			2273.53	0.0001	P	9.9

$y = 0.0011 * x + 3.2881E-006$

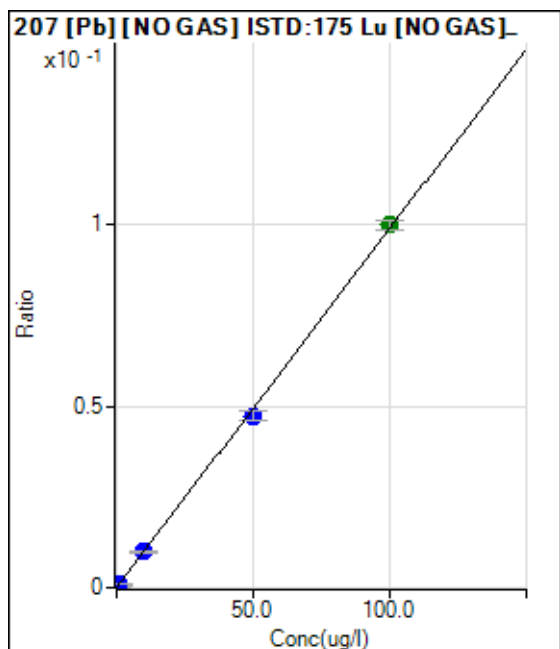
R = 0.9999

DL = 0.002297

BEC = 0.002925

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	47.78	0.0000	P	53.5
2	<input type="checkbox"/>	0.025	0.025	510.01	0.0000	P	7.9
3	<input type="checkbox"/>	0.050	0.052	1032.27	0.0001	P	2.0
4	<input type="checkbox"/>	0.100	0.110	2156.84	0.0001	P	6.1
5	<input type="checkbox"/>	0.500	0.500	9166.16	0.0005	P	3.2
6	<input type="checkbox"/>	1.000	1.087	20587.41	0.0011	P	1.2
7	<input type="checkbox"/>	10.000	10.001	186614.73	0.0099	P	2.2
8	<input type="checkbox"/>	50.000	47.810	896386.62	0.0473	P	5.5
9	<input type="checkbox"/>	100.000	101.094	1822185.60	0.1000	A	2.8
10	<input type="checkbox"/>			16674551.97	0.9264	A	2.1
11	<input type="checkbox"/>			1999.04	0.0001	P	6.8

$y = 9.8911E-004 * x + 2.5112E-006$

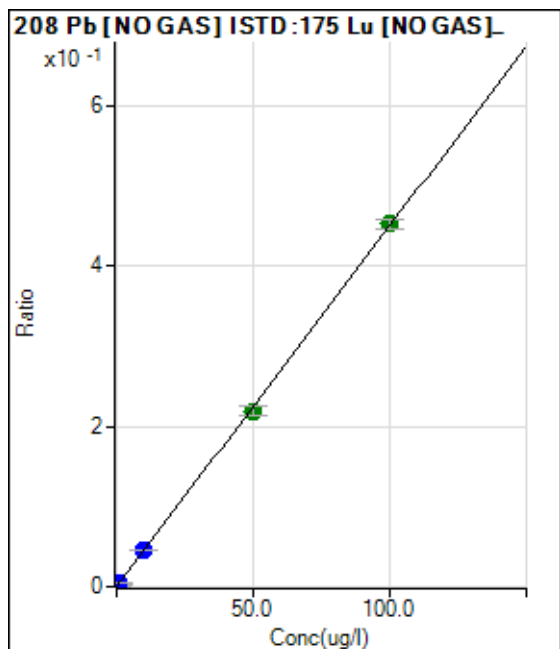
R = 0.9997

DL = 0.004071

BEC = 0.002539

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	217.78	0.0000	P	19.1
2	<input type="checkbox"/>	0.025	0.024	2273.42	0.0001	P	5.1
3	<input type="checkbox"/>	0.050	0.054	4887.03	0.0003	P	1.7
4	<input type="checkbox"/>	0.100	0.113	10022.51	0.0005	P	4.7
5	<input type="checkbox"/>	0.500	0.508	42351.48	0.0023	P	1.0
6	<input type="checkbox"/>	1.000	1.113	95846.85	0.0050	P	1.6
7	<input type="checkbox"/>	10.000	10.135	860138.87	0.0456	P	1.3
8	<input type="checkbox"/>	50.000	48.625	4146515.59	0.2188	A	5.3
9	<input type="checkbox"/>	100.000	100.673	8252555.33	0.4529	A	2.6
10	<input type="checkbox"/>			76760109.13	4.2646	A	1.7
11	<input type="checkbox"/>			9221.20	0.0005	P	5.2

$y = 0.0045 * x + 1.1481E-005$

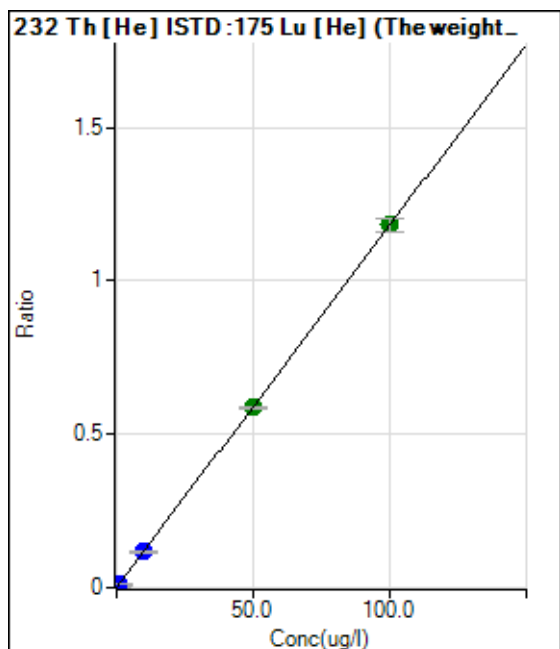
R = 0.9999

DL = 0.001461

BEC = 0.002552

Weight: 1/y

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	961.85	0.0002	P	0.5
2	<input type="checkbox"/>	0.025	0.018	1848.42	0.0004	P	5.1
3	<input type="checkbox"/>	0.050	0.037	2884.39	0.0007	P	0.8
4	<input type="checkbox"/>	0.100	0.111	6526.82	0.0015	P	3.6
5	<input type="checkbox"/>	0.500	0.388	20499.39	0.0048	P	1.4
6	<input type="checkbox"/>	1.000	0.949	47008.56	0.0114	P	5.1
7	<input type="checkbox"/>	10.000	9.923	477172.57	0.1173	P	2.8
8	<input type="checkbox"/>	50.000	49.667	2483195.76	0.5861	A	0.4
9	<input type="checkbox"/>	100.000	100.175	4875994.14	1.1818	A	3.8
10	<input type="checkbox"/>			48222717.19	12.6549	A	7.7
11	<input type="checkbox"/>			17182.57	0.0040	P	2.4

$y = 0.0118 * x + 2.3117E-004$

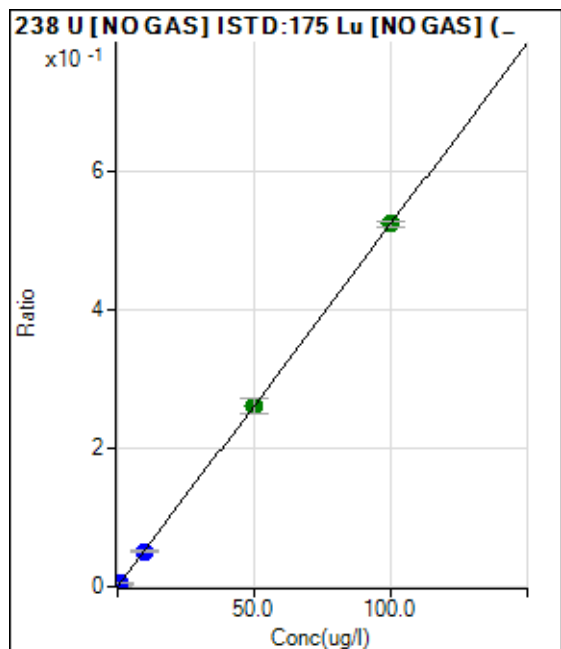
R = 1.0000

DL = 0.0002808

BEC = 0.0196

Weight: 1/y

Min Conc: <None>



	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	0.000	0.000	126.31	0.0000	P	9.5
2	<input type="checkbox"/>	0.025	0.023	2416.39	0.0001	P	0.3
3	<input type="checkbox"/>	0.050	0.051	5244.22	0.0003	P	1.7
4	<input type="checkbox"/>	0.100	0.109	11098.64	0.0006	P	6.5
5	<input type="checkbox"/>	0.500	0.488	47167.26	0.0026	P	2.1
6	<input type="checkbox"/>	1.000	1.061	106120.24	0.0056	P	1.2
7	<input type="checkbox"/>	10.000	9.800	966771.58	0.0513	P	1.3
8	<input type="checkbox"/>	50.000	49.805	4935120.43	0.2605	A	8.3
9	<input type="checkbox"/>	100.000	100.117	9540652.06	0.5236	A	1.5
10	<input type="checkbox"/>			92804104.76	5.1559	A	1.4
11	<input type="checkbox"/>			12988.45	0.0007	P	2.8

$y = 0.0052 * x + 6.6582E-006$

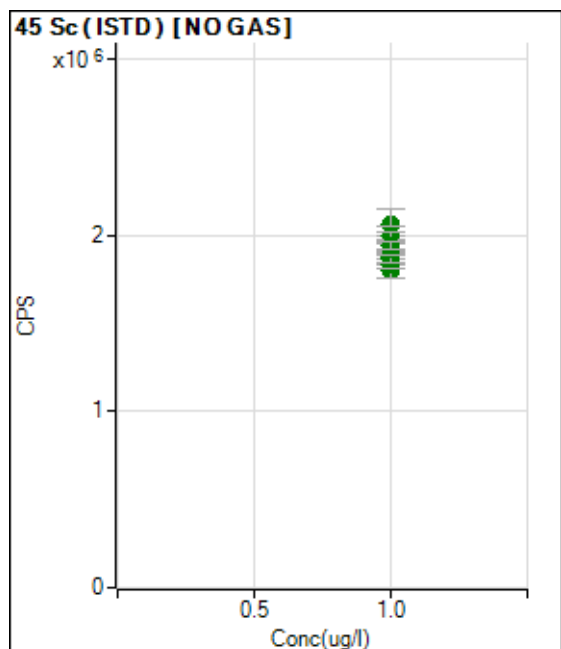
R = 1.0000

DL = 0.0003647

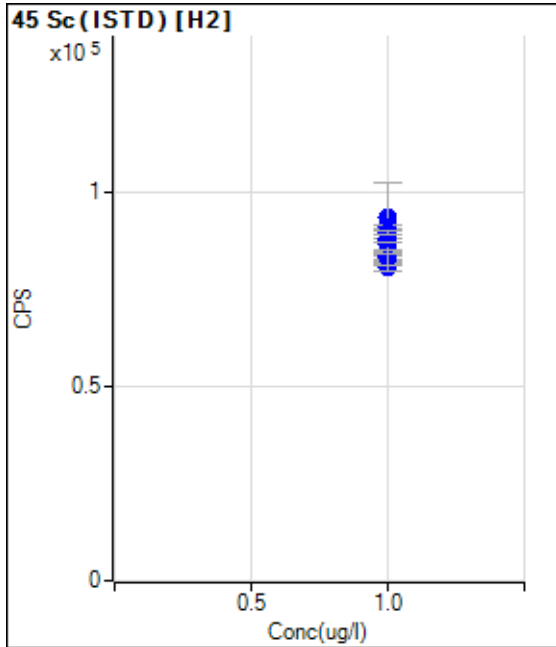
BEC = 0.001273

Weight: 1/y

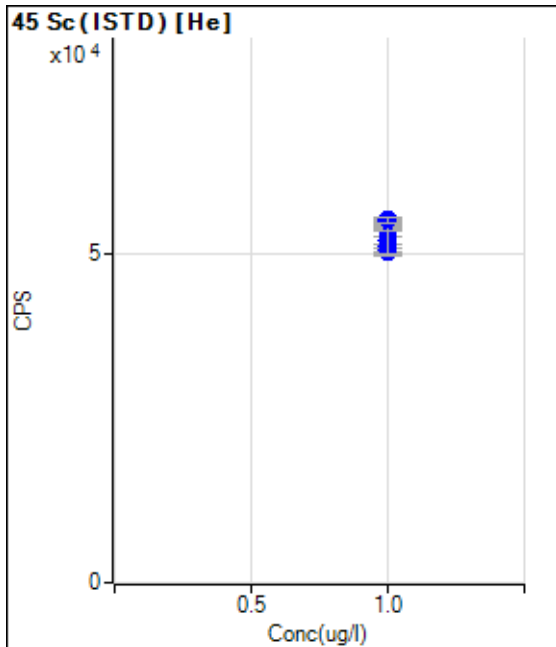
Min Conc: <None>



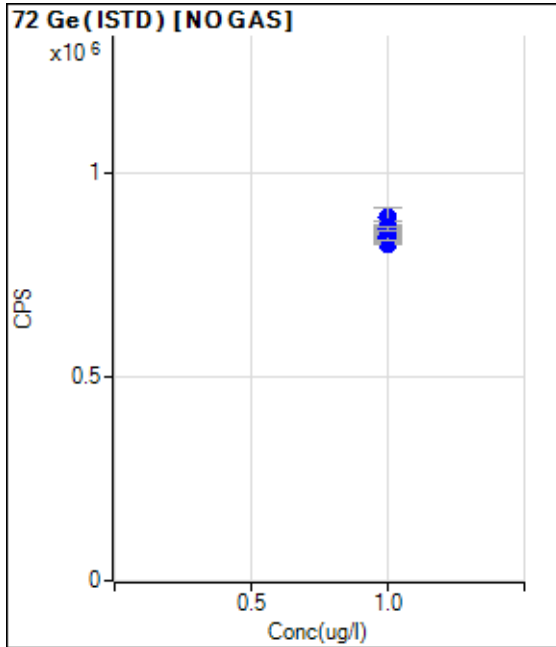
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		1866031.52		A	3.2
2	<input type="checkbox"/>	1.000		1800689.84		A	4.9
3	<input type="checkbox"/>	1.000		1836810.46		A	3.2
4	<input type="checkbox"/>	1.000		2057414.54		A	8.8
5	<input type="checkbox"/>	1.000		1867226.56		A	2.4
6	<input type="checkbox"/>	1.000		1877940.98		A	3.6
7	<input type="checkbox"/>	1.000		1919867.00		A	3.9
8	<input type="checkbox"/>	1.000		1968490.27		A	8.4
9	<input type="checkbox"/>	1.000		1974193.67		A	2.1
10	<input type="checkbox"/>	1.000		1996029.05		A	2.5
11	<input type="checkbox"/>	1.000		1938703.53		A	2.3



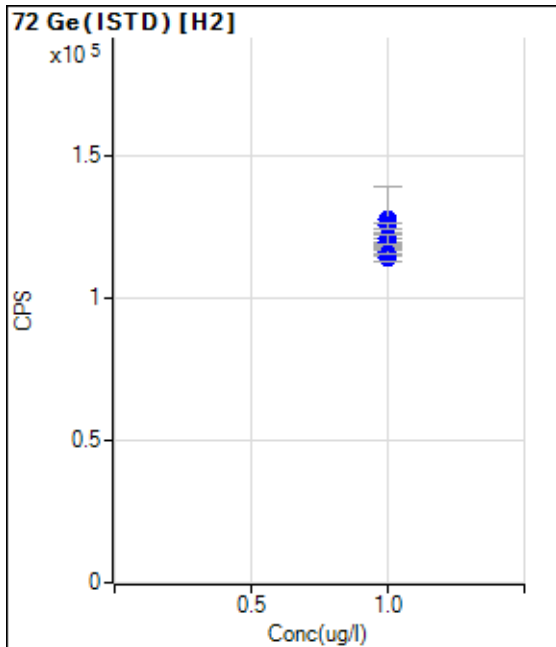
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		82592.20		P	2.6
2	<input type="checkbox"/>	1.000		80555.98		P	2.8
3	<input type="checkbox"/>	1.000		83378.40		P	2.2
4	<input type="checkbox"/>	1.000		87492.60		P	1.4
5	<input type="checkbox"/>	1.000		83423.32		P	2.6
6	<input type="checkbox"/>	1.000		83105.09		P	4.1
7	<input type="checkbox"/>	1.000		86694.52		P	3.3
8	<input type="checkbox"/>	1.000		93349.92		P	19.7
9	<input type="checkbox"/>	1.000		90908.97		P	1.0
10	<input type="checkbox"/>	1.000		88039.72		P	1.9
11	<input type="checkbox"/>	1.000		89738.92		P	1.0



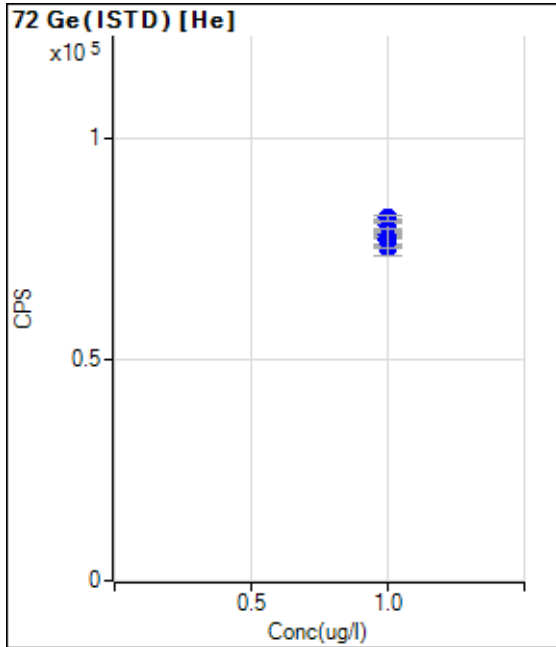
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		50304.07		P	0.5
2	<input type="checkbox"/>	1.000		50945.77		P	2.1
3	<input type="checkbox"/>	1.000		50816.70		P	2.7
4	<input type="checkbox"/>	1.000		54613.84		P	2.0
5	<input type="checkbox"/>	1.000		51212.02		P	1.7
6	<input type="checkbox"/>	1.000		50703.94		P	3.6
7	<input type="checkbox"/>	1.000		53552.13		P	3.0
8	<input type="checkbox"/>	1.000		53705.24		P	0.6
9	<input type="checkbox"/>	1.000		54980.30		P	1.5
10	<input type="checkbox"/>	1.000		52171.66		P	8.1
11	<input type="checkbox"/>	1.000		55220.33		P	1.4



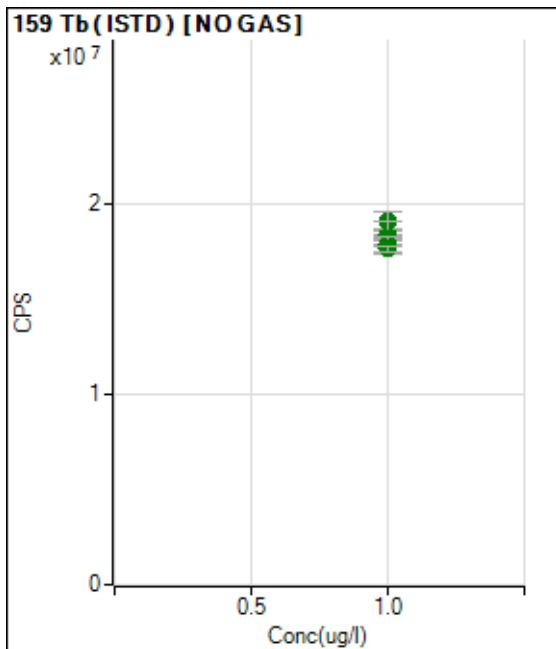
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		845911.32		P	2.5
2	<input type="checkbox"/>	1.000		841528.50		P	0.9
3	<input type="checkbox"/>	1.000		841237.01		P	0.7
4	<input type="checkbox"/>	1.000		888115.24		P	6.0
5	<input type="checkbox"/>	1.000		824017.27		P	0.5
6	<input type="checkbox"/>	1.000		839997.49		P	1.5
7	<input type="checkbox"/>	1.000		840045.76		P	2.9
8	<input type="checkbox"/>	1.000		862743.94		P	4.5
9	<input type="checkbox"/>	1.000		868253.57		P	0.4
10	<input type="checkbox"/>	1.000		842499.67		P	1.9
11	<input type="checkbox"/>	1.000		861709.69		P	0.9



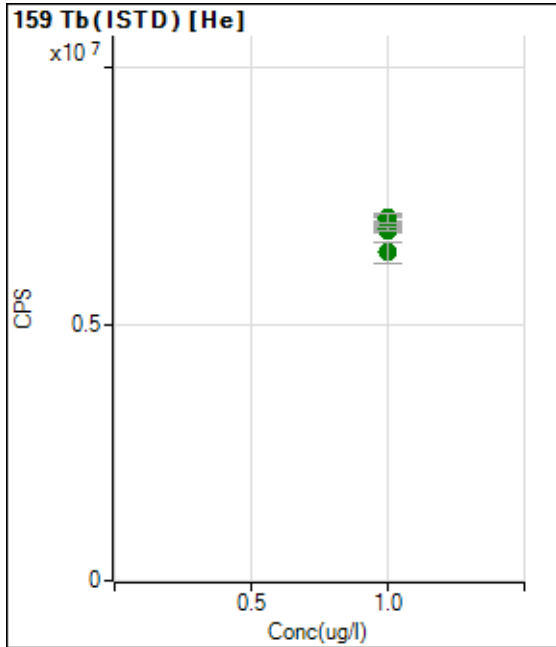
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		118513.05		P	1.8
2	<input type="checkbox"/>	1.000		113965.14		P	1.9
3	<input type="checkbox"/>	1.000		117594.67		P	3.2
4	<input type="checkbox"/>	1.000		121297.02		P	2.4
5	<input type="checkbox"/>	1.000		116843.60		P	1.8
6	<input type="checkbox"/>	1.000		116146.56		P	1.2
7	<input type="checkbox"/>	1.000		118829.35		P	2.0
8	<input type="checkbox"/>	1.000		127568.82		P	18.3
9	<input type="checkbox"/>	1.000		119937.45		P	2.3
10	<input type="checkbox"/>	1.000		120895.42		P	2.8
11	<input type="checkbox"/>	1.000		125615.01		P	1.4



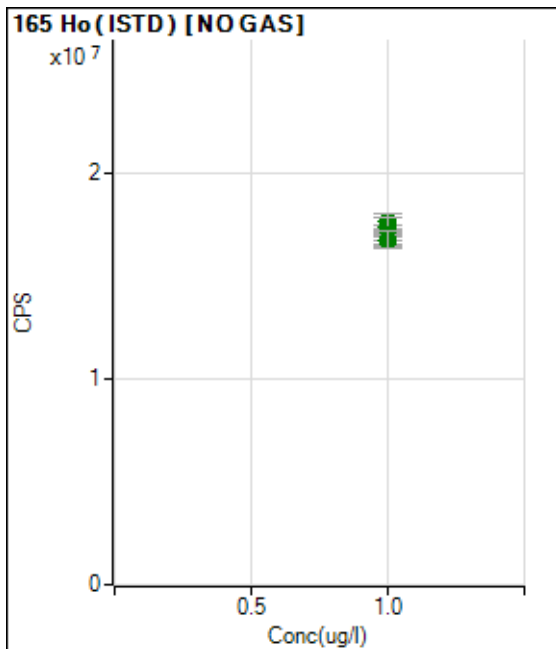
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		75477.75		P	0.6
2	<input type="checkbox"/>	1.000		76836.97		P	2.2
3	<input type="checkbox"/>	1.000		78123.92		P	1.1
4	<input type="checkbox"/>	1.000		80460.34		P	3.4
5	<input type="checkbox"/>	1.000		77970.41		P	0.7
6	<input type="checkbox"/>	1.000		78413.25		P	2.3
7	<input type="checkbox"/>	1.000		76992.30		P	4.4
8	<input type="checkbox"/>	1.000		80304.58		P	1.6
9	<input type="checkbox"/>	1.000		81697.32		P	0.4
10	<input type="checkbox"/>	1.000		77424.33		P	9.5
11	<input type="checkbox"/>	1.000		82100.36		P	1.8



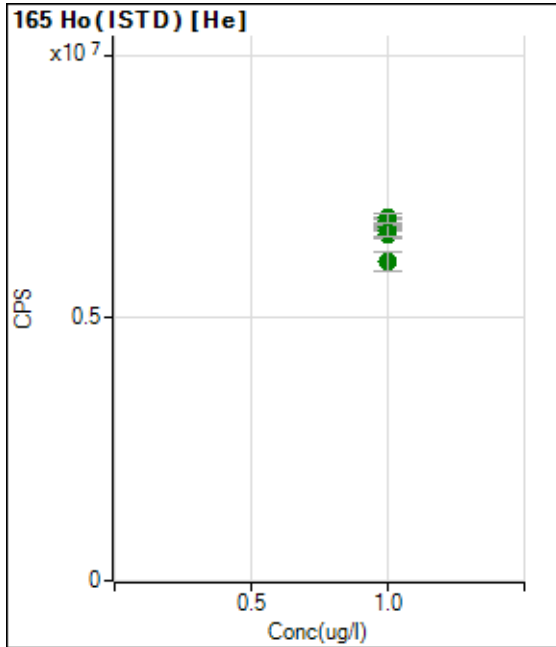
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		18265699.85		A	1.3
2	<input type="checkbox"/>	1.000		18325372.85		A	2.5
3	<input type="checkbox"/>	1.000		18102520.84		A	2.5
4	<input type="checkbox"/>	1.000		19038794.16		A	5.2
5	<input type="checkbox"/>	1.000		18156208.69		A	2.7
6	<input type="checkbox"/>	1.000		18363999.39		A	3.0
7	<input type="checkbox"/>	1.000		18094535.98		A	0.6
8	<input type="checkbox"/>	1.000		18236644.96		A	9.6
9	<input type="checkbox"/>	1.000		18163901.38		A	0.4
10	<input type="checkbox"/>	1.000		17832067.27		A	4.6
11	<input type="checkbox"/>	1.000		17633509.14		A	1.7



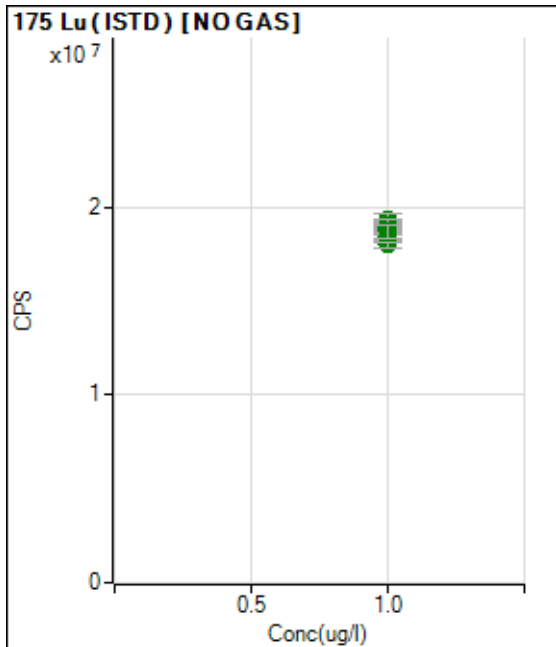
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		7058065.37		A	1.5
2	<input type="checkbox"/>	1.000		6897685.36		A	1.5
3	<input type="checkbox"/>	1.000		7062696.25		A	1.3
4	<input type="checkbox"/>	1.000		6871243.19		A	1.8
5	<input type="checkbox"/>	1.000		6979098.54		A	1.3
6	<input type="checkbox"/>	1.000		7077545.63		A	2.6
7	<input type="checkbox"/>	1.000		6990582.00		A	4.5
8	<input type="checkbox"/>	1.000		6842968.61		A	1.0
9	<input type="checkbox"/>	1.000		6849415.95		A	1.0
10	<input type="checkbox"/>	1.000		6401799.49		A	6.5
11	<input type="checkbox"/>	1.000		7075535.44		A	2.6



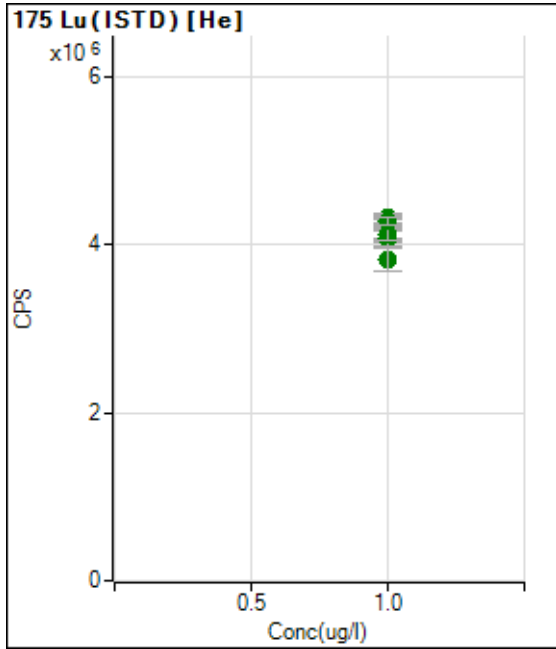
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		16967684.17		A	0.7
2	<input type="checkbox"/>	1.000		16957080.65		A	3.2
3	<input type="checkbox"/>	1.000		17347220.15		A	1.6
4	<input type="checkbox"/>	1.000		17622776.11		A	5.0
5	<input type="checkbox"/>	1.000		17034432.58		A	1.1
6	<input type="checkbox"/>	1.000		17232300.86		A	1.0
7	<input type="checkbox"/>	1.000		16754863.65		A	3.4
8	<input type="checkbox"/>	1.000		17143160.58		A	7.9
9	<input type="checkbox"/>	1.000		17025001.70		A	1.7
10	<input type="checkbox"/>	1.000		16753876.00		A	2.7
11	<input type="checkbox"/>	1.000		16754243.24		A	5.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		6666509.81		A	0.5
2	<input type="checkbox"/>	1.000		6805864.84		A	2.8
3	<input type="checkbox"/>	1.000		6750731.85		A	1.3
4	<input type="checkbox"/>	1.000		6828977.12		A	1.4
5	<input type="checkbox"/>	1.000		6750317.89		A	0.4
6	<input type="checkbox"/>	1.000		6686893.53		A	1.2
7	<input type="checkbox"/>	1.000		6738980.93		A	5.6
8	<input type="checkbox"/>	1.000		6601981.02		A	3.2
9	<input type="checkbox"/>	1.000		6655643.95		A	3.1
10	<input type="checkbox"/>	1.000		6056344.05		A	6.0
11	<input type="checkbox"/>	1.000		6900977.30		A	2.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		18965751.33		A	1.3
2	<input type="checkbox"/>	1.000		19044263.80		A	2.0
3	<input type="checkbox"/>	1.000		19182462.20		A	0.7
4	<input type="checkbox"/>	1.000		19330347.58		A	3.9
5	<input type="checkbox"/>	1.000		18440651.04		A	1.3
6	<input type="checkbox"/>	1.000		19104992.66		A	0.4
7	<input type="checkbox"/>	1.000		18862227.40		A	0.8
8	<input type="checkbox"/>	1.000		18979730.94		A	3.7
9	<input type="checkbox"/>	1.000		18223875.53		A	0.7
10	<input type="checkbox"/>	1.000		18001607.64		A	1.8
11	<input type="checkbox"/>	1.000		18729936.36		A	3.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	<input type="checkbox"/>	1.000		4161096.47		A	4.2
2	<input type="checkbox"/>	1.000		4180241.14		A	0.4
3	<input type="checkbox"/>	1.000		4323996.14		A	2.5
4	<input type="checkbox"/>	1.000		4255222.99		A	4.3
5	<input type="checkbox"/>	1.000		4264523.80		A	2.1
6	<input type="checkbox"/>	1.000		4121838.91		A	4.1
7	<input type="checkbox"/>	1.000		4071934.94		A	4.4
8	<input type="checkbox"/>	1.000		4237061.65		A	1.6
9	<input type="checkbox"/>	1.000		4129636.89		A	3.7
10	<input type="checkbox"/>	1.000		3824036.77		A	7.4
11	<input type="checkbox"/>	1.000		4284266.51		A	2.3

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 001BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:18:16
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName ---
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1853.73
Be	9	45	1	NO GAS		ug/l	5.00
B	11	45	1	NO GAS		ug/l	185.30
Na	23	45	3	He		ug/l	10834.52
Mg	24	45	3	He		ug/l	16.63
Al	27	45	1	NO GAS		ug/l	1055.60
Si	28	45	2	H2		ug/l	37.32
K	39	72	3	He		ug/l	2783.58
Ca	40	72	2	H2		ug/l	787.97
Ti	47	72	1	NO GAS		ug/l	54.97
V	51	72	1	NO GAS		ug/l	-8869.43
V	51	72	3	He		ug/l	135.56
Cr	52	72	1	NO GAS		ug/l	13009.29
Cr	52	72	3	He		ug/l	795.11
Cr	53	72	1	NO GAS		ug/l	46264.68
Mn	55	72	1	NO GAS		ug/l	1021.35
Mn	55	72	3	He		ug/l	8.00
Fe	56	72	2	H2		ug/l	1624.29
Fe	56	72	3	He		ug/l	2402.33
Co	59	72	1	NO GAS		ug/l	73.19
Ni	60	72	1	NO GAS		ug/l	156.36
Ni	60	72	3	He		ug/l	45.55
Ni	62	72	1	NO GAS		ug/l	482.40
Cu	63	72	1	NO GAS		ug/l	267.28
Cu	63	72	3	He		ug/l	104.31
Cu	65	72	1	NO GAS		ug/l	115.98
Zn	66	72	1	NO GAS		ug/l	3656.48
Zn	66	72	3	He		ug/l	816.69
As	75	72	1	NO GAS		ug/l	3308.75
As	75	72	3	He		ug/l	5.00
Se	78	72	2	H2		ug/l	3.00
Br	79	72	1	NO GAS		ug/l	51134.09
Br	79	72	2	H2		ug/l	7347.12
Se	82	72	1	NO GAS		ug/l	355.32
Kr	84	72	1	NO GAS		ug/l	6847.87
Sr	88	72	1	NO GAS		ug/l	459.10
Sr	88	72	3	He		ug/l	217.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	170.00
Mo	95	72	3	He		ug/l	63.33
Mo	98	72	1	NO GAS		ug/l	294.18
Ag	107	72	1	NO GAS		ug/l	1775.75
Ag	109	72	1	NO GAS		ug/l	1678.43
Cd	111	159	1	NO GAS		ug/l	-27.81
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-204.05
Cd	114	159	3	He		ug/l	2.11
Sn	118	159	1	NO GAS		ug/l	2791.39
Sn	118	159	3	He		ug/l	415.56
Sb	121	159	1	NO GAS		ug/l	254.45
Sb	121	159	3	He		ug/l	65.56
Sb	123	159	1	NO GAS		ug/l	222.23
Sb	123	159	3	He		ug/l	36.66
Ba	135	159	1	NO GAS		ug/l	96.48
Ba	137	159	1	NO GAS		ug/l	169.67
La	139	175	1	NO GAS		ug/l	76.74
La	139	175	3	He		ug/l	13.35
Ce	140	175	1	NO GAS		ug/l	136.80
Ce	140	175	3	He		ug/l	30.03
Hg	201	175	1	NO GAS		ug/l	14.00
Hg	202	175	1	NO GAS		ug/l	63.99
Hg	202	175	3	He		ug/l	25.00
Tl	203	175	3	He		ug/l	26.66
Tl	205	175	1	NO GAS		ug/l	106.67
Tl	205	175	3	He		ug/l	73.32
[Pb]	206	175	1	NO GAS		ug/l	63.33
[Pb]	207	175	1	NO GAS		ug/l	43.34
Pb	208	175	1	NO GAS		ug/l	225.56
Th	232	175	3	He		ug/l	654.55
U	238	175	1	NO GAS		ug/l	121.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1933307.74	
Sc	45	2	H2	90947.96	
Sc	45	3	He	52961.96	
Ge	72	1	NO GAS	862667.27	
Ge	72	2	H2	131014.18	
Ge	72	3	He	78321.41	
Tb	159	1	NO GAS	17699480.32	
Tb	159	3	He	6878884.53	
Ho	165	1	NO GAS	16537407.03	
Ho	165	3	He	6539370.55	
Lu	175	1	NO GAS	17948940.60	
Lu	175	3	He	4173567.17	

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 002BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:23:59
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName ---
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1795.07
Be	9	45	1	NO GAS		ug/l	2.33
B	11	45	1	NO GAS		ug/l	169.97
Na	23	45	3	He		ug/l	10686.68
Mg	24	45	3	He		ug/l	39.92
Al	27	45	1	NO GAS		ug/l	1047.82
Si	28	45	2	H2		ug/l	27.99
K	39	72	3	He		ug/l	3041.41
Ca	40	72	2	H2		ug/l	721.33
Ti	47	72	1	NO GAS		ug/l	48.31
V	51	72	1	NO GAS		ug/l	-14001.27
V	51	72	3	He		ug/l	80.00
Cr	52	72	1	NO GAS		ug/l	11551.25
Cr	52	72	3	He		ug/l	672.02
Cr	53	72	1	NO GAS		ug/l	48983.53
Mn	55	72	1	NO GAS		ug/l	698.63
Mn	55	72	3	He		ug/l	6.00
Fe	56	72	2	H2		ug/l	1289.42
Fe	56	72	3	He		ug/l	2040.79
Co	59	72	1	NO GAS		ug/l	49.90
Ni	60	72	1	NO GAS		ug/l	109.78
Ni	60	72	3	He		ug/l	37.78
Ni	62	72	1	NO GAS		ug/l	415.85
Cu	63	72	1	NO GAS		ug/l	271.28
Cu	63	72	3	He		ug/l	91.65
Cu	65	72	1	NO GAS		ug/l	123.98
Zn	66	72	1	NO GAS		ug/l	1833.07
Zn	66	72	3	He		ug/l	402.23
As	75	72	1	NO GAS		ug/l	3166.76
As	75	72	3	He		ug/l	2.33
Se	78	72	2	H2		ug/l	3.00
Br	79	72	1	NO GAS		ug/l	49790.07
Br	79	72	2	H2		ug/l	7277.26
Se	82	72	1	NO GAS		ug/l	291.45
Kr	84	72	1	NO GAS		ug/l	6371.98
Sr	88	72	1	NO GAS		ug/l	465.75
Sr	88	72	3	He		ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	134.45
Mo	95	72	3	He		ug/l	37.78
Mo	98	72	1	NO GAS		ug/l	249.87
Ag	107	72	1	NO GAS		ug/l	1757.09
Ag	109	72	1	NO GAS		ug/l	1731.09
Cd	111	159	1	NO GAS		ug/l	-42.03
Cd	111	159	3	He		ug/l	4.00
Cd	114	159	1	NO GAS		ug/l	-143.94
Cd	114	159	3	He		ug/l	4.96
Sn	118	159	1	NO GAS		ug/l	2555.16
Sn	118	159	3	He		ug/l	408.90
Sb	121	159	1	NO GAS		ug/l	288.89
Sb	121	159	3	He		ug/l	50.00
Sb	123	159	1	NO GAS		ug/l	256.67
Sb	123	159	3	He		ug/l	34.44
Ba	135	159	1	NO GAS		ug/l	59.88
Ba	137	159	1	NO GAS		ug/l	116.44
La	139	175	1	NO GAS		ug/l	43.38
La	139	175	3	He		ug/l	20.02
Ce	140	175	1	NO GAS		ug/l	110.11
Ce	140	175	3	He		ug/l	26.69
Hg	201	175	1	NO GAS		ug/l	14.67
Hg	202	175	1	NO GAS		ug/l	60.66
Hg	202	175	3	He		ug/l	21.66
Tl	203	175	3	He		ug/l	32.66
Tl	205	175	1	NO GAS		ug/l	108.89
Tl	205	175	3	He		ug/l	68.65
[Pb]	206	175	1	NO GAS		ug/l	54.45
[Pb]	207	175	1	NO GAS		ug/l	55.55
Pb	208	175	1	NO GAS		ug/l	242.22
Th	232	175	3	He		ug/l	709.88
U	238	175	1	NO GAS		ug/l	133.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1977948.21	
Sc	45	2	H2	90628.60	
Sc	45	3	He	53205.90	
Ge	72	1	NO GAS	851384.03	
Ge	72	2	H2	134141.09	
Ge	72	3	He	80615.74	
Tb	159	1	NO GAS	18382550.86	
Tb	159	3	He	6990948.04	
Ho	165	1	NO GAS	16917199.73	
Ho	165	3	He	6618253.44	
Lu	175	1	NO GAS	18673809.82	
Lu	175	3	He	4194630.94	

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 003BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:29:43
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName ---
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1885.73
Be	9	45	1	NO GAS		ug/l	4.33
B	11	45	1	NO GAS		ug/l	165.97
Na	23	45	3	He		ug/l	10536.59
Mg	24	45	3	He		ug/l	53.23
Al	27	45	1	NO GAS		ug/l	1054.48
Si	28	45	2	H2		ug/l	25.33
K	39	72	3	He		ug/l	2782.47
Ca	40	72	2	H2		ug/l	706.34
Ti	47	72	1	NO GAS		ug/l	38.31
V	51	72	1	NO GAS		ug/l	-15523.13
V	51	72	3	He		ug/l	106.67
Cr	52	72	1	NO GAS		ug/l	11654.37
Cr	52	72	3	He		ug/l	449.12
Cr	53	72	1	NO GAS		ug/l	47785.37
Mn	55	72	1	NO GAS		ug/l	728.58
Mn	55	72	3	He		ug/l	4.67
Fe	56	72	2	H2		ug/l	1007.88
Fe	56	72	3	He		ug/l	1654.28
Co	59	72	1	NO GAS		ug/l	106.46
Ni	60	72	1	NO GAS		ug/l	129.74
Ni	60	72	3	He		ug/l	31.11
Ni	62	72	1	NO GAS		ug/l	349.31
Cu	63	72	1	NO GAS		ug/l	248.62
Cu	63	72	3	He		ug/l	89.98
Cu	65	72	1	NO GAS		ug/l	117.31
Zn	66	72	1	NO GAS		ug/l	1031.32
Zn	66	72	3	He		ug/l	282.23
As	75	72	1	NO GAS		ug/l	3102.20
As	75	72	3	He		ug/l	2.33
Se	78	72	2	H2		ug/l	1.33
Br	79	72	1	NO GAS		ug/l	48621.86
Br	79	72	2	H2		ug/l	7343.84
Se	82	72	1	NO GAS		ug/l	269.47
Kr	84	72	1	NO GAS		ug/l	6478.49
Sr	88	72	1	NO GAS		ug/l	505.68
Sr	88	72	3	He		ug/l	220.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	141.11
Mo	95	72	3	He		ug/l	52.22
Mo	98	72	1	NO GAS		ug/l	214.87
Ag	107	72	1	NO GAS		ug/l	1769.75
Ag	109	72	1	NO GAS		ug/l	1690.43
Cd	111	159	1	NO GAS		ug/l	-41.01
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-240.37
Cd	114	159	3	He		ug/l	-2.38
Sn	118	159	1	NO GAS		ug/l	2315.60
Sn	118	159	3	He		ug/l	384.45
Sb	121	159	1	NO GAS		ug/l	275.56
Sb	121	159	3	He		ug/l	46.67
Sb	123	159	1	NO GAS		ug/l	232.23
Sb	123	159	3	He		ug/l	24.44
Ba	135	159	1	NO GAS		ug/l	66.53
Ba	137	159	1	NO GAS		ug/l	73.19
La	139	175	1	NO GAS		ug/l	46.71
La	139	175	3	He		ug/l	6.67
Ce	140	175	1	NO GAS		ug/l	73.41
Ce	140	175	3	He		ug/l	33.37
Hg	201	175	1	NO GAS		ug/l	15.67
Hg	202	175	1	NO GAS		ug/l	60.66
Hg	202	175	3	He		ug/l	27.66
Tl	203	175	3	He		ug/l	29.32
Tl	205	175	1	NO GAS		ug/l	98.89
Tl	205	175	3	He		ug/l	65.99
[Pb]	206	175	1	NO GAS		ug/l	53.33
[Pb]	207	175	1	NO GAS		ug/l	64.44
Pb	208	175	1	NO GAS		ug/l	233.33
Th	232	175	3	He		ug/l	610.56
U	238	175	1	NO GAS		ug/l	128.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1855344.02	
Sc	45	2	H2	87040.86	
Sc	45	3	He	50060.93	
Ge	72	1	NO GAS	868538.36	
Ge	72	2	H2	127129.95	
Ge	72	3	He	75693.82	
Tb	159	1	NO GAS	18136122.36	
Tb	159	3	He	6918865.18	
Ho	165	1	NO GAS	17035872.15	
Ho	165	3	He	6599043.55	
Lu	175	1	NO GAS	18621451.63	
Lu	175	3	He	4115922.34	

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 004BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:35:28
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName ---
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	1782.41
Be	9	45	1	NO GAS		ug/l	7.33
B	11	45	1	NO GAS		ug/l	145.97
Na	23	45	3	He		ug/l	7827.37
Mg	24	45	3	He		ug/l	39.92
Al	27	45	1	NO GAS		ug/l	648.91
Si	28	45	2	H2		ug/l	27.32
K	39	72	3	He		ug/l	2709.12
Ca	40	72	2	H2		ug/l	558.07
Ti	47	72	1	NO GAS		ug/l	56.64
V	51	72	1	NO GAS		ug/l	-13194.19
V	51	72	3	He		ug/l	101.11
Cr	52	72	1	NO GAS		ug/l	10176.37
Cr	52	72	3	He		ug/l	435.81
Cr	53	72	1	NO GAS		ug/l	47578.09
Mn	55	72	1	NO GAS		ug/l	668.69
Mn	55	72	3	He		ug/l	5.00
Fe	56	72	2	H2		ug/l	862.93
Fe	56	72	3	He		ug/l	1479.34
Co	59	72	1	NO GAS		ug/l	36.59
Ni	60	72	1	NO GAS		ug/l	66.53
Ni	60	72	3	He		ug/l	43.34
Ni	62	72	1	NO GAS		ug/l	482.39
Cu	63	72	1	NO GAS		ug/l	221.96
Cu	63	72	3	He		ug/l	82.32
Cu	65	72	1	NO GAS		ug/l	103.98
Zn	66	72	1	NO GAS		ug/l	1004.66
Zn	66	72	3	He		ug/l	195.56
As	75	72	1	NO GAS		ug/l	3093.18
As	75	72	3	He		ug/l	4.33
Se	78	72	2	H2		ug/l	2.00
Br	79	72	1	NO GAS		ug/l	61508.80
Br	79	72	2	H2		ug/l	8978.09
Se	82	72	1	NO GAS		ug/l	154.36
Kr	84	72	1	NO GAS		ug/l	6641.56
Sr	88	72	1	NO GAS		ug/l	329.35
Sr	88	72	3	He		ug/l	207.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	98.89
Mo	95	72	3	He		ug/l	44.44
Mo	98	72	1	NO GAS		ug/l	162.78
Ag	107	72	1	NO GAS		ug/l	1815.08
Ag	109	72	1	NO GAS		ug/l	1660.43
Cd	111	159	1	NO GAS		ug/l	-47.47
Cd	111	159	3	He		ug/l	0.00
Cd	114	159	1	NO GAS		ug/l	-222.21
Cd	114	159	3	He		ug/l	-27.52
Sn	118	159	1	NO GAS		ug/l	41812.23
Sn	118	159	3	He		ug/l	6573.62
Sb	121	159	1	NO GAS		ug/l	211.11
Sb	121	159	3	He		ug/l	25.55
Sb	123	159	1	NO GAS		ug/l	218.89
Sb	123	159	3	He		ug/l	25.56
Ba	135	159	1	NO GAS		ug/l	59.88
Ba	137	159	1	NO GAS		ug/l	43.25
La	139	175	1	NO GAS		ug/l	56.72
La	139	175	3	He		ug/l	6.67
Ce	140	175	1	NO GAS		ug/l	46.71
Ce	140	175	3	He		ug/l	16.68
Hg	201	175	1	NO GAS		ug/l	13.67
Hg	202	175	1	NO GAS		ug/l	67.65
Hg	202	175	3	He		ug/l	26.66
Tl	203	175	3	He		ug/l	18.67
Tl	205	175	1	NO GAS		ug/l	41.11
Tl	205	175	3	He		ug/l	39.99
[Pb]	206	175	1	NO GAS		ug/l	30.00
[Pb]	207	175	1	NO GAS		ug/l	30.00
Pb	208	175	1	NO GAS		ug/l	146.67
Th	232	175	3	He		ug/l	520.57
U	238	175	1	NO GAS		ug/l	74.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1774921.88	
Sc	45	2	H2	83120.05	
Sc	45	3	He	49691.46	
Ge	72	1	NO GAS	824782.21	
Ge	72	2	H2	122449.64	
Ge	72	3	He	76020.18	
Tb	159	1	NO GAS	18356008.28	
Tb	159	3	He	6716528.22	
Ho	165	1	NO GAS	17278019.91	
Ho	165	3	He	6436088.05	
Lu	175	1	NO GAS	19226826.36	
Lu	175	3	He	4093614.15	

ICPMS206-B Analytical Data

Sample Name BLANK
File Name 005CALB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:41:14
Sample Type CalBlk
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	1701.08
Be	9	45	1	NO GAS	0.000	ug/l	5.33
B	11	45	1	NO GAS	0.000	ug/l	127.31
Na	23	45	3	He	0.000	ug/l	7958.54
Mg	24	45	3	He	0.000	ug/l	43.25
Al	27	45	1	NO GAS	0.000	ug/l	1916.12
Si	28	45	2	H2	0.000	ug/l	28.66
K	39	72	3	He	0.000	ug/l	2731.35
Ca	40	72	2	H2	0.000	ug/l	514.76
Ti	47	72	1	NO GAS	0.000	ug/l	24.99
V	51	72	1	NO GAS	0.000	ug/l	-6096.98
V	51	72	3	He	0.000	ug/l	121.11
Cr	52	72	1	NO GAS	0.000	ug/l	10465.98
Cr	52	72	3	He	0.000	ug/l	419.18
Cr	53	72	1	NO GAS	0.000	ug/l	44080.74
Mn	55	72	1	NO GAS	0.000	ug/l	695.31
Mn	55	72	3	He	0.000	ug/l	6.00
Fe	56	72	2	H2	0.000	ug/l	894.59
Fe	56	72	3	He	0.000	ug/l	1501.00
Co	59	72	1	NO GAS	0.000	ug/l	59.88
Ni	60	72	1	NO GAS	0.000	ug/l	63.21
Ni	60	72	3	He	0.000	ug/l	46.67
Ni	62	72	1	NO GAS	0.000	ug/l	392.56
Cu	63	72	1	NO GAS	0.000	ug/l	205.29
Cu	63	72	3	He	0.000	ug/l	76.32
Cu	65	72	1	NO GAS	0.000	ug/l	99.98
Zn	66	72	1	NO GAS	0.000	ug/l	1194.31
Zn	66	72	3	He	0.000	ug/l	275.56
As	75	72	1	NO GAS	0.000	ug/l	2890.55
As	75	72	3	He	0.000	ug/l	4.33
Se	78	72	2	H2	0.000	ug/l	0.67
Br	79	72	1	NO GAS	0.000	ug/l	61749.26
Br	79	72	2	H2	0.000	ug/l	8039.44
Se	82	72	1	NO GAS	0.000	ug/l	415.87
Kr	84	72	1	NO GAS		ug/l	6352.01
Sr	88	72	1	NO GAS	0.000	ug/l	319.37
Sr	88	72	3	He	0.000	ug/l	227.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	116.67
Mo	95	72	3	He	0.000	ug/l	28.89
Mo	98	72	1	NO GAS	0.000	ug/l	165.29
Ag	107	72	1	NO GAS	0.000	ug/l	1849.74
Ag	109	72	1	NO GAS	0.000	ug/l	1602.43
Cd	111	159	1	NO GAS	0.000	ug/l	10.85
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.000	ug/l	-224.31
Cd	114	159	3	He	0.000	ug/l	-53.09
Sn	118	159	1	NO GAS	0.000	ug/l	43022.18
Sn	118	159	3	He	0.000	ug/l	6780.38
Sb	121	159	1	NO GAS	0.000	ug/l	237.78
Sb	121	159	3	He	0.000	ug/l	36.67
Sb	123	159	1	NO GAS	0.000	ug/l	180.00
Sb	123	159	3	He	0.000	ug/l	26.67
Ba	135	159	1	NO GAS	0.000	ug/l	59.88
Ba	137	159	1	NO GAS	0.000	ug/l	53.23
La	139	175	1	NO GAS	0.000	ug/l	66.73
La	139	175	3	He	0.000	ug/l	0.00
Ce	140	175	1	NO GAS	0.000	ug/l	66.73
Ce	140	175	3	He	0.000	ug/l	10.01
Hg	201	175	1	NO GAS	0.000	ug/l	16.67
Hg	202	175	1	NO GAS	0.000	ug/l	59.99
Hg	202	175	3	He	0.000	ug/l	27.99
Tl	203	175	3	He	0.000	ug/l	10.67
Tl	205	175	1	NO GAS	0.000	ug/l	47.78
Tl	205	175	3	He	0.000	ug/l	49.99
[Pb]	206	175	1	NO GAS	0.000	ug/l	43.33
[Pb]	207	175	1	NO GAS	0.000	ug/l	30.00
Pb	208	175	1	NO GAS	0.000	ug/l	160.00
Th	232	175	3	He	0.000	ug/l	518.57
U	238	175	1	NO GAS	0.000	ug/l	74.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1809681.80	100.0
Sc	45	2	H2	82283.77	100.0
Sc	45	3	He	49865.44	100.0
Ge	72	1	NO GAS	828511.88	100.0
Ge	72	2	H2	117192.28	100.0
Ge	72	3	He	77344.28	100.0
Tb	159	1	NO GAS	17069290.78	100.0
Tb	159	3	He	7019508.17	100.0
Ho	165	1	NO GAS	16209993.07	100.0
Ho	165	3	He	6735294.17	100.0
Lu	175	1	NO GAS	17611837.88	100.0
Lu	175	3	He	4282614.24	100.0

ICPMS206-B Analytical Data

Sample Name 0.025 PPB STD
File Name 006CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:47:26
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.132	ug/l	1852.40
Be	9	45	1	NO GAS	0.021	ug/l	11.00
B	11	45	1	NO GAS	0.022	ug/l	134.64
Na	23	45	3	He	12.290	ug/l	8812.29
Mg	24	45	3	He	7.034	ug/l	339.33
Al	27	45	1	NO GAS	-0.104	ug/l	1666.76
Si	28	45	2	H2	0.141	ug/l	29.32
K	39	72	3	He	8.335	ug/l	2968.07
Ca	40	72	2	H2	7.952	ug/l	1882.52
Ti	47	72	1	NO GAS	0.154	ug/l	154.93
V	51	72	1	NO GAS	0.151	ug/l	-4061.64
V	51	72	3	He	0.030	ug/l	155.56
Cr	52	72	1	NO GAS	-0.008	ug/l	10254.51
Cr	52	72	3	He	0.013	ug/l	429.16
Cr	53	72	1	NO GAS	0.461	ug/l	44384.67
Mn	55	72	1	NO GAS	0.029	ug/l	1194.35
Mn	55	72	3	He	0.020	ug/l	22.67
Fe	56	72	2	H2	0.719	ug/l	1555.98
Fe	56	72	3	He	0.641	ug/l	2445.65
Co	59	72	1	NO GAS	0.031	ug/l	542.27
Ni	60	72	1	NO GAS	0.052	ug/l	239.53
Ni	60	72	3	He	0.018	ug/l	64.44
Ni	62	72	1	NO GAS	0.014	ug/l	399.22
Cu	63	72	1	NO GAS	0.046	ug/l	595.89
Cu	63	72	3	He	0.043	ug/l	214.63
Cu	65	72	1	NO GAS	0.050	ug/l	311.28
Zn	66	72	1	NO GAS	0.004	ug/l	1184.32
Zn	66	72	3	He	0.068	ug/l	298.89
As	75	72	1	NO GAS	0.060	ug/l	3056.35
As	75	72	3	He	0.033	ug/l	14.33
Se	78	72	2	H2	0.050	ug/l	6.00
Br	79	72	1	NO GAS	-0.336	ug/l	59157.83
Br	79	72	2	H2	0.643	ug/l	8275.77
Se	82	72	1	NO GAS	-0.646	ug/l	236.87
Kr	84	72	1	NO GAS		ug/l	6185.64
Sr	88	72	1	NO GAS	0.029	ug/l	1314.13
Sr	88	72	3	He	0.012	ug/l	238.89

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.037	ug/l	397.79
Mo	95	72	3	He	0.034	ug/l	115.56
Mo	98	72	1	NO GAS	0.032	ug/l	589.05
Ag	107	72	1	NO GAS	0.008	ug/l	2002.40
Ag	109	72	1	NO GAS	0.016	ug/l	1921.74
Cd	111	159	1	NO GAS	0.016	ug/l	103.33
Cd	111	159	3	He	0.027	ug/l	39.99
Cd	114	159	1	NO GAS	0.041	ug/l	286.54
Cd	114	159	3	He	0.036	ug/l	80.19
Sn	118	159	1	NO GAS	-2.626	ug/l	3363.71
Sn	118	159	3	He	-2.421	ug/l	535.57
Sb	121	159	1	NO GAS	0.030	ug/l	928.93
Sb	121	159	3	He	0.032	ug/l	141.11
Sb	123	159	1	NO GAS	0.030	ug/l	734.47
Sb	123	159	3	He	0.027	ug/l	101.11
Ba	135	159	1	NO GAS	0.025	ug/l	186.30
Ba	137	159	1	NO GAS	0.024	ug/l	256.16
La	139	175	1	NO GAS	0.030	ug/l	2449.37
La	139	175	3	He	0.025	ug/l	423.77
Ce	140	175	1	NO GAS	0.030	ug/l	2429.34
Ce	140	175	3	He	0.032	ug/l	700.73
Hg	201	175	1	NO GAS	0.001	ug/l	21.00
Hg	202	175	1	NO GAS	0.000	ug/l	62.99
Hg	202	175	3	He	-0.001	ug/l	24.00
Tl	203	175	3	He	0.029	ug/l	403.92
Tl	205	175	1	NO GAS	0.027	ug/l	1741.23
Tl	205	175	3	He	0.029	ug/l	979.84
[Pb]	206	175	1	NO GAS	0.030	ug/l	698.91
[Pb]	207	175	1	NO GAS	0.034	ug/l	655.58
Pb	208	175	1	NO GAS	0.031	ug/l	2786.80
Th	232	175	3	He	0.017	ug/l	1348.46
U	238	175	1	NO GAS	0.027	ug/l	2715.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1820531.42	100.6
Sc	45	2	H2	76915.71	93.5
Sc	45	3	He	48793.37	97.9
Ge	72	1	NO GAS	819802.23	98.9
Ge	72	2	H2	112414.71	95.9
Ge	72	3	He	74979.49	96.9
Tb	159	1	NO GAS	17616122.79	103.2
Tb	159	3	He	6780340.20	96.6
Ho	165	1	NO GAS	16848898.93	103.9
Ho	165	3	He	6521599.86	96.8
Lu	175	1	NO GAS	18594557.03	105.6
Lu	175	3	He	4162221.66	97.2

ICPMS206-B Analytical Data

Sample Name 0.05 PPB STD
File Name 007CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:53:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.738	ug/l	2156.38
Be	9	45	1	NO GAS	0.077	ug/l	25.00
B	11	45	1	NO GAS	0.064	ug/l	138.64
Na	23	45	3	He	16.555	ug/l	9000.16
Mg	24	45	3	He	15.928	ug/l	701.96
Al	27	45	1	NO GAS	-0.320	ug/l	1007.82
Si	28	45	2	H2	-0.054	ug/l	25.99
K	39	72	3	He	16.017	ug/l	3233.67
Ca	40	72	2	H2	15.854	ug/l	3305.38
Ti	47	72	1	NO GAS	0.089	ug/l	99.95
V	51	72	1	NO GAS	-0.568	ug/l	-13345.90
V	51	72	3	He	0.047	ug/l	175.56
Cr	52	72	1	NO GAS	0.074	ug/l	11184.99
Cr	52	72	3	He	-0.020	ug/l	369.27
Cr	53	72	1	NO GAS	1.457	ug/l	45922.72
Mn	55	72	1	NO GAS	0.071	ug/l	1909.68
Mn	55	72	3	He	0.059	ug/l	54.34
Fe	56	72	2	H2	1.509	ug/l	2350.69
Fe	56	72	3	He	1.484	ug/l	3718.61
Co	59	72	1	NO GAS	0.065	ug/l	1051.29
Ni	60	72	1	NO GAS	0.069	ug/l	296.08
Ni	60	72	3	He	0.092	ug/l	144.46
Ni	62	72	1	NO GAS	-0.006	ug/l	389.24
Cu	63	72	1	NO GAS	0.072	ug/l	817.19
Cu	63	72	3	He	0.071	ug/l	303.27
Cu	65	72	1	NO GAS	0.068	ug/l	387.26
Zn	66	72	1	NO GAS	-0.091	ug/l	921.45
Zn	66	72	3	He	-0.083	ug/l	225.56
As	75	72	1	NO GAS	0.142	ug/l	3309.17
As	75	72	3	He	0.064	ug/l	23.66
Se	78	72	2	H2	0.059	ug/l	7.00
Br	79	72	1	NO GAS	-0.174	ug/l	60122.96
Br	79	72	2	H2	0.974	ug/l	8698.47
Se	82	72	1	NO GAS	-0.408	ug/l	300.09
Kr	84	72	1	NO GAS		ug/l	6551.70
Sr	88	72	1	NO GAS	0.062	ug/l	2412.08
Sr	88	72	3	He	0.055	ug/l	301.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.065	ug/l	617.80
Mo	95	72	3	He	0.068	ug/l	203.34
Mo	98	72	1	NO GAS	0.060	ug/l	946.57
Ag	107	72	1	NO GAS	0.020	ug/l	2272.38
Ag	109	72	1	NO GAS	0.032	ug/l	2276.38
Cd	111	159	1	NO GAS	0.044	ug/l	257.87
Cd	111	159	3	He	0.054	ug/l	77.98
Cd	114	159	1	NO GAS	0.069	ug/l	646.20
Cd	114	159	3	He	0.073	ug/l	209.28
Sn	118	159	1	NO GAS	-2.636	ug/l	3213.96
Sn	118	159	3	He	-2.426	ug/l	518.90
Sb	121	159	1	NO GAS	0.059	ug/l	1597.87
Sb	121	159	3	He	0.061	ug/l	236.67
Sb	123	159	1	NO GAS	0.057	ug/l	1233.39
Sb	123	159	3	He	0.059	ug/l	188.89
Ba	135	159	1	NO GAS	0.044	ug/l	279.45
Ba	137	159	1	NO GAS	0.065	ug/l	612.13
La	139	175	1	NO GAS	0.065	ug/l	5179.51
La	139	175	3	He	0.068	ug/l	1157.90
Ce	140	175	1	NO GAS	0.057	ug/l	4495.27
Ce	140	175	3	He	0.066	ug/l	1418.18
Hg	201	175	1	NO GAS	0.000	ug/l	17.33
Hg	202	175	1	NO GAS	0.001	ug/l	73.65
Hg	202	175	3	He	0.001	ug/l	33.66
Tl	203	175	3	He	0.061	ug/l	825.20
Tl	205	175	1	NO GAS	0.059	ug/l	3770.50
Tl	205	175	3	He	0.064	ug/l	2089.07
[Pb]	206	175	1	NO GAS	0.057	ug/l	1284.51
[Pb]	207	175	1	NO GAS	0.058	ug/l	1113.39
Pb	208	175	1	NO GAS	0.060	ug/l	5268.19
Th	232	175	3	He	0.042	ug/l	2505.06
U	238	175	1	NO GAS	0.059	ug/l	5863.00

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1770040.11	97.8
Sc	45	2	H2	77459.46	94.1
Sc	45	3	He	47891.46	96.0
Ge	72	1	NO GAS	819530.10	98.9
Ge	72	2	H2	114109.85	97.4
Ge	72	3	He	74346.69	96.1
Tb	159	1	NO GAS	17657106.28	103.4
Tb	159	3	He	6729152.51	95.9
Ho	165	1	NO GAS	16577168.56	102.3
Ho	165	3	He	6515525.61	96.7
Lu	175	1	NO GAS	18535645.20	105.2
Lu	175	3	He	4106195.79	95.9

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 008CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 18:59:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.225	ug/l	2389.70
Be	9	45	1	NO GAS	0.140	ug/l	40.32
B	11	45	1	NO GAS	0.066	ug/l	135.97
Na	23	45	3	He	34.451	ug/l	10251.97
Mg	24	45	3	He	30.214	ug/l	1267.55
Al	27	45	1	NO GAS	-0.210	ug/l	1294.51
Si	28	45	2	H2	-0.219	ug/l	22.66
K	39	72	3	He	28.504	ug/l	3655.97
Ca	40	72	2	H2	29.364	ug/l	5624.87
Ti	47	72	1	NO GAS	0.142	ug/l	143.27
V	51	72	1	NO GAS	0.006	ug/l	-5944.76
V	51	72	3	He	0.086	ug/l	221.11
Cr	52	72	1	NO GAS	0.109	ug/l	11424.65
Cr	52	72	3	He	0.033	ug/l	452.45
Cr	53	72	1	NO GAS	0.921	ug/l	44451.12
Mn	55	72	1	NO GAS	0.123	ug/l	2748.14
Mn	55	72	3	He	0.133	ug/l	113.68
Fe	56	72	2	H2	3.012	ug/l	3781.92
Fe	56	72	3	He	2.979	ug/l	5924.82
Co	59	72	1	NO GAS	0.133	ug/l	2082.69
Ni	60	72	1	NO GAS	0.133	ug/l	505.67
Ni	60	72	3	He	0.137	ug/l	190.00
Ni	62	72	1	NO GAS	0.152	ug/l	465.75
Cu	63	72	1	NO GAS	0.134	ug/l	1325.13
Cu	63	72	3	He	0.132	ug/l	492.24
Cu	65	72	1	NO GAS	0.140	ug/l	680.55
Zn	66	72	1	NO GAS	-0.083	ug/l	928.12
Zn	66	72	3	He	-0.235	ug/l	152.23
As	75	72	1	NO GAS	0.101	ug/l	3139.98
As	75	72	3	He	0.130	ug/l	43.32
Se	78	72	2	H2	0.125	ug/l	14.00
Br	79	72	1	NO GAS	0.192	ug/l	61502.13
Br	79	72	2	H2	0.797	ug/l	8432.20
Se	82	72	1	NO GAS	0.067	ug/l	417.20
Kr	84	72	1	NO GAS		ug/l	6288.78
Sr	88	72	1	NO GAS	0.130	ug/l	4644.81
Sr	88	72	3	He	0.138	ug/l	420.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.123	ug/l	1050.04
Mo	95	72	3	He	0.106	ug/l	297.78
Mo	98	72	1	NO GAS	0.121	ug/l	1729.35
Ag	107	72	1	NO GAS	0.044	ug/l	2765.70
Ag	109	72	1	NO GAS	0.055	ug/l	2729.70
Cd	111	159	1	NO GAS	0.119	ug/l	669.21
Cd	111	159	3	He	0.111	ug/l	162.64
Cd	114	159	1	NO GAS	0.119	ug/l	1255.89
Cd	114	159	3	He	0.119	ug/l	384.62
Sn	118	159	1	NO GAS	-2.551	ug/l	4465.14
Sn	118	159	3	He	-2.374	ug/l	665.58
Sb	121	159	1	NO GAS	0.115	ug/l	2826.94
Sb	121	159	3	He	0.116	ug/l	434.45
Sb	123	159	1	NO GAS	0.110	ug/l	2156.83
Sb	123	159	3	He	0.110	ug/l	340.01
Ba	135	159	1	NO GAS	0.108	ug/l	588.85
Ba	137	159	1	NO GAS	0.131	ug/l	1151.11
La	139	175	1	NO GAS	0.123	ug/l	9455.87
La	139	175	3	He	0.125	ug/l	2132.34
Ce	140	175	1	NO GAS	0.117	ug/l	8814.84
Ce	140	175	3	He	0.119	ug/l	2572.87
Hg	201	175	1	NO GAS	0.001	ug/l	22.66
Hg	202	175	1	NO GAS	0.002	ug/l	82.32
Hg	202	175	3	He	0.003	ug/l	50.32
Tl	203	175	3	He	0.123	ug/l	1673.10
Tl	205	175	1	NO GAS	0.118	ug/l	7250.69
Tl	205	175	3	He	0.126	ug/l	4123.09
[Pb]	206	175	1	NO GAS	0.122	ug/l	2584.69
[Pb]	207	175	1	NO GAS	0.126	ug/l	2284.64
Pb	208	175	1	NO GAS	0.125	ug/l	10419.30
Th	232	175	3	He	0.087	ug/l	4719.83
U	238	175	1	NO GAS	0.119	ug/l	11291.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1739846.50	96.1
Sc	45	2	H2	76689.22	93.2
Sc	45	3	He	46924.02	94.1
Ge	72	1	NO GAS	807565.78	97.5
Ge	72	2	H2	112625.47	96.1
Ge	72	3	He	73256.32	94.7
Tb	159	1	NO GAS	17337556.74	101.6
Tb	159	3	He	6949491.85	99.0
Ho	165	1	NO GAS	16324488.08	100.7
Ho	165	3	He	6695339.32	99.4
Lu	175	1	NO GAS	17876510.46	101.5
Lu	175	3	He	4150064.27	96.9

ICPMS206-B Analytical Data

Sample Name 0.5 PPB STD
File Name 009CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:05:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	5.367	ug/l	4706.38
Be	9	45	1	NO GAS	0.545	ug/l	145.97
B	11	45	1	NO GAS	0.391	ug/l	201.30
Na	23	45	3	He	145.226	ug/l	19448.83
Mg	24	45	3	He	131.063	ug/l	5453.45
Al	27	45	1	NO GAS	0.277	ug/l	2704.68
Si	28	45	2	H2	2.215	ug/l	65.99
K	39	72	3	He	132.136	ug/l	7687.34
Ca	40	72	2	H2	138.559	ug/l	24599.22
Ti	47	72	1	NO GAS	0.575	ug/l	509.76
V	51	72	1	NO GAS	0.998	ug/l	6578.97
V	51	72	3	He	0.484	ug/l	722.24
Cr	52	72	1	NO GAS	0.540	ug/l	16445.62
Cr	52	72	3	He	0.459	ug/l	1184.37
Cr	53	72	1	NO GAS	0.323	ug/l	43839.25
Mn	55	72	1	NO GAS	0.559	ug/l	10156.35
Mn	55	72	3	He	0.558	ug/l	468.72
Fe	56	72	2	H2	14.354	ug/l	14717.67
Fe	56	72	3	He	14.200	ug/l	23326.54
Co	59	72	1	NO GAS	0.572	ug/l	8804.93
Ni	60	72	1	NO GAS	0.586	ug/l	2046.10
Ni	60	72	3	He	0.533	ug/l	621.13
Ni	62	72	1	NO GAS	0.653	ug/l	735.23
Cu	63	72	1	NO GAS	0.621	ug/l	5465.82
Cu	63	72	3	He	0.604	ug/l	2030.72
Cu	65	72	1	NO GAS	0.622	ug/l	2711.03
Zn	66	72	1	NO GAS	0.525	ug/l	2621.45
Zn	66	72	3	He	0.366	ug/l	438.90
As	75	72	1	NO GAS	0.424	ug/l	4159.18
As	75	72	3	He	0.513	ug/l	162.30
Se	78	72	2	H2	0.597	ug/l	64.32
Br	79	72	1	NO GAS	0.156	ug/l	61712.34
Br	79	72	2	H2	1.159	ug/l	8701.80
Se	82	72	1	NO GAS	-0.455	ug/l	282.12
Kr	84	72	1	NO GAS		ug/l	6438.57
Sr	88	72	1	NO GAS	0.602	ug/l	20609.08
Sr	88	72	3	He	0.553	ug/l	1054.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.570	ug/l	4461.76
Mo	95	72	3	He	0.545	ug/l	1434.52
Mo	98	72	1	NO GAS	0.587	ug/l	7809.43
Ag	107	72	1	NO GAS	0.239	ug/l	6983.47
Ag	109	72	1	NO GAS	0.250	ug/l	6864.12
Cd	111	159	1	NO GAS	0.561	ug/l	3161.23
Cd	111	159	3	He	0.546	ug/l	772.54
Cd	114	159	1	NO GAS	0.560	ug/l	6899.98
Cd	114	159	3	He	0.589	ug/l	2060.53
Sn	118	159	1	NO GAS	-2.101	ug/l	11644.54
Sn	118	159	3	He	-1.898	ug/l	1822.34
Sb	121	159	1	NO GAS	0.532	ug/l	12504.97
Sb	121	159	3	He	0.533	ug/l	1807.90
Sb	123	159	1	NO GAS	0.535	ug/l	9968.73
Sb	123	159	3	He	0.509	ug/l	1426.74
Ba	135	159	1	NO GAS	0.584	ug/l	2974.42
Ba	137	159	1	NO GAS	0.535	ug/l	4621.58
La	139	175	1	NO GAS	0.565	ug/l	43771.72
La	139	175	3	He	0.569	ug/l	9756.41
Ce	140	175	1	NO GAS	0.570	ug/l	43387.37
Ce	140	175	3	He	0.575	ug/l	12454.33
Hg	201	175	1	NO GAS	0.009	ug/l	54.32
Hg	202	175	1	NO GAS	0.012	ug/l	170.97
Hg	202	175	3	He	0.010	ug/l	92.65
Tl	203	175	3	He	0.591	ug/l	8021.22
Tl	205	175	1	NO GAS	0.562	ug/l	34929.42
Tl	205	175	3	He	0.590	ug/l	19040.91
[Pb]	206	175	1	NO GAS	0.565	ug/l	12041.58
[Pb]	207	175	1	NO GAS	0.552	ug/l	10067.89
Pb	208	175	1	NO GAS	0.570	ug/l	47779.31
Th	232	175	3	He	0.452	ug/l	22402.46
U	238	175	1	NO GAS	0.555	ug/l	53440.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1777046.98	98.2
Sc	45	2	H2	75423.57	91.7
Sc	45	3	He	47728.86	95.7
Ge	72	1	NO GAS	813512.99	98.2
Ge	72	2	H2	112056.44	95.6
Ge	72	3	He	74631.05	96.5
Tb	159	1	NO GAS	17700640.22	103.7
Tb	159	3	He	6735262.73	96.0
Ho	165	1	NO GAS	16560902.40	102.2
Ho	165	3	He	6537021.74	97.1
Lu	175	1	NO GAS	18163406.93	103.1
Lu	175	3	He	4144414.48	96.8

ICPMS206-B Analytical Data

Sample Name 1 PPB STD
File Name 010CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:11:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	11.230	ug/l	8134.97
Be	9	45	1	NO GAS	1.219	ug/l	313.61
B	11	45	1	NO GAS	1.268	ug/l	363.27
Na	23	45	3	He	307.200	ug/l	32331.59
Mg	24	45	3	He	274.324	ug/l	11254.81
Al	27	45	1	NO GAS	0.741	ug/l	3943.81
Si	28	45	2	H2	3.809	ug/l	95.98
K	39	72	3	He	281.381	ug/l	13356.46
Ca	40	72	2	H2	286.387	ug/l	50318.20
Ti	47	72	1	NO GAS	1.096	ug/l	944.56
V	51	72	1	NO GAS	1.986	ug/l	19082.00
V	51	72	3	He	1.129	ug/l	1524.53
Cr	52	72	1	NO GAS	1.074	ug/l	22397.48
Cr	52	72	3	He	1.015	ug/l	2129.28
Cr	53	72	1	NO GAS	0.597	ug/l	43968.81
Mn	55	72	1	NO GAS	1.146	ug/l	19969.15
Mn	55	72	3	He	1.160	ug/l	966.79
Fe	56	72	2	H2	31.685	ug/l	31470.86
Fe	56	72	3	He	29.872	ug/l	47373.39
Co	59	72	1	NO GAS	1.196	ug/l	18214.13
Ni	60	72	1	NO GAS	1.216	ug/l	4142.35
Ni	60	72	3	He	1.177	ug/l	1315.62
Ni	62	72	1	NO GAS	1.367	ug/l	1107.85
Cu	63	72	1	NO GAS	1.298	ug/l	11137.50
Cu	63	72	3	He	1.223	ug/l	4024.02
Cu	65	72	1	NO GAS	1.301	ug/l	5521.83
Zn	66	72	1	NO GAS	1.101	ug/l	4195.06
Zn	66	72	3	He	1.030	ug/l	750.02
As	75	72	1	NO GAS	1.106	ug/l	6230.83
As	75	72	3	He	1.133	ug/l	352.27
Se	78	72	2	H2	1.104	ug/l	118.31
Br	79	72	1	NO GAS	0.567	ug/l	63866.66
Br	79	72	2	H2	0.566	ug/l	8189.22
Se	82	72	1	NO GAS	0.828	ug/l	607.51
Kr	84	72	1	NO GAS		ug/l	6461.82
Sr	88	72	1	NO GAS	1.248	ug/l	42087.34
Sr	88	72	3	He	1.181	ug/l	1996.81

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.214	ug/l	9301.66
Mo	95	72	3	He	1.105	ug/l	2873.61
Mo	98	72	1	NO GAS	1.257	ug/l	16427.48
Ag	107	72	1	NO GAS	0.518	ug/l	12920.64
Ag	109	72	1	NO GAS	0.501	ug/l	12097.48
Cd	111	159	1	NO GAS	1.093	ug/l	6381.00
Cd	111	159	3	He	1.118	ug/l	1599.10
Cd	114	159	1	NO GAS	1.187	ug/l	15408.89
Cd	114	159	3	He	1.161	ug/l	4161.25
Sn	118	159	1	NO GAS	-1.453	ug/l	22641.28
Sn	118	159	3	He	-1.285	ug/l	3375.94
Sb	121	159	1	NO GAS	1.070	ug/l	25777.58
Sb	121	159	3	He	1.059	ug/l	3599.32
Sb	123	159	1	NO GAS	1.048	ug/l	20038.17
Sb	123	159	3	He	1.074	ug/l	3018.09
Ba	135	159	1	NO GAS	1.043	ug/l	5450.18
Ba	137	159	1	NO GAS	1.101	ug/l	9790.37
La	139	175	1	NO GAS	1.211	ug/l	95328.64
La	139	175	3	He	1.165	ug/l	19879.50
Ce	140	175	1	NO GAS	1.201	ug/l	93082.94
Ce	140	175	3	He	1.228	ug/l	26492.51
Hg	201	175	1	NO GAS	0.024	ug/l	116.31
Hg	202	175	1	NO GAS	0.020	ug/l	255.95
Hg	202	175	3	He	0.022	ug/l	170.30
Tl	203	175	3	He	1.217	ug/l	16446.99
Tl	205	175	1	NO GAS	1.150	ug/l	72605.71
Tl	205	175	3	He	1.243	ug/l	39944.63
[Pb]	206	175	1	NO GAS	1.190	ug/l	25743.23
[Pb]	207	175	1	NO GAS	1.196	ug/l	22146.40
Pb	208	175	1	NO GAS	1.194	ug/l	101651.07
Th	232	175	3	He	1.020	ug/l	49777.22
U	238	175	1	NO GAS	1.158	ug/l	113361.13

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1740750.41	96.2
Sc	45	2	H2	76328.02	92.8
Sc	45	3	He	47286.89	94.8
Ge	72	1	NO GAS	808284.43	97.6
Ge	72	2	H2	112126.15	95.7
Ge	72	3	He	74476.43	96.3
Tb	159	1	NO GAS	18333608.79	107.4
Tb	159	3	He	6818448.26	97.1
Ho	165	1	NO GAS	16961631.66	104.6
Ho	165	3	He	6550177.13	97.3
Lu	175	1	NO GAS	18496825.13	105.0
Lu	175	3	He	4126245.42	96.3

ICPMS206-B Analytical Data

Sample Name 10 PPB STD
File Name 011CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:17:26
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name 50 PPB STD
File Name 012CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:23:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	560.694	ug/l	323855.60
Be	9	45	1	NO GAS	49.457	ug/l	14154.54
B	11	45	1	NO GAS	50.505	ug/l	10932.60
Na	23	45	3	He	13062.949	ug/l	1166676.20
Mg	24	45	3	He	12686.535	ug/l	570437.21
Al	27	45	1	NO GAS	49.544	ug/l	157843.86
Si	28	45	2	H2	215.915	ug/l	4339.03
K	39	72	3	He	12823.539	ug/l	515887.38
Ca	40	72	2	H2	13627.909	ug/l	2461686.16
Ti	47	72	1	NO GAS	51.776	ug/l	46799.51
V	51	72	1	NO GAS	48.686	ug/l	651750.23
V	51	72	3	He	51.929	ug/l	68074.90
Cr	52	72	1	NO GAS	49.811	ug/l	620155.67
Cr	52	72	3	He	52.102	ug/l	93247.94
Cr	53	72	1	NO GAS	55.092	ug/l	137616.54
Mn	55	72	1	NO GAS	50.072	ug/l	907435.16
Mn	55	72	3	He	51.910	ug/l	45090.41
Fe	56	72	2	H2	1363.378	ug/l	1368639.13
Fe	56	72	3	He	1286.386	ug/l	2076689.98
Co	59	72	1	NO GAS	50.272	ug/l	822273.36
Ni	60	72	1	NO GAS	50.821	ug/l	183939.64
Ni	60	72	3	He	52.479	ug/l	59459.02
Ni	62	72	1	NO GAS	50.027	ug/l	28787.85
Cu	63	72	1	NO GAS	52.044	ug/l	471979.82
Cu	63	72	3	He	52.082	ug/l	176562.07
Cu	65	72	1	NO GAS	51.988	ug/l	233610.41
Zn	66	72	1	NO GAS	51.207	ug/l	153402.25
Zn	66	72	3	He	52.726	ug/l	26367.48
As	75	72	1	NO GAS	49.254	ug/l	166783.21
As	75	72	3	He	51.473	ug/l	16601.25
Se	78	72	2	H2	51.869	ug/l	5745.19
Br	79	72	1	NO GAS	-2.138	ug/l	50960.83
Br	79	72	2	H2	-1.008	ug/l	7067.54
Se	82	72	1	NO GAS	49.706	ug/l	14171.59
Kr	84	72	1	NO GAS		ug/l	16968.51
Sr	88	72	1	NO GAS	51.381	ug/l	1850338.10
Sr	88	72	3	He	52.132	ug/l	82695.21

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.703	ug/l	438019.95
Mo	95	72	3	He	54.407	ug/l	146988.75
Mo	98	72	1	NO GAS	53.230	ug/l	741125.26
Ag	107	72	1	NO GAS	20.887	ug/l	484301.27
Ag	109	72	1	NO GAS	20.392	ug/l	462998.02
Cd	111	159	1	NO GAS	47.895	ug/l	278836.36
Cd	111	159	3	He	50.056	ug/l	72724.75
Cd	114	159	1	NO GAS	49.319	ug/l	650257.62
Cd	114	159	3	He	51.439	ug/l	189770.00
Sn	118	159	1	NO GAS	50.108	ug/l	863717.19
Sn	118	159	3	He	50.381	ug/l	134637.09
Sb	121	159	1	NO GAS	50.918	ug/l	1213988.43
Sb	121	159	3	He	52.602	ug/l	180042.90
Sb	123	159	1	NO GAS	50.323	ug/l	952457.92
Sb	123	159	3	He	52.304	ug/l	148244.48
Ba	135	159	1	NO GAS	49.129	ug/l	253539.15
Ba	137	159	1	NO GAS	49.625	ug/l	438635.08
La	139	175	1	NO GAS	48.818	ug/l	3967313.03
La	139	175	3	He	50.544	ug/l	887907.78
Ce	140	175	1	NO GAS	48.839	ug/l	3906090.69
Ce	140	175	3	He	51.248	ug/l	1137923.29
Hg	201	175	1	NO GAS	0.964	ug/l	4116.74
Hg	202	175	1	NO GAS	0.963	ug/l	9558.44
Hg	202	175	3	He	1.032	ug/l	7066.24
Tl	203	175	3	He	52.454	ug/l	728816.58
Tl	205	175	1	NO GAS	49.706	ug/l	3240047.73
Tl	205	175	3	He	52.933	ug/l	1748352.75
[Pb]	206	175	1	NO GAS	50.555	ug/l	1127734.86
[Pb]	207	175	1	NO GAS	50.496	ug/l	965164.41
Pb	208	175	1	NO GAS	50.346	ug/l	4422321.44
Th	232	175	3	He	52.435	ug/l	2606366.64
U	238	175	1	NO GAS	48.661	ug/l	4918836.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1967769.73	108.7
Sc	45	2	H2	83934.99	102.0
Sc	45	3	He	51961.09	104.2
Ge	72	1	NO GAS	870598.78	105.1
Ge	72	2	H2	116439.30	99.4
Ge	72	3	He	78120.38	101.0
Tb	159	1	NO GAS	18344296.98	107.5
Tb	159	3	He	6932729.67	98.8
Ho	165	1	NO GAS	17244047.40	106.4
Ho	165	3	He	6760363.77	100.4
Lu	175	1	NO GAS	19103118.90	108.5
Lu	175	3	He	4246511.99	99.2

ICPMS206-B Analytical Data

Sample Name 100 PPB STD
File Name 013CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:29:22
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1237.556	ug/l	690838.25
Be	9	45	1	NO GAS	100.269	ug/l	29431.76
B	11	45	1	NO GAS	99.745	ug/l	22014.87
Na	23	45	3	He	25779.593	ug/l	2378231.47
Mg	24	45	3	He	25980.964	ug/l	1210980.79
Al	27	45	1	NO GAS	100.232	ug/l	325254.44
Si	28	45	2	H2	392.044	ug/l	8218.35
K	39	72	3	He	25299.724	ug/l	1063589.55
Ca	40	72	2	H2	27279.847	ug/l	5071960.84
Ti	47	72	1	NO GAS	99.111	ug/l	91414.33
V	51	72	1	NO GAS	100.645	ug/l	1381568.49
V	51	72	3	He	99.034	ug/l	135897.97
Cr	52	72	1	NO GAS	100.094	ug/l	1259092.38
Cr	52	72	3	He	98.949	ug/l	185110.98
Cr	53	72	1	NO GAS	97.457	ug/l	211858.97
Mn	55	72	1	NO GAS	99.962	ug/l	1846462.24
Mn	55	72	3	He	99.043	ug/l	90117.04
Fe	56	72	2	H2	2653.759	ug/l	2738645.97
Fe	56	72	3	He	2569.146	ug/l	4343440.12
Co	59	72	1	NO GAS	99.862	ug/l	1665388.25
Ni	60	72	1	NO GAS	99.587	ug/l	367441.50
Ni	60	72	3	He	98.758	ug/l	117187.92
Ni	62	72	1	NO GAS	99.982	ug/l	58301.78
Cu	63	72	1	NO GAS	98.974	ug/l	915242.15
Cu	63	72	3	He	98.956	ug/l	351366.29
Cu	65	72	1	NO GAS	99.002	ug/l	453694.56
Zn	66	72	1	NO GAS	99.395	ug/l	302261.46
Zn	66	72	3	He	98.638	ug/l	51421.95
As	75	72	1	NO GAS	100.372	ug/l	343299.83
As	75	72	3	He	99.262	ug/l	33532.77
Se	78	72	2	H2	99.064	ug/l	11286.58
Br	79	72	1	NO GAS	0.533	ug/l	69831.41
Br	79	72	2	H2	1.760	ug/l	9870.10
Se	82	72	1	NO GAS	100.154	ug/l	28670.07
Kr	84	72	1	NO GAS		ug/l	27705.12
Sr	88	72	1	NO GAS	99.307	ug/l	3647668.12
Sr	88	72	3	He	98.932	ug/l	164210.43

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	98.146	ug/l	816585.45
Mo	95	72	3	He	97.795	ug/l	276797.13
Mo	98	72	1	NO GAS	98.382	ug/l	1398071.72
Ag	107	72	1	NO GAS	39.555	ug/l	934114.35
Ag	109	72	1	NO GAS	39.803	ug/l	920366.49
Cd	111	159	1	NO GAS	101.051	ug/l	568330.79
Cd	111	159	3	He	99.970	ug/l	144397.39
Cd	114	159	1	NO GAS	100.338	ug/l	1277875.25
Cd	114	159	3	He	99.278	ug/l	364339.87
Sn	118	159	1	NO GAS	99.988	ug/l	1619194.09
Sn	118	159	3	He	99.848	ug/l	258821.25
Sb	121	159	1	NO GAS	99.540	ug/l	2291202.52
Sb	121	159	3	He	98.698	ug/l	335981.56
Sb	123	159	1	NO GAS	99.838	ug/l	1824477.86
Sb	123	159	3	He	98.847	ug/l	278596.77
Ba	135	159	1	NO GAS	100.435	ug/l	500441.52
Ba	137	159	1	NO GAS	100.186	ug/l	855065.89
La	139	175	1	NO GAS	100.588	ug/l	7867600.92
La	139	175	3	He	99.726	ug/l	1802547.15
Ce	140	175	1	NO GAS	100.578	ug/l	7741894.85
Ce	140	175	3	He	99.373	ug/l	2270353.16
Hg	201	175	1	NO GAS	2.018	ug/l	8278.61
Hg	202	175	1	NO GAS	2.019	ug/l	19223.62
Hg	202	175	3	He	1.984	ug/l	13947.26
Tl	203	175	3	He	98.770	ug/l	1411955.72
Tl	205	175	1	NO GAS	100.145	ug/l	6284338.73
Tl	205	175	3	He	98.530	ug/l	3348724.94
[Pb]	206	175	1	NO GAS	99.720	ug/l	2141241.05
[Pb]	207	175	1	NO GAS	99.750	ug/l	1836363.27
Pb	208	175	1	NO GAS	99.825	ug/l	8442902.55
Th	232	175	3	He	98.783	ug/l	5051747.11
U	238	175	1	NO GAS	100.668	ug/l	9796920.79

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2017741.94	111.5
Sc	45	2	H2	87822.27	106.7
Sc	45	3	He	53867.28	108.0
Ge	72	1	NO GAS	887229.50	107.1
Ge	72	2	H2	119850.80	102.3
Ge	72	3	He	81848.38	105.8
Tb	159	1	NO GAS	17700040.25	103.7
Tb	159	3	He	6896905.47	98.3
Ho	165	1	NO GAS	16706796.73	103.1
Ho	165	3	He	6655497.76	98.8
Lu	175	1	NO GAS	18396241.01	104.5
Lu	175	3	He	4369241.74	102.0

ICPMS206-B Analytical Data

Sample Name 1000 PPB STD
File Name 014CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:35:12
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2522.307	ug/l	1388842.39
Be	9	45	1	NO GAS	973.004	ug/l	284222.54
B	11	45	1	NO GAS	967.517	ug/l	211374.97
Na	23	45	3	He	49469.123	ug/l	4587837.33
Mg	24	45	3	He	49462.744	ug/l	2322153.20
Al	27	45	1	NO GAS	992.781	ug/l	3195331.13
Si	28	45	2	H2	1.486	ug/l	59.99
K	39	72	3	He	49769.075	ug/l	2094381.90
Ca	40	72	2	H2	48577.880	ug/l	9072103.89
Ti	47	72	1	NO GAS	5.870	ug/l	5206.61
V	51	72	1	NO GAS	1035.586	ug/l	13669312.56
V	51	72	3	He	950.586	ug/l	1306530.42
Cr	52	72	1	NO GAS	1029.214	ug/l	12307875.19
Cr	52	72	3	He	948.337	ug/l	1774907.16
Cr	53	72	1	NO GAS	912.446	ug/l	1522409.66
Mn	55	72	1	NO GAS	1060.731	ug/l	18777735.85
Mn	55	72	3	He	962.584	ug/l	878034.55
Fe	56	72	2	H2	5962.945	ug/l	6181761.15
Fe	56	72	3	He	6016.300	ug/l	10193287.52
Co	59	72	1	NO GAS	1028.285	ug/l	16422713.43
Ni	60	72	1	NO GAS	993.777	ug/l	3509047.57
Ni	60	72	3	He	1011.519	ug/l	1202620.09
Ni	62	72	1	NO GAS	965.200	ug/l	535650.32
Cu	63	72	1	NO GAS	967.569	ug/l	8573920.02
Cu	63	72	3	He	968.234	ug/l	3445981.02
Cu	65	72	1	NO GAS	942.036	ug/l	4136174.63
Zn	66	72	1	NO GAS	962.638	ug/l	2795070.76
Zn	66	72	3	He	971.552	ug/l	505149.21
As	75	72	1	NO GAS	975.464	ug/l	3169571.56
As	75	72	3	He	956.882	ug/l	323998.96
Se	78	72	2	H2	911.501	ug/l	104288.95
Br	79	72	1	NO GAS	0.977	ug/l	69731.60
Br	79	72	2	H2	3.514	ug/l	11554.55
Se	82	72	1	NO GAS	984.179	ug/l	266041.04
Kr	84	72	1	NO GAS		ug/l	220171.89
Sr	88	72	1	NO GAS	1017.415	ug/l	35819550.57
Sr	88	72	3	He	950.741	ug/l	1579869.53

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.069	ug/l	667.80
Mo	95	72	3	He	0.061	ug/l	203.34
Mo	98	72	1	NO GAS	0.081	ug/l	1275.63
Ag	107	72	1	NO GAS	407.784	ug/l	9219897.80
Ag	109	72	1	NO GAS	400.752	ug/l	8867049.46
Cd	111	159	1	NO GAS	990.434	ug/l	5477676.89
Cd	111	159	3	He	919.491	ug/l	1352189.73
Cd	114	159	1	NO GAS	1008.136	ug/l	12635585.41
Cd	114	159	3	He	915.750	ug/l	3420308.12
Sn	118	159	1	NO GAS	-2.643	ug/l	3080.88
Sn	118	159	3	He	-2.451	ug/l	476.68
Sb	121	159	1	NO GAS	0.124	ug/l	3042.54
Sb	121	159	3	He	0.093	ug/l	358.90
Sb	123	159	1	NO GAS	0.134	ug/l	2574.67
Sb	123	159	3	He	0.101	ug/l	315.56
Ba	135	159	1	NO GAS	928.264	ug/l	4553663.78
Ba	137	159	1	NO GAS	918.525	ug/l	7716523.77
La	139	175	1	NO GAS	0.011	ug/l	924.31
La	139	175	3	He	0.008	ug/l	136.81
Ce	140	175	1	NO GAS	0.019	ug/l	1458.24
Ce	140	175	3	He	0.024	ug/l	553.91
Hg	201	175	1	NO GAS	0.012	ug/l	63.65
Hg	202	175	1	NO GAS	0.017	ug/l	218.29
Hg	202	175	3	He	0.010	ug/l	96.31
Tl	203	175	3	He	924.927	ug/l	13099310.70
Tl	205	175	1	NO GAS	984.107	ug/l	60364646.32
Tl	205	175	3	He	940.265	ug/l	31659645.02
[Pb]	206	175	1	NO GAS	957.280	ug/l	20089174.28
[Pb]	207	175	1	NO GAS	965.386	ug/l	17363788.77
Pb	208	175	1	NO GAS	963.375	ug/l	79626606.31
Th	232	175	3	He	955.638	ug/l	48417683.52
U	238	175	1	NO GAS	983.726	ug/l	93547596.71

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2015790.65	111.4
Sc	45	2	H2	85683.62	104.1
Sc	45	3	He	54249.84	108.8
Ge	72	1	NO GAS	849970.83	102.6
Ge	72	2	H2	120272.12	102.6
Ge	72	3	He	82037.18	106.1
Tb	159	1	NO GAS	17460571.63	102.3
Tb	159	3	He	7019733.23	100.0
Ho	165	1	NO GAS	16549048.78	102.1
Ho	165	3	He	6741490.21	100.1
Lu	175	1	NO GAS	17992279.77	102.2
Lu	175	3	He	4328796.04	101.1

ICPMS206-B Analytical Data

Sample Name 100 ppb Bromine
File Name 015CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:40:51
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.342	ug/l	4307.02
Be	9	45	1	NO GAS	0.147	ug/l	46.99
B	11	45	1	NO GAS	6.119	ug/l	1415.12
Na	23	45	3	He	56.813	ug/l	12869.28
Mg	24	45	3	He	3.977	ug/l	216.24
Al	27	45	1	NO GAS	7.645	ug/l	25609.14
Si	28	45	2	H2	-0.361	ug/l	21.33
K	39	72	3	He	537.983	ug/l	24380.78
Ca	40	72	2	H2	8.743	ug/l	2154.09
Ti	47	72	1	NO GAS	0.054	ug/l	73.30
V	51	72	1	NO GAS	-0.216	ug/l	-9299.58
V	51	72	3	He	0.089	ug/l	240.00
Cr	52	72	1	NO GAS	0.055	ug/l	11511.19
Cr	52	72	3	He	0.001	ug/l	425.83
Cr	53	72	1	NO GAS	1.209	ug/l	47769.87
Mn	55	72	1	NO GAS	0.121	ug/l	2887.89
Mn	55	72	3	He	0.120	ug/l	110.34
Fe	56	72	2	H2	0.848	ug/l	1784.22
Fe	56	72	3	He	0.751	ug/l	2735.56
Co	59	72	1	NO GAS	0.082	ug/l	1380.67
Ni	60	72	1	NO GAS	0.207	ug/l	808.52
Ni	60	72	3	He	0.168	ug/l	237.78
Ni	62	72	1	NO GAS	0.144	ug/l	492.37
Cu	63	72	1	NO GAS	0.170	ug/l	1735.08
Cu	63	72	3	He	0.157	ug/l	611.22
Cu	65	72	1	NO GAS	0.169	ug/l	854.52
Zn	66	72	1	NO GAS	0.343	ug/l	2242.29
Zn	66	72	3	He	0.214	ug/l	385.56
As	75	72	1	NO GAS	0.732	ug/l	5430.68
As	75	72	3	He	0.167	ug/l	58.32
Se	78	72	2	H2	0.204	ug/l	24.00
Br	79	72	1	NO GAS	100.000	ug/l	715262.29
Br	79	72	2	H2	100.000	ug/l	101937.46
Se	82	72	1	NO GAS	2.754	ug/l	1184.44
Kr	84	72	1	NO GAS		ug/l	6644.89
Sr	88	72	1	NO GAS	0.101	ug/l	3936.03
Sr	88	72	3	He	0.084	ug/l	363.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.012	ug/l	221.12
Mo	95	72	3	He	0.013	ug/l	63.33
Mo	98	72	1	NO GAS	0.012	ug/l	340.02
Ag	107	72	1	NO GAS	0.219	ug/l	6912.78
Ag	109	72	1	NO GAS	0.224	ug/l	6657.40
Cd	111	159	1	NO GAS	0.082	ug/l	486.10
Cd	111	159	3	He	0.089	ug/l	134.64
Cd	114	159	1	NO GAS	0.096	ug/l	1023.84
Cd	114	159	3	He	0.102	ug/l	333.33
Sn	118	159	1	NO GAS	-2.525	ug/l	5127.39
Sn	118	159	3	He	-2.337	ug/l	787.80
Sb	121	159	1	NO GAS	0.021	ug/l	745.58
Sb	121	159	3	He	0.024	ug/l	121.11
Sb	123	159	1	NO GAS	0.024	ug/l	652.24
Sb	123	159	3	He	0.023	ug/l	93.34
Ba	135	159	1	NO GAS	0.118	ug/l	672.02
Ba	137	159	1	NO GAS	0.111	ug/l	1037.98
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	250.26
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.005	ug/l	36.32
Hg	202	175	1	NO GAS	0.006	ug/l	120.64
Hg	202	175	3	He	0.007	ug/l	75.65
Tl	203	175	3	He	0.135	ug/l	1873.75
Tl	205	175	1	NO GAS	0.129	ug/l	8181.15
Tl	205	175	3	He	0.141	ug/l	4669.81
[Pb]	206	175	1	NO GAS	0.103	ug/l	2267.97
[Pb]	207	175	1	NO GAS	0.104	ug/l	1963.47
Pb	208	175	1	NO GAS	0.104	ug/l	9028.92
Th	232	175	3	He	0.350	ug/l	17749.73
U	238	175	1	NO GAS	0.149	ug/l	14650.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1926955.66	106.5
Sc	45	2	H2	82441.58	100.2
Sc	45	3	He	50156.91	100.6
Ge	72	1	NO GAS	859701.74	103.8
Ge	72	2	H2	119867.64	102.3
Ge	72	3	He	78425.74	101.4
Tb	159	1	NO GAS	18281725.25	107.1
Tb	159	3	He	7176495.67	102.2
Ho	165	1	NO GAS	17209695.76	106.2
Ho	165	3	He	6788120.59	100.8
Lu	175	1	NO GAS	18497819.04	105.0
Lu	175	3	He	4206813.85	98.2

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 016BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:46:41
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.740	ug/l	2872.67
Be	9	45	1	NO GAS	0.029	ug/l	14.67
B	11	45	1	NO GAS	1.759	ug/l	535.90
Na	23	45	3	He	1.751	ug/l	8939.02
Mg	24	45	3	He	-0.310	ug/l	33.27
Al	27	45	1	NO GAS	-0.236	ug/l	1428.20
Si	28	45	2	H2	-0.007	ug/l	32.66
K	39	72	3	He	3.341	ug/l	2994.73
Ca	40	72	2	H2	1.085	ug/l	784.63
Ti	47	72	1	NO GAS	0.045	ug/l	68.30
V	51	72	1	NO GAS	-0.119	ug/l	-8307.98
V	51	72	3	He	-0.014	ug/l	107.78
Cr	52	72	1	NO GAS	-0.099	ug/l	10019.93
Cr	52	72	3	He	-0.084	ug/l	282.78
Cr	53	72	1	NO GAS	0.746	ug/l	48838.72
Mn	55	72	1	NO GAS	0.006	ug/l	864.98
Mn	55	72	3	He	0.002	ug/l	8.33
Fe	56	72	2	H2	-0.072	ug/l	904.59
Fe	56	72	3	He	0.142	ug/l	1804.78
Co	59	72	1	NO GAS	0.011	ug/l	249.51
Ni	60	72	1	NO GAS	0.010	ug/l	103.13
Ni	60	72	3	He	0.052	ug/l	108.89
Ni	62	72	1	NO GAS	0.057	ug/l	459.10
Cu	63	72	1	NO GAS	0.012	ug/l	328.61
Cu	63	72	3	He	0.007	ug/l	103.31
Cu	65	72	1	NO GAS	0.010	ug/l	153.31
Zn	66	72	1	NO GAS	-0.206	ug/l	652.01
Zn	66	72	3	He	-0.374	ug/l	96.67
As	75	72	1	NO GAS	-0.213	ug/l	2408.43
As	75	72	3	He	0.033	ug/l	15.67
Se	78	72	2	H2	0.057	ug/l	7.67
Br	79	72	1	NO GAS	0.305	ug/l	68705.81
Br	79	72	2	H2	0.686	ug/l	9550.53
Se	82	72	1	NO GAS	0.158	ug/l	487.06
Kr	84	72	1	NO GAS		ug/l	6761.36
Sr	88	72	1	NO GAS	0.007	ug/l	598.83
Sr	88	72	3	He	0.015	ug/l	262.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	196.67
Mo	95	72	3	He	0.003	ug/l	40.00
Mo	98	72	1	NO GAS	0.007	ug/l	276.67
Ag	107	72	1	NO GAS	0.008	ug/l	2193.06
Ag	109	72	1	NO GAS	0.017	ug/l	2132.06
Cd	111	159	1	NO GAS	-0.007	ug/l	-27.94
Cd	111	159	3	He	0.005	ug/l	8.67
Cd	114	159	1	NO GAS	0.007	ug/l	-149.54
Cd	114	159	3	He	0.023	ug/l	35.94
Sn	118	159	1	NO GAS	-2.669	ug/l	2811.53
Sn	118	159	3	He	-2.497	ug/l	372.23
Sb	121	159	1	NO GAS	0.008	ug/l	444.46
Sb	121	159	3	He	0.007	ug/l	62.22
Sb	123	159	1	NO GAS	0.007	ug/l	320.01
Sb	123	159	3	He	0.011	ug/l	61.11
Ba	135	159	1	NO GAS	0.002	ug/l	73.19
Ba	137	159	1	NO GAS	0.013	ug/l	169.67
La	139	175	1	NO GAS	0.002	ug/l	223.57
La	139	175	3	He	0.002	ug/l	40.04
Ce	140	175	1	NO GAS	0.005	ug/l	470.67
Ce	140	175	3	He	0.002	ug/l	53.39
Hg	201	175	1	NO GAS	0.002	ug/l	26.66
Hg	202	175	1	NO GAS	0.002	ug/l	85.31
Hg	202	175	3	He	0.002	ug/l	41.99
Tl	203	175	3	He	0.026	ug/l	381.26
Tl	205	175	1	NO GAS	0.024	ug/l	1689.00
Tl	205	175	3	He	0.027	ug/l	980.51
[Pb]	206	175	1	NO GAS	0.009	ug/l	247.78
[Pb]	207	175	1	NO GAS	0.009	ug/l	214.45
Pb	208	175	1	NO GAS	0.009	ug/l	1033.36
Th	232	175	3	He	0.068	ug/l	4075.09
U	238	175	1	NO GAS	0.018	ug/l	1973.76

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2048412.97	113.2
Sc	45	2	H2	94238.05	114.5
Sc	45	3	He	55008.67	110.3
Ge	72	1	NO GAS	892204.54	107.7
Ge	72	2	H2	129137.26	110.2
Ge	72	3	He	80839.15	104.5
Tb	159	1	NO GAS	18406788.64	107.8
Tb	159	3	He	7303174.53	104.0
Ho	165	1	NO GAS	17593797.97	108.5
Ho	165	3	He	6968551.59	103.5
Lu	175	1	NO GAS	19703261.11	111.9
Lu	175	3	He	4451289.52	103.9

ICPMS206-B Analytical Data

Sample Name QCS
File Name 017_QCS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:52:26
Sample Type QCS
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	46.755	ug/l	27849.27
Be	9	45	1	NO GAS	24.698	ug/l	6808.30
B	11	45	1	NO GAS	51.725	ug/l	10781.89
Na	23	45	3	He	2528.769	ug/l	228174.62
Mg	24	45	3	He	2484.635	ug/l	109640.64
Al	27	45	1	NO GAS	250.369	ug/l	759960.85
Si	28	45	2	H2	474.886	ug/l	9526.78
K	39	72	3	He	2503.712	ug/l	101853.02
Ca	40	72	2	H2	2592.258	ug/l	488529.94
Ti	47	72	1	NO GAS	47.297	ug/l	42036.23
V	51	72	1	NO GAS	46.421	ug/l	610274.78
V	51	72	3	He	49.674	ug/l	64503.42
Cr	52	72	1	NO GAS	50.632	ug/l	619064.02
Cr	52	72	3	He	51.224	ug/l	90770.87
Cr	53	72	1	NO GAS	49.872	ug/l	126709.08
Mn	55	72	1	NO GAS	255.688	ug/l	4550747.84
Mn	55	72	3	He	251.682	ug/l	216469.66
Fe	56	72	2	H2	258.434	ug/l	271065.68
Fe	56	72	3	He	253.128	ug/l	405753.80
Co	59	72	1	NO GAS	51.529	ug/l	827862.96
Ni	60	72	1	NO GAS	50.239	ug/l	178592.14
Ni	60	72	3	He	51.468	ug/l	57714.25
Ni	62	72	1	NO GAS	52.481	ug/l	29674.23
Cu	63	72	1	NO GAS	52.432	ug/l	467253.76
Cu	63	72	3	He	53.152	ug/l	178401.69
Cu	65	72	1	NO GAS	53.596	ug/l	236676.27
Zn	66	72	1	NO GAS	54.618	ug/l	160599.91
Zn	66	72	3	He	51.478	ug/l	25505.06
As	75	72	1	NO GAS	50.581	ug/l	168241.85
As	75	72	3	He	49.288	ug/l	15739.59
Se	78	72	2	H2	50.039	ug/l	5771.86
Br	79	72	1	NO GAS	1.222	ug/l	71759.78
Br	79	72	2	H2	2.106	ug/l	10312.81
Se	82	72	1	NO GAS	53.090	ug/l	14847.70
Kr	84	72	1	NO GAS		ug/l	17554.64
Sr	88	72	1	NO GAS	51.456	ug/l	1822542.09
Sr	88	72	3	He	52.572	ug/l	82581.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	51.030	ug/l	409137.21
Mo	95	72	3	He	50.676	ug/l	135549.01
Mo	98	72	1	NO GAS	50.202	ug/l	687390.64
Ag	107	72	1	NO GAS	27.352	ug/l	622930.92
Ag	109	72	1	NO GAS	26.938	ug/l	600780.87
Cd	111	159	1	NO GAS	25.793	ug/l	147694.17
Cd	111	159	3	He	25.266	ug/l	35876.43
Cd	114	159	1	NO GAS	26.419	ug/l	342558.23
Cd	114	159	3	He	25.516	ug/l	91998.26
Sn	118	159	1	NO GAS	49.977	ug/l	847743.45
Sn	118	159	3	He	47.885	ug/l	125442.70
Sb	121	159	1	NO GAS	47.957	ug/l	1124780.56
Sb	121	159	3	He	48.035	ug/l	160727.87
Sb	123	159	1	NO GAS	47.643	ug/l	887258.16
Sb	123	159	3	He	47.230	ug/l	130849.03
Ba	135	159	1	NO GAS	50.143	ug/l	254407.47
Ba	137	159	1	NO GAS	50.776	ug/l	441296.53
La	139	175	1	NO GAS	50.807	ug/l	3978789.25
La	139	175	3	He	52.116	ug/l	880588.68
Ce	140	175	1	NO GAS	49.910	ug/l	3845852.18
Ce	140	175	3	He	53.327	ug/l	1138957.67
Hg	201	175	1	NO GAS	1.008	ug/l	4146.08
Hg	202	175	1	NO GAS	0.979	ug/l	9364.02
Hg	202	175	3	He	1.031	ug/l	6791.17
Tl	203	175	3	He	53.078	ug/l	709365.88
Tl	205	175	1	NO GAS	51.708	ug/l	3248423.25
Tl	205	175	3	He	54.826	ug/l	1742163.01
[Pb]	206	175	1	NO GAS	51.590	ug/l	1108955.68
[Pb]	207	175	1	NO GAS	52.233	ug/l	962049.39
Pb	208	175	1	NO GAS	51.882	ug/l	4391550.99
Th	232	175	3	He	53.182	ug/l	2543304.44
U	238	175	1	NO GAS	53.531	ug/l	5214652.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1893943.88	104.7
Sc	45	2	H2	84112.60	102.2
Sc	45	3	He	50989.25	102.3
Ge	72	1	NO GAS	854748.81	103.2
Ge	72	2	H2	121316.42	103.5
Ge	72	3	He	77389.90	100.1
Tb	159	1	NO GAS	18030821.85	105.6
Tb	159	3	He	6778740.69	96.6
Ho	165	1	NO GAS	16745334.54	103.3
Ho	165	3	He	6559711.36	97.4
Lu	175	1	NO GAS	18401480.21	104.5
Lu	175	3	He	4084619.32	95.4

ICPMS206-B Analytical Data

Sample Name CCV
File Name 018_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 19:58:06
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	552.176	ug/l	313266.41
Be	9	45	1	NO GAS	49.547	ug/l	13893.06
B	11	45	1	NO GAS	51.284	ug/l	10874.59
Na	23	45	3	He	12546.525	ug/l	1140572.45
Mg	24	45	3	He	12204.282	ug/l	558501.45
Al	27	45	1	NO GAS	49.258	ug/l	153534.23
Si	28	45	2	H2	214.263	ug/l	4365.70
K	39	72	3	He	12531.121	ug/l	507987.16
Ca	40	72	2	H2	13176.927	ug/l	2457514.44
Ti	47	72	1	NO GAS	50.276	ug/l	45159.58
V	51	72	1	NO GAS	49.794	ug/l	659781.84
V	51	72	3	He	50.524	ug/l	66732.26
Cr	52	72	1	NO GAS	49.898	ug/l	615988.95
Cr	52	72	3	He	52.533	ug/l	94710.51
Cr	53	72	1	NO GAS	55.182	ug/l	136808.95
Mn	55	72	1	NO GAS	50.361	ug/l	905788.77
Mn	55	72	3	He	49.974	ug/l	43731.49
Fe	56	72	2	H2	1295.675	ug/l	1341618.29
Fe	56	72	3	He	1247.214	ug/l	2027859.86
Co	59	72	1	NO GAS	49.832	ug/l	809480.12
Ni	60	72	1	NO GAS	52.385	ug/l	188143.20
Ni	60	72	3	He	51.589	ug/l	58884.22
Ni	62	72	1	NO GAS	51.199	ug/l	29247.80
Cu	63	72	1	NO GAS	51.974	ug/l	468552.42
Cu	63	72	3	He	51.584	ug/l	176174.24
Cu	65	72	1	NO GAS	52.530	ug/l	234384.12
Zn	66	72	1	NO GAS	51.820	ug/l	154275.21
Zn	66	72	3	He	50.820	ug/l	25615.20
As	75	72	1	NO GAS	49.533	ug/l	166908.86
As	75	72	3	He	50.945	ug/l	16552.89
Se	78	72	2	H2	49.190	ug/l	5617.84
Br	79	72	1	NO GAS	-2.127	ug/l	50653.79
Br	79	72	2	H2	-0.400	ug/l	7863.00
Se	82	72	1	NO GAS	51.162	ug/l	14504.01
Kr	84	72	1	NO GAS		ug/l	16772.09
Sr	88	72	1	NO GAS	51.211	ug/l	1832831.78
Sr	88	72	3	He	50.017	ug/l	79939.88

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.620	ug/l	434129.18
Mo	95	72	3	He	53.577	ug/l	145826.12
Mo	98	72	1	NO GAS	52.912	ug/l	731167.46
Ag	107	72	1	NO GAS	20.961	ug/l	482231.91
Ag	109	72	1	NO GAS	20.528	ug/l	462806.78
Cd	111	159	1	NO GAS	49.219	ug/l	275924.77
Cd	111	159	3	He	48.965	ug/l	70183.87
Cd	114	159	1	NO GAS	51.653	ug/l	655258.52
Cd	114	159	3	He	50.339	ug/l	183191.55
Sn	118	159	1	NO GAS	52.775	ug/l	873230.90
Sn	118	159	3	He	50.545	ug/l	133255.16
Sb	121	159	1	NO GAS	53.727	ug/l	1231731.94
Sb	121	159	3	He	51.194	ug/l	172867.78
Sb	123	159	1	NO GAS	52.107	ug/l	950611.90
Sb	123	159	3	He	51.550	ug/l	144121.26
Ba	135	159	1	NO GAS	49.371	ug/l	245443.59
Ba	137	159	1	NO GAS	51.428	ug/l	438046.21
La	139	175	1	NO GAS	48.379	ug/l	3857660.68
La	139	175	3	He	50.709	ug/l	865345.30
Ce	140	175	1	NO GAS	48.457	ug/l	3786715.85
Ce	140	175	3	He	51.566	ug/l	1112279.01
Hg	201	175	1	NO GAS	0.981	ug/l	4093.41
Hg	202	175	1	NO GAS	0.954	ug/l	9276.32
Hg	202	175	3	He	1.020	ug/l	6781.84
Tl	203	175	3	He	51.477	ug/l	694835.65
Tl	205	175	1	NO GAS	47.427	ug/l	3026049.85
Tl	205	175	3	He	52.441	ug/l	1682698.15
[Pb]	206	175	1	NO GAS	49.139	ug/l	1070782.72
[Pb]	207	175	1	NO GAS	49.708	ug/l	929686.27
Pb	208	175	1	NO GAS	49.789	ug/l	4282216.68
Th	232	175	3	He	51.291	ug/l	2476820.43
U	238	175	1	NO GAS	49.034	ug/l	4870650.46

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1962943.03	108.5
Sc	45	2	H2	85104.77	103.4
Sc	45	3	He	52878.73	106.0
Ge	72	1	NO GAS	874036.05	105.5
Ge	72	2	H2	120111.76	102.5
Ge	72	3	He	78697.41	101.7
Tb	159	1	NO GAS	17963949.98	105.2
Tb	159	3	He	6841087.25	97.5
Ho	165	1	NO GAS	17221948.94	106.2
Ho	165	3	He	6524296.05	96.9
Lu	175	1	NO GAS	19133368.11	108.6
Lu	175	3	He	4125183.16	96.3

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 019BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:03:48
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.784	ug/l	2728.35
Be	9	45	1	NO GAS	0.012	ug/l	9.00
B	11	45	1	NO GAS	0.782	ug/l	299.28
Na	23	45	3	He	8.310	ug/l	9007.95
Mg	24	45	3	He	0.481	ug/l	66.53
Al	27	45	1	NO GAS	-0.332	ug/l	1054.48
Si	28	45	2	H2	-0.511	ug/l	20.00
K	39	72	3	He	5.133	ug/l	2923.60
Ca	40	72	2	H2	1.052	ug/l	744.65
Ti	47	72	1	NO GAS	-0.007	ug/l	18.32
V	51	72	1	NO GAS	-0.175	ug/l	-8440.78
V	51	72	3	He	0.009	ug/l	132.22
Cr	52	72	1	NO GAS	-0.078	ug/l	9657.05
Cr	52	72	3	He	-0.129	ug/l	189.63
Cr	53	72	1	NO GAS	3.626	ug/l	50423.52
Mn	55	72	1	NO GAS	0.011	ug/l	898.25
Mn	55	72	3	He	0.005	ug/l	10.67
Fe	56	72	2	H2	-0.178	ug/l	752.98
Fe	56	72	3	He	-0.161	ug/l	1237.78
Co	59	72	1	NO GAS	0.009	ug/l	202.94
Ni	60	72	1	NO GAS	0.006	ug/l	83.17
Ni	60	72	3	He	-0.013	ug/l	32.22
Ni	62	72	1	NO GAS	-0.113	ug/l	339.33
Cu	63	72	1	NO GAS	0.018	ug/l	364.60
Cu	63	72	3	He	0.018	ug/l	136.31
Cu	65	72	1	NO GAS	0.012	ug/l	152.64
Zn	66	72	1	NO GAS	-0.275	ug/l	412.47
Zn	66	72	3	He	-0.337	ug/l	110.00
As	75	72	1	NO GAS	-0.192	ug/l	2311.24
As	75	72	3	He	0.019	ug/l	10.33
Se	78	72	2	H2	0.025	ug/l	3.67
Br	79	72	1	NO GAS	-0.712	ug/l	58093.80
Br	79	72	2	H2	0.146	ug/l	8628.55
Se	82	72	1	NO GAS	-0.559	ug/l	264.82
Kr	84	72	1	NO GAS		ug/l	5826.20
Sr	88	72	1	NO GAS	0.006	ug/l	522.31
Sr	88	72	3	He	0.032	ug/l	275.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.014	ug/l	232.22
Mo	95	72	3	He	0.019	ug/l	78.89
Mo	98	72	1	NO GAS	0.014	ug/l	359.39
Ag	107	72	1	NO GAS	0.008	ug/l	2049.73
Ag	109	72	1	NO GAS	0.015	ug/l	1951.07
Cd	111	159	1	NO GAS	0.003	ug/l	28.33
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.018	ug/l	-11.84
Cd	114	159	3	He	0.018	ug/l	12.33
Sn	118	159	1	NO GAS	-2.689	ug/l	2395.45
Sn	118	159	3	He	-2.466	ug/l	432.23
Sb	121	159	1	NO GAS	0.011	ug/l	492.23
Sb	121	159	3	He	0.013	ug/l	78.89
Sb	123	159	1	NO GAS	0.013	ug/l	418.90
Sb	123	159	3	He	0.015	ug/l	68.89
Ba	135	159	1	NO GAS	0.000	ug/l	63.21
Ba	137	159	1	NO GAS	0.009	ug/l	136.40
La	139	175	1	NO GAS	0.002	ug/l	196.87
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.002	ug/l	236.91
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.005	ug/l	38.99
Hg	202	175	1	NO GAS	0.006	ug/l	117.31
Hg	202	175	3	He	0.005	ug/l	62.66
Tl	203	175	3	He	0.093	ug/l	1275.14
Tl	205	175	1	NO GAS	0.088	ug/l	5602.21
Tl	205	175	3	He	0.094	ug/l	3089.05
[Pb]	206	175	1	NO GAS	0.006	ug/l	186.67
[Pb]	207	175	1	NO GAS	0.008	ug/l	177.78
Pb	208	175	1	NO GAS	0.007	ug/l	794.46
Th	232	175	3	He	0.086	ug/l	4702.49
U	238	175	1	NO GAS	0.012	ug/l	1224.47

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1918625.79	106.0
Sc	45	2	H2	88156.88	107.1
Sc	45	3	He	51819.66	103.9
Ge	72	1	NO GAS	838096.52	101.2
Ge	72	2	H2	123707.65	105.6
Ge	72	3	He	77048.03	99.6
Tb	159	1	NO GAS	17770549.09	104.1
Tb	159	3	He	6923291.33	98.6
Ho	165	1	NO GAS	16531901.11	102.0
Ho	165	3	He	6634960.15	98.5
Lu	175	1	NO GAS	18559410.84	105.4
Lu	175	3	He	4183380.73	97.7

ICPMS206-B Analytical Data

Sample Name 10 PPB STD
File Name 020CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:09:33
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	120.600	ug/l	71075.39
Be	9	45	1	NO GAS	10.988	ug/l	3042.33
B	11	45	1	NO GAS	11.659	ug/l	2542.36
Na	23	45	3	He	2828.432	ug/l	251976.02
Mg	24	45	3	He	2857.713	ug/l	124990.95
Al	27	45	1	NO GAS	10.159	ug/l	32881.66
Si	28	45	2	H2	50.020	ug/l	863.85
K	39	72	3	He	2781.899	ug/l	114997.75
Ca	40	72	2	H2	3124.234	ug/l	506503.01
Ti	47	72	1	NO GAS	10.276	ug/l	9117.98
V	51	72	1	NO GAS	10.104	ug/l	127525.13
V	51	72	3	He	10.838	ug/l	14435.20
Cr	52	72	1	NO GAS	10.689	ug/l	138998.36
Cr	52	72	3	He	11.016	ug/l	20232.18
Cr	53	72	1	NO GAS	15.159	ug/l	70086.48
Mn	55	72	1	NO GAS	11.587	ug/l	206412.61
Mn	55	72	3	He	10.985	ug/l	9631.37
Fe	56	72	2	H2	334.771	ug/l	302676.19
Fe	56	72	3	He	283.859	ug/l	463275.47
Co	59	72	1	NO GAS	11.429	ug/l	183329.92
Ni	60	72	1	NO GAS	11.382	ug/l	40458.69
Ni	60	72	3	He	11.678	ug/l	13385.44
Ni	62	72	1	NO GAS	11.685	ug/l	6911.11
Cu	63	72	1	NO GAS	12.124	ug/l	108054.93
Cu	63	72	3	He	11.582	ug/l	39685.24
Cu	65	72	1	NO GAS	12.090	ug/l	53400.64
Zn	66	72	1	NO GAS	11.348	ug/l	34248.94
Zn	66	72	3	He	10.648	ug/l	5594.31
As	75	72	1	NO GAS	11.033	ug/l	38928.17
As	75	72	3	He	10.621	ug/l	3457.68
Se	78	72	2	H2	12.124	ug/l	1207.14
Br	79	72	1	NO GAS	0.475	ug/l	66678.08
Br	79	72	2	H2	2.830	ug/l	9520.70
Se	82	72	1	NO GAS	10.911	ug/l	3385.19
Kr	84	72	1	NO GAS		ug/l	9044.63
Sr	88	72	1	NO GAS	11.899	ug/l	420894.85
Sr	88	72	3	He	11.265	ug/l	18213.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.335	ug/l	90827.80
Mo	95	72	3	He	11.178	ug/l	30484.99
Mo	98	72	1	NO GAS	11.653	ug/l	159286.61
Ag	107	72	1	NO GAS	4.728	ug/l	109046.10
Ag	109	72	1	NO GAS	4.645	ug/l	104778.25
Cd	111	159	1	NO GAS	10.512	ug/l	62346.58
Cd	111	159	3	He	11.089	ug/l	15692.48
Cd	114	159	1	NO GAS	10.478	ug/l	140466.50
Cd	114	159	3	He	11.227	ug/l	40305.63
Sn	118	159	1	NO GAS	8.512	ug/l	188195.87
Sn	118	159	3	He	9.140	ug/l	29091.88
Sb	121	159	1	NO GAS	10.514	ug/l	255614.55
Sb	121	159	3	He	10.804	ug/l	36040.38
Sb	123	159	1	NO GAS	10.472	ug/l	201958.93
Sb	123	159	3	He	10.821	ug/l	29871.17
Ba	135	159	1	NO GAS	10.480	ug/l	55139.75
Ba	137	159	1	NO GAS	10.465	ug/l	94248.17
La	139	175	1	NO GAS	10.844	ug/l	873026.51
La	139	175	3	He	11.495	ug/l	197531.22
Ce	140	175	1	NO GAS	11.302	ug/l	895585.39
Ce	140	175	3	He	11.658	ug/l	253468.24
Hg	201	175	1	NO GAS	0.215	ug/l	923.85
Hg	202	175	1	NO GAS	0.209	ug/l	2108.73
Hg	202	175	3	He	0.230	ug/l	1565.11
Tl	203	175	3	He	11.675	ug/l	158797.98
Tl	205	175	1	NO GAS	11.076	ug/l	715333.18
Tl	205	175	3	He	11.869	ug/l	383959.46
[Pb]	206	175	1	NO GAS	11.092	ug/l	245198.97
[Pb]	207	175	1	NO GAS	10.909	ug/l	206557.02
Pb	208	175	1	NO GAS	11.170	ug/l	972187.62
Th	232	175	3	He	11.045	ug/l	537605.85
U	238	175	1	NO GAS	10.946	ug/l	1096074.25

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1898811.96	104.9
Sc	45	2	H2	70939.94	86.2
Sc	45	3	He	50515.29	101.3
Ge	72	1	NO GAS	852556.19	102.9
Ge	72	2	H2	105282.27	89.8
Ge	72	3	He	78747.39	101.8
Tb	159	1	NO GAS	18662616.12	109.3
Tb	159	3	He	6746220.67	96.1
Ho	165	1	NO GAS	17239422.77	106.4
Ho	165	3	He	6621925.97	98.3
Lu	175	1	NO GAS	18902302.68	107.3
Lu	175	3	He	4152479.89	97.0

ICPMS206-B Analytical Data

Sample Name QCS
File Name 021_QCS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:15:24
Sample Type QCS
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	42.392	ug/l	26101.52
Be	9	45	1	NO GAS	24.815	ug/l	6367.22
B	11	45	1	NO GAS	52.423	ug/l	10176.30
Na	23	45	3	He	2493.114	ug/l	219879.55
Mg	24	45	3	He	2482.488	ug/l	107121.89
Al	27	45	1	NO GAS	252.852	ug/l	714386.95
Si	28	45	2	H2	461.328	ug/l	8877.90
K	39	72	3	He	2437.855	ug/l	97756.84
Ca	40	72	2	H2	2585.630	ug/l	462949.29
Ti	47	72	1	NO GAS	44.901	ug/l	39329.73
V	51	72	1	NO GAS	47.509	ug/l	615193.23
V	51	72	3	He	49.634	ug/l	63468.72
Cr	52	72	1	NO GAS	49.387	ug/l	595301.04
Cr	52	72	3	He	49.724	ug/l	86801.12
Cr	53	72	1	NO GAS	48.978	ug/l	123710.31
Mn	55	72	1	NO GAS	251.103	ug/l	4407321.77
Mn	55	72	3	He	245.287	ug/l	207763.55
Fe	56	72	2	H2	265.044	ug/l	264143.20
Fe	56	72	3	He	241.036	ug/l	380322.29
Co	59	72	1	NO GAS	49.426	ug/l	783277.38
Ni	60	72	1	NO GAS	51.828	ug/l	181724.22
Ni	60	72	3	He	50.732	ug/l	56086.79
Ni	62	72	1	NO GAS	49.527	ug/l	27641.75
Cu	63	72	1	NO GAS	51.886	ug/l	456291.34
Cu	63	72	3	He	51.974	ug/l	171926.69
Cu	65	72	1	NO GAS	52.396	ug/l	228298.68
Zn	66	72	1	NO GAS	52.038	ug/l	150975.11
Zn	66	72	3	He	52.554	ug/l	25625.26
As	75	72	1	NO GAS	49.363	ug/l	161913.54
As	75	72	3	He	48.703	ug/l	15311.95
Se	78	72	2	H2	49.127	ug/l	5394.14
Br	79	72	1	NO GAS	1.227	ug/l	70719.99
Br	79	72	2	H2	1.728	ug/l	9460.69
Se	82	72	1	NO GAS	52.727	ug/l	14539.17
Kr	84	72	1	NO GAS		ug/l	17098.39
Sr	88	72	1	NO GAS	51.925	ug/l	1813731.96
Sr	88	72	3	He	51.112	ug/l	79108.92

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.074	ug/l	395875.14
Mo	95	72	3	He	50.487	ug/l	133042.93
Mo	98	72	1	NO GAS	49.339	ug/l	666269.94
Ag	107	72	1	NO GAS	26.670	ug/l	599167.35
Ag	109	72	1	NO GAS	26.446	ug/l	581747.70
Cd	111	159	1	NO GAS	24.339	ug/l	143160.71
Cd	111	159	3	He	24.256	ug/l	34573.87
Cd	114	159	1	NO GAS	24.592	ug/l	327680.81
Cd	114	159	3	He	24.941	ug/l	90229.27
Sn	118	159	1	NO GAS	46.552	ug/l	812594.24
Sn	118	159	3	He	47.120	ug/l	123737.39
Sb	121	159	1	NO GAS	45.842	ug/l	1104345.87
Sb	121	159	3	He	46.342	ug/l	155488.77
Sb	123	159	1	NO GAS	44.778	ug/l	856209.17
Sb	123	159	3	He	47.545	ug/l	132152.61
Ba	135	159	1	NO GAS	46.114	ug/l	240369.01
Ba	137	159	1	NO GAS	47.657	ug/l	425634.30
La	139	175	1	NO GAS	48.964	ug/l	3931430.85
La	139	175	3	He	51.315	ug/l	862864.44
Ce	140	175	1	NO GAS	49.985	ug/l	3950405.11
Ce	140	175	3	He	52.509	ug/l	1116139.33
Hg	201	175	1	NO GAS	0.952	ug/l	4019.07
Hg	202	175	1	NO GAS	0.949	ug/l	9305.99
Hg	202	175	3	He	1.009	ug/l	6612.80
Tl	203	175	3	He	52.082	ug/l	692810.64
Tl	205	175	1	NO GAS	49.981	ug/l	3220611.20
Tl	205	175	3	He	53.587	ug/l	1694368.01
[Pb]	206	175	1	NO GAS	49.309	ug/l	1087184.31
[Pb]	207	175	1	NO GAS	50.363	ug/l	951011.22
Pb	208	175	1	NO GAS	49.968	ug/l	4337469.32
Th	232	175	3	He	52.050	ug/l	2475423.00
U	238	175	1	NO GAS	50.906	ug/l	5084232.28

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1764413.54	97.5
Sc	45	2	H2	80536.54	97.9
Sc	45	3	He	49818.83	99.9
Ge	72	1	NO GAS	842015.11	101.6
Ge	72	2	H2	115226.65	98.3
Ge	72	3	He	76124.86	98.4
Tb	159	1	NO GAS	18515138.44	108.5
Tb	159	3	He	6796154.09	96.8
Ho	165	1	NO GAS	17194113.71	106.1
Ho	165	3	He	6679617.09	99.2
Lu	175	1	NO GAS	18863066.78	107.1
Lu	175	3	He	4061689.93	94.8

ICPMS206-B Analytical Data

Sample Name CCV
File Name 022_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:21:07
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	571.526	ug/l	344467.84
Be	9	45	1	NO GAS	50.317	ug/l	15478.71
B	11	45	1	NO GAS	52.941	ug/l	12313.26
Na	23	45	3	He	12892.051	ug/l	1255500.27
Mg	24	45	3	He	12742.335	ug/l	624648.36
Al	27	45	1	NO GAS	49.341	ug/l	168562.76
Si	28	45	2	H2	207.950	ug/l	4759.73
K	39	72	3	He	12960.368	ug/l	554569.05
Ca	40	72	2	H2	13947.444	ug/l	2798327.72
Ti	47	72	1	NO GAS	52.334	ug/l	49809.82
V	51	72	1	NO GAS	50.187	ug/l	708353.75
V	51	72	3	He	51.130	ug/l	71342.40
Cr	52	72	1	NO GAS	51.221	ug/l	671930.83
Cr	52	72	3	He	51.572	ug/l	98256.45
Cr	53	72	1	NO GAS	57.368	ug/l	149240.27
Mn	55	72	1	NO GAS	52.080	ug/l	994518.54
Mn	55	72	3	He	50.461	ug/l	46650.76
Fe	56	72	2	H2	1290.262	ug/l	1438555.52
Fe	56	72	3	He	1275.201	ug/l	2189523.06
Co	59	72	1	NO GAS	52.569	ug/l	905198.05
Ni	60	72	1	NO GAS	53.497	ug/l	203889.51
Ni	60	72	3	He	51.606	ug/l	62271.19
Ni	62	72	1	NO GAS	50.756	ug/l	30827.40
Cu	63	72	1	NO GAS	53.495	ug/l	511500.46
Cu	63	72	3	He	51.664	ug/l	186507.78
Cu	65	72	1	NO GAS	53.491	ug/l	253506.08
Zn	66	72	1	NO GAS	52.292	ug/l	165069.55
Zn	66	72	3	He	50.474	ug/l	26874.88
As	75	72	1	NO GAS	49.894	ug/l	177841.26
As	75	72	3	He	50.317	ug/l	17266.44
Se	78	72	2	H2	49.168	ug/l	6055.57
Br	79	72	1	NO GAS	-2.164	ug/l	53403.43
Br	79	72	2	H2	-1.387	ug/l	7463.63
Se	82	72	1	NO GAS	51.645	ug/l	15518.92
Kr	84	72	1	NO GAS		ug/l	18323.91
Sr	88	72	1	NO GAS	51.718	ug/l	1966166.30
Sr	88	72	3	He	50.876	ug/l	85933.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.282	ug/l	458431.62
Mo	95	72	3	He	53.593	ug/l	154146.98
Mo	98	72	1	NO GAS	53.095	ug/l	780244.30
Ag	107	72	1	NO GAS	20.904	ug/l	511871.06
Ag	109	72	1	NO GAS	20.907	ug/l	500739.37
Cd	111	159	1	NO GAS	50.539	ug/l	307120.88
Cd	111	159	3	He	48.921	ug/l	74665.05
Cd	114	159	1	NO GAS	50.897	ug/l	700649.15
Cd	114	159	3	He	49.421	ug/l	191556.96
Sn	118	159	1	NO GAS	52.072	ug/l	933999.18
Sn	118	159	3	He	50.018	ug/l	140284.34
Sb	121	159	1	NO GAS	52.375	ug/l	1302985.59
Sb	121	159	3	He	50.692	ug/l	182219.26
Sb	123	159	1	NO GAS	52.133	ug/l	1029094.93
Sb	123	159	3	He	50.269	ug/l	149668.59
Ba	135	159	1	NO GAS	50.017	ug/l	269312.57
Ba	137	159	1	NO GAS	50.080	ug/l	461005.06
La	139	175	1	NO GAS	49.448	ug/l	4140064.87
La	139	175	3	He	49.954	ug/l	917257.41
Ce	140	175	1	NO GAS	51.524	ug/l	4249099.63
Ce	140	175	3	He	50.939	ug/l	1182203.93
Hg	201	175	1	NO GAS	0.982	ug/l	4319.76
Hg	202	175	1	NO GAS	0.977	ug/l	9983.95
Hg	202	175	3	He	0.980	ug/l	7011.22
Tl	203	175	3	He	50.626	ug/l	735358.48
Tl	205	175	1	NO GAS	48.136	ug/l	3237878.04
Tl	205	175	3	He	51.709	ug/l	1785817.40
[Pb]	206	175	1	NO GAS	49.617	ug/l	1143009.41
[Pb]	207	175	1	NO GAS	50.256	ug/l	990629.06
Pb	208	175	1	NO GAS	50.296	ug/l	4556686.10
Th	232	175	3	He	51.659	ug/l	2682925.74
U	238	175	1	NO GAS	49.567	ug/l	5168540.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2113990.48	116.8
Sc	45	2	H2	95508.10	116.1
Sc	45	3	He	56636.20	113.6
Ge	72	1	NO GAS	919172.85	110.9
Ge	72	2	H2	129234.81	110.3
Ge	72	3	He	83077.74	107.4
Tb	159	1	NO GAS	19331595.49	113.3
Tb	159	3	He	7283276.87	103.8
Ho	165	1	NO GAS	18121253.22	111.8
Ho	165	3	He	7051506.78	104.7
Lu	175	1	NO GAS	19857092.85	112.7
Lu	175	3	He	4433151.95	103.5

ICPMS206-B Analytical Data

Sample Name CCB
File Name 023_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:26:51
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.829	ug/l	2634.35
Be	9	45	1	NO GAS	-0.003	ug/l	6.00
B	11	45	1	NO GAS	0.622	ug/l	324.61
Na	23	45	3	He	-12.515	ug/l	8114.17
Mg	24	45	3	He	-0.744	ug/l	13.31
Al	27	45	1	NO GAS	-0.462	ug/l	800.02
Si	28	45	2	H2	-0.643	ug/l	20.00
K	39	72	3	He	-7.135	ug/l	2795.81
Ca	40	72	2	H2	0.358	ug/l	694.68
Ti	47	72	1	NO GAS	0.038	ug/l	71.63
V	51	72	1	NO GAS	-0.473	ug/l	-15320.27
V	51	72	3	He	0.003	ug/l	143.34
Cr	52	72	1	NO GAS	-0.097	ug/l	11584.40
Cr	52	72	3	He	-0.128	ug/l	219.57
Cr	53	72	1	NO GAS	4.102	ug/l	62918.20
Mn	55	72	1	NO GAS	-0.004	ug/l	781.81
Mn	55	72	3	He	-0.004	ug/l	3.00
Fe	56	72	2	H2	-0.520	ug/l	439.79
Fe	56	72	3	He	-0.449	ug/l	892.92
Co	59	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	1	NO GAS	0.007	ug/l	109.78
Ni	60	72	3	He	-0.026	ug/l	20.00
Ni	62	72	1	NO GAS	0.057	ug/l	528.96
Cu	63	72	1	NO GAS	0.029	ug/l	561.23
Cu	63	72	3	He	0.037	ug/l	228.96
Cu	65	72	1	NO GAS	0.029	ug/l	279.28
Zn	66	72	1	NO GAS	-0.302	ug/l	409.16
Zn	66	72	3	He	-0.198	ug/l	203.34
As	75	72	1	NO GAS	-0.092	ug/l	3220.95
As	75	72	3	He	0.016	ug/l	10.67
Se	78	72	2	H2	0.047	ug/l	7.00
Br	79	72	1	NO GAS	-0.792	ug/l	70776.68
Br	79	72	2	H2	0.412	ug/l	10043.18
Se	82	72	1	NO GAS	-0.689	ug/l	278.12
Kr	84	72	1	NO GAS		ug/l	7293.87
Sr	88	72	1	NO GAS	0.000	ug/l	399.21
Sr	88	72	3	He	-0.011	ug/l	240.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.005	ug/l	193.34
Mo	95	72	3	He	0.010	ug/l	64.44
Mo	98	72	1	NO GAS	0.007	ug/l	324.18
Ag	107	72	1	NO GAS	0.003	ug/l	2382.38
Ag	109	72	1	NO GAS	0.011	ug/l	2299.72
Cd	111	159	1	NO GAS	-0.011	ug/l	-64.78
Cd	111	159	3	He	0.001	ug/l	3.33
Cd	114	159	1	NO GAS	-0.009	ug/l	-437.40
Cd	114	159	3	He	0.006	ug/l	-35.08
Sn	118	159	1	NO GAS	-0.401	ug/l	48453.74
Sn	118	159	3	He	-0.043	ug/l	7446.21
Sb	121	159	1	NO GAS	0.009	ug/l	576.68
Sb	121	159	3	He	0.004	ug/l	57.78
Sb	123	159	1	NO GAS	0.006	ug/l	371.12
Sb	123	159	3	He	0.017	ug/l	82.22
Ba	135	159	1	NO GAS	-0.005	ug/l	46.57
Ba	137	159	1	NO GAS	-0.002	ug/l	53.23
La	139	175	1	NO GAS	0.000	ug/l	80.08
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	73.41
Ce	140	175	3	He	0.001	ug/l	26.69
Hg	201	175	1	NO GAS	0.008	ug/l	58.66
Hg	202	175	1	NO GAS	0.008	ug/l	164.30
Hg	202	175	3	He	0.006	ug/l	74.99
Tl	203	175	3	He	0.100	ug/l	1599.77
Tl	205	175	1	NO GAS	0.089	ug/l	6804.94
Tl	205	175	3	He	0.099	ug/l	3811.07
[Pb]	206	175	1	NO GAS	0.002	ug/l	102.22
[Pb]	207	175	1	NO GAS	0.002	ug/l	85.55
Pb	208	175	1	NO GAS	0.002	ug/l	390.00
Th	232	175	3	He	0.086	ug/l	5494.61
U	238	175	1	NO GAS	0.005	ug/l	745.54

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2346679.85	129.7
Sc	45	2	H2	101933.06	123.9
Sc	45	3	He	58670.68	117.7
Ge	72	1	NO GAS	1032209.81	124.6
Ge	72	2	H2	140013.06	119.5
Ge	72	3	He	88317.36	114.2
Tb	159	1	NO GAS	22429169.42	131.4
Tb	159	3	He	7839893.05	111.7
Ho	165	1	NO GAS	19916524.36	122.9
Ho	165	3	He	7540776.55	112.0
Lu	175	1	NO GAS	22422013.93	127.3
Lu	175	3	He	4864259.56	113.6

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 024CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 20:32:37
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.033	ug/l	2985.01
Be	9	45	1	NO GAS	0.135	ug/l	41.99
B	11	45	1	NO GAS	0.531	ug/l	239.29
Na	23	45	3	He	29.227	ug/l	10514.35
Mg	24	45	3	He	28.662	ug/l	1287.50
Al	27	45	1	NO GAS	-0.280	ug/l	1178.94
Si	28	45	2	H2	0.327	ug/l	34.66
K	39	72	3	He	29.728	ug/l	3868.24
Ca	40	72	2	H2	31.510	ug/l	6151.46
Ti	47	72	1	NO GAS	0.160	ug/l	164.92
V	51	72	1	NO GAS	-0.121	ug/l	-7831.13
V	51	72	3	He	0.114	ug/l	265.56
Cr	52	72	1	NO GAS	0.104	ug/l	11890.73
Cr	52	72	3	He	0.011	ug/l	432.49
Cr	53	72	1	NO GAS	3.448	ug/l	50554.18
Mn	55	72	1	NO GAS	0.134	ug/l	3074.21
Mn	55	72	3	He	0.102	ug/l	92.68
Fe	56	72	2	H2	2.772	ug/l	3638.63
Fe	56	72	3	He	2.619	ug/l	5619.87
Co	59	72	1	NO GAS	0.111	ug/l	1829.82
Ni	60	72	1	NO GAS	0.131	ug/l	522.31
Ni	60	72	3	He	0.121	ug/l	180.01
Ni	62	72	1	NO GAS	0.179	ug/l	502.35
Cu	63	72	1	NO GAS	0.149	ug/l	1519.11
Cu	63	72	3	He	0.141	ug/l	543.90
Cu	65	72	1	NO GAS	0.148	ug/l	749.87
Zn	66	72	1	NO GAS	-0.195	ug/l	645.31
Zn	66	72	3	He	-0.246	ug/l	153.34
As	75	72	1	NO GAS	0.082	ug/l	3222.30
As	75	72	3	He	0.118	ug/l	41.66
Se	78	72	2	H2	0.109	ug/l	12.67
Br	79	72	1	NO GAS	0.395	ug/l	65629.79
Br	79	72	2	H2	1.050	ug/l	8871.50
Se	82	72	1	NO GAS	-0.332	ug/l	326.70
Kr	84	72	1	NO GAS		ug/l	7656.66
Sr	88	72	1	NO GAS	0.123	ug/l	4628.19
Sr	88	72	3	He	0.137	ug/l	438.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.122	ug/l	1087.82
Mo	95	72	3	He	0.110	ug/l	321.12
Mo	98	72	1	NO GAS	0.123	ug/l	1837.01
Ag	107	72	1	NO GAS	0.051	ug/l	3031.03
Ag	109	72	1	NO GAS	0.055	ug/l	2840.36
Cd	111	159	1	NO GAS	0.102	ug/l	610.64
Cd	111	159	3	He	0.115	ug/l	164.64
Cd	114	159	1	NO GAS	0.119	ug/l	1339.81
Cd	114	159	3	He	0.134	ug/l	432.80
Sn	118	159	1	NO GAS	-2.552	ug/l	4784.61
Sn	118	159	3	He	-2.362	ug/l	683.35
Sb	121	159	1	NO GAS	0.113	ug/l	2961.42
Sb	121	159	3	He	0.129	ug/l	467.79
Sb	123	159	1	NO GAS	0.107	ug/l	2232.39
Sb	123	159	3	He	0.124	ug/l	370.01
Ba	135	159	1	NO GAS	0.092	ug/l	538.94
Ba	137	159	1	NO GAS	0.117	ug/l	1104.53
La	139	175	1	NO GAS	0.120	ug/l	9572.71
La	139	175	3	He	0.111	ug/l	1898.73
Ce	140	175	1	NO GAS	0.123	ug/l	9642.85
Ce	140	175	3	He	0.121	ug/l	2626.27
Hg	201	175	1	NO GAS	0.004	ug/l	34.99
Hg	202	175	1	NO GAS	0.005	ug/l	115.65
Hg	202	175	3	He	0.007	ug/l	72.32
Tl	203	175	3	He	0.160	ug/l	2181.73
Tl	205	175	1	NO GAS	0.145	ug/l	9252.90
Tl	205	175	3	He	0.158	ug/l	5128.54
[Pb]	206	175	1	NO GAS	0.118	ug/l	2598.02
[Pb]	207	175	1	NO GAS	0.115	ug/l	2157.95
Pb	208	175	1	NO GAS	0.118	ug/l	10207.02
Th	232	175	3	He	0.137	ug/l	7132.98
U	238	175	1	NO GAS	0.116	ug/l	11479.49

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1860198.96	102.8
Sc	45	2	H2	81202.24	98.7
Sc	45	3	He	50190.66	100.7
Ge	72	1	NO GAS	844499.83	101.9
Ge	72	2	H2	115530.31	98.6
Ge	72	3	He	76548.37	99.0
Tb	159	1	NO GAS	18435820.17	108.0
Tb	159	3	He	6763079.61	96.3
Ho	165	1	NO GAS	17245720.32	106.4
Ho	165	3	He	6438092.50	95.6
Lu	175	1	NO GAS	18540965.31	105.3
Lu	175	3	He	4135947.68	96.6

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 025BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:19:02
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 005CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.025	ug/l	1892.40
Be	9	45	1	NO GAS	0.008	ug/l	7.67
B	11	45	1	NO GAS	0.132	ug/l	157.97
Na	23	45	3	He	-17.308	ug/l	6466.80
Mg	24	45	3	He	-0.626	ug/l	16.63
Al	27	45	1	NO GAS	-0.459	ug/l	638.91
Si	28	45	2	H2	-0.271	ug/l	23.99
K	39	72	3	He	-0.314	ug/l	2642.45
Ca	40	72	2	H2	0.424	ug/l	586.39
Ti	47	72	1	NO GAS	0.003	ug/l	26.65
V	51	72	1	NO GAS	-0.135	ug/l	-7790.97
V	51	72	3	He	-0.012	ug/l	102.22
Cr	52	72	1	NO GAS	-0.103	ug/l	9171.04
Cr	52	72	3	He	-0.154	ug/l	143.05
Cr	53	72	1	NO GAS	1.106	ug/l	45484.35
Mn	55	72	1	NO GAS	-0.006	ug/l	592.18
Mn	55	72	3	He	-0.001	ug/l	4.67
Fe	56	72	2	H2	-0.526	ug/l	358.16
Fe	56	72	3	He	-0.524	ug/l	643.03
Co	59	72	1	NO GAS	-0.001	ug/l	46.57
Ni	60	72	1	NO GAS	0.550	ug/l	1944.03
Ni	60	72	3	He	-0.019	ug/l	24.45
Ni	62	72	1	NO GAS	-0.050	ug/l	365.95
Cu	63	72	1	NO GAS	0.020	ug/l	370.60
Cu	63	72	3	He	0.020	ug/l	139.30
Cu	65	72	1	NO GAS	0.013	ug/l	156.64
Zn	66	72	1	NO GAS	-0.267	ug/l	425.79
Zn	66	72	3	He	-0.436	ug/l	60.00
As	75	72	1	NO GAS	0.279	ug/l	3744.50
As	75	72	3	He	0.010	ug/l	7.33
Se	78	72	2	H2	0.018	ug/l	2.67
Br	79	72	1	NO GAS	-0.182	ug/l	60219.80
Br	79	72	2	H2	0.740	ug/l	8608.57
Se	82	72	1	NO GAS	0.066	ug/l	419.20
Kr	84	72	1	NO GAS		ug/l	7223.97
Sr	88	72	1	NO GAS	0.000	ug/l	329.35
Sr	88	72	3	He	0.007	ug/l	232.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	-0.006	ug/l	71.11
Mo	95	72	3	He	0.002	ug/l	32.22
Mo	98	72	1	NO GAS	-0.003	ug/l	121.95
Ag	107	72	1	NO GAS	-0.006	ug/l	1707.76
Ag	109	72	1	NO GAS	0.003	ug/l	1664.43
Cd	111	159	1	NO GAS	-0.012	ug/l	-60.92
Cd	111	159	3	He	-0.001	ug/l	0.00
Cd	114	159	1	NO GAS	-0.011	ug/l	-384.83
Cd	114	159	3	He	0.005	ug/l	-33.63
Sn	118	159	1	NO GAS	-0.290	ug/l	41874.83
Sn	118	159	3	He	-0.094	ug/l	6355.74
Sb	121	159	1	NO GAS	-0.002	ug/l	204.45
Sb	121	159	3	He	-0.004	ug/l	23.33
Sb	123	159	1	NO GAS	-0.002	ug/l	155.56
Sb	123	159	3	He	-0.003	ug/l	18.89
Ba	135	159	1	NO GAS	-0.009	ug/l	19.96
Ba	137	159	1	NO GAS	-0.002	ug/l	39.92
La	139	175	1	NO GAS	0.000	ug/l	50.05
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.071	ug/l	6122.92
Ce	140	175	3	He	0.001	ug/l	23.36
Hg	201	175	1	NO GAS	0.000	ug/l	16.67
Hg	202	175	1	NO GAS	0.000	ug/l	67.99
Hg	202	175	3	He	0.001	ug/l	32.99
Tl	203	175	3	He	0.004	ug/l	61.32
Tl	205	175	1	NO GAS	0.003	ug/l	231.12
Tl	205	175	3	He	0.003	ug/l	151.97
[Pb]	206	175	1	NO GAS	0.000	ug/l	52.22
[Pb]	207	175	1	NO GAS	0.000	ug/l	37.78
Pb	208	175	1	NO GAS	0.000	ug/l	202.22
Th	232	175	3	He	0.004	ug/l	705.21
U	238	175	1	NO GAS	0.000	ug/l	75.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1845092.67	102.0
Sc	45	2	H2	84313.12	102.5
Sc	45	3	He	49716.71	99.7
Ge	72	1	NO GAS	821404.91	99.1
Ge	72	2	H2	115864.60	98.9
Ge	72	3	He	75202.77	97.2
Tb	159	1	NO GAS	18449910.09	108.1
Tb	159	3	He	6824951.90	97.2
Ho	165	1	NO GAS	18084298.04	111.6
Ho	165	3	He	6550835.45	97.3
Lu	175	1	NO GAS	19484017.29	110.6
Lu	175	3	He	4153754.65	97.0

ICPMS206-B Analytical Data

Sample Name BLANK
File Name 026CALB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:24:49
Sample Type CalBlk
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	1823.07
Be	9	45	1	NO GAS	0.000	ug/l	5.67
B	11	45	1	NO GAS	0.000	ug/l	163.30
Na	23	45	3	He	0.000	ug/l	6888.07
Mg	24	45	3	He	0.000	ug/l	13.31
Al	27	45	1	NO GAS	0.000	ug/l	636.68
Si	28	45	2	H2	0.000	ug/l	18.67
K	39	72	3	He	0.000	ug/l	2671.34
Ca	40	72	2	H2	0.000	ug/l	564.73
Ti	47	72	1	NO GAS	0.000	ug/l	23.32
V	51	72	1	NO GAS	0.000	ug/l	-7327.59
V	51	72	3	He	0.000	ug/l	83.33
Cr	52	72	1	NO GAS	0.000	ug/l	9637.07
Cr	52	72	3	He	0.000	ug/l	136.40
Cr	53	72	1	NO GAS	0.000	ug/l	45387.42
Mn	55	72	1	NO GAS	0.000	ug/l	718.60
Mn	55	72	3	He	0.000	ug/l	5.00
Fe	56	72	2	H2	0.000	ug/l	346.51
Fe	56	72	3	He	0.000	ug/l	586.39
Co	59	72	1	NO GAS	0.000	ug/l	69.86
Ni	60	72	1	NO GAS	0.000	ug/l	63.21
Ni	60	72	3	He	0.000	ug/l	27.78
Ni	62	72	1	NO GAS	0.000	ug/l	279.45
Cu	63	72	1	NO GAS	0.000	ug/l	469.91
Cu	63	72	3	He	0.000	ug/l	198.29
Cu	65	72	1	NO GAS	0.000	ug/l	238.62
Zn	66	72	1	NO GAS	0.000	ug/l	489.00
Zn	66	72	3	He	0.000	ug/l	91.11
As	75	72	1	NO GAS	0.000	ug/l	3116.31
As	75	72	3	He	0.000	ug/l	5.00
Se	78	72	2	H2	0.000	ug/l	2.33
Br	79	72	1	NO GAS	0.000	ug/l	63558.85
Br	79	72	2	H2	0.000	ug/l	8938.12
Se	82	72	1	NO GAS	0.000	ug/l	168.34
Kr	84	72	1	NO GAS		ug/l	7593.39
Sr	88	72	1	NO GAS	0.000	ug/l	345.99
Sr	88	72	3	He	0.000	ug/l	240.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	75.55
Mo	95	72	3	He	0.000	ug/l	35.56
Mo	98	72	1	NO GAS	0.000	ug/l	154.52
Ag	107	72	1	NO GAS	0.000	ug/l	1719.09
Ag	109	72	1	NO GAS	0.000	ug/l	1685.09
Cd	111	159	1	NO GAS	0.000	ug/l	-40.03
Cd	111	159	3	He	0.000	ug/l	0.67
Cd	114	159	1	NO GAS	0.000	ug/l	-250.96
Cd	114	159	3	He	0.000	ug/l	-33.69
Sn	118	159	1	NO GAS	0.000	ug/l	41708.59
Sn	118	159	3	He	0.000	ug/l	6259.04
Sb	121	159	1	NO GAS	0.000	ug/l	165.56
Sb	121	159	3	He	0.000	ug/l	34.44
Sb	123	159	1	NO GAS	0.000	ug/l	154.45
Sb	123	159	3	He	0.000	ug/l	23.33
Ba	135	159	1	NO GAS	0.000	ug/l	13.31
Ba	137	159	1	NO GAS	0.000	ug/l	46.57
La	139	175	1	NO GAS	0.000	ug/l	73.41
La	139	175	3	He	0.000	ug/l	0.00
Ce	140	175	1	NO GAS	0.000	ug/l	63.40
Ce	140	175	3	He	0.000	ug/l	20.02
Hg	201	175	1	NO GAS	0.000	ug/l	13.33
Hg	202	175	1	NO GAS	0.000	ug/l	70.99
Hg	202	175	3	He	0.000	ug/l	25.00
Tl	203	175	3	He	0.000	ug/l	90.65
Tl	205	175	1	NO GAS	0.000	ug/l	304.45
Tl	205	175	3	He	0.000	ug/l	220.63
[Pb]	206	175	1	NO GAS	0.000	ug/l	62.22
[Pb]	207	175	1	NO GAS	0.000	ug/l	47.78
Pb	208	175	1	NO GAS	0.000	ug/l	217.78
Th	232	175	3	He	0.000	ug/l	961.85
U	238	175	1	NO GAS	0.000	ug/l	126.31

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1866031.52	100.0
Sc	45	2	H2	82592.20	100.0
Sc	45	3	He	50304.07	100.0
Ge	72	1	NO GAS	845911.32	100.0
Ge	72	2	H2	118513.05	100.0
Ge	72	3	He	75477.75	100.0
Tb	159	1	NO GAS	18265699.85	100.0
Tb	159	3	He	7058065.37	100.0
Ho	165	1	NO GAS	16967684.17	100.0
Ho	165	3	He	6666509.81	100.0
Lu	175	1	NO GAS	18965751.33	100.0
Lu	175	3	He	4161096.47	100.0

ICPMS206-B Analytical Data

Sample Name 0.025 PPB STD
File Name 027CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:30:42
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.090	ug/l	1875.73
Be	9	45	1	NO GAS	0.012	ug/l	8.67
B	11	45	1	NO GAS	-0.037	ug/l	149.97
Na	23	45	3	He	2.419	ug/l	7191.53
Mg	24	45	3	He	6.598	ug/l	319.37
Al	27	45	1	NO GAS	-0.006	ug/l	595.57
Si	28	45	2	H2	0.158	ug/l	21.33
K	39	72	3	He	3.803	ug/l	2873.60
Ca	40	72	2	H2	7.203	ug/l	1917.51
Ti	47	72	1	NO GAS	0.040	ug/l	56.64
V	51	72	1	NO GAS	-0.297	ug/l	-10942.60
V	51	72	3	He	0.058	ug/l	156.67
Cr	52	72	1	NO GAS	0.010	ug/l	9710.27
Cr	52	72	3	He	0.004	ug/l	146.38
Cr	53	72	1	NO GAS	2.231	ug/l	48636.72
Mn	55	72	1	NO GAS	0.020	ug/l	1071.26
Mn	55	72	3	He	0.027	ug/l	27.33
Fe	56	72	2	H2	0.627	ug/l	994.54
Fe	56	72	3	He	0.633	ug/l	1634.28
Co	59	72	1	NO GAS	0.018	ug/l	345.98
Ni	60	72	1	NO GAS	0.032	ug/l	172.99
Ni	60	72	3	He	0.022	ug/l	52.22
Ni	62	72	1	NO GAS	0.124	ug/l	342.66
Cu	63	72	1	NO GAS	0.003	ug/l	489.24
Cu	63	72	3	He	-0.006	ug/l	182.30
Cu	65	72	1	NO GAS	0.000	ug/l	236.62
Zn	66	72	1	NO GAS	-0.007	ug/l	469.03
Zn	66	72	3	He	-0.025	ug/l	81.11
As	75	72	1	NO GAS	0.324	ug/l	4104.15
As	75	72	3	He	0.026	ug/l	13.00
Se	78	72	2	H2	0.001	ug/l	2.33
Br	79	72	1	NO GAS	0.554	ug/l	66798.64
Br	79	72	2	H2	0.813	ug/l	9327.51
Se	82	72	1	NO GAS	0.677	ug/l	345.33
Kr	84	72	1	NO GAS		ug/l	7892.95
Sr	88	72	1	NO GAS	0.028	ug/l	1354.05
Sr	88	72	3	He	0.007	ug/l	255.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.032	ug/l	327.78
Mo	95	72	3	He	0.025	ug/l	100.00
Mo	98	72	1	NO GAS	0.023	ug/l	467.59
Ag	107	72	1	NO GAS	0.014	ug/l	2023.07
Ag	109	72	1	NO GAS	0.012	ug/l	1947.73
Cd	111	159	1	NO GAS	0.024	ug/l	91.46
Cd	111	159	3	He	0.019	ug/l	27.33
Cd	114	159	1	NO GAS	0.017	ug/l	-31.82
Cd	114	159	3	He	0.034	ug/l	88.02
Sn	118	159	1	NO GAS	-2.492	ug/l	3147.43
Sn	118	159	3	He	-2.311	ug/l	467.79
Sb	121	159	1	NO GAS	0.026	ug/l	733.36
Sb	121	159	3	He	0.021	ug/l	101.11
Sb	123	159	1	NO GAS	0.024	ug/l	571.13
Sb	123	159	3	He	0.031	ug/l	106.67
Ba	135	159	1	NO GAS	0.031	ug/l	163.01
Ba	137	159	1	NO GAS	0.020	ug/l	216.24
La	139	175	1	NO GAS	0.023	ug/l	1935.45
La	139	175	3	He	0.025	ug/l	440.46
Ce	140	175	1	NO GAS	0.023	ug/l	1872.03
Ce	140	175	3	He	0.026	ug/l	610.64
Hg	201	175	1	NO GAS	0.002	ug/l	22.00
Hg	202	175	1	NO GAS	0.000	ug/l	72.32
Hg	202	175	3	He	0.002	ug/l	36.66
Tl	203	175	3	He	0.022	ug/l	388.60
Tl	205	175	1	NO GAS	0.024	ug/l	1781.23
Tl	205	175	3	He	0.026	ug/l	1061.83
[Pb]	206	175	1	NO GAS	0.023	ug/l	556.68
[Pb]	207	175	1	NO GAS	0.025	ug/l	510.01
Pb	208	175	1	NO GAS	0.024	ug/l	2273.42
Th	232	175	3	He	0.018	ug/l	1848.42
U	238	175	1	NO GAS	0.023	ug/l	2416.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1800689.84	96.5
Sc	45	2	H2	80555.98	97.5
Sc	45	3	He	50945.77	101.3
Ge	72	1	NO GAS	841528.50	99.5
Ge	72	2	H2	113965.14	96.2
Ge	72	3	He	76836.97	101.8
Tb	159	1	NO GAS	18325372.85	100.3
Tb	159	3	He	6897685.36	97.7
Ho	165	1	NO GAS	16957080.65	99.9
Ho	165	3	He	6805864.84	102.1
Lu	175	1	NO GAS	19044263.80	100.4
Lu	175	3	He	4180241.14	100.5

ICPMS206-B Analytical Data

Sample Name 0.05 PPB STD
File Name 028CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:36:33
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.278	ug/l	2031.05
Be	9	45	1	NO GAS	0.074	ug/l	26.00
B	11	45	1	NO GAS	-0.046	ug/l	151.30
Na	23	45	3	He	11.980	ug/l	8026.34
Mg	24	45	3	He	12.814	ug/l	602.16
Al	27	45	1	NO GAS	0.031	ug/l	716.69
Si	28	45	2	H2	0.773	ug/l	33.99
K	39	72	3	He	12.098	ug/l	3275.33
Ca	40	72	2	H2	13.591	ug/l	3235.39
Ti	47	72	1	NO GAS	0.073	ug/l	83.29
V	51	72	1	NO GAS	-0.308	ug/l	-11025.42
V	51	72	3	He	0.084	ug/l	192.23
Cr	52	72	1	NO GAS	0.076	ug/l	10479.25
Cr	52	72	3	He	0.066	ug/l	259.49
Cr	53	72	1	NO GAS	1.974	ug/l	48211.79
Mn	55	72	1	NO GAS	0.053	ug/l	1640.17
Mn	55	72	3	He	0.053	ug/l	49.67
Fe	56	72	2	H2	1.241	ug/l	1697.59
Fe	56	72	3	He	1.406	ug/l	2950.49
Co	59	72	1	NO GAS	0.051	ug/l	855.00
Ni	60	72	1	NO GAS	0.049	ug/l	229.55
Ni	60	72	3	He	0.044	ug/l	77.78
Ni	62	72	1	NO GAS	0.220	ug/l	392.56
Cu	63	72	1	NO GAS	0.026	ug/l	690.55
Cu	63	72	3	He	0.027	ug/l	295.28
Cu	65	72	1	NO GAS	0.025	ug/l	347.27
Zn	66	72	1	NO GAS	0.020	ug/l	545.49
Zn	66	72	3	He	0.026	ug/l	106.66
As	75	72	1	NO GAS	0.280	ug/l	3976.59
As	75	72	3	He	0.058	ug/l	23.00
Se	78	72	2	H2	0.042	ug/l	6.67
Br	79	72	1	NO GAS	0.385	ug/l	65692.81
Br	79	72	2	H2	0.465	ug/l	9314.22
Se	82	72	1	NO GAS	0.762	ug/l	368.63
Kr	84	72	1	NO GAS		ug/l	7829.77
Sr	88	72	1	NO GAS	0.062	ug/l	2535.18
Sr	88	72	3	He	0.054	ug/l	331.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.057	ug/l	517.79
Mo	95	72	3	He	0.057	ug/l	187.78
Mo	98	72	1	NO GAS	0.052	ug/l	851.92
Ag	107	72	1	NO GAS	0.022	ug/l	2199.05
Ag	109	72	1	NO GAS	0.027	ug/l	2253.05
Cd	111	159	1	NO GAS	0.063	ug/l	302.29
Cd	111	159	3	He	0.051	ug/l	72.65
Cd	114	159	1	NO GAS	0.062	ug/l	520.24
Cd	114	159	3	He	0.060	ug/l	186.75
Sn	118	159	1	NO GAS	-2.446	ug/l	3813.02
Sn	118	159	3	He	-2.277	ug/l	563.35
Sb	121	159	1	NO GAS	0.052	ug/l	1312.29
Sb	121	159	3	He	0.056	ug/l	218.89
Sb	123	159	1	NO GAS	0.048	ug/l	973.37
Sb	123	159	3	He	0.058	ug/l	184.45
Ba	135	159	1	NO GAS	0.066	ug/l	326.02
Ba	137	159	1	NO GAS	0.053	ug/l	492.37
La	139	175	1	NO GAS	0.052	ug/l	4318.36
La	139	175	3	He	0.047	ug/l	860.91
Ce	140	175	1	NO GAS	0.052	ug/l	4204.88
Ce	140	175	3	He	0.050	ug/l	1184.60
Hg	201	175	1	NO GAS	0.002	ug/l	22.00
Hg	202	175	1	NO GAS	0.000	ug/l	73.32
Hg	202	175	3	He	0.001	ug/l	34.66
Tl	203	175	3	He	0.053	ug/l	856.52
Tl	205	175	1	NO GAS	0.053	ug/l	3637.14
Tl	205	175	3	He	0.052	ug/l	2002.41
[Pb]	206	175	1	NO GAS	0.055	ug/l	1240.06
[Pb]	207	175	1	NO GAS	0.052	ug/l	1032.27
Pb	208	175	1	NO GAS	0.054	ug/l	4887.03
Th	232	175	3	He	0.037	ug/l	2884.39
U	238	175	1	NO GAS	0.051	ug/l	5244.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1836810.46	98.4
Sc	45	2	H2	83378.40	101.0
Sc	45	3	He	50816.70	101.0
Ge	72	1	NO GAS	841237.01	99.4
Ge	72	2	H2	117594.67	99.2
Ge	72	3	He	78123.92	103.5
Tb	159	1	NO GAS	18102520.84	99.1
Tb	159	3	He	7062696.25	100.1
Ho	165	1	NO GAS	17347220.15	102.2
Ho	165	3	He	6750731.85	101.3
Lu	175	1	NO GAS	19182462.20	101.1
Lu	175	3	He	4323996.14	103.9

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 029CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:42:24
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name 0.5 PPB STD
File Name 030CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:48:15
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.966	ug/l	4754.38
Be	9	45	1	NO GAS	0.447	ug/l	131.31
B	11	45	1	NO GAS	0.188	ug/l	201.96
Na	23	45	3	He	123.450	ug/l	18202.96
Mg	24	45	3	He	118.910	ug/l	5536.64
Al	27	45	1	NO GAS	0.475	ug/l	2043.47
Si	28	45	2	H2	1.896	ug/l	55.32
K	39	72	3	He	119.152	ug/l	7770.71
Ca	40	72	2	H2	125.826	ug/l	25162.98
Ti	47	72	1	NO GAS	0.517	ug/l	443.12
V	51	72	1	NO GAS	0.043	ug/l	-6583.91
V	51	72	3	He	0.488	ug/l	703.35
Cr	52	72	1	NO GAS	0.561	ug/l	15802.86
Cr	52	72	3	He	0.484	ug/l	1001.38
Cr	53	72	1	NO GAS	3.211	ug/l	49112.37
Mn	55	72	1	NO GAS	0.512	ug/l	9467.33
Mn	55	72	3	He	0.478	ug/l	406.05
Fe	56	72	2	H2	12.815	ug/l	14197.38
Fe	56	72	3	He	12.566	ug/l	21511.54
Co	59	72	1	NO GAS	0.524	ug/l	7972.85
Ni	60	72	1	NO GAS	0.559	ug/l	1939.61
Ni	60	72	3	He	0.508	ug/l	595.57
Ni	62	72	1	NO GAS	0.675	ug/l	618.79
Cu	63	72	1	NO GAS	0.522	ug/l	4905.76
Cu	63	72	3	He	0.475	ug/l	1778.74
Cu	65	72	1	NO GAS	0.511	ug/l	2405.70
Zn	66	72	1	NO GAS	0.457	ug/l	1756.46
Zn	66	72	3	He	0.460	ug/l	314.45
As	75	72	1	NO GAS	0.595	ug/l	4840.07
As	75	72	3	He	0.471	ug/l	148.97
Se	78	72	2	H2	0.420	ug/l	45.66
Br	79	72	1	NO GAS	0.605	ug/l	65729.21
Br	79	72	2	H2	0.109	ug/l	8918.14
Se	82	72	1	NO GAS	1.375	ug/l	516.35
Kr	84	72	1	NO GAS		ug/l	7819.73
Sr	88	72	1	NO GAS	0.528	ug/l	18736.93
Sr	88	72	3	He	0.539	ug/l	1078.93

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.510	ug/l	3972.74
Mo	95	72	3	He	0.484	ug/l	1312.29
Mo	98	72	1	NO GAS	0.496	ug/l	6641.76
Ag	107	72	1	NO GAS	0.215	ug/l	6310.66
Ag	109	72	1	NO GAS	0.208	ug/l	6049.94
Cd	111	159	1	NO GAS	0.483	ug/l	2583.17
Cd	111	159	3	He	0.497	ug/l	693.22
Cd	114	159	1	NO GAS	0.510	ug/l	6093.82
Cd	114	159	3	He	0.519	ug/l	1842.71
Sn	118	159	1	NO GAS	-1.981	ug/l	10958.83
Sn	118	159	3	He	-1.878	ug/l	1544.53
Sb	121	159	1	NO GAS	0.476	ug/l	10606.91
Sb	121	159	3	He	0.481	ug/l	1617.87
Sb	123	159	1	NO GAS	0.459	ug/l	7998.72
Sb	123	159	3	He	0.459	ug/l	1274.51
Ba	135	159	1	NO GAS	0.529	ug/l	2535.21
Ba	137	159	1	NO GAS	0.497	ug/l	4222.23
La	139	175	1	NO GAS	0.501	ug/l	39241.64
La	139	175	3	He	0.480	ug/l	8644.51
Ce	140	175	1	NO GAS	0.498	ug/l	38258.47
Ce	140	175	3	He	0.460	ug/l	10544.32
Hg	201	175	1	NO GAS	0.010	ug/l	52.32
Hg	202	175	1	NO GAS	0.009	ug/l	148.64
Hg	202	175	3	He	0.010	ug/l	97.65
Tl	203	175	3	He	0.496	ug/l	7074.94
Tl	205	175	1	NO GAS	0.511	ug/l	30949.45
Tl	205	175	3	He	0.495	ug/l	16762.64
[Pb]	206	175	1	NO GAS	0.508	ug/l	10581.57
[Pb]	207	175	1	NO GAS	0.500	ug/l	9166.16
Pb	208	175	1	NO GAS	0.508	ug/l	42351.48
Th	232	175	3	He	0.388	ug/l	20499.39
U	238	175	1	NO GAS	0.488	ug/l	47167.26

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1867226.56	100.1
Sc	45	2	H2	83423.32	101.0
Sc	45	3	He	51212.02	101.8
Ge	72	1	NO GAS	824017.27	97.4
Ge	72	2	H2	116843.60	98.6
Ge	72	3	He	77970.41	103.3
Tb	159	1	NO GAS	18156208.69	99.4
Tb	159	3	He	6979098.54	98.9
Ho	165	1	NO GAS	17034432.58	100.4
Ho	165	3	He	6750317.89	101.3
Lu	175	1	NO GAS	18440651.04	97.2
Lu	175	3	He	4264523.80	102.5

ICPMS206-B Analytical Data

Sample Name 1 PPB STD
File Name 031CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:54:07
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	11.807	ug/l	8886.51
Be	9	45	1	NO GAS	1.142	ug/l	328.27
B	11	45	1	NO GAS	0.741	ug/l	319.27
Na	23	45	3	He	276.556	ug/l	31766.01
Mg	24	45	3	He	283.540	ug/l	13035.84
Al	27	45	1	NO GAS	1.057	ug/l	3787.11
Si	28	45	2	H2	4.531	ug/l	105.98
K	39	72	3	He	245.317	ug/l	13145.16
Ca	40	72	2	H2	277.650	ug/l	54513.35
Ti	47	72	1	NO GAS	1.073	ug/l	912.91
V	51	72	1	NO GAS	0.913	ug/l	3955.09
V	51	72	3	He	1.109	ug/l	1498.97
Cr	52	72	1	NO GAS	1.086	ug/l	22240.75
Cr	52	72	3	He	1.188	ug/l	2265.69
Cr	53	72	1	NO GAS	2.410	ug/l	48830.37
Mn	55	72	1	NO GAS	1.143	ug/l	20661.89
Mn	55	72	3	He	1.111	ug/l	941.45
Fe	56	72	2	H2	27.311	ug/l	29688.39
Fe	56	72	3	He	25.800	ug/l	43756.62
Co	59	72	1	NO GAS	1.151	ug/l	17784.26
Ni	60	72	1	NO GAS	1.184	ug/l	4119.03
Ni	60	72	3	He	1.130	ug/l	1296.73
Ni	62	72	1	NO GAS	1.321	ug/l	968.12
Cu	63	72	1	NO GAS	1.200	ug/l	10879.38
Cu	63	72	3	He	1.159	ug/l	4065.02
Cu	65	72	1	NO GAS	1.153	ug/l	5236.46
Zn	66	72	1	NO GAS	1.085	ug/l	3576.23
Zn	66	72	3	He	1.137	ug/l	641.13
As	75	72	1	NO GAS	1.417	ug/l	7450.14
As	75	72	3	He	1.102	ug/l	343.60
Se	78	72	2	H2	1.042	ug/l	109.31
Br	79	72	1	NO GAS	0.137	ug/l	64003.05
Br	79	72	2	H2	-0.015	ug/l	8755.02
Se	82	72	1	NO GAS	2.548	ug/l	832.43
Kr	84	72	1	NO GAS		ug/l	7726.55
Sr	88	72	1	NO GAS	1.159	ug/l	41493.50
Sr	88	72	3	He	1.117	ug/l	1980.14

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.160	ug/l	9113.72
Mo	95	72	3	He	1.090	ug/l	2928.06
Mo	98	72	1	NO GAS	1.097	ug/l	14770.23
Ag	107	72	1	NO GAS	0.473	ug/l	12080.12
Ag	109	72	1	NO GAS	0.464	ug/l	11685.90
Cd	111	159	1	NO GAS	1.083	ug/l	5911.89
Cd	111	159	3	He	1.075	ug/l	1519.11
Cd	114	159	1	NO GAS	1.155	ug/l	14289.17
Cd	114	159	3	He	1.096	ug/l	3981.94
Sn	118	159	1	NO GAS	-1.339	ug/l	21078.92
Sn	118	159	3	He	-1.236	ug/l	3177.01
Sb	121	159	1	NO GAS	1.074	ug/l	24012.43
Sb	121	159	3	He	0.984	ug/l	3312.59
Sb	123	159	1	NO GAS	1.062	ug/l	18495.14
Sb	123	159	3	He	1.035	ug/l	2879.17
Ba	135	159	1	NO GAS	1.110	ug/l	5360.32
Ba	137	159	1	NO GAS	1.087	ug/l	9294.41
La	139	175	1	NO GAS	1.084	ug/l	87982.57
La	139	175	3	He	1.153	ug/l	20036.53
Ce	140	175	1	NO GAS	1.095	ug/l	87093.74
Ce	140	175	3	He	1.156	ug/l	25556.69
Hg	201	175	1	NO GAS	0.021	ug/l	100.98
Hg	202	175	1	NO GAS	0.023	ug/l	287.28
Hg	202	175	3	He	0.023	ug/l	179.63
Tl	203	175	3	He	1.119	ug/l	15302.69
Tl	205	175	1	NO GAS	1.113	ug/l	69484.56
Tl	205	175	3	He	1.182	ug/l	38305.30
[Pb]	206	175	1	NO GAS	1.120	ug/l	24115.99
[Pb]	207	175	1	NO GAS	1.087	ug/l	20587.41
Pb	208	175	1	NO GAS	1.113	ug/l	95846.85
Th	232	175	3	He	0.949	ug/l	47008.56
U	238	175	1	NO GAS	1.061	ug/l	106120.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1877940.98	100.6
Sc	45	2	H2	83105.09	100.6
Sc	45	3	He	50703.94	100.8
Ge	72	1	NO GAS	839997.49	99.3
Ge	72	2	H2	116146.56	98.0
Ge	72	3	He	78413.25	103.9
Tb	159	1	NO GAS	18363999.39	100.5
Tb	159	3	He	7077545.63	100.3
Ho	165	1	NO GAS	17232300.86	101.6
Ho	165	3	He	6686893.53	100.3
Lu	175	1	NO GAS	19104992.66	100.7
Lu	175	3	He	4121838.91	99.1

ICPMS206-B Analytical Data

Sample Name 10 PPB STD
File Name 032CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 21:59:59
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	110.323	ug/l	65688.12
Be	9	45	1	NO GAS	9.589	ug/l	2776.34
B	11	45	1	NO GAS	8.856	ug/l	2060.39
Na	23	45	3	He	2436.365	ug/l	238218.55
Mg	24	45	3	He	2340.894	ug/l	113664.56
Al	27	45	1	NO GAS	9.772	ug/l	30359.10
Si	28	45	2	H2	37.494	ug/l	772.53
K	39	72	3	He	2347.001	ug/l	100098.52
Ca	40	72	2	H2	2465.794	ug/l	490797.02
Ti	47	72	1	NO GAS	10.074	ug/l	8373.00
V	51	72	1	NO GAS	9.465	ug/l	109251.67
V	51	72	3	He	10.339	ug/l	12985.00
Cr	52	72	1	NO GAS	9.859	ug/l	124401.91
Cr	52	72	3	He	9.712	ug/l	17214.62
Cr	53	72	1	NO GAS	12.450	ug/l	64441.99
Mn	55	72	1	NO GAS	10.226	ug/l	179050.75
Mn	55	72	3	He	10.463	ug/l	8654.42
Fe	56	72	2	H2	244.756	ug/l	269396.01
Fe	56	72	3	He	245.817	ug/l	404031.18
Co	59	72	1	NO GAS	10.470	ug/l	161177.06
Ni	60	72	1	NO GAS	10.545	ug/l	36183.84
Ni	60	72	3	He	10.544	ug/l	11618.53
Ni	62	72	1	NO GAS	10.818	ug/l	5945.99
Cu	63	72	1	NO GAS	10.656	ug/l	92930.05
Cu	63	72	3	He	10.638	ug/l	34973.86
Cu	65	72	1	NO GAS	10.453	ug/l	45545.19
Zn	66	72	1	NO GAS	10.181	ug/l	29477.01
Zn	66	72	3	He	10.565	ug/l	5080.81
As	75	72	1	NO GAS	10.259	ug/l	34476.57
As	75	72	3	He	10.325	ug/l	3117.01
Se	78	72	2	H2	10.348	ug/l	1090.49
Br	79	72	1	NO GAS	0.438	ug/l	65927.21
Br	79	72	2	H2	0.043	ug/l	9017.98
Se	82	72	1	NO GAS	11.324	ug/l	3105.71
Kr	84	72	1	NO GAS		ug/l	10136.41
Sr	88	72	1	NO GAS	10.295	ug/l	365540.52
Sr	88	72	3	He	10.427	ug/l	16082.40

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	10.235	ug/l	79788.94
Mo	95	72	3	He	10.503	ug/l	27374.03
Mo	98	72	1	NO GAS	10.101	ug/l	134758.07
Ag	107	72	1	NO GAS	4.301	ug/l	95999.06
Ag	109	72	1	NO GAS	4.224	ug/l	92856.67
Cd	111	159	1	NO GAS	10.250	ug/l	55459.81
Cd	111	159	3	He	9.647	ug/l	13469.61
Cd	114	159	1	NO GAS	10.659	ug/l	131903.21
Cd	114	159	3	He	9.917	ug/l	35828.84
Sn	118	159	1	NO GAS	7.975	ug/l	163535.01
Sn	118	159	3	He	7.789	ug/l	25495.81
Sb	121	159	1	NO GAS	9.850	ug/l	215770.84
Sb	121	159	3	He	9.319	ug/l	30711.55
Sb	123	159	1	NO GAS	9.970	ug/l	169954.01
Sb	123	159	3	He	9.832	ug/l	26813.68
Ba	135	159	1	NO GAS	9.870	ug/l	46893.21
Ba	137	159	1	NO GAS	9.926	ug/l	83229.02
La	139	175	1	NO GAS	9.855	ug/l	788882.90
La	139	175	3	He	10.446	ug/l	179368.18
Ce	140	175	1	NO GAS	9.822	ug/l	770822.66
Ce	140	175	3	He	10.364	ug/l	226154.93
Hg	201	175	1	NO GAS	0.191	ug/l	797.20
Hg	202	175	1	NO GAS	0.195	ug/l	1883.74
Hg	202	175	3	He	0.204	ug/l	1362.46
Tl	203	175	3	He	10.308	ug/l	138616.96
Tl	205	175	1	NO GAS	10.180	ug/l	625052.96
Tl	205	175	3	He	10.995	ug/l	350452.67
[Pb]	206	175	1	NO GAS	10.152	ug/l	215330.13
[Pb]	207	175	1	NO GAS	10.001	ug/l	186614.73
Pb	208	175	1	NO GAS	10.135	ug/l	860138.87
Th	232	175	3	He	9.923	ug/l	477172.57
U	238	175	1	NO GAS	9.800	ug/l	966771.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1919867.00	102.9
Sc	45	2	H2	86694.52	105.0
Sc	45	3	He	53552.13	106.5
Ge	72	1	NO GAS	840045.76	99.3
Ge	72	2	H2	118829.35	100.3
Ge	72	3	He	76992.30	102.0
Tb	159	1	NO GAS	18094535.98	99.1
Tb	159	3	He	6990582.00	99.0
Ho	165	1	NO GAS	16754863.65	98.7
Ho	165	3	He	6738980.93	101.1
Lu	175	1	NO GAS	18862227.40	99.5
Lu	175	3	He	4071934.94	97.9

ICPMS206-B Analytical Data

Sample Name 50 PPB STD
File Name 033CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:05:50
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	541.283	ug/l	321802.05
Be	9	45	1	NO GAS	49.256	ug/l	14537.12
B	11	45	1	NO GAS	47.982	ug/l	10626.50
Na	23	45	3	He	12027.440	ug/l	1151302.24
Mg	24	45	3	He	11891.085	ug/l	579537.13
Al	27	45	1	NO GAS	47.574	ug/l	148576.62
Si	28	45	2	H2	193.666	ug/l	4075.03
K	39	72	3	He	11818.011	ug/l	514585.14
Ca	40	72	2	H2	12376.854	ug/l	2558726.63
Ti	47	72	1	NO GAS	48.278	ug/l	41029.44
V	51	72	1	NO GAS	47.025	ug/l	589142.58
V	51	72	3	He	49.482	ug/l	64549.37
Cr	52	72	1	NO GAS	49.762	ug/l	604239.86
Cr	52	72	3	He	48.760	ug/l	89569.19
Cr	53	72	1	NO GAS	56.842	ug/l	136481.03
Mn	55	72	1	NO GAS	51.418	ug/l	920623.16
Mn	55	72	3	He	49.726	ug/l	42948.44
Fe	56	72	2	H2	1159.729	ug/l	1329085.85
Fe	56	72	3	He	1229.257	ug/l	2107282.64
Co	59	72	1	NO GAS	50.447	ug/l	796732.62
Ni	60	72	1	NO GAS	51.103	ug/l	179533.78
Ni	60	72	3	He	49.731	ug/l	57191.59
Ni	62	72	1	NO GAS	51.518	ug/l	27971.41
Cu	63	72	1	NO GAS	50.867	ug/l	453206.89
Cu	63	72	3	He	50.022	ug/l	170910.11
Cu	65	72	1	NO GAS	50.069	ug/l	222833.75
Zn	66	72	1	NO GAS	50.376	ug/l	147620.92
Zn	66	72	3	He	50.094	ug/l	24787.34
As	75	72	1	NO GAS	50.512	ug/l	161686.78
As	75	72	3	He	49.393	ug/l	15548.46
Se	78	72	2	H2	47.153	ug/l	5178.45
Br	79	72	1	NO GAS	0.338	ug/l	66949.26
Br	79	72	2	H2	0.088	ug/l	9447.42
Se	82	72	1	NO GAS	50.902	ug/l	13763.58
Kr	84	72	1	NO GAS		ug/l	18140.81
Sr	88	72	1	NO GAS	50.791	ug/l	1848846.49
Sr	88	72	3	He	49.679	ug/l	79076.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.012	ug/l	391709.11
Mo	95	72	3	He	49.172	ug/l	133539.43
Mo	98	72	1	NO GAS	48.766	ug/l	667004.94
Ag	107	72	1	NO GAS	20.579	ug/l	464508.87
Ag	109	72	1	NO GAS	20.159	ug/l	448326.55
Cd	111	159	1	NO GAS	50.963	ug/l	276233.54
Cd	111	159	3	He	50.085	ug/l	68463.05
Cd	114	159	1	NO GAS	49.706	ug/l	617846.98
Cd	114	159	3	He	49.519	ug/l	175549.09
Sn	118	159	1	NO GAS	48.328	ug/l	785361.96
Sn	118	159	3	He	48.019	ug/l	122550.80
Sb	121	159	1	NO GAS	49.599	ug/l	1085598.81
Sb	121	159	3	He	49.592	ug/l	160024.29
Sb	123	159	1	NO GAS	50.645	ug/l	863958.81
Sb	123	159	3	He	48.601	ug/l	129822.28
Ba	135	159	1	NO GAS	49.591	ug/l	236025.42
Ba	137	159	1	NO GAS	48.354	ug/l	406525.19
La	139	175	1	NO GAS	46.819	ug/l	3766364.23
La	139	175	3	He	47.503	ug/l	848884.24
Ce	140	175	1	NO GAS	47.257	ug/l	3726770.83
Ce	140	175	3	He	48.496	ug/l	1101728.25
Hg	201	175	1	NO GAS	0.960	ug/l	3981.73
Hg	202	175	1	NO GAS	0.970	ug/l	9139.59
Hg	202	175	3	He	0.978	ug/l	6686.81
Tl	203	175	3	He	49.110	ug/l	687375.91
Tl	205	175	1	NO GAS	49.266	ug/l	3040418.39
Tl	205	175	3	He	50.038	ug/l	1660066.77
[Pb]	206	175	1	NO GAS	49.005	ug/l	1044691.19
[Pb]	207	175	1	NO GAS	47.810	ug/l	896386.62
Pb	208	175	1	NO GAS	48.625	ug/l	4146515.59
Th	232	175	3	He	49.667	ug/l	2483195.76
U	238	175	1	NO GAS	49.805	ug/l	4935120.43

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1968490.27	105.5
Sc	45	2	H2	93349.92	113.0
Sc	45	3	He	53705.24	106.8
Ge	72	1	NO GAS	862743.94	102.0
Ge	72	2	H2	127568.82	107.6
Ge	72	3	He	80304.58	106.4
Tb	159	1	NO GAS	18236644.96	99.8
Tb	159	3	He	6842968.61	97.0
Ho	165	1	NO GAS	17143160.58	101.0
Ho	165	3	He	6601981.02	99.0
Lu	175	1	NO GAS	18979730.94	100.1
Lu	175	3	He	4237061.65	101.8

ICPMS206-B Analytical Data

Sample Name 100 PPB STD
File Name 034CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:11:40
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1177.920	ug/l	695109.84
Be	9	45	1	NO GAS	100.412	ug/l	29851.32
B	11	45	1	NO GAS	101.127	ug/l	22416.00
Na	23	45	3	He	25113.127	ug/l	2451385.92
Mg	24	45	3	He	25406.833	ug/l	1266941.79
Al	27	45	1	NO GAS	101.235	ug/l	317171.03
Si	28	45	2	H2	403.412	ug/l	8514.45
K	39	72	3	He	24664.680	ug/l	1089567.74
Ca	40	72	2	H2	26655.155	ug/l	5349149.08
Ti	47	72	1	NO GAS	100.853	ug/l	86388.56
V	51	72	1	NO GAS	101.544	ug/l	1287369.17
V	51	72	3	He	100.224	ug/l	132916.55
Cr	52	72	1	NO GAS	100.132	ug/l	1216072.12
Cr	52	72	3	He	100.647	ug/l	187948.29
Cr	53	72	1	NO GAS	96.302	ug/l	201201.99
Mn	55	72	1	NO GAS	99.267	ug/l	1791371.05
Mn	55	72	3	He	100.090	ug/l	87936.16
Fe	56	72	2	H2	2528.140	ug/l	2803486.34
Fe	56	72	3	He	2440.470	ug/l	4255076.90
Co	59	72	1	NO GAS	99.728	ug/l	1586745.27
Ni	60	72	1	NO GAS	99.392	ug/l	352183.29
Ni	60	72	3	He	100.079	ug/l	117066.10
Ni	62	72	1	NO GAS	99.155	ug/l	54033.43
Cu	63	72	1	NO GAS	99.499	ug/l	893125.13
Cu	63	72	3	He	99.924	ug/l	347139.46
Cu	65	72	1	NO GAS	99.918	ug/l	448178.65
Zn	66	72	1	NO GAS	99.793	ug/l	294292.96
Zn	66	72	3	He	99.896	ug/l	50191.82
As	75	72	1	NO GAS	99.714	ug/l	318347.29
As	75	72	3	He	100.270	ug/l	32106.65
Se	78	72	2	H2	101.389	ug/l	10765.02
Br	79	72	1	NO GAS	0.429	ug/l	68091.97
Br	79	72	2	H2	0.790	ug/l	9803.56
Se	82	72	1	NO GAS	99.395	ug/l	26845.31
Kr	84	72	1	NO GAS		ug/l	29431.34
Sr	88	72	1	NO GAS	99.573	ug/l	3653296.99
Sr	88	72	3	He	100.116	ug/l	161875.83

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	100.469	ug/l	809217.04
Mo	95	72	3	He	100.363	ug/l	277332.08
Mo	98	72	1	NO GAS	100.606	ug/l	1386610.72
Ag	107	72	1	NO GAS	39.680	ug/l	901524.22
Ag	109	72	1	NO GAS	39.897	ug/l	892445.25
Cd	111	159	1	NO GAS	99.493	ug/l	540763.00
Cd	111	159	3	He	99.992	ug/l	136778.89
Cd	114	159	1	NO GAS	100.080	ug/l	1245274.71
Cd	114	159	3	He	100.248	ug/l	355718.01
Sn	118	159	1	NO GAS	101.079	ug/l	1596763.76
Sn	118	159	3	He	101.250	ug/l	251870.37
Sb	121	159	1	NO GAS	100.215	ug/l	2202168.58
Sb	121	159	3	He	100.272	ug/l	323846.52
Sb	123	159	1	NO GAS	99.680	ug/l	1704450.01
Sb	123	159	3	He	100.716	ug/l	269271.97
Ba	135	159	1	NO GAS	100.216	ug/l	477841.72
Ba	137	159	1	NO GAS	100.829	ug/l	848340.93
La	139	175	1	NO GAS	101.604	ug/l	7856290.70
La	139	175	3	He	101.203	ug/l	1761922.97
Ce	140	175	1	NO GAS	101.388	ug/l	7687049.23
Ce	140	175	3	He	100.714	ug/l	2227787.16
Hg	201	175	1	NO GAS	2.021	ug/l	8049.53
Hg	202	175	1	NO GAS	2.015	ug/l	18185.92
Hg	202	175	3	He	2.011	ug/l	13373.19
Tl	203	175	3	He	100.413	ug/l	1369146.39
Tl	205	175	1	NO GAS	100.348	ug/l	5950839.98
Tl	205	175	3	He	99.879	ug/l	3229377.98
[Pb]	206	175	1	NO GAS	100.481	ug/l	2058486.60
[Pb]	207	175	1	NO GAS	101.094	ug/l	1822185.60
Pb	208	175	1	NO GAS	100.673	ug/l	8252555.33
Th	232	175	3	He	100.175	ug/l	4875994.14
U	238	175	1	NO GAS	100.117	ug/l	9540652.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1974193.67	105.8
Sc	45	2	H2	90908.97	110.1
Sc	45	3	He	54980.30	109.3
Ge	72	1	NO GAS	868253.57	102.6
Ge	72	2	H2	119937.45	101.2
Ge	72	3	He	81697.32	108.2
Tb	159	1	NO GAS	18163901.38	99.4
Tb	159	3	He	6849415.95	97.0
Ho	165	1	NO GAS	17025001.70	100.3
Ho	165	3	He	6655643.95	99.8
Lu	175	1	NO GAS	18223875.53	96.1
Lu	175	3	He	4129636.89	99.2

ICPMS206-B Analytical Data

Sample Name 1000 PPB STD
File Name 035CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:17:24
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2557.710	ug/l	1481995.49
Be	9	45	1	NO GAS	972.007	ug/l	292077.64
B	11	45	1	NO GAS	945.271	ug/l	210425.69
Na	23	45	3	He	50064.622	ug/l	4610801.77
Mg	24	45	3	He	49956.613	ug/l	2352638.64
Al	27	45	1	NO GAS	939.624	ug/l	2971298.01
Si	28	45	2	H2	2.293	ug/l	66.66
K	39	72	3	He	50345.844	ug/l	2093185.14
Ca	40	72	2	H2	49204.777	ug/l	9959193.00
Ti	47	72	1	NO GAS	5.898	ug/l	4926.67
V	51	72	1	NO GAS	1084.466	ug/l	13405754.74
V	51	72	3	He	1078.354	ug/l	1347739.72
Cr	52	72	1	NO GAS	1062.004	ug/l	12421794.02
Cr	52	72	3	He	1056.052	ug/l	1856579.95
Cr	53	72	1	NO GAS	953.195	ug/l	1529958.66
Mn	55	72	1	NO GAS	1044.358	ug/l	18279414.97
Mn	55	72	3	He	1053.228	ug/l	871946.80
Fe	56	72	2	H2	6062.186	ug/l	6778809.85
Fe	56	72	3	He	6085.073	ug/l	10000970.76
Co	59	72	1	NO GAS	1026.638	ug/l	15848731.70
Ni	60	72	1	NO GAS	996.351	ug/l	3424739.05
Ni	60	72	3	He	1038.632	ug/l	1145632.90
Ni	62	72	1	NO GAS	1004.863	ug/l	528696.83
Cu	63	72	1	NO GAS	955.766	ug/l	8318686.07
Cu	63	72	3	He	1007.497	ug/l	3300231.53
Cu	65	72	1	NO GAS	946.994	ug/l	4118243.51
Zn	66	72	1	NO GAS	972.342	ug/l	2776740.84
Zn	66	72	3	He	1019.360	ug/l	481525.93
As	75	72	1	NO GAS	969.134	ug/l	2975263.89
As	75	72	3	He	1052.935	ug/l	317869.78
Se	78	72	2	H2	964.540	ug/l	103189.17
Br	79	72	1	NO GAS	1.049	ug/l	70066.07
Br	79	72	2	H2	2.493	ug/l	11461.37
Se	82	72	1	NO GAS	991.176	ug/l	258289.82
Kr	84	72	1	NO GAS		ug/l	218875.09
Sr	88	72	1	NO GAS	1022.385	ug/l	36391345.75
Sr	88	72	3	He	1060.586	ug/l	1611412.55

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.060	ug/l	546.68
Mo	95	72	3	He	0.047	ug/l	156.67
Mo	98	72	1	NO GAS	0.071	ug/l	1100.83
Ag	107	72	1	NO GAS	368.150	ug/l	8109684.46
Ag	109	72	1	NO GAS	360.313	ug/l	7810660.44
Cd	111	159	1	NO GAS	955.975	ug/l	5094140.13
Cd	111	159	3	He	1030.265	ug/l	1314244.87
Cd	114	159	1	NO GAS	979.062	ug/l	11943790.38
Cd	114	159	3	He	1019.112	ug/l	3371579.26
Sn	118	159	1	NO GAS	-2.450	ug/l	3693.12
Sn	118	159	3	He	-2.227	ug/l	625.57
Sb	121	159	1	NO GAS	0.134	ug/l	3055.88
Sb	121	159	3	He	0.102	ug/l	335.56
Sb	123	159	1	NO GAS	0.148	ug/l	2643.57
Sb	123	159	3	He	0.110	ug/l	295.56
Ba	135	159	1	NO GAS	968.868	ug/l	4529106.02
Ba	137	159	1	NO GAS	952.262	ug/l	7855709.56
La	139	175	1	NO GAS	0.012	ug/l	961.02
La	139	175	3	He	0.008	ug/l	130.13
Ce	140	175	1	NO GAS	0.022	ug/l	1728.54
Ce	140	175	3	He	0.028	ug/l	593.96
Hg	201	175	1	NO GAS	0.011	ug/l	55.66
Hg	202	175	1	NO GAS	0.015	ug/l	202.96
Hg	202	175	3	He	0.012	ug/l	95.31
Tl	203	175	3	He	1055.843	ug/l	13293744.48
Tl	205	175	1	NO GAS	983.666	ug/l	57622814.70
Tl	205	175	3	He	1056.557	ug/l	31536648.62
[Pb]	206	175	1	NO GAS	950.583	ug/l	19235519.99
[Pb]	207	175	1	NO GAS	936.594	ug/l	16674551.97
Pb	208	175	1	NO GAS	947.991	ug/l	76760109.13
Th	232	175	3	He	1072.841	ug/l	48222717.19
U	238	175	1	NO GAS	985.936	ug/l	92804104.76

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1996029.05	107.0
Sc	45	2	H2	88039.72	106.6
Sc	45	3	He	52171.66	103.7
Ge	72	1	NO GAS	842499.67	99.6
Ge	72	2	H2	120895.42	102.0
Ge	72	3	He	77424.33	102.6
Tb	159	1	NO GAS	17832067.27	97.6
Tb	159	3	He	6401799.49	90.7
Ho	165	1	NO GAS	16753876.00	98.7
Ho	165	3	He	6056344.05	90.8
Lu	175	1	NO GAS	18001607.64	94.9
Lu	175	3	He	3824036.77	91.9

ICPMS206-B Analytical Data

Sample Name 100 ppb Bromine
File Name 036CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:22:59
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.467	ug/l	4381.02
Be	9	45	1	NO GAS	0.138	ug/l	46.32
B	11	45	1	NO GAS	5.425	ug/l	1341.79
Na	23	45	3	He	56.569	ug/l	13090.55
Mg	24	45	3	He	4.370	ug/l	232.87
Al	27	45	1	NO GAS	8.329	ug/l	26249.07
Si	28	45	2	H2	0.370	ug/l	27.99
K	39	72	3	He	505.702	ug/l	25288.89
Ca	40	72	2	H2	8.508	ug/l	2385.67
Ti	47	72	1	NO GAS	0.058	ug/l	73.30
V	51	72	1	NO GAS	-0.235	ug/l	-10382.31
V	51	72	3	He	0.125	ug/l	256.67
Cr	52	72	1	NO GAS	0.110	ug/l	11135.02
Cr	52	72	3	He	0.149	ug/l	429.16
Cr	53	72	1	NO GAS	1.265	ug/l	48248.66
Mn	55	72	1	NO GAS	0.117	ug/l	2818.01
Mn	55	72	3	He	0.095	ug/l	89.34
Fe	56	72	2	H2	1.135	ug/l	1685.93
Fe	56	72	3	He	1.085	ug/l	2538.96
Co	59	72	1	NO GAS	0.095	ug/l	1566.99
Ni	60	72	1	NO GAS	0.181	ug/l	701.97
Ni	60	72	3	He	0.167	ug/l	225.56
Ni	62	72	1	NO GAS	0.289	ug/l	439.14
Cu	63	72	1	NO GAS	0.167	ug/l	1967.07
Cu	63	72	3	He	0.149	ug/l	735.87
Cu	65	72	1	NO GAS	0.173	ug/l	1013.17
Zn	66	72	1	NO GAS	0.600	ug/l	2252.24
Zn	66	72	3	He	0.607	ug/l	404.45
As	75	72	1	NO GAS	1.021	ug/l	6392.04
As	75	72	3	He	0.162	ug/l	57.66
Se	78	72	2	H2	0.254	ug/l	30.66
Br	79	72	1	NO GAS	100.000	ug/l	720236.92
Br	79	72	2	H2	100.000	ug/l	107446.53
Se	82	72	1	NO GAS	4.903	ug/l	1479.24
Kr	84	72	1	NO GAS		ug/l	7929.57
Sr	88	72	1	NO GAS	0.100	ug/l	3995.95
Sr	88	72	3	He	0.076	ug/l	384.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.020	ug/l	237.78
Mo	95	72	3	He	0.011	ug/l	70.00
Mo	98	72	1	NO GAS	0.011	ug/l	305.08
Ag	107	72	1	NO GAS	0.297	ug/l	8445.22
Ag	109	72	1	NO GAS	0.297	ug/l	8287.85
Cd	111	159	1	NO GAS	0.135	ug/l	675.29
Cd	111	159	3	He	0.094	ug/l	133.97
Cd	114	159	1	NO GAS	0.117	ug/l	1178.08
Cd	114	159	3	He	0.108	ug/l	360.65
Sn	118	159	1	NO GAS	-2.370	ug/l	4841.17
Sn	118	159	3	He	-2.198	ug/l	763.36
Sb	121	159	1	NO GAS	0.028	ug/l	752.25
Sb	121	159	3	He	0.029	ug/l	130.00
Sb	123	159	1	NO GAS	0.027	ug/l	597.80
Sb	123	159	3	He	0.030	ug/l	106.67
Ba	135	159	1	NO GAS	0.125	ug/l	592.17
Ba	137	159	1	NO GAS	0.119	ug/l	1014.70
La	139	175	1	NO GAS	0.000	ug/l	76.74
La	139	175	3	He	0.003	ug/l	50.05
Ce	140	175	1	NO GAS	0.003	ug/l	273.62
Ce	140	175	3	He	0.001	ug/l	33.37
Hg	201	175	1	NO GAS	0.004	ug/l	29.32
Hg	202	175	1	NO GAS	0.004	ug/l	109.65
Hg	202	175	3	He	0.005	ug/l	58.32
Tl	203	175	3	He	0.128	ug/l	1905.75
Tl	205	175	1	NO GAS	0.127	ug/l	8047.76
Tl	205	175	3	He	0.127	ug/l	4501.13
[Pb]	206	175	1	NO GAS	0.105	ug/l	2273.53
[Pb]	207	175	1	NO GAS	0.106	ug/l	1999.04
Pb	208	175	1	NO GAS	0.107	ug/l	9221.20
Th	232	175	3	He	0.321	ug/l	17182.57
U	238	175	1	NO GAS	0.131	ug/l	12988.45

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1938703.53	103.9
Sc	45	2	H2	89738.92	108.7
Sc	45	3	He	55220.33	109.8
Ge	72	1	NO GAS	861709.69	101.9
Ge	72	2	H2	125615.01	106.0
Ge	72	3	He	82100.36	108.8
Tb	159	1	NO GAS	17633509.14	96.5
Tb	159	3	He	7075535.44	100.2
Ho	165	1	NO GAS	16754243.24	98.7
Ho	165	3	He	6900977.30	103.5
Lu	175	1	NO GAS	18729936.36	98.8
Lu	175	3	He	4284266.51	103.0

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 037BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:29:02
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.809	ug/l	2865.01
Be	9	45	1	NO GAS	0.033	ug/l	15.33
B	11	45	1	NO GAS	1.853	ug/l	566.56
Na	23	45	3	He	14.924	ug/l	9037.97
Mg	24	45	3	He	1.700	ug/l	99.80
Al	27	45	1	NO GAS	0.149	ug/l	1113.38
Si	28	45	2	H2	-0.066	ug/l	19.33
K	39	72	3	He	2.060	ug/l	3009.18
Ca	40	72	2	H2	1.821	ug/l	987.88
Ti	47	72	1	NO GAS	0.013	ug/l	34.98
V	51	72	1	NO GAS	-0.414	ug/l	-12578.53
V	51	72	3	He	0.030	ug/l	131.11
Cr	52	72	1	NO GAS	-0.071	ug/l	8901.42
Cr	52	72	3	He	-0.010	ug/l	129.74
Cr	53	72	1	NO GAS	-2.037	ug/l	42661.49
Mn	55	72	1	NO GAS	0.026	ug/l	1187.70
Mn	55	72	3	He	0.017	ug/l	20.67
Fe	56	72	2	H2	0.354	ug/l	784.64
Fe	56	72	3	He	0.370	ug/l	1291.09
Co	59	72	1	NO GAS	0.019	ug/l	369.27
Ni	60	72	1	NO GAS	0.017	ug/l	123.09
Ni	60	72	3	He	0.003	ug/l	33.33
Ni	62	72	1	NO GAS	0.315	ug/l	449.12
Cu	63	72	1	NO GAS	0.005	ug/l	518.57
Cu	63	72	3	He	-0.007	ug/l	190.63
Cu	65	72	1	NO GAS	0.005	ug/l	263.29
Zn	66	72	1	NO GAS	-0.008	ug/l	472.34
Zn	66	72	3	He	-0.052	ug/l	73.33
As	75	72	1	NO GAS	0.268	ug/l	3998.59
As	75	72	3	He	0.046	ug/l	20.33
Se	78	72	2	H2	0.082	ug/l	11.67
Br	79	72	1	NO GAS	0.532	ug/l	67677.32
Br	79	72	2	H2	0.514	ug/l	10043.29
Se	82	72	1	NO GAS	1.570	ug/l	588.21
Kr	84	72	1	NO GAS		ug/l	8069.40
Sr	88	72	1	NO GAS	0.014	ug/l	868.31
Sr	88	72	3	He	0.007	ug/l	274.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.009	ug/l	150.00
Mo	95	72	3	He	0.010	ug/l	67.78
Mo	98	72	1	NO GAS	0.009	ug/l	281.81
Ag	107	72	1	NO GAS	0.021	ug/l	2199.05
Ag	109	72	1	NO GAS	0.020	ug/l	2146.39
Cd	111	159	1	NO GAS	0.011	ug/l	21.00
Cd	111	159	3	He	0.016	ug/l	24.66
Cd	114	159	1	NO GAS	0.019	ug/l	-13.07
Cd	114	159	3	He	0.025	ug/l	57.18
Sn	118	159	1	NO GAS	-2.526	ug/l	2521.89
Sn	118	159	3	He	-2.356	ug/l	375.56
Sb	121	159	1	NO GAS	0.015	ug/l	483.34
Sb	121	159	3	He	0.014	ug/l	83.33
Sb	123	159	1	NO GAS	0.016	ug/l	418.90
Sb	123	159	3	He	0.012	ug/l	57.78
Ba	135	159	1	NO GAS	0.031	ug/l	156.36
Ba	137	159	1	NO GAS	0.020	ug/l	206.26
La	139	175	1	NO GAS	0.004	ug/l	430.45
La	139	175	3	He	0.004	ug/l	80.08
Ce	140	175	1	NO GAS	0.005	ug/l	437.12
Ce	140	175	3	He	0.004	ug/l	103.44
Hg	201	175	1	NO GAS	0.003	ug/l	25.66
Hg	202	175	1	NO GAS	0.002	ug/l	85.65
Hg	202	175	3	He	0.002	ug/l	40.32
Tl	203	175	3	He	0.028	ug/l	489.25
Tl	205	175	1	NO GAS	0.028	ug/l	2042.38
Tl	205	175	3	He	0.028	ug/l	1159.15
[Pb]	206	175	1	NO GAS	0.018	ug/l	432.23
[Pb]	207	175	1	NO GAS	0.019	ug/l	395.56
Pb	208	175	1	NO GAS	0.018	ug/l	1728.94
Th	232	175	3	He	0.063	ug/l	4179.10
U	238	175	1	NO GAS	0.022	ug/l	2256.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1929652.04	103.4
Sc	45	2	H2	91315.81	110.6
Sc	45	3	He	55338.83	110.0
Ge	72	1	NO GAS	854660.10	101.0
Ge	72	2	H2	126303.25	106.6
Ge	72	3	He	82496.87	109.3
Tb	159	1	NO GAS	17710519.06	97.0
Tb	159	3	He	7246745.08	102.7
Ho	165	1	NO GAS	16882247.69	99.5
Ho	165	3	He	6773835.84	101.6
Lu	175	1	NO GAS	18817451.37	99.2
Lu	175	3	He	4282865.84	102.9

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 038CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:34:49
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS		ug/l	
Be	9	45	1	NO GAS		ug/l	
B	11	45	1	NO GAS		ug/l	
Na	23	45	3	He		ug/l	
Mg	24	45	3	He		ug/l	
Al	27	45	1	NO GAS		ug/l	
Si	28	45	2	H2		ug/l	
K	39	72	3	He		ug/l	
Ca	40	72	2	H2		ug/l	
Ti	47	72	1	NO GAS		ug/l	
V	51	72	1	NO GAS		ug/l	
V	51	72	3	He		ug/l	
Cr	52	72	1	NO GAS		ug/l	
Cr	52	72	3	He		ug/l	
Cr	53	72	1	NO GAS		ug/l	
Mn	55	72	1	NO GAS		ug/l	
Mn	55	72	3	He		ug/l	
Fe	56	72	2	H2		ug/l	
Fe	56	72	3	He		ug/l	
Co	59	72	1	NO GAS		ug/l	
Ni	60	72	1	NO GAS		ug/l	
Ni	60	72	3	He		ug/l	
Ni	62	72	1	NO GAS		ug/l	
Cu	63	72	1	NO GAS		ug/l	
Cu	63	72	3	He		ug/l	
Cu	65	72	1	NO GAS		ug/l	
Zn	66	72	1	NO GAS		ug/l	
Zn	66	72	3	He		ug/l	
As	75	72	1	NO GAS		ug/l	
As	75	72	3	He		ug/l	
Se	78	72	2	H2		ug/l	
Br	79	72	1	NO GAS		ug/l	
Br	79	72	2	H2		ug/l	
Se	82	72	1	NO GAS		ug/l	
Kr	84	72	1	NO GAS		ug/l	
Sr	88	72	1	NO GAS		ug/l	
Sr	88	72	3	He		ug/l	

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS		ug/l	
Mo	95	72	3	He		ug/l	
Mo	98	72	1	NO GAS		ug/l	
Ag	107	72	1	NO GAS		ug/l	
Ag	109	72	1	NO GAS		ug/l	
Cd	111	159	1	NO GAS		ug/l	
Cd	111	159	3	He		ug/l	
Cd	114	159	1	NO GAS		ug/l	
Cd	114	159	3	He		ug/l	
Sn	118	159	1	NO GAS		ug/l	
Sn	118	159	3	He		ug/l	
Sb	121	159	1	NO GAS		ug/l	
Sb	121	159	3	He		ug/l	
Sb	123	159	1	NO GAS		ug/l	
Sb	123	159	3	He		ug/l	
Ba	135	159	1	NO GAS		ug/l	
Ba	137	159	1	NO GAS		ug/l	
La	139	175	1	NO GAS		ug/l	
La	139	175	3	He		ug/l	
Ce	140	175	1	NO GAS		ug/l	
Ce	140	175	3	He		ug/l	
Hg	201	175	1	NO GAS		ug/l	
Hg	202	175	1	NO GAS		ug/l	
Hg	202	175	3	He		ug/l	
Tl	203	175	3	He		ug/l	
Tl	205	175	1	NO GAS		ug/l	
Tl	205	175	3	He		ug/l	
[Pb]	206	175	1	NO GAS		ug/l	
[Pb]	207	175	1	NO GAS		ug/l	
Pb	208	175	1	NO GAS		ug/l	
Th	232	175	3	He		ug/l	
U	238	175	1	NO GAS		ug/l	

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS		
Sc	45	2	H2		
Sc	45	3	He		
Ge	72	1	NO GAS		
Ge	72	2	H2		
Ge	72	3	He		
Tb	159	1	NO GAS		
Tb	159	3	He		
Ho	165	1	NO GAS		
Ho	165	3	He		
Lu	175	1	NO GAS		
Lu	175	3	He		

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 039CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:40:39
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.137	ug/l	3184.33
Be	9	45	1	NO GAS	0.104	ug/l	37.99
B	11	45	1	NO GAS	0.917	ug/l	387.93
Na	23	45	3	He	28.077	ug/l	10190.84
Mg	24	45	3	He	30.157	ug/l	1510.42
Al	27	45	1	NO GAS	0.285	ug/l	1628.98
Si	28	45	2	H2	0.930	ug/l	38.66
K	39	72	3	He	30.697	ug/l	4180.54
Ca	40	72	2	H2	31.871	ug/l	7044.70
Ti	47	72	1	NO GAS	0.155	ug/l	159.92
V	51	72	1	NO GAS	-0.050	ug/l	-8452.23
V	51	72	3	He	0.114	ug/l	237.78
Cr	52	72	1	NO GAS	0.041	ug/l	10609.05
Cr	52	72	3	He	0.136	ug/l	395.89
Cr	53	72	1	NO GAS	-1.117	ug/l	45772.87
Mn	55	72	1	NO GAS	0.123	ug/l	3027.64
Mn	55	72	3	He	0.121	ug/l	110.01
Fe	56	72	2	H2	3.092	ug/l	3826.91
Fe	56	72	3	He	3.146	ug/l	6026.46
Co	59	72	1	NO GAS	0.114	ug/l	1922.98
Ni	60	72	1	NO GAS	0.117	ug/l	492.37
Ni	60	72	3	He	0.091	ug/l	134.45
Ni	62	72	1	NO GAS	0.311	ug/l	465.76
Cu	63	72	1	NO GAS	0.127	ug/l	1656.43
Cu	63	72	3	He	0.123	ug/l	630.22
Cu	65	72	1	NO GAS	0.115	ug/l	779.87
Zn	66	72	1	NO GAS	0.164	ug/l	1007.94
Zn	66	72	3	He	0.147	ug/l	170.00
As	75	72	1	NO GAS	-0.082	ug/l	3024.85
As	75	72	3	He	0.116	ug/l	41.99
Se	78	72	2	H2	0.110	ug/l	14.33
Br	79	72	1	NO GAS	-0.009	ug/l	66595.51
Br	79	72	2	H2	0.343	ug/l	9490.69
Se	82	72	1	NO GAS	0.908	ug/l	428.51
Kr	84	72	1	NO GAS		ug/l	8089.31
Sr	88	72	1	NO GAS	0.120	ug/l	4854.47
Sr	88	72	3	He	0.131	ug/l	464.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.125	ug/l	1104.49
Mo	95	72	3	He	0.116	ug/l	353.34
Mo	98	72	1	NO GAS	0.112	ug/l	1732.89
Ag	107	72	1	NO GAS	0.046	ug/l	2871.02
Ag	109	72	1	NO GAS	0.047	ug/l	2837.70
Cd	111	159	1	NO GAS	0.101	ug/l	535.94
Cd	111	159	3	He	0.109	ug/l	150.64
Cd	114	159	1	NO GAS	0.106	ug/l	1128.60
Cd	114	159	3	He	0.143	ug/l	476.68
Sn	118	159	1	NO GAS	-2.386	ug/l	4970.97
Sn	118	159	3	He	-2.210	ug/l	712.24
Sb	121	159	1	NO GAS	0.117	ug/l	2856.95
Sb	121	159	3	He	0.120	ug/l	421.12
Sb	123	159	1	NO GAS	0.115	ug/l	2211.28
Sb	123	159	3	He	0.100	ug/l	291.12
Ba	135	159	1	NO GAS	0.105	ug/l	535.62
Ba	137	159	1	NO GAS	0.116	ug/l	1064.61
La	139	175	1	NO GAS	0.114	ug/l	9385.73
La	139	175	3	He	0.113	ug/l	2028.88
Ce	140	175	1	NO GAS	0.113	ug/l	9185.46
Ce	140	175	3	He	0.112	ug/l	2562.85
Hg	201	175	1	NO GAS	0.004	ug/l	29.33
Hg	202	175	1	NO GAS	0.002	ug/l	93.98
Hg	202	175	3	He	0.003	ug/l	44.32
Tl	203	175	3	He	0.121	ug/l	1797.76
Tl	205	175	1	NO GAS	0.115	ug/l	7504.16
Tl	205	175	3	He	0.118	ug/l	4171.09
[Pb]	206	175	1	NO GAS	0.113	ug/l	2516.90
[Pb]	207	175	1	NO GAS	0.110	ug/l	2156.84
Pb	208	175	1	NO GAS	0.113	ug/l	10022.51
Th	232	175	3	He	0.111	ug/l	6526.82
U	238	175	1	NO GAS	0.109	ug/l	11098.64

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2057414.54	110.3
Sc	45	2	H2	87492.60	105.9
Sc	45	3	He	54613.84	108.6
Ge	72	1	NO GAS	888115.24	105.0
Ge	72	2	H2	121297.02	102.3
Ge	72	3	He	80460.34	106.6
Tb	159	1	NO GAS	19038794.16	104.2
Tb	159	3	He	6871243.19	97.4
Ho	165	1	NO GAS	17622776.11	103.9
Ho	165	3	He	6828977.12	102.4
Lu	175	1	NO GAS	19330347.58	101.9
Lu	175	3	He	4255222.99	102.3

ICPMS206-B Analytical Data

Sample Name QCS
File Name 040_QCS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:46:30
Sample Type QCS
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	47.201	ug/l	28961.73
Be	9	45	1	NO GAS	24.978	ug/l	7227.05
B	11	45	1	NO GAS	48.524	ug/l	10547.82
Na	23	45	3	He	2413.794	ug/l	233611.59
Mg	24	45	3	He	2295.493	ug/l	110356.08
Al	27	45	1	NO GAS	246.938	ug/l	751768.07
Si	28	45	2	H2	502.551	ug/l	10052.99
K	39	72	3	He	2315.630	ug/l	103152.75
Ca	40	72	2	H2	2453.452	ug/l	504734.40
Ti	47	72	1	NO GAS	47.244	ug/l	40919.44
V	51	72	1	NO GAS	53.148	ug/l	677380.47
V	51	72	3	He	49.522	ug/l	64628.86
Cr	52	72	1	NO GAS	50.171	ug/l	621567.99
Cr	52	72	3	He	49.496	ug/l	90957.10
Cr	53	72	1	NO GAS	43.148	ug/l	117223.73
Mn	55	72	1	NO GAS	244.977	ug/l	4473722.88
Mn	55	72	3	He	248.926	ug/l	215093.25
Fe	56	72	2	H2	240.261	ug/l	273330.74
Fe	56	72	3	He	240.380	ug/l	412736.46
Co	59	72	1	NO GAS	50.972	ug/l	820803.64
Ni	60	72	1	NO GAS	52.140	ug/l	186639.19
Ni	60	72	3	He	50.670	ug/l	58304.16
Ni	62	72	1	NO GAS	52.679	ug/l	29141.19
Cu	63	72	1	NO GAS	52.211	ug/l	474309.81
Cu	63	72	3	He	52.558	ug/l	179674.62
Cu	65	72	1	NO GAS	52.137	ug/l	236614.34
Zn	66	72	1	NO GAS	52.597	ug/l	157170.75
Zn	66	72	3	He	51.826	ug/l	25660.94
As	75	72	1	NO GAS	49.988	ug/l	163057.01
As	75	72	3	He	50.407	ug/l	15874.03
Se	78	72	2	H2	50.250	ug/l	5464.16
Br	79	72	1	NO GAS	1.011	ug/l	72732.05
Br	79	72	2	H2	1.165	ug/l	10389.41
Se	82	72	1	NO GAS	52.553	ug/l	14436.39
Kr	84	72	1	NO GAS		ug/l	18617.05
Sr	88	72	1	NO GAS	48.931	ug/l	1816417.85
Sr	88	72	3	He	50.426	ug/l	80312.03

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.052	ug/l	399498.68
Mo	95	72	3	He	50.219	ug/l	136458.31
Mo	98	72	1	NO GAS	48.388	ug/l	674826.03
Ag	107	72	1	NO GAS	26.299	ug/l	605191.64
Ag	109	72	1	NO GAS	26.147	ug/l	592313.11
Cd	111	159	1	NO GAS	26.226	ug/l	140583.41
Cd	111	159	3	He	25.554	ug/l	35941.38
Cd	114	159	1	NO GAS	26.495	ug/l	324662.37
Cd	114	159	3	He	24.724	ug/l	90154.00
Sn	118	159	1	NO GAS	51.416	ug/l	819822.37
Sn	118	159	3	He	48.181	ug/l	126511.17
Sb	121	159	1	NO GAS	52.352	ug/l	1133205.81
Sb	121	159	3	He	49.105	ug/l	163064.35
Sb	123	159	1	NO GAS	52.727	ug/l	888745.81
Sb	123	159	3	He	48.387	ug/l	132993.83
Ba	135	159	1	NO GAS	51.566	ug/l	242478.79
Ba	137	159	1	NO GAS	52.040	ug/l	431325.51
La	139	175	1	NO GAS	51.937	ug/l	3998511.29
La	139	175	3	He	49.153	ug/l	872629.90
Ce	140	175	1	NO GAS	52.727	ug/l	3981848.63
Ce	140	175	3	He	50.337	ug/l	1135775.46
Hg	201	175	1	NO GAS	1.026	ug/l	4076.07
Hg	202	175	1	NO GAS	1.037	ug/l	9350.69
Hg	202	175	3	He	0.978	ug/l	6643.13
Tl	203	175	3	He	50.137	ug/l	697040.49
Tl	205	175	1	NO GAS	55.315	ug/l	3265280.72
Tl	205	175	3	He	51.738	ug/l	1704844.43
[Pb]	206	175	1	NO GAS	54.122	ug/l	1104081.72
[Pb]	207	175	1	NO GAS	52.457	ug/l	942094.25
Pb	208	175	1	NO GAS	52.407	ug/l	4281414.36
Th	232	175	3	He	50.874	ug/l	2525147.22
U	238	175	1	NO GAS	53.499	ug/l	5082711.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1921023.96	102.9
Sc	45	2	H2	86230.81	104.4
Sc	45	3	He	52967.00	105.3
Ge	72	1	NO GAS	879148.72	103.9
Ge	72	2	H2	122785.15	103.6
Ge	72	3	He	80361.32	106.5
Tb	159	1	NO GAS	17901134.26	98.0
Tb	159	3	He	7041351.47	99.8
Ho	165	1	NO GAS	16652538.83	98.1
Ho	165	3	He	6696817.21	100.5
Lu	175	1	NO GAS	18158486.81	95.7
Lu	175	3	He	4207459.24	101.1

ICPMS206-B Analytical Data

Sample Name CCV
File Name 041_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:52:14
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	555.264	ug/l	317098.88
Be	9	45	1	NO GAS	49.642	ug/l	14844.53
B	11	45	1	NO GAS	47.652	ug/l	10730.60
Na	23	45	3	He	11945.422	ug/l	1252563.99
Mg	24	45	3	He	11743.325	ug/l	626956.30
Al	27	45	1	NO GAS	48.182	ug/l	151931.86
Si	28	45	2	H2	198.646	ug/l	4515.05
K	39	72	3	He	12066.330	ug/l	558956.23
Ca	40	72	2	H2	12606.686	ug/l	2742030.77
Ti	47	72	1	NO GAS	50.065	ug/l	42710.24
V	51	72	1	NO GAS	51.613	ug/l	645407.46
V	51	72	3	He	50.134	ug/l	69587.01
Cr	52	72	1	NO GAS	50.360	ug/l	612390.14
Cr	52	72	3	He	49.377	ug/l	96538.02
Cr	53	72	1	NO GAS	52.932	ug/l	131096.53
Mn	55	72	1	NO GAS	50.194	ug/l	901894.91
Mn	55	72	3	He	50.443	ug/l	46364.74
Fe	56	72	2	H2	1252.365	ug/l	1506383.13
Fe	56	72	3	He	1242.462	ug/l	2265468.06
Co	59	72	1	NO GAS	51.278	ug/l	811310.68
Ni	60	72	1	NO GAS	52.055	ug/l	183997.19
Ni	60	72	3	He	49.450	ug/l	60518.38
Ni	62	72	1	NO GAS	53.206	ug/l	29021.20
Cu	63	72	1	NO GAS	51.279	ug/l	457630.24
Cu	63	72	3	He	50.539	ug/l	183754.24
Cu	65	72	1	NO GAS	51.766	ug/l	231407.76
Zn	66	72	1	NO GAS	49.504	ug/l	145745.94
Zn	66	72	3	He	49.632	ug/l	26139.32
As	75	72	1	NO GAS	51.408	ug/l	164728.79
As	75	72	3	He	49.820	ug/l	16688.65
Se	78	72	2	H2	52.106	ug/l	5997.57
Br	79	72	1	NO GAS	0.478	ug/l	68179.17
Br	79	72	2	H2	1.016	ug/l	10845.52
Se	82	72	1	NO GAS	50.828	ug/l	13701.13
Kr	84	72	1	NO GAS		ug/l	18800.25
Sr	88	72	1	NO GAS	50.000	ug/l	1824330.39
Sr	88	72	3	He	49.718	ug/l	84210.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.799	ug/l	406873.60
Mo	95	72	3	He	48.712	ug/l	140821.24
Mo	98	72	1	NO GAS	49.447	ug/l	677413.09
Ag	107	72	1	NO GAS	20.439	ug/l	462046.86
Ag	109	72	1	NO GAS	20.448	ug/l	456303.80
Cd	111	159	1	NO GAS	53.101	ug/l	279734.91
Cd	111	159	3	He	51.004	ug/l	71752.46
Cd	114	159	1	NO GAS	53.436	ug/l	643633.55
Cd	114	159	3	He	50.712	ug/l	185021.39
Sn	118	159	1	NO GAS	51.066	ug/l	800160.23
Sn	118	159	3	He	49.471	ug/l	129779.37
Sb	121	159	1	NO GAS	52.274	ug/l	1112411.88
Sb	121	159	3	He	49.947	ug/l	165910.54
Sb	123	159	1	NO GAS	51.976	ug/l	860856.85
Sb	123	159	3	He	49.784	ug/l	136893.96
Ba	135	159	1	NO GAS	52.231	ug/l	241510.60
Ba	137	159	1	NO GAS	50.017	ug/l	407522.70
La	139	175	1	NO GAS	48.465	ug/l	3784380.18
La	139	175	3	He	49.428	ug/l	894990.34
Ce	140	175	1	NO GAS	47.937	ug/l	3668935.21
Ce	140	175	3	He	48.843	ug/l	1124111.91
Hg	201	175	1	NO GAS	0.962	ug/l	3889.39
Hg	202	175	1	NO GAS	0.989	ug/l	9070.92
Hg	202	175	3	He	0.990	ug/l	6864.52
Tl	203	175	3	He	49.308	ug/l	699138.28
Tl	205	175	1	NO GAS	51.597	ug/l	3097139.57
Tl	205	175	3	He	51.528	ug/l	1732843.73
[Pb]	206	175	1	NO GAS	49.407	ug/l	1025273.64
[Pb]	207	175	1	NO GAS	49.900	ug/l	911299.94
Pb	208	175	1	NO GAS	50.224	ug/l	4172199.09
Th	232	175	3	He	49.205	ug/l	2493056.49
U	238	175	1	NO GAS	48.757	ug/l	4702594.62

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1996364.82	107.0
Sc	45	2	H2	97789.31	118.4
Sc	45	3	He	58834.50	117.0
Ge	72	1	NO GAS	870262.09	102.9
Ge	72	2	H2	129969.12	109.7
Ge	72	3	He	85471.74	113.2
Tb	159	1	NO GAS	17729006.82	97.1
Tb	159	3	He	7045483.99	99.8
Ho	165	1	NO GAS	16605346.53	97.9
Ho	165	3	He	6766876.12	101.5
Lu	175	1	NO GAS	18701621.49	98.6
Lu	175	3	He	4293016.67	103.2

ICPMS206-B Analytical Data

Sample Name CCB
File Name 042_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 22:57:57
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.590	ug/l	2294.37
Be	9	45	1	NO GAS	0.002	ug/l	7.67
B	11	45	1	NO GAS	0.607	ug/l	342.60
Na	23	45	3	He	-3.526	ug/l	7630.61
Mg	24	45	3	He	0.086	ug/l	19.96
Al	27	45	1	NO GAS	-0.018	ug/l	695.58
Si	28	45	2	H2	0.564	ug/l	35.99
K	39	72	3	He	-1.826	ug/l	2943.61
Ca	40	72	2	H2	0.013	ug/l	649.70
Ti	47	72	1	NO GAS	0.036	ug/l	58.31
V	51	72	1	NO GAS	-0.280	ug/l	-11789.90
V	51	72	3	He	0.014	ug/l	113.34
Cr	52	72	1	NO GAS	0.091	ug/l	11641.07
Cr	52	72	3	He	-0.002	ug/l	149.70
Cr	53	72	1	NO GAS	6.069	ug/l	59733.57
Mn	55	72	1	NO GAS	0.012	ug/l	1001.38
Mn	55	72	3	He	-0.003	ug/l	2.67
Fe	56	72	2	H2	-0.024	ug/l	368.16
Fe	56	72	3	He	0.037	ug/l	731.33
Co	59	72	1	NO GAS	-0.001	ug/l	63.21
Ni	60	72	1	NO GAS	0.009	ug/l	103.13
Ni	60	72	3	He	-0.006	ug/l	24.44
Ni	62	72	1	NO GAS	0.258	ug/l	449.12
Cu	63	72	1	NO GAS	-0.005	ug/l	462.58
Cu	63	72	3	He	-0.010	ug/l	188.30
Cu	65	72	1	NO GAS	-0.010	ug/l	212.63
Zn	66	72	1	NO GAS	-0.073	ug/l	309.36
Zn	66	72	3	He	-0.072	ug/l	65.56
As	75	72	1	NO GAS	-0.105	ug/l	3032.23
As	75	72	3	He	0.012	ug/l	9.67
Se	78	72	2	H2	0.019	ug/l	5.00
Br	79	72	1	NO GAS	-0.516	ug/l	65666.46
Br	79	72	2	H2	-0.132	ug/l	10091.51
Se	82	72	1	NO GAS	1.002	ug/l	482.41
Kr	84	72	1	NO GAS		ug/l	8125.91
Sr	88	72	1	NO GAS	0.000	ug/l	372.60
Sr	88	72	3	He	0.007	ug/l	283.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.009	ug/l	156.67
Mo	95	72	3	He	0.005	ug/l	53.34
Mo	98	72	1	NO GAS	0.005	ug/l	245.57
Ag	107	72	1	NO GAS	0.010	ug/l	2125.06
Ag	109	72	1	NO GAS	0.012	ug/l	2117.06
Cd	111	159	1	NO GAS	0.005	ug/l	-7.78
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.006	ug/l	-199.64
Cd	114	159	3	He	0.003	ug/l	-26.71
Sn	118	159	1	NO GAS	-0.013	ug/l	44426.68
Sn	118	159	3	He	0.072	ug/l	7012.69
Sb	121	159	1	NO GAS	0.053	ug/l	1443.41
Sb	121	159	3	He	0.039	ug/l	177.78
Sb	123	159	1	NO GAS	0.055	ug/l	1173.39
Sb	123	159	3	He	0.041	ug/l	146.67
Ba	135	159	1	NO GAS	0.002	ug/l	26.61
Ba	137	159	1	NO GAS	0.004	ug/l	86.49
La	139	175	1	NO GAS	0.000	ug/l	43.38
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	86.75
Ce	140	175	3	He	0.000	ug/l	16.68
Hg	201	175	1	NO GAS	0.007	ug/l	45.32
Hg	202	175	1	NO GAS	0.006	ug/l	135.64
Hg	202	175	3	He	0.006	ug/l	71.99
Tl	203	175	3	He	0.009	ug/l	238.62
Tl	205	175	1	NO GAS	0.008	ug/l	828.92
Tl	205	175	3	He	0.008	ug/l	535.90
[Pb]	206	175	1	NO GAS	0.001	ug/l	83.33
[Pb]	207	175	1	NO GAS	0.002	ug/l	88.89
Pb	208	175	1	NO GAS	0.002	ug/l	393.34
Th	232	175	3	He	0.067	ug/l	4607.15
U	238	175	1	NO GAS	0.003	ug/l	499.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2213824.88	118.6
Sc	45	2	H2	100830.81	122.1
Sc	45	3	He	58405.65	116.1
Ge	72	1	NO GAS	925210.27	109.4
Ge	72	2	H2	135547.15	114.4
Ge	72	3	He	85528.16	113.3
Tb	159	1	NO GAS	19710704.60	107.9
Tb	159	3	He	7687793.51	108.9
Ho	165	1	NO GAS	18046168.24	106.4
Ho	165	3	He	7132707.98	107.0
Lu	175	1	NO GAS	20098221.47	106.0
Lu	175	3	He	4532393.33	108.9

ICPMS206-B Analytical Data

Sample Name LRB
File Name 043_LRB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:03:43
Sample Type LRB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.003	ug/l	2085.38
Be	9	45	1	NO GAS	-0.003	ug/l	5.67
B	11	45	1	NO GAS	0.276	ug/l	265.95
Na	23	45	3	He	32.018	ug/l	11324.85
Mg	24	45	3	He	0.898	ug/l	63.21
Al	27	45	1	NO GAS	0.341	ug/l	1989.04
Si	28	45	2	H2	4.461	ug/l	103.99
K	39	72	3	He	-2.897	ug/l	2924.16
Ca	40	72	2	H2	6.779	ug/l	1910.84
Ti	47	72	1	NO GAS	0.019	ug/l	41.65
V	51	72	1	NO GAS	0.255	ug/l	-4364.97
V	51	72	3	He	0.036	ug/l	146.67
Cr	52	72	1	NO GAS	0.134	ug/l	12683.08
Cr	52	72	3	He	0.132	ug/l	415.85
Cr	53	72	1	NO GAS	2.805	ug/l	56046.37
Mn	55	72	1	NO GAS	0.015	ug/l	1084.56
Mn	55	72	3	He	0.012	ug/l	17.33
Fe	56	72	2	H2	0.795	ug/l	1226.11
Fe	56	72	3	He	0.579	ug/l	1737.57
Co	59	72	1	NO GAS	0.000	ug/l	83.17
Ni	60	72	1	NO GAS	0.078	ug/l	369.28
Ni	60	72	3	He	0.065	ug/l	112.22
Ni	62	72	1	NO GAS	0.376	ug/l	538.94
Cu	63	72	1	NO GAS	-0.007	ug/l	458.58
Cu	63	72	3	He	-0.026	ug/l	132.31
Cu	65	72	1	NO GAS	-0.012	ug/l	209.96
Zn	66	72	1	NO GAS	0.650	ug/l	2658.22
Zn	66	72	3	He	0.642	ug/l	444.46
As	75	72	1	NO GAS	-0.046	ug/l	3335.22
As	75	72	3	He	-0.004	ug/l	4.33
Se	78	72	2	H2	0.013	ug/l	3.67
Br	79	72	1	NO GAS	-0.276	ug/l	69718.12
Br	79	72	2	H2	1.715	ug/l	10529.26
Se	82	72	1	NO GAS	0.373	ug/l	290.77
Kr	84	72	1	NO GAS		ug/l	8132.61
Sr	88	72	1	NO GAS	0.008	ug/l	728.58
Sr	88	72	3	He	-0.003	ug/l	271.11

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.014	ug/l	213.34
Mo	95	72	3	He	0.008	ug/l	63.33
Mo	98	72	1	NO GAS	0.011	ug/l	347.93
Ag	107	72	1	NO GAS	-0.069	ug/l	228.63
Ag	109	72	1	NO GAS	-0.067	ug/l	261.95
Cd	111	159	1	NO GAS	0.012	ug/l	27.28
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.018	ug/l	-27.69
Cd	114	159	3	He	0.010	ug/l	4.22
Sn	118	159	1	NO GAS	-2.543	ug/l	2595.10
Sn	118	159	3	He	-2.368	ug/l	362.23
Sb	121	159	1	NO GAS	0.013	ug/l	503.35
Sb	121	159	3	He	0.011	ug/l	74.44
Sb	123	159	1	NO GAS	0.010	ug/l	361.12
Sb	123	159	3	He	0.013	ug/l	64.44
Ba	135	159	1	NO GAS	0.007	ug/l	53.23
Ba	137	159	1	NO GAS	0.010	ug/l	146.38
La	139	175	1	NO GAS	0.000	ug/l	56.72
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.000	ug/l	80.08
Ce	140	175	3	He	0.001	ug/l	46.71
Hg	201	175	1	NO GAS	0.004	ug/l	33.32
Hg	202	175	1	NO GAS	0.003	ug/l	104.31
Hg	202	175	3	He	0.003	ug/l	52.99
Tl	203	175	3	He	0.002	ug/l	135.31
Tl	205	175	1	NO GAS	0.002	ug/l	454.45
Tl	205	175	3	He	0.003	ug/l	361.94
[Pb]	206	175	1	NO GAS	0.002	ug/l	110.00
[Pb]	207	175	1	NO GAS	0.002	ug/l	83.33
Pb	208	175	1	NO GAS	0.002	ug/l	417.78
Th	232	175	3	He	0.032	ug/l	2767.05
U	238	175	1	NO GAS	0.001	ug/l	237.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2265722.91	121.4
Sc	45	2	H2	85319.63	103.3
Sc	45	3	He	58544.53	116.4
Ge	72	1	NO GAS	962263.56	113.8
Ge	72	2	H2	119310.82	100.7
Ge	72	3	He	86427.77	114.5
Tb	159	1	NO GAS	20323242.53	111.3
Tb	159	3	He	7586856.95	107.5
Ho	165	1	NO GAS	19498100.75	114.9
Ho	165	3	He	7229168.29	108.4
Lu	175	1	NO GAS	20856139.78	110.0
Lu	175	3	He	4566669.53	109.7

ICPMS206-B Analytical Data

Sample Name LFB
File Name 044LFB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:09:28
Sample Type LFB
Total Dilution 1.0300
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2138.311	ug/l	1331945.67
Be	9	45	1	NO GAS	46.706	ug/l	14758.25
B	11	45	1	NO GAS	47.174	ug/l	11227.44
Na	23	45	3	He	50530.263	ug/l	4797210.87
Mg	24	45	3	He	49242.987	ug/l	2393122.64
Al	27	45	1	NO GAS	46.598	ug/l	155674.36
Si	28	45	2	H2	234.597	ug/l	4110.36
K	39	72	3	He	47715.381	ug/l	2097886.57
Ca	40	72	2	H2	60463.276	ug/l	10202964.98
Ti	47	72	1	NO GAS	54.260	ug/l	47753.77
V	51	72	1	NO GAS	49.963	ug/l	646529.98
V	51	72	3	He	49.356	ug/l	65275.12
Cr	52	72	1	NO GAS	48.586	ug/l	612215.21
Cr	52	72	3	He	47.097	ug/l	87726.53
Cr	53	72	1	NO GAS	74.999	ug/l	173327.98
Mn	55	72	1	NO GAS	48.749	ug/l	904096.29
Mn	55	72	3	He	49.388	ug/l	43244.43
Fe	56	72	2	H2	5544.510	ug/l	5180959.52
Fe	56	72	3	He	4620.097	ug/l	8027391.51
Co	59	72	1	NO GAS	49.387	ug/l	807161.11
Ni	60	72	1	NO GAS	48.267	ug/l	175911.91
Ni	60	72	3	He	48.910	ug/l	57027.47
Ni	62	72	1	NO GAS	48.251	ug/l	27271.63
Cu	63	72	1	NO GAS	49.518	ug/l	457155.97
Cu	63	72	3	He	49.159	ug/l	170326.94
Cu	65	72	1	NO GAS	48.882	ug/l	225507.45
Zn	66	72	1	NO GAS	48.362	ug/l	147067.37
Zn	66	72	3	He	48.280	ug/l	24227.55
As	75	72	1	NO GAS	49.111	ug/l	162814.31
As	75	72	3	He	48.901	ug/l	15606.16
Se	78	72	2	H2	61.686	ug/l	5528.83
Br	79	72	1	NO GAS	-0.920	ug/l	62917.56
Br	79	72	2	H2	2.740	ug/l	9903.50
Se	82	72	1	NO GAS	49.110	ug/l	13724.96
Kr	84	72	1	NO GAS		ug/l	19169.81
Sr	88	72	1	NO GAS	48.699	ug/l	1836749.83
Sr	88	72	3	He	48.582	ug/l	78423.29

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.433	ug/l	400909.78
Mo	95	72	3	He	48.961	ug/l	134838.78
Mo	98	72	1	NO GAS	47.726	ug/l	676413.70
Ag	107	72	1	NO GAS	20.030	ug/l	469015.84
Ag	109	72	1	NO GAS	19.488	ug/l	449616.32
Cd	111	159	1	NO GAS	46.762	ug/l	266691.61
Cd	111	159	3	He	48.219	ug/l	66576.66
Cd	114	159	1	NO GAS	47.669	ug/l	621269.65
Cd	114	159	3	He	48.542	ug/l	173869.04
Sn	118	159	1	NO GAS	46.647	ug/l	797728.93
Sn	118	159	3	He	46.717	ug/l	120809.94
Sb	121	159	1	NO GAS	47.783	ug/l	1101843.95
Sb	121	159	3	He	48.746	ug/l	158924.03
Sb	123	159	1	NO GAS	48.961	ug/l	878278.88
Sb	123	159	3	He	48.577	ug/l	131153.27
Ba	135	159	1	NO GAS	47.979	ug/l	239856.63
Ba	137	159	1	NO GAS	46.978	ug/l	413930.72
La	139	175	1	NO GAS	0.005	ug/l	457.14
La	139	175	3	He	0.006	ug/l	100.10
Ce	140	175	1	NO GAS	45.095	ug/l	3779729.31
Ce	140	175	3	He	48.656	ug/l	1092192.84
Hg	201	175	1	NO GAS	0.937	ug/l	4110.74
Hg	202	175	1	NO GAS	0.913	ug/l	9111.92
Hg	202	175	3	He	0.966	ug/l	6526.43
Tl	203	175	3	He	46.952	ug/l	649021.56
Tl	205	175	1	NO GAS	45.390	ug/l	2959233.81
Tl	205	175	3	He	48.749	ug/l	1596919.14
[Pb]	206	175	1	NO GAS	46.303	ug/l	1042980.95
[Pb]	207	175	1	NO GAS	44.264	ug/l	878360.99
Pb	208	175	1	NO GAS	45.196	ug/l	4079517.92
Th	232	175	3	He	49.235	ug/l	2430931.00
U	238	175	1	NO GAS	45.042	ug/l	4725044.42

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2186484.30	117.2
Sc	45	2	H2	78256.88	94.8
Sc	45	3	He	55125.81	109.6
Ge	72	1	NO GAS	928971.13	109.8
Ge	72	2	H2	104886.82	88.5
Ge	72	3	He	83860.34	111.1
Tb	159	1	NO GAS	19877366.25	108.8
Tb	159	3	He	7127157.01	101.0
Ho	165	1	NO GAS	18783457.17	110.7
Ho	165	3	He	6704475.33	100.6
Lu	175	1	NO GAS	21007560.15	110.8
Lu	175	3	He	4312499.90	103.6

ICPMS206-B Analytical Data

Sample Name ICSA
File Name 045ICSA.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:15:10
Sample Type ICSA
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.196	ug/l	2679.01
Be	9	45	1	NO GAS	-0.007	ug/l	4.33
B	11	45	1	NO GAS	0.463	ug/l	290.61
Na	23	45	3	He	91386.874	ug/l	8293275.22
Mg	24	45	3	He	37624.393	ug/l	1748363.40
Al	27	45	1	NO GAS	35003.679	ug/l	116173306.05
Si	28	45	2	H2	0.647	ug/l	29.99
K	39	72	3	He	35683.368	ug/l	1535746.11
Ca	40	72	2	H2	103358.347	ug/l	20901666.07
Ti	47	72	1	NO GAS	769.392	ug/l	693540.71
V	51	72	1	NO GAS	-0.044	ug/l	-8457.14
V	51	72	3	He	-0.001	ug/l	86.67
Cr	52	72	1	NO GAS	0.900	ug/l	21824.32
Cr	52	72	3	He	0.805	ug/l	1610.23
Cr	53	72	1	NO GAS	-6.290	ug/l	38406.53
Mn	55	72	1	NO GAS	0.208	ug/l	4718.00
Mn	55	72	3	He	0.186	ug/l	164.35
Fe	56	72	2	H2	91367.196	ug/l	102218740.85
Fe	56	72	3	He	88968.740	ug/l	151267903.78
Co	59	72	1	NO GAS	0.355	ug/l	6025.86
Ni	60	72	1	NO GAS	1.387	ug/l	5240.51
Ni	60	72	3	He	0.175	ug/l	228.89
Ni	62	72	1	NO GAS	3.783	ug/l	2461.98
Cu	63	72	1	NO GAS	1.443	ug/l	14131.82
Cu	63	72	3	He	0.018	ug/l	268.62
Cu	65	72	1	NO GAS	0.491	ug/l	2576.36
Zn	66	72	1	NO GAS	0.719	ug/l	2760.73
Zn	66	72	3	He	0.327	ug/l	256.67
As	75	72	1	NO GAS	0.091	ug/l	3696.67
As	75	72	3	He	0.067	ug/l	26.33
Se	78	72	2	H2	0.124	ug/l	15.67
Br	79	72	1	NO GAS	0.156	ug/l	69760.62
Br	79	72	2	H2	0.731	ug/l	9816.83
Se	82	72	1	NO GAS	1.022	ug/l	470.44
Kr	84	72	1	NO GAS		ug/l	8748.40
Sr	88	72	1	NO GAS	1.221	ug/l	47521.23
Sr	88	72	3	He	1.285	ug/l	2276.84

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	773.732	ug/l	6556165.60
Mo	95	72	3	He	785.219	ug/l	2115096.98
Mo	98	72	1	NO GAS	765.933	ug/l	11105619.98
Ag	107	72	1	NO GAS	0.006	ug/l	1996.40
Ag	109	72	1	NO GAS	0.001	ug/l	1850.41
Cd	111	159	1	NO GAS	0.037	ug/l	171.67
Cd	111	159	3	He	0.203	ug/l	282.61
Cd	114	159	1	NO GAS	0.069	ug/l	669.55
Cd	114	159	3	He	0.154	ug/l	519.77
Sn	118	159	1	NO GAS	-2.292	ug/l	6621.64
Sn	118	159	3	He	-2.068	ug/l	1066.71
Sb	121	159	1	NO GAS	0.031	ug/l	915.59
Sb	121	159	3	He	0.029	ug/l	128.89
Sb	123	159	1	NO GAS	0.047	ug/l	1023.88
Sb	123	159	3	He	0.030	ug/l	104.45
Ba	135	159	1	NO GAS	0.066	ug/l	349.31
Ba	137	159	1	NO GAS	0.069	ug/l	672.02
La	139	175	1	NO GAS	0.009	ug/l	817.53
La	139	175	3	He	0.008	ug/l	146.82
Ce	140	175	1	NO GAS	0.003	ug/l	350.37
Ce	140	175	3	He	0.002	ug/l	70.07
Hg	201	175	1	NO GAS	0.006	ug/l	41.66
Hg	202	175	1	NO GAS	0.003	ug/l	103.98
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.059	ug/l	948.51
Tl	205	175	1	NO GAS	0.057	ug/l	4007.24
Tl	205	175	3	He	0.061	ug/l	2316.40
[Pb]	206	175	1	NO GAS	0.017	ug/l	456.68
[Pb]	207	175	1	NO GAS	0.018	ug/l	398.90
Pb	208	175	1	NO GAS	0.018	ug/l	1831.17
Th	232	175	3	He	0.179	ug/l	10189.48
U	238	175	1	NO GAS	0.003	ug/l	407.26

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2095276.48	112.3
Sc	45	2	H2	79607.90	96.4
Sc	45	3	He	51211.65	101.8
Ge	72	1	NO GAS	913888.71	108.0
Ge	72	2	H2	120967.96	102.1
Ge	72	3	He	79669.96	105.6
Tb	159	1	NO GAS	19444552.20	106.5
Tb	159	3	He	6936234.90	98.3
Ho	165	1	NO GAS	18050524.47	106.4
Ho	165	3	He	6657292.74	99.9
Lu	175	1	NO GAS	19943811.02	105.2
Lu	175	3	He	4359751.94	104.8

ICPMS206-B Analytical Data

Sample Name ICSAB
File Name 046ICSB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:20:56
Sample Type ICSB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.286	ug/l	1980.39
Be	9	45	1	NO GAS	-0.009	ug/l	3.00
B	11	45	1	NO GAS	0.043	ug/l	168.64
Na	23	45	3	He	85095.780	ug/l	6864011.36
Mg	24	45	3	He	32846.490	ug/l	1357130.23
Al	27	45	1	NO GAS	32310.096	ug/l	93614165.27
Si	28	45	2	H2	0.719	ug/l	26.00
K	39	72	3	He	33574.049	ug/l	1323971.09
Ca	40	72	2	H2	91663.019	ug/l	16821058.77
Ti	47	72	1	NO GAS	739.476	ug/l	610618.29
V	51	72	1	NO GAS	18.887	ug/l	225002.10
V	51	72	3	He	18.635	ug/l	22143.45
Cr	52	72	1	NO GAS	19.426	ug/l	235197.83
Cr	52	72	3	He	18.842	ug/l	31547.12
Cr	53	72	1	NO GAS	9.489	ug/l	59616.65
Mn	55	72	1	NO GAS	19.033	ug/l	331728.61
Mn	55	72	3	He	19.012	ug/l	14927.39
Fe	56	72	2	H2	82292.131	ug/l	83397874.50
Fe	56	72	3	He	86683.998	ug/l	135032940.43
Co	59	72	1	NO GAS	19.294	ug/l	296018.49
Ni	60	72	1	NO GAS	20.060	ug/l	68590.61
Ni	60	72	3	He	19.039	ug/l	19917.43
Ni	62	72	1	NO GAS	23.380	ug/l	12493.38
Cu	63	72	1	NO GAS	20.126	ug/l	174574.85
Cu	63	72	3	He	18.690	ug/l	58167.70
Cu	65	72	1	NO GAS	18.936	ug/l	82088.88
Zn	66	72	1	NO GAS	9.922	ug/l	28662.36
Zn	66	72	3	He	9.528	ug/l	4357.26
As	75	72	1	NO GAS	9.715	ug/l	32703.05
As	75	72	3	He	9.932	ug/l	2845.68
Se	78	72	2	H2	10.424	ug/l	1012.50
Br	79	72	1	NO GAS	0.984	ug/l	69196.38
Br	79	72	2	H2	2.133	ug/l	10114.77
Se	82	72	1	NO GAS	10.843	ug/l	2973.95
Kr	84	72	1	NO GAS		ug/l	8392.23
Sr	88	72	1	NO GAS	1.186	ug/l	42277.48
Sr	88	72	3	He	1.278	ug/l	2075.70

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	759.976	ug/l	5901501.16
Mo	95	72	3	He	782.181	ug/l	1930666.97
Mo	98	72	1	NO GAS	779.814	ug/l	10361880.13
Ag	107	72	1	NO GAS	4.783	ug/l	106258.89
Ag	109	72	1	NO GAS	4.793	ug/l	104845.15
Cd	111	159	1	NO GAS	9.468	ug/l	50640.56
Cd	111	159	3	He	9.772	ug/l	12382.27
Cd	114	159	1	NO GAS	9.737	ug/l	119095.71
Cd	114	159	3	He	9.803	ug/l	32184.63
Sn	118	159	1	NO GAS	-2.290	ug/l	6132.39
Sn	118	159	3	He	-2.102	ug/l	902.26
Sb	121	159	1	NO GAS	0.031	ug/l	825.59
Sb	121	159	3	He	0.018	ug/l	85.56
Sb	123	159	1	NO GAS	0.026	ug/l	582.24
Sb	123	159	3	He	0.036	ug/l	111.11
Ba	135	159	1	NO GAS	0.081	ug/l	395.89
Ba	137	159	1	NO GAS	0.058	ug/l	525.64
La	139	175	1	NO GAS	0.010	ug/l	807.52
La	139	175	3	He	0.011	ug/l	176.85
Ce	140	175	1	NO GAS	0.003	ug/l	270.28
Ce	140	175	3	He	0.003	ug/l	93.43
Hg	201	175	1	NO GAS	0.001	ug/l	17.33
Hg	202	175	1	NO GAS	0.003	ug/l	91.98
Hg	202	175	3	He	0.003	ug/l	41.99
Tl	203	175	3	He	0.023	ug/l	383.93
Tl	205	175	1	NO GAS	0.019	ug/l	1414.52
Tl	205	175	3	He	0.022	ug/l	906.52
[Pb]	206	175	1	NO GAS	0.014	ug/l	346.67
[Pb]	207	175	1	NO GAS	0.016	ug/l	332.23
Pb	208	175	1	NO GAS	0.017	ug/l	1573.38
Th	232	175	3	He	0.110	ug/l	6092.06
U	238	175	1	NO GAS	0.001	ug/l	202.96

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1830032.57	98.1
Sc	45	2	H2	66997.69	81.1
Sc	45	3	He	45527.51	90.5
Ge	72	1	NO GAS	837202.58	99.0
Ge	72	2	H2	109836.04	92.7
Ge	72	3	He	72989.72	96.7
Tb	159	1	NO GAS	17888454.07	97.9
Tb	159	3	He	6345353.93	89.9
Ho	165	1	NO GAS	16873470.17	99.4
Ho	165	3	He	6205712.42	93.1
Lu	175	1	NO GAS	17888641.14	94.3
Lu	175	3	He	3999132.87	96.1

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 047BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:26:40
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.537	ug/l	2203.04
Be	9	45	1	NO GAS	0.020	ug/l	11.00
B	11	45	1	NO GAS	-0.015	ug/l	157.30
Na	23	45	3	He	34.396	ug/l	9469.30
Mg	24	45	3	He	3.157	ug/l	149.71
Al	27	45	1	NO GAS	0.314	ug/l	1530.08
Si	28	45	2	H2	0.186	ug/l	20.66
K	39	72	3	He	0.479	ug/l	2785.80
Ca	40	72	2	H2	2.416	ug/l	1034.53
Ti	47	72	1	NO GAS	0.036	ug/l	53.31
V	51	72	1	NO GAS	-0.161	ug/l	-9212.48
V	51	72	3	He	0.020	ug/l	111.11
Cr	52	72	1	NO GAS	-0.188	ug/l	7423.62
Cr	52	72	3	He	0.031	ug/l	196.28
Cr	53	72	1	NO GAS	-8.448	ug/l	32101.03
Mn	55	72	1	NO GAS	0.035	ug/l	1327.43
Mn	55	72	3	He	0.030	ug/l	30.00
Fe	56	72	2	H2	0.953	ug/l	1376.06
Fe	56	72	3	He	1.007	ug/l	2285.71
Co	59	72	1	NO GAS	0.025	ug/l	459.10
Ni	60	72	1	NO GAS	0.038	ug/l	192.96
Ni	60	72	3	He	0.020	ug/l	51.11
Ni	62	72	1	NO GAS	0.576	ug/l	582.20
Cu	63	72	1	NO GAS	0.058	ug/l	969.84
Cu	63	72	3	He	0.010	ug/l	238.29
Cu	65	72	1	NO GAS	0.022	ug/l	335.27
Zn	66	72	1	NO GAS	-0.020	ug/l	432.46
Zn	66	72	3	He	-0.030	ug/l	80.00
As	75	72	1	NO GAS	-0.089	ug/l	2846.13
As	75	72	3	He	0.035	ug/l	16.00
Se	78	72	2	H2	0.016	ug/l	4.00
Br	79	72	1	NO GAS	0.007	ug/l	63438.47
Br	79	72	2	H2	0.489	ug/l	9297.59
Se	82	72	1	NO GAS	0.430	ug/l	284.12
Kr	84	72	1	NO GAS		ug/l	7786.45
Sr	88	72	1	NO GAS	0.029	ug/l	1387.33
Sr	88	72	3	He	0.028	ug/l	292.23

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.083	ug/l	727.80
Mo	95	72	3	He	0.085	ug/l	261.12
Mo	98	72	1	NO GAS	0.076	ug/l	1173.88
Ag	107	72	1	NO GAS	0.017	ug/l	2102.39
Ag	109	72	1	NO GAS	0.015	ug/l	2011.73
Cd	111	159	1	NO GAS	0.022	ug/l	84.66
Cd	111	159	3	He	0.030	ug/l	43.32
Cd	114	159	1	NO GAS	0.032	ug/l	155.30
Cd	114	159	3	He	0.035	ug/l	92.21
Sn	118	159	1	NO GAS	-2.547	ug/l	2318.92
Sn	118	159	3	He	-2.347	ug/l	386.67
Sb	121	159	1	NO GAS	0.012	ug/l	432.23
Sb	121	159	3	He	0.012	ug/l	74.44
Sb	123	159	1	NO GAS	0.010	ug/l	333.34
Sb	123	159	3	He	0.012	ug/l	56.66
Ba	135	159	1	NO GAS	0.046	ug/l	239.53
Ba	137	159	1	NO GAS	0.035	ug/l	345.99
La	139	175	1	NO GAS	0.005	ug/l	457.14
La	139	175	3	He	0.004	ug/l	73.41
Ce	140	175	1	NO GAS	0.006	ug/l	507.20
Ce	140	175	3	He	0.007	ug/l	180.18
Hg	201	175	1	NO GAS	0.001	ug/l	16.00
Hg	202	175	1	NO GAS	0.000	ug/l	73.98
Hg	202	175	3	He	0.002	ug/l	35.99
Tl	203	175	3	He	0.042	ug/l	672.55
Tl	205	175	1	NO GAS	0.043	ug/l	2982.54
Tl	205	175	3	He	0.041	ug/l	1571.11
[Pb]	206	175	1	NO GAS	0.032	ug/l	743.36
[Pb]	207	175	1	NO GAS	0.033	ug/l	674.47
Pb	208	175	1	NO GAS	0.032	ug/l	2976.81
Th	232	175	3	He	0.031	ug/l	2482.39
U	238	175	1	NO GAS	0.029	ug/l	2983.38

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1830058.02	98.1
Sc	45	2	H2	76084.59	92.1
Sc	45	3	He	47866.95	95.2
Ge	72	1	NO GAS	845401.06	99.9
Ge	72	2	H2	117207.50	98.9
Ge	72	3	He	78128.82	103.5
Tb	159	1	NO GAS	18585338.64	101.7
Tb	159	3	He	7022732.12	99.5
Ho	165	1	NO GAS	17485406.04	103.1
Ho	165	3	He	6687185.70	100.3
Lu	175	1	NO GAS	19134443.35	100.9
Lu	175	3	He	4201683.62	101.0

ICPMS206-B Analytical Data

Sample Name CCV
File Name 048_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:32:25
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	386.612	ug/l	250354.46
Be	9	45	1	NO GAS	39.939	ug/l	11363.10
B	11	45	1	NO GAS	38.537	ug/l	8274.36
Na	23	45	3	He	10961.827	ug/l	956587.31
Mg	24	45	3	He	10376.644	ug/l	460964.46
Al	27	45	1	NO GAS	41.515	ug/l	124862.21
Si	28	45	2	H2	179.853	ug/l	3135.00
K	39	72	3	He	10569.038	ug/l	441076.88
Ca	40	72	2	H2	10466.454	ug/l	1981976.03
Ti	47	72	1	NO GAS	42.990	ug/l	38085.87
V	51	72	1	NO GAS	44.814	ug/l	584893.54
V	51	72	3	He	48.765	ug/l	60923.75
Cr	52	72	1	NO GAS	44.071	ug/l	560867.84
Cr	52	72	3	He	46.277	ug/l	81431.13
Cr	53	72	1	NO GAS	40.793	ug/l	115687.05
Mn	55	72	1	NO GAS	46.010	ug/l	860311.60
Mn	55	72	3	He	47.518	ug/l	39305.93
Fe	56	72	2	H2	1127.180	ug/l	1179596.24
Fe	56	72	3	He	1152.280	ug/l	1891758.29
Co	59	72	1	NO GAS	46.607	ug/l	768997.32
Ni	60	72	1	NO GAS	46.581	ug/l	171220.33
Ni	60	72	3	He	48.560	ug/l	53488.07
Ni	62	72	1	NO GAS	47.817	ug/l	27158.21
Cu	63	72	1	NO GAS	47.496	ug/l	441809.99
Cu	63	72	3	He	50.189	ug/l	164247.53
Cu	65	72	1	NO GAS	46.921	ug/l	218149.22
Zn	66	72	1	NO GAS	46.484	ug/l	141878.65
Zn	66	72	3	He	49.629	ug/l	23522.24
As	75	72	1	NO GAS	47.309	ug/l	158373.50
As	75	72	3	He	50.013	ug/l	15078.44
Se	78	72	2	H2	51.388	ug/l	5146.45
Br	79	72	1	NO GAS	0.645	ug/l	72087.36
Br	79	72	2	H2	0.902	ug/l	9340.86
Se	82	72	1	NO GAS	48.617	ug/l	13651.93
Kr	84	72	1	NO GAS		ug/l	18820.17
Sr	88	72	1	NO GAS	48.879	ug/l	1853734.43
Sr	88	72	3	He	48.253	ug/l	73570.20

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.418	ug/l	403957.53
Mo	95	72	3	He	50.677	ug/l	131842.89
Mo	98	72	1	NO GAS	47.964	ug/l	684404.65
Ag	107	72	1	NO GAS	19.988	ug/l	471352.63
Ag	109	72	1	NO GAS	19.544	ug/l	453689.27
Cd	111	159	1	NO GAS	46.772	ug/l	278283.66
Cd	111	159	3	He	48.381	ug/l	66606.31
Cd	114	159	1	NO GAS	47.055	ug/l	642104.55
Cd	114	159	3	He	48.607	ug/l	173627.16
Sn	118	159	1	NO GAS	44.978	ug/l	802336.12
Sn	118	159	3	He	46.930	ug/l	120784.67
Sb	121	159	1	NO GAS	46.221	ug/l	1110744.33
Sb	121	159	3	He	47.012	ug/l	152885.48
Sb	123	159	1	NO GAS	46.221	ug/l	865313.75
Sb	123	159	3	He	47.683	ug/l	128348.96
Ba	135	159	1	NO GAS	47.406	ug/l	247698.02
Ba	137	159	1	NO GAS	45.263	ug/l	416688.67
La	139	175	1	NO GAS	46.101	ug/l	3930459.46
La	139	175	3	He	49.137	ug/l	861673.92
Ce	140	175	1	NO GAS	46.664	ug/l	3904250.65
Ce	140	175	3	He	48.883	ug/l	1089418.05
Hg	201	175	1	NO GAS	0.900	ug/l	3963.07
Hg	202	175	1	NO GAS	0.899	ug/l	8986.87
Hg	202	175	3	He	0.980	ug/l	6574.11
Tl	203	175	3	He	48.964	ug/l	672306.42
Tl	205	175	1	NO GAS	47.730	ug/l	3128406.65
Tl	205	175	3	He	51.039	ug/l	1662396.11
[Pb]	206	175	1	NO GAS	46.105	ug/l	1040593.46
[Pb]	207	175	1	NO GAS	45.147	ug/l	898734.49
Pb	208	175	1	NO GAS	45.717	ug/l	4133734.10
Th	232	175	3	He	49.582	ug/l	2431709.08
U	238	175	1	NO GAS	45.133	ug/l	4736147.36

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1913213.36	102.5
Sc	45	2	H2	74930.58	90.7
Sc	45	3	He	48954.17	97.3
Ge	72	1	NO GAS	906602.56	107.2
Ge	72	2	H2	113114.38	95.4
Ge	72	3	He	76907.54	101.9
Tb	159	1	NO GAS	20101491.82	110.1
Tb	159	3	He	6898071.21	97.7
Ho	165	1	NO GAS	18856683.10	111.1
Ho	165	3	He	6704734.86	100.6
Lu	175	1	NO GAS	20273146.18	106.9
Lu	175	3	He	4157461.09	99.9

ICPMS206-B Analytical Data

Sample Name CCB
File Name 049_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:38:09
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.795	ug/l	2593.69
Be	9	45	1	NO GAS	0.001	ug/l	6.67
B	11	45	1	NO GAS	0.134	ug/l	197.96
Na	23	45	3	He	12.258	ug/l	7918.52
Mg	24	45	3	He	-0.139	ug/l	6.65
Al	27	45	1	NO GAS	-0.027	ug/l	577.79
Si	28	45	2	H2	0.332	ug/l	23.33
K	39	72	3	He	-7.152	ug/l	2484.65
Ca	40	72	2	H2	-0.150	ug/l	533.08
Ti	47	72	1	NO GAS	0.006	ug/l	31.65
V	51	72	1	NO GAS	-0.301	ug/l	-11218.96
V	51	72	3	He	0.045	ug/l	144.45
Cr	52	72	1	NO GAS	-0.003	ug/l	10156.38
Cr	52	72	3	He	-0.013	ug/l	119.76
Cr	53	72	1	NO GAS	5.757	ug/l	57258.52
Mn	55	72	1	NO GAS	0.002	ug/l	798.44
Mn	55	72	3	He	-0.001	ug/l	4.33
Fe	56	72	2	H2	0.171	ug/l	531.41
Fe	56	72	3	He	0.209	ug/l	962.90
Co	59	72	1	NO GAS	-0.002	ug/l	39.92
Ni	60	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	3	He	-0.011	ug/l	16.67
Ni	62	72	1	NO GAS	0.265	ug/l	442.47
Cu	63	72	1	NO GAS	0.004	ug/l	531.91
Cu	63	72	3	He	0.000	ug/l	206.97
Cu	65	72	1	NO GAS	-0.009	ug/l	212.62
Zn	66	72	1	NO GAS	-0.062	ug/l	335.96
Zn	66	72	3	He	-0.075	ug/l	58.89
As	75	72	1	NO GAS	0.195	ug/l	4030.40
As	75	72	3	He	0.006	ug/l	7.00
Se	78	72	2	H2	0.019	ug/l	4.33
Br	79	72	1	NO GAS	-0.242	ug/l	65549.73
Br	79	72	2	H2	0.017	ug/l	8911.46
Se	82	72	1	NO GAS	1.193	ug/l	525.01
Kr	84	72	1	NO GAS		ug/l	7666.65
Sr	88	72	1	NO GAS	0.000	ug/l	349.32
Sr	88	72	3	He	-0.011	ug/l	234.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.017	ug/l	223.34
Mo	95	72	3	He	0.020	ug/l	90.00
Mo	98	72	1	NO GAS	0.014	ug/l	362.24
Ag	107	72	1	NO GAS	0.004	ug/l	1921.74
Ag	109	72	1	NO GAS	0.011	ug/l	2021.73
Cd	111	159	1	NO GAS	0.005	ug/l	-9.24
Cd	111	159	3	He	0.003	ug/l	4.67
Cd	114	159	1	NO GAS	0.003	ug/l	-211.95
Cd	114	159	3	He	0.000	ug/l	-33.54
Sn	118	159	1	NO GAS	0.006	ug/l	45037.25
Sn	118	159	3	He	0.135	ug/l	6845.96
Sb	121	159	1	NO GAS	0.046	ug/l	1273.40
Sb	121	159	3	He	0.041	ug/l	178.89
Sb	123	159	1	NO GAS	0.042	ug/l	963.37
Sb	123	159	3	He	0.026	ug/l	97.78
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	0.003	ug/l	76.51
La	139	175	1	NO GAS	0.000	ug/l	76.74
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.001	ug/l	136.81
Ce	140	175	3	He	0.000	ug/l	10.01
Hg	201	175	1	NO GAS	0.007	ug/l	46.32
Hg	202	175	1	NO GAS	0.005	ug/l	132.31
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.005	ug/l	175.30
Tl	205	175	1	NO GAS	0.006	ug/l	731.13
Tl	205	175	3	He	0.007	ug/l	482.58
[Pb]	206	175	1	NO GAS	0.000	ug/l	73.33
[Pb]	207	175	1	NO GAS	0.003	ug/l	114.44
Pb	208	175	1	NO GAS	0.001	ug/l	340.00
Th	232	175	3	He	0.046	ug/l	3431.73
U	238	175	1	NO GAS	0.001	ug/l	298.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1978796.13	106.0
Sc	45	2	H2	76532.99	92.7
Sc	45	3	He	49930.29	99.3
Ge	72	1	NO GAS	906057.91	107.1
Ge	72	2	H2	117839.83	99.4
Ge	72	3	He	78780.68	104.4
Tb	159	1	NO GAS	20013969.72	109.6
Tb	159	3	He	7321424.35	103.7
Ho	165	1	NO GAS	19466432.41	114.7
Ho	165	3	He	7131189.74	107.0
Lu	175	1	NO GAS	21259213.46	112.1
Lu	175	3	He	4443885.14	106.8

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 050BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:43:55
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.563	ug/l	2329.70
Be	9	45	1	NO GAS	-0.006	ug/l	4.00
B	11	45	1	NO GAS	-0.076	ug/l	147.31
Na	23	45	3	He	70.586	ug/l	12360.03
Mg	24	45	3	He	0.864	ug/l	49.90
Al	27	45	1	NO GAS	0.102	ug/l	938.92
Si	28	45	2	H2	0.176	ug/l	19.33
K	39	72	3	He	-7.993	ug/l	2392.41
Ca	40	72	2	H2	4.476	ug/l	1400.31
Ti	47	72	1	NO GAS	0.047	ug/l	64.97
V	51	72	1	NO GAS	0.159	ug/l	-5552.04
V	51	72	3	He	0.050	ug/l	147.78
Cr	52	72	1	NO GAS	-0.101	ug/l	8814.88
Cr	52	72	3	He	0.003	ug/l	143.05
Cr	53	72	1	NO GAS	-1.915	ug/l	44182.69
Mn	55	72	1	NO GAS	0.005	ug/l	831.71
Mn	55	72	3	He	0.004	ug/l	8.67
Fe	56	72	2	H2	0.309	ug/l	661.36
Fe	56	72	3	He	0.431	ug/l	1314.88
Co	59	72	1	NO GAS	0.003	ug/l	129.74
Ni	60	72	1	NO GAS	0.005	ug/l	83.17
Ni	60	72	3	He	-0.002	ug/l	26.66
Ni	62	72	1	NO GAS	0.220	ug/l	412.52
Cu	63	72	1	NO GAS	0.001	ug/l	497.91
Cu	63	72	3	He	-0.019	ug/l	139.64
Cu	65	72	1	NO GAS	-0.011	ug/l	199.96
Zn	66	72	1	NO GAS	-0.042	ug/l	389.19
Zn	66	72	3	He	-0.053	ug/l	67.78
As	75	72	1	NO GAS	-0.168	ug/l	2709.96
As	75	72	3	He	0.013	ug/l	9.00
Se	78	72	2	H2	0.011	ug/l	3.33
Br	79	72	1	NO GAS	-1.943	ug/l	53206.60
Br	79	72	2	H2	-1.889	ug/l	6944.44
Se	82	72	1	NO GAS	0.027	ug/l	182.98
Kr	84	72	1	NO GAS		ug/l	8448.82
Sr	88	72	1	NO GAS	0.007	ug/l	615.46
Sr	88	72	3	He	-0.014	ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	161.12
Mo	95	72	3	He	0.012	ug/l	66.66
Mo	98	72	1	NO GAS	0.010	ug/l	294.11
Ag	107	72	1	NO GAS	0.007	ug/l	1962.40
Ag	109	72	1	NO GAS	0.007	ug/l	1915.74
Cd	111	159	1	NO GAS	0.007	ug/l	-1.50
Cd	111	159	3	He	0.003	ug/l	4.67
Cd	114	159	1	NO GAS	0.010	ug/l	-134.78
Cd	114	159	3	He	0.013	ug/l	14.17
Sn	118	159	1	NO GAS	-2.529	ug/l	2781.42
Sn	118	159	3	He	-2.330	ug/l	437.79
Sb	121	159	1	NO GAS	0.013	ug/l	487.79
Sb	121	159	3	He	0.012	ug/l	76.67
Sb	123	159	1	NO GAS	0.011	ug/l	373.34
Sb	123	159	3	He	0.011	ug/l	53.33
Ba	135	159	1	NO GAS	0.015	ug/l	93.15
Ba	137	159	1	NO GAS	0.016	ug/l	199.61
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.001	ug/l	150.16
Ce	140	175	3	He	0.001	ug/l	53.39
Hg	201	175	1	NO GAS	0.003	ug/l	28.66
Hg	202	175	1	NO GAS	0.002	ug/l	96.31
Hg	202	175	3	He	0.002	ug/l	41.99
Tl	203	175	3	He	0.006	ug/l	177.97
Tl	205	175	1	NO GAS	0.005	ug/l	671.13
Tl	205	175	3	He	0.007	ug/l	445.92
[Pb]	206	175	1	NO GAS	0.003	ug/l	143.34
[Pb]	207	175	1	NO GAS	0.005	ug/l	152.23
Pb	208	175	1	NO GAS	0.004	ug/l	614.46
Th	232	175	3	He	0.023	ug/l	2165.07
U	238	175	1	NO GAS	0.003	ug/l	471.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1863188.62	99.8
Sc	45	2	H2	72375.52	87.6
Sc	45	3	He	47198.44	93.8
Ge	72	1	NO GAS	881561.34	104.2
Ge	72	2	H2	114258.97	96.4
Ge	72	3	He	76997.16	102.0
Tb	159	1	NO GAS	19855591.56	108.7
Tb	159	3	He	7160473.14	101.5
Ho	165	1	NO GAS	18394736.80	108.4
Ho	165	3	He	7044181.75	105.7
Lu	175	1	NO GAS	19921039.51	105.0
Lu	175	3	He	4289129.50	103.1

ICPMS206-B Analytical Data

Sample Name MB-162360
File Name 051_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:49:40
Sample Type AllRef
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.178	ug/l	2295.70
Be	9	45	1	NO GAS	-0.004	ug/l	4.67
B	11	45	1	NO GAS	0.455	ug/l	254.62
Na	23	45	3	He	-4.526	ug/l	6162.24
Mg	24	45	3	He	1.317	ug/l	69.86
Al	27	45	1	NO GAS	1.800	ug/l	5903.28
Si	28	45	2	H2	9.822	ug/l	174.63
K	39	72	3	He	-10.612	ug/l	2262.39
Ca	40	72	2	H2	8.141	ug/l	2037.46
Ti	47	72	1	NO GAS	0.297	ug/l	289.86
V	51	72	1	NO GAS	-1.619	ug/l	-29345.00
V	51	72	3	He	0.082	ug/l	185.56
Cr	52	72	1	NO GAS	0.709	ug/l	19239.65
Cr	52	72	3	He	0.676	ug/l	1314.12
Cr	53	72	1	NO GAS	22.575	ug/l	86446.54
Mn	55	72	1	NO GAS	0.126	ug/l	3147.42
Mn	55	72	3	He	0.055	ug/l	49.67
Fe	56	72	2	H2	3.345	ug/l	3750.25
Fe	56	72	3	He	3.706	ug/l	6619.76
Co	59	72	1	NO GAS	0.005	ug/l	153.03
Ni	60	72	1	NO GAS	0.163	ug/l	668.69
Ni	60	72	3	He	0.203	ug/l	250.00
Ni	62	72	1	NO GAS	0.477	ug/l	568.89
Cu	63	72	1	NO GAS	0.157	ug/l	1973.73
Cu	63	72	3	He	0.163	ug/l	728.87
Cu	65	72	1	NO GAS	0.156	ug/l	985.17
Zn	66	72	1	NO GAS	2.592	ug/l	8488.65
Zn	66	72	3	He	2.962	ug/l	1476.74
As	75	72	1	NO GAS	-0.137	ug/l	2910.74
As	75	72	3	He	0.022	ug/l	11.67
Se	78	72	2	H2	0.026	ug/l	4.67
Br	79	72	1	NO GAS	-6.699	ug/l	21925.00
Br	79	72	2	H2	-6.637	ug/l	2628.37
Se	82	72	1	NO GAS	-0.513	ug/l	39.25
Kr	84	72	1	NO GAS		ug/l	7902.96
Sr	88	72	1	NO GAS	0.022	ug/l	1194.35
Sr	88	72	3	He	0.041	ug/l	304.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.056	ug/l	553.35
Mo	95	72	3	He	0.057	ug/l	182.23
Mo	98	72	1	NO GAS	0.055	ug/l	954.48
Ag	107	72	1	NO GAS	-0.053	ug/l	588.56
Ag	109	72	1	NO GAS	-0.053	ug/l	571.23
Cd	111	159	1	NO GAS	0.010	ug/l	14.76
Cd	111	159	3	He	0.004	ug/l	6.67
Cd	114	159	1	NO GAS	0.018	ug/l	-30.72
Cd	114	159	3	He	0.009	ug/l	-1.12
Sn	118	159	1	NO GAS	-2.358	ug/l	5906.13
Sn	118	159	3	He	-2.155	ug/l	930.04
Sb	121	159	1	NO GAS	0.039	ug/l	1158.94
Sb	121	159	3	He	0.046	ug/l	201.11
Sb	123	159	1	NO GAS	0.038	ug/l	912.25
Sb	123	159	3	He	0.046	ug/l	161.11
Ba	135	159	1	NO GAS	0.101	ug/l	562.24
Ba	137	159	1	NO GAS	0.087	ug/l	888.27
La	139	175	1	NO GAS	0.002	ug/l	246.92
La	139	175	3	He	0.002	ug/l	36.70
Ce	140	175	1	NO GAS	0.002	ug/l	290.30
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.009	ug/l	58.32
Hg	202	175	1	NO GAS	0.011	ug/l	201.30
Hg	202	175	3	He	0.013	ug/l	118.65
Tl	203	175	3	He	0.003	ug/l	137.97
Tl	205	175	1	NO GAS	0.003	ug/l	557.80
Tl	205	175	3	He	0.003	ug/l	332.60
[Pb]	206	175	1	NO GAS	0.028	ug/l	775.58
[Pb]	207	175	1	NO GAS	0.027	ug/l	650.02
Pb	208	175	1	NO GAS	0.028	ug/l	3050.15
Th	232	175	3	He	0.121	ug/l	7383.06
U	238	175	1	NO GAS	0.002	ug/l	436.92

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1849059.25	99.1
Sc	45	2	H2	69827.51	84.5
Sc	45	3	He	47804.32	95.0
Ge	72	1	NO GAS	906222.69	107.1
Ge	72	2	H2	110824.80	93.5
Ge	72	3	He	76193.07	100.9
Tb	159	1	NO GAS	20709753.40	113.4
Tb	159	3	He	7531682.41	106.7
Ho	165	1	NO GAS	20241892.43	119.3
Ho	165	3	He	7285324.65	109.3
Lu	175	1	NO GAS	22186808.74	117.0
Lu	175	3	He	4477697.23	107.6

ICPMS206-B Analytical Data

Sample Name MB-162497
File Name 052_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-18 23:55:24
Sample Type AllRef
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.217	ug/l	1956.39
Be	9	45	1	NO GAS	0.000	ug/l	6.00
B	11	45	1	NO GAS	0.489	ug/l	268.62
Na	23	45	3	He	-7.982	ug/l	6174.47
Mg	24	45	3	He	1.095	ug/l	63.21
Al	27	45	1	NO GAS	1.929	ug/l	6451.26
Si	28	45	2	H2	8.677	ug/l	167.30
K	39	72	3	He	-11.226	ug/l	2362.41
Ca	40	72	2	H2	20.877	ug/l	4566.73
Ti	47	72	1	NO GAS	0.252	ug/l	239.89
V	51	72	1	NO GAS	-0.867	ug/l	-18557.14
V	51	72	3	He	0.032	ug/l	131.11
Cr	52	72	1	NO GAS	0.291	ug/l	13425.43
Cr	52	72	3	He	0.229	ug/l	565.56
Cr	53	72	1	NO GAS	9.772	ug/l	62336.07
Mn	55	72	1	NO GAS	0.099	ug/l	2531.87
Mn	55	72	3	He	0.020	ug/l	22.33
Fe	56	72	2	H2	1.128	ug/l	1537.66
Fe	56	72	3	He	1.290	ug/l	2845.52
Co	59	72	1	NO GAS	0.001	ug/l	93.15
Ni	60	72	1	NO GAS	0.001	ug/l	69.86
Ni	60	72	3	He	0.004	ug/l	34.44
Ni	62	72	1	NO GAS	0.158	ug/l	372.60
Cu	63	72	1	NO GAS	0.127	ug/l	1620.43
Cu	63	72	3	He	0.098	ug/l	547.57
Cu	65	72	1	NO GAS	0.107	ug/l	727.87
Zn	66	72	1	NO GAS	0.171	ug/l	1007.94
Zn	66	72	3	He	0.202	ug/l	197.78
As	75	72	1	NO GAS	-0.137	ug/l	2752.82
As	75	72	3	He	0.003	ug/l	6.33
Se	78	72	2	H2	0.049	ug/l	7.33
Br	79	72	1	NO GAS	-7.287	ug/l	17075.22
Br	79	72	2	H2	-7.417	ug/l	2029.45
Se	82	72	1	NO GAS	0.828	ug/l	394.58
Kr	84	72	1	NO GAS		ug/l	7916.27
Sr	88	72	1	NO GAS	0.031	ug/l	1480.48
Sr	88	72	3	He	0.037	ug/l	314.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.035	ug/l	360.01
Mo	95	72	3	He	0.033	ug/l	128.89
Mo	98	72	1	NO GAS	0.038	ug/l	677.94
Ag	107	72	1	NO GAS	-0.064	ug/l	319.94
Ag	109	72	1	NO GAS	-0.062	ug/l	353.27
Cd	111	159	1	NO GAS	0.014	ug/l	41.56
Cd	111	159	3	He	0.002	ug/l	4.00
Cd	114	159	1	NO GAS	0.023	ug/l	49.96
Cd	114	159	3	He	0.006	ug/l	-12.66
Sn	118	159	1	NO GAS	-2.409	ug/l	5017.58
Sn	118	159	3	He	-2.211	ug/l	790.03
Sb	121	159	1	NO GAS	0.023	ug/l	777.80
Sb	121	159	3	He	0.021	ug/l	114.44
Sb	123	159	1	NO GAS	0.018	ug/l	521.13
Sb	123	159	3	He	0.022	ug/l	90.00
Ba	135	159	1	NO GAS	0.052	ug/l	299.41
Ba	137	159	1	NO GAS	0.037	ug/l	409.20
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	23.36
Ce	140	175	1	NO GAS	0.002	ug/l	240.25
Ce	140	175	3	He	0.001	ug/l	43.38
Hg	201	175	1	NO GAS	0.013	ug/l	77.65
Hg	202	175	1	NO GAS	0.012	ug/l	215.63
Hg	202	175	3	He	0.016	ug/l	142.31
Tl	203	175	3	He	0.002	ug/l	125.31
Tl	205	175	1	NO GAS	0.001	ug/l	420.01
Tl	205	175	3	He	0.002	ug/l	315.28
[Pb]	206	175	1	NO GAS	0.010	ug/l	318.89
[Pb]	207	175	1	NO GAS	0.013	ug/l	322.23
Pb	208	175	1	NO GAS	0.012	ug/l	1405.59
Th	232	175	3	He	0.067	ug/l	4631.15
U	238	175	1	NO GAS	0.000	ug/l	137.98

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1902646.47	102.0
Sc	45	2	H2	74841.50	90.6
Sc	45	3	He	50287.33	100.0
Ge	72	1	NO GAS	869158.83	102.7
Ge	72	2	H2	115122.39	97.1
Ge	72	3	He	80574.54	106.8
Tb	159	1	NO GAS	20729301.70	113.5
Tb	159	3	He	7645473.70	108.3
Ho	165	1	NO GAS	19623683.20	115.7
Ho	165	3	He	7221648.06	108.3
Lu	175	1	NO GAS	21808078.35	115.0
Lu	175	3	He	4545455.35	109.2

ICPMS206-B Analytical Data

Sample Name MB-162992
File Name 053_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:01:08
Sample Type AllRef
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.267	ug/l	1938.39
Be	9	45	1	NO GAS	0.002	ug/l	6.33
B	11	45	1	NO GAS	0.225	ug/l	214.62
Na	23	45	3	He	-6.902	ug/l	6257.84
Mg	24	45	3	He	0.806	ug/l	49.90
Al	27	45	1	NO GAS	3.364	ug/l	10822.06
Si	28	45	2	H2	9.825	ug/l	183.30
K	39	72	3	He	-10.391	ug/l	2291.29
Ca	40	72	2	H2	32.503	ug/l	6766.43
Ti	47	72	1	NO GAS	0.341	ug/l	326.51
V	51	72	1	NO GAS	-0.191	ug/l	-10262.07
V	51	72	3	He	0.046	ug/l	142.22
Cr	52	72	1	NO GAS	0.137	ug/l	11907.33
Cr	52	72	3	He	0.057	ug/l	239.53
Cr	53	72	1	NO GAS	12.535	ug/l	68881.69
Mn	55	72	1	NO GAS	0.097	ug/l	2571.79
Mn	55	72	3	He	0.015	ug/l	17.67
Fe	56	72	2	H2	1.344	ug/l	1754.24
Fe	56	72	3	He	1.668	ug/l	3342.04
Co	59	72	1	NO GAS	0.005	ug/l	159.69
Ni	60	72	1	NO GAS	0.023	ug/l	153.03
Ni	60	72	3	He	-0.003	ug/l	24.45
Ni	62	72	1	NO GAS	0.224	ug/l	419.18
Cu	63	72	1	NO GAS	0.001	ug/l	507.91
Cu	63	72	3	He	-0.011	ug/l	165.97
Cu	65	72	1	NO GAS	-0.013	ug/l	191.30
Zn	66	72	1	NO GAS	6.457	ug/l	20135.58
Zn	66	72	3	He	6.809	ug/l	3310.35
As	75	72	1	NO GAS	0.240	ug/l	4102.96
As	75	72	3	He	0.019	ug/l	11.00
Se	78	72	2	H2	0.014	ug/l	3.67
Br	79	72	1	NO GAS	1.889	ug/l	80248.06
Br	79	72	2	H2	2.418	ug/l	10798.91
Se	82	72	1	NO GAS	0.491	ug/l	312.73
Kr	84	72	1	NO GAS		ug/l	8239.11
Sr	88	72	1	NO GAS	0.063	ug/l	2748.13
Sr	88	72	3	He	0.072	ug/l	353.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.141	ug/l	1251.17
Mo	95	72	3	He	0.123	ug/l	355.56
Mo	98	72	1	NO GAS	0.135	ug/l	2080.23
Ag	107	72	1	NO GAS	-0.066	ug/l	267.28
Ag	109	72	1	NO GAS	-0.067	ug/l	242.62
Cd	111	159	1	NO GAS	0.007	ug/l	-1.28
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.013	ug/l	-100.69
Cd	114	159	3	He	0.008	ug/l	-4.90
Sn	118	159	1	NO GAS	-2.148	ug/l	9793.69
Sn	118	159	3	He	-1.981	ug/l	1391.18
Sb	121	159	1	NO GAS	0.039	ug/l	1194.50
Sb	121	159	3	He	0.053	ug/l	225.56
Sb	123	159	1	NO GAS	0.042	ug/l	1008.93
Sb	123	159	3	He	0.045	ug/l	156.67
Ba	135	159	1	NO GAS	0.031	ug/l	189.63
Ba	137	159	1	NO GAS	0.027	ug/l	322.70
La	139	175	1	NO GAS	0.000	ug/l	103.44
La	139	175	3	He	0.001	ug/l	13.35
Ce	140	175	1	NO GAS	0.002	ug/l	256.93
Ce	140	175	3	He	0.001	ug/l	50.05
Hg	201	175	1	NO GAS	0.009	ug/l	59.66
Hg	202	175	1	NO GAS	0.011	ug/l	199.29
Hg	202	175	3	He	0.014	ug/l	128.64
Tl	203	175	3	He	0.000	ug/l	101.32
Tl	205	175	1	NO GAS	0.000	ug/l	345.56
Tl	205	175	3	He	0.000	ug/l	242.62
[Pb]	206	175	1	NO GAS	0.014	ug/l	412.23
[Pb]	207	175	1	NO GAS	0.012	ug/l	312.23
Pb	208	175	1	NO GAS	0.013	ug/l	1494.48
Th	232	175	3	He	0.058	ug/l	4107.77
U	238	175	1	NO GAS	0.000	ug/l	170.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1910401.46	102.4
Sc	45	2	H2	73265.08	88.7
Sc	45	3	He	50186.43	99.8
Ge	72	1	NO GAS	896421.74	106.0
Ge	72	2	H2	114324.28	96.5
Ge	72	3	He	76975.57	102.0
Tb	159	1	NO GAS	21211901.15	116.1
Tb	159	3	He	7520764.41	106.6
Ho	165	1	NO GAS	19753963.68	116.4
Ho	165	3	He	7237062.12	108.6
Lu	175	1	NO GAS	21688105.26	114.4
Lu	175	3	He	4466956.23	107.4

ICPMS206-B Analytical Data

Sample Name LCS4-162360
File Name 054LCS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:06:52
Sample Type LCS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	57.127	ug/l	42328.02
Be	9	45	1	NO GAS	42.334	ug/l	11700.24
B	11	45	1	NO GAS	91.632	ug/l	18895.21
Na	23	45	3	He	4800.067	ug/l	412604.79
Mg	24	45	3	He	4757.993	ug/l	206248.57
Al	27	45	1	NO GAS	440.943	ug/l	1282431.46
Si	28	45	2	H2	963.121	ug/l	15399.86
K	39	72	3	He	4458.080	ug/l	183850.71
Ca	40	72	2	H2	4306.029	ug/l	793339.20
Ti	47	72	1	NO GAS	89.247	ug/l	79835.86
V	51	72	1	NO GAS	95.647	ug/l	1269361.40
V	51	72	3	He	97.781	ug/l	119638.48
Cr	52	72	1	NO GAS	93.207	ug/l	1180254.19
Cr	52	72	3	He	99.322	ug/l	171177.07
Cr	53	72	1	NO GAS	102.824	ug/l	220822.90
Mn	55	72	1	NO GAS	470.593	ug/l	8872077.53
Mn	55	72	3	He	490.512	ug/l	397540.98
Fe	56	72	2	H2	445.599	ug/l	453965.77
Fe	56	72	3	He	466.950	ug/l	751494.03
Co	59	72	1	NO GAS	98.302	ug/l	1637574.36
Ni	60	72	1	NO GAS	94.181	ug/l	348551.96
Ni	60	72	3	He	102.022	ug/l	110079.87
Ni	62	72	1	NO GAS	94.940	ug/l	54006.95
Cu	63	72	1	NO GAS	95.046	ug/l	891747.09
Cu	63	72	3	He	102.871	ug/l	329793.69
Cu	65	72	1	NO GAS	97.571	ug/l	457277.52
Zn	66	72	1	NO GAS	90.536	ug/l	279556.56
Zn	66	72	3	He	93.828	ug/l	43509.65
As	75	72	1	NO GAS	94.029	ug/l	313696.88
As	75	72	3	He	93.675	ug/l	27675.62
Se	78	72	2	H2	94.722	ug/l	9226.39
Br	79	72	1	NO GAS	-6.485	ug/l	23433.68
Br	79	72	2	H2	-6.498	ug/l	2734.82
Se	82	72	1	NO GAS	92.668	ug/l	26087.07
Kr	84	72	1	NO GAS		ug/l	31354.51
Sr	88	72	1	NO GAS	103.110	ug/l	3959234.18
Sr	88	72	3	He	106.068	ug/l	158235.85

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	103.288	ug/l	869434.40
Mo	95	72	3	He	108.440	ug/l	276441.42
Mo	98	72	1	NO GAS	103.872	ug/l	1493152.39
Ag	107	72	1	NO GAS	10.580	ug/l	252430.45
Ag	109	72	1	NO GAS	10.581	ug/l	248463.40
Cd	111	159	1	NO GAS	46.675	ug/l	296985.69
Cd	111	159	3	He	48.058	ug/l	69583.04
Cd	114	159	1	NO GAS	47.072	ug/l	685652.36
Cd	114	159	3	He	46.914	ug/l	176160.04
Sn	118	159	1	NO GAS	99.506	ug/l	1839260.50
Sn	118	159	3	He	94.971	ug/l	250473.37
Sb	121	159	1	NO GAS	94.364	ug/l	2421075.22
Sb	121	159	3	He	92.810	ug/l	317201.60
Sb	123	159	1	NO GAS	95.303	ug/l	1904784.36
Sb	123	159	3	He	92.693	ug/l	262275.83
Ba	135	159	1	NO GAS	91.308	ug/l	508999.95
Ba	137	159	1	NO GAS	88.639	ug/l	871787.50
La	139	175	1	NO GAS	93.163	ug/l	8796821.41
La	139	175	3	He	99.063	ug/l	1821121.89
Ce	140	175	1	NO GAS	94.940	ug/l	8784141.75
Ce	140	175	3	He	98.816	ug/l	2308630.58
Hg	201	175	1	NO GAS	0.007	ug/l	47.99
Hg	202	175	1	NO GAS	0.011	ug/l	204.96
Hg	202	175	3	He	0.007	ug/l	77.65
Tl	203	175	3	He	103.273	ug/l	1486294.97
Tl	205	175	1	NO GAS	99.852	ug/l	7241647.12
Tl	205	175	3	He	106.315	ug/l	3627608.32
[Pb]	206	175	1	NO GAS	102.669	ug/l	2572692.20
[Pb]	207	175	1	NO GAS	99.642	ug/l	2196383.21
Pb	208	175	1	NO GAS	101.823	ug/l	10206117.17
Th	232	175	3	He	102.916	ug/l	5289570.29
U	238	175	1	NO GAS	99.028	ug/l	11525665.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1856850.03	99.5
Sc	45	2	H2	68924.04	83.5
Sc	45	3	He	47770.73	95.0
Ge	72	1	NO GAS	919392.06	108.7
Ge	72	2	H2	110042.82	92.9
Ge	72	3	He	75404.06	99.9
Tb	159	1	NO GAS	21474288.11	117.6
Tb	159	3	He	7249036.59	102.7
Ho	165	1	NO GAS	20555831.77	121.1
Ho	165	3	He	6891500.16	103.4
Lu	175	1	NO GAS	22533131.09	118.8
Lu	175	3	He	4356958.31	104.7

ICPMS206-B Analytical Data

Sample Name LCS4-162497
File Name 055LCS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:12:26
Sample Type LCS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	59.188	ug/l	44085.75
Be	9	45	1	NO GAS	42.352	ug/l	11868.99
B	11	45	1	NO GAS	90.272	ug/l	18877.17
Na	23	45	3	He	4957.275	ug/l	445048.82
Mg	24	45	3	He	4754.320	ug/l	215445.35
Al	27	45	1	NO GAS	453.266	ug/l	1336478.69
Si	28	45	2	H2	976.311	ug/l	16331.21
K	39	72	3	He	4674.096	ug/l	192657.84
Ca	40	72	2	H2	4228.972	ug/l	811541.25
Ti	47	72	1	NO GAS	89.932	ug/l	81228.70
V	51	72	1	NO GAS	95.107	ug/l	1269879.53
V	51	72	3	He	102.457	ug/l	125423.83
Cr	52	72	1	NO GAS	93.021	ug/l	1190992.32
Cr	52	72	3	He	99.917	ug/l	172161.99
Cr	53	72	1	NO GAS	105.565	ug/l	227699.05
Mn	55	72	1	NO GAS	484.721	ug/l	9214142.26
Mn	55	72	3	He	507.536	ug/l	411414.63
Fe	56	72	2	H2	452.055	ug/l	479576.60
Fe	56	72	3	He	483.766	ug/l	778912.67
Co	59	72	1	NO GAS	96.883	ug/l	1623619.69
Ni	60	72	1	NO GAS	95.198	ug/l	355371.79
Ni	60	72	3	He	102.772	ug/l	110909.51
Ni	62	72	1	NO GAS	96.502	ug/l	55441.57
Cu	63	72	1	NO GAS	96.010	ug/l	908237.70
Cu	63	72	3	He	106.666	ug/l	341924.88
Cu	65	72	1	NO GAS	98.235	ug/l	464243.36
Zn	66	72	1	NO GAS	88.726	ug/l	275603.22
Zn	66	72	3	He	94.428	ug/l	43772.62
As	75	72	1	NO GAS	94.076	ug/l	316813.28
As	75	72	3	He	96.957	ug/l	28643.73
Se	78	72	2	H2	94.482	ug/l	9582.51
Br	79	72	1	NO GAS	-7.182	ug/l	18770.23
Br	79	72	2	H2	-6.871	ug/l	2508.58
Se	82	72	1	NO GAS	93.912	ug/l	26742.57
Kr	84	72	1	NO GAS		ug/l	30734.63
Sr	88	72	1	NO GAS	105.323	ug/l	4074423.00
Sr	88	72	3	He	108.626	ug/l	162028.40

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.018	ug/l	882678.48
Mo	95	72	3	He	112.103	ug/l	285759.31
Mo	98	72	1	NO GAS	106.603	ug/l	1547547.22
Ag	107	72	1	NO GAS	10.575	ug/l	254493.76
Ag	109	72	1	NO GAS	10.647	ug/l	252226.79
Cd	111	159	1	NO GAS	48.058	ug/l	304119.07
Cd	111	159	3	He	48.129	ug/l	70042.97
Cd	114	159	1	NO GAS	48.194	ug/l	698180.59
Cd	114	159	3	He	48.195	ug/l	181953.93
Sn	118	159	1	NO GAS	98.781	ug/l	1818431.56
Sn	118	159	3	He	98.940	ug/l	262082.83
Sb	121	159	1	NO GAS	96.195	ug/l	2461845.85
Sb	121	159	3	He	95.964	ug/l	329706.59
Sb	123	159	1	NO GAS	99.020	ug/l	1971712.16
Sb	123	159	3	He	96.151	ug/l	273531.70
Ba	135	159	1	NO GAS	94.392	ug/l	524105.17
Ba	137	159	1	NO GAS	92.300	ug/l	904283.87
La	139	175	1	NO GAS	94.965	ug/l	9045838.96
La	139	175	3	He	101.427	ug/l	1860032.06
Ce	140	175	1	NO GAS	96.220	ug/l	8985658.47
Ce	140	175	3	He	101.524	ug/l	2366271.97
Hg	201	175	1	NO GAS	0.008	ug/l	57.32
Hg	202	175	1	NO GAS	0.009	ug/l	189.63
Hg	202	175	3	He	0.010	ug/l	99.65
Tl	203	175	3	He	104.966	ug/l	1506850.32
Tl	205	175	1	NO GAS	97.719	ug/l	7138381.56
Tl	205	175	3	He	108.195	ug/l	3682389.86
[Pb]	206	175	1	NO GAS	100.968	ug/l	2548316.01
[Pb]	207	175	1	NO GAS	97.596	ug/l	2168949.00
Pb	208	175	1	NO GAS	98.651	ug/l	9967201.56
Th	232	175	3	He	106.409	ug/l	5455669.06
U	238	175	1	NO GAS	97.028	ug/l	11393862.35

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1860979.12	99.7
Sc	45	2	H2	72217.57	87.4
Sc	45	3	He	49927.95	99.3
Ge	72	1	NO GAS	915758.38	108.3
Ge	72	2	H2	114585.45	96.7
Ge	72	3	He	75396.03	99.9
Tb	159	1	NO GAS	21152827.71	115.8
Tb	159	3	He	7290423.92	103.3
Ho	165	1	NO GAS	20472547.24	120.7
Ho	165	3	He	7031236.82	105.5
Lu	175	1	NO GAS	22461079.45	118.4
Lu	175	3	He	4346508.65	104.5

ICPMS206-B Analytical Data

Sample Name LCS4-162992
File Name 056LCS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:18:02
Sample Type LCS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	60.152	ug/l	43342.83
Be	9	45	1	NO GAS	43.139	ug/l	11609.18
B	11	45	1	NO GAS	94.467	ug/l	18961.88
Na	23	45	3	He	4842.809	ug/l	426917.17
Mg	24	45	3	He	4719.162	ug/l	209857.12
Al	27	45	1	NO GAS	450.488	ug/l	1275554.98
Si	28	45	2	H2	980.950	ug/l	15678.03
K	39	72	3	He	4528.325	ug/l	188910.44
Ca	40	72	2	H2	4386.719	ug/l	792879.76
Ti	47	72	1	NO GAS	87.429	ug/l	78222.56
V	51	72	1	NO GAS	90.454	ug/l	1195598.40
V	51	72	3	He	98.416	ug/l	121820.20
Cr	52	72	1	NO GAS	91.818	ug/l	1164431.73
Cr	52	72	3	He	99.943	ug/l	174305.45
Cr	53	72	1	NO GAS	103.916	ug/l	222633.41
Mn	55	72	1	NO GAS	492.484	ug/l	9274462.56
Mn	55	72	3	He	488.627	ug/l	400764.98
Fe	56	72	2	H2	459.456	ug/l	459147.93
Fe	56	72	3	He	465.225	ug/l	757686.29
Co	59	72	1	NO GAS	99.729	ug/l	1656640.74
Ni	60	72	1	NO GAS	95.284	ug/l	352464.57
Ni	60	72	3	He	100.568	ug/l	109863.26
Ni	62	72	1	NO GAS	99.270	ug/l	56469.45
Cu	63	72	1	NO GAS	95.821	ug/l	897884.82
Cu	63	72	3	He	103.037	ug/l	334230.11
Cu	65	72	1	NO GAS	96.865	ug/l	453574.00
Zn	66	72	1	NO GAS	90.830	ug/l	279679.13
Zn	66	72	3	He	93.132	ug/l	43683.44
As	75	72	1	NO GAS	94.679	ug/l	315737.19
As	75	72	3	He	94.708	ug/l	28317.92
Se	78	72	2	H2	98.020	ug/l	9363.10
Br	79	72	1	NO GAS	0.110	ug/l	68879.36
Br	79	72	2	H2	1.273	ug/l	9224.36
Se	82	72	1	NO GAS	93.187	ug/l	26277.69
Kr	84	72	1	NO GAS		ug/l	30837.65
Sr	88	72	1	NO GAS	104.210	ug/l	3990636.93
Sr	88	72	3	He	105.738	ug/l	159568.42

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.289	ug/l	876882.59
Mo	95	72	3	He	106.733	ug/l	275369.25
Mo	98	72	1	NO GAS	103.153	ug/l	1483998.15
Ag	107	72	1	NO GAS	10.865	ug/l	258981.29
Ag	109	72	1	NO GAS	10.681	ug/l	250693.14
Cd	111	159	1	NO GAS	47.143	ug/l	294493.14
Cd	111	159	3	He	47.137	ug/l	68836.21
Cd	114	159	1	NO GAS	48.590	ug/l	694879.07
Cd	114	159	3	He	47.474	ug/l	179800.28
Sn	118	159	1	NO GAS	100.716	ug/l	1829706.21
Sn	118	159	3	He	97.339	ug/l	258769.97
Sb	121	159	1	NO GAS	95.764	ug/l	2419454.46
Sb	121	159	3	He	92.338	ug/l	318340.64
Sb	123	159	1	NO GAS	99.534	ug/l	1956784.24
Sb	123	159	3	He	93.404	ug/l	266600.55
Ba	135	159	1	NO GAS	94.321	ug/l	516948.31
Ba	137	159	1	NO GAS	92.841	ug/l	897983.85
La	139	175	1	NO GAS	95.336	ug/l	8999405.13
La	139	175	3	He	102.067	ug/l	1869219.49
Ce	140	175	1	NO GAS	94.787	ug/l	8773261.70
Ce	140	175	3	He	103.936	ug/l	2419035.46
Hg	201	175	1	NO GAS	0.007	ug/l	48.32
Hg	202	175	1	NO GAS	0.010	ug/l	191.96
Hg	202	175	3	He	0.011	ug/l	102.65
Tl	203	175	3	He	104.656	ug/l	1500782.48
Tl	205	175	1	NO GAS	97.803	ug/l	7082880.31
Tl	205	175	3	He	105.924	ug/l	3600892.45
[Pb]	206	175	1	NO GAS	99.915	ug/l	2498864.18
[Pb]	207	175	1	NO GAS	97.552	ug/l	2146655.94
Pb	208	175	1	NO GAS	99.069	ug/l	9916008.83
Th	232	175	3	He	104.402	ug/l	5346201.58
U	238	175	1	NO GAS	100.524	ug/l	11697462.37

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1789151.01	95.9
Sc	45	2	H2	68949.01	83.5
Sc	45	3	He	49007.25	97.4
Ge	72	1	NO GAS	906455.86	107.2
Ge	72	2	H2	107941.60	91.1
Ge	72	3	He	76301.39	101.1
Tb	159	1	NO GAS	20882730.95	114.3
Tb	159	3	He	7311728.71	103.6
Ho	165	1	NO GAS	19828509.90	116.9
Ho	165	3	He	7007060.83	105.1
Lu	175	1	NO GAS	22268385.73	117.4
Lu	175	3	He	4340079.93	104.3

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 057BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:23:38
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.843	ug/l	1467.11
Be	9	45	1	NO GAS	0.001	ug/l	6.00
B	11	45	1	NO GAS	0.154	ug/l	192.63
Na	23	45	3	He	79.793	ug/l	13296.26
Mg	24	45	3	He	0.020	ug/l	13.31
Al	27	45	1	NO GAS	0.178	ug/l	1145.60
Si	28	45	2	H2	0.148	ug/l	18.67
K	39	72	3	He	-10.472	ug/l	2293.51
Ca	40	72	2	H2	0.560	ug/l	636.37
Ti	47	72	1	NO GAS	0.059	ug/l	74.96
V	51	72	1	NO GAS	-0.099	ug/l	-8589.91
V	51	72	3	He	0.005	ug/l	91.11
Cr	52	72	1	NO GAS	-0.124	ug/l	8428.80
Cr	52	72	3	He	-0.010	ug/l	123.09
Cr	53	72	1	NO GAS	-4.398	ug/l	39763.89
Mn	55	72	1	NO GAS	0.001	ug/l	755.19
Mn	55	72	3	He	0.011	ug/l	14.00
Fe	56	72	2	H2	0.102	ug/l	431.46
Fe	56	72	3	He	0.194	ug/l	917.91
Co	59	72	1	NO GAS	0.001	ug/l	86.49
Ni	60	72	1	NO GAS	0.012	ug/l	109.78
Ni	60	72	3	He	-0.001	ug/l	26.67
Ni	62	72	1	NO GAS	0.227	ug/l	419.18
Cu	63	72	1	NO GAS	0.002	ug/l	508.58
Cu	63	72	3	He	-0.013	ug/l	160.30
Cu	65	72	1	NO GAS	-0.006	ug/l	222.63
Zn	66	72	1	NO GAS	0.134	ug/l	911.52
Zn	66	72	3	He	0.123	ug/l	151.11
As	75	72	1	NO GAS	0.067	ug/l	3421.96
As	75	72	3	He	0.002	ug/l	5.67
Se	78	72	2	H2	0.008	ug/l	3.00
Br	79	72	1	NO GAS	-1.850	ug/l	53420.15
Br	79	72	2	H2	-1.416	ug/l	7184.05
Se	82	72	1	NO GAS	0.556	ug/l	326.04
Kr	84	72	1	NO GAS		ug/l	7799.77
Sr	88	72	1	NO GAS	0.003	ug/l	465.75
Sr	88	72	3	He	0.012	ug/l	263.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.011	ug/l	167.78
Mo	95	72	3	He	0.004	ug/l	45.55
Mo	98	72	1	NO GAS	0.007	ug/l	262.65
Ag	107	72	1	NO GAS	0.008	ug/l	1951.07
Ag	109	72	1	NO GAS	0.005	ug/l	1847.74
Cd	111	159	1	NO GAS	0.007	ug/l	-7.37
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.013	ug/l	-103.82
Cd	114	159	3	He	0.013	ug/l	14.05
Sn	118	159	1	NO GAS	-2.514	ug/l	3054.25
Sn	118	159	3	He	-2.342	ug/l	417.79
Sb	121	159	1	NO GAS	0.025	ug/l	793.36
Sb	121	159	3	He	0.021	ug/l	106.67
Sb	123	159	1	NO GAS	0.022	ug/l	580.01
Sb	123	159	3	He	0.023	ug/l	91.11
Ba	135	159	1	NO GAS	0.025	ug/l	143.05
Ba	137	159	1	NO GAS	0.017	ug/l	209.59
La	139	175	1	NO GAS	0.000	ug/l	126.80
La	139	175	3	He	0.002	ug/l	33.37
Ce	140	175	1	NO GAS	0.001	ug/l	193.54
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.001	ug/l	17.67
Hg	202	175	1	NO GAS	0.000	ug/l	81.98
Hg	202	175	3	He	0.002	ug/l	38.32
Tl	203	175	3	He	0.422	ug/l	6184.72
Tl	205	175	1	NO GAS	0.381	ug/l	26699.66
Tl	205	175	3	He	0.442	ug/l	15340.72
[Pb]	206	175	1	NO GAS	0.005	ug/l	190.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	120.00
Pb	208	175	1	NO GAS	0.004	ug/l	670.01
Th	232	175	3	He	0.083	ug/l	5274.57
U	238	175	1	NO GAS	0.007	ug/l	876.85

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1862948.43	99.8
Sc	45	2	H2	71871.03	87.0
Sc	45	3	He	47795.53	95.0
Ge	72	1	NO GAS	884453.16	104.6
Ge	72	2	H2	111498.09	94.1
Ge	72	3	He	77080.91	102.1
Tb	159	1	NO GAS	20074185.35	109.9
Tb	159	3	He	7362562.61	104.3
Ho	165	1	NO GAS	19058914.91	112.3
Ho	165	3	He	6922920.02	103.8
Lu	175	1	NO GAS	21337286.74	112.5
Lu	175	3	He	4367746.76	105.0

ICPMS206-B Analytical Data

Sample Name B21121609-001A
File Name 058SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:29:22
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.521	ug/l	1754.74
Be	9	45	1	NO GAS	0.017	ug/l	10.00
B	11	45	1	NO GAS	194.033	ug/l	38391.86
Na	23	45	3	He	85932.541	ug/l	6693145.04
Mg	24	45	3	He	33783.472	ug/l	1347473.71
Al	27	45	1	NO GAS	721.225	ug/l	2021596.01
Si	28	45	2	H2	20129.489	ug/l	308708.21
K	39	72	3	He	2585.146	ug/l	101306.02
Ca	40	72	2	H2	32328.261	ug/l	5574461.91
Ti	47	72	1	NO GAS	62.678	ug/l	52732.38
V	51	72	1	NO GAS	9.498	ug/l	111830.82
V	51	72	3	He	11.170	ug/l	12920.57
Cr	52	72	1	NO GAS	5.517	ug/l	74994.25
Cr	52	72	3	He	5.229	ug/l	8591.89
Cr	53	72	1	NO GAS	40.756	ug/l	109966.05
Mn	55	72	1	NO GAS	377.557	ug/l	6686920.03
Mn	55	72	3	He	386.661	ug/l	294695.27
Fe	56	72	2	H2	2441.819	ug/l	2327732.76
Fe	56	72	3	He	2580.836	ug/l	3904694.52
Co	59	72	1	NO GAS	2.727	ug/l	42696.84
Ni	60	72	1	NO GAS	19.383	ug/l	67478.77
Ni	60	72	3	He	18.565	ug/l	18859.58
Ni	62	72	1	NO GAS	19.387	ug/l	10599.10
Cu	63	72	1	NO GAS	13.039	ug/l	115342.95
Cu	63	72	3	He	12.320	ug/l	37290.24
Cu	65	72	1	NO GAS	12.158	ug/l	53764.35
Zn	66	72	1	NO GAS	53.698	ug/l	155683.23
Zn	66	72	3	He	55.730	ug/l	24329.96
As	75	72	1	NO GAS	1.438	ug/l	7624.87
As	75	72	3	He	1.592	ug/l	446.92
Se	78	72	2	H2	2.536	ug/l	233.29
Br	79	72	1	NO GAS	4.182	ug/l	91209.09
Br	79	72	2	H2	6.029	ug/l	12623.31
Se	82	72	1	NO GAS	3.272	ug/l	1038.04
Kr	84	72	1	NO GAS		ug/l	73193.47
Sr	88	72	1	NO GAS	311.189	ug/l	11203007.50
Sr	88	72	3	He	305.948	ug/l	428763.35

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.744	ug/l	5958.91
Mo	95	72	3	He	0.712	ug/l	1739.00
Mo	98	72	1	NO GAS	0.719	ug/l	9885.57
Ag	107	72	1	NO GAS	-0.029	ug/l	1091.16
Ag	109	72	1	NO GAS	-0.029	ug/l	1063.83
Cd	111	159	1	NO GAS	0.320	ug/l	1897.57
Cd	111	159	3	He	0.342	ug/l	486.58
Cd	114	159	1	NO GAS	0.339	ug/l	4442.67
Cd	114	159	3	He	0.354	ug/l	1271.81
Sn	118	159	1	NO GAS	-1.959	ug/l	12660.02
Sn	118	159	3	He	-1.818	ug/l	1727.89
Sb	121	159	1	NO GAS	0.759	ug/l	18813.31
Sb	121	159	3	He	0.728	ug/l	2480.21
Sb	123	159	1	NO GAS	0.778	ug/l	15044.94
Sb	123	159	3	He	0.700	ug/l	1970.14
Ba	135	159	1	NO GAS	59.995	ug/l	319800.35
Ba	137	159	1	NO GAS	58.644	ug/l	551468.13
La	139	175	1	NO GAS	0.349	ug/l	32499.68
La	139	175	3	He	0.343	ug/l	6277.69
Ce	140	175	1	NO GAS	0.756	ug/l	68842.20
Ce	140	175	3	He	0.782	ug/l	18205.76
Hg	201	175	1	NO GAS	0.112	ug/l	551.57
Hg	202	175	1	NO GAS	0.116	ug/l	1328.46
Hg	202	175	3	He	0.114	ug/l	823.19
Tl	203	175	3	He	0.157	ug/l	2338.40
Tl	205	175	1	NO GAS	0.107	ug/l	7953.30
Tl	205	175	3	He	0.163	ug/l	5751.30
[Pb]	206	175	1	NO GAS	15.738	ug/l	386892.78
[Pb]	207	175	1	NO GAS	15.335	ug/l	331625.62
Pb	208	175	1	NO GAS	15.490	ug/l	1523565.28
Th	232	175	3	He	0.249	ug/l	13695.61
U	238	175	1	NO GAS	0.097	ug/l	11282.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1768293.34	94.8
Sc	45	2	H2	66195.89	80.1
Sc	45	3	He	43952.55	87.4
Ge	72	1	NO GAS	852800.96	100.8
Ge	72	2	H2	103002.52	86.9
Ge	72	3	He	70880.19	93.9
Tb	159	1	NO GAS	20305800.50	111.2
Tb	159	3	He	7121425.08	100.9
Ho	165	1	NO GAS	19623649.83	115.7
Ho	165	3	He	6872131.84	103.1
Lu	175	1	NO GAS	21862752.82	115.3
Lu	175	3	He	4334988.64	104.2

ICPMS206-B Analytical Data

Sample Name B21121611-001H
File Name 059SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:35:03
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.248	ug/l	2985.00
Be	9	45	1	NO GAS	0.002	ug/l	6.00
B	11	45	1	NO GAS	173.331	ug/l	34474.01
Na	23	45	3	He	96160.600	ug/l	7324179.68
Mg	24	45	3	He	30473.120	ug/l	1188700.74
Al	27	45	1	NO GAS	652.845	ug/l	1838295.30
Si	28	45	2	H2	36641.182	ug/l	548928.53
K	39	72	3	He	3132.995	ug/l	122528.36
Ca	40	72	2	H2	20374.193	ug/l	3458476.46
Ti	47	72	1	NO GAS	65.487	ug/l	54766.46
V	51	72	1	NO GAS	16.978	ug/l	204147.46
V	51	72	3	He	17.816	ug/l	20610.44
Cr	52	72	1	NO GAS	2.509	ug/l	39164.56
Cr	52	72	3	He	2.259	ug/l	3792.93
Cr	53	72	1	NO GAS	57.939	ug/l	136306.25
Mn	55	72	1	NO GAS	167.716	ug/l	2953515.00
Mn	55	72	3	He	170.571	ug/l	130279.76
Fe	56	72	2	H2	901.256	ug/l	845683.44
Fe	56	72	3	He	939.840	ug/l	1424919.05
Co	59	72	1	NO GAS	1.908	ug/l	29710.94
Ni	60	72	1	NO GAS	5.746	ug/l	19939.21
Ni	60	72	3	He	5.309	ug/l	5425.36
Ni	62	72	1	NO GAS	6.064	ug/l	3486.84
Cu	63	72	1	NO GAS	4.584	ug/l	40614.95
Cu	63	72	3	He	3.450	ug/l	10603.23
Cu	65	72	1	NO GAS	3.574	ug/l	15879.73
Zn	66	72	1	NO GAS	5.679	ug/l	16810.16
Zn	66	72	3	He	5.474	ug/l	2471.32
As	75	72	1	NO GAS	0.961	ug/l	6098.22
As	75	72	3	He	1.138	ug/l	321.27
Se	78	72	2	H2	0.249	ug/l	24.33
Br	79	72	1	NO GAS	0.483	ug/l	66786.51
Br	79	72	2	H2	1.497	ug/l	8834.98
Se	82	72	1	NO GAS	1.153	ug/l	472.42
Kr	84	72	1	NO GAS		ug/l	42987.33
Sr	88	72	1	NO GAS	175.356	ug/l	6280916.35
Sr	88	72	3	He	170.325	ug/l	239267.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.137	ug/l	24747.73
Mo	95	72	3	He	3.165	ug/l	7635.17
Mo	98	72	1	NO GAS	3.091	ug/l	41743.18
Ag	107	72	1	NO GAS	-0.002	ug/l	1681.09
Ag	109	72	1	NO GAS	-0.003	ug/l	1628.43
Cd	111	159	1	NO GAS	0.032	ug/l	158.52
Cd	111	159	3	He	0.012	ug/l	17.33
Cd	114	159	1	NO GAS	0.022	ug/l	33.08
Cd	114	159	3	He	0.017	ug/l	26.80
Sn	118	159	1	NO GAS	-2.139	ug/l	9876.90
Sn	118	159	3	He	-1.930	ug/l	1426.75
Sb	121	159	1	NO GAS	0.956	ug/l	24473.13
Sb	121	159	3	He	0.940	ug/l	3154.78
Sb	123	159	1	NO GAS	0.969	ug/l	19323.92
Sb	123	159	3	He	1.001	ug/l	2774.71
Ba	135	159	1	NO GAS	15.432	ug/l	85024.68
Ba	137	159	1	NO GAS	14.922	ug/l	145087.88
La	139	175	1	NO GAS	0.183	ug/l	17146.81
La	139	175	3	He	0.206	ug/l	3740.96
Ce	140	175	1	NO GAS	0.518	ug/l	47398.71
Ce	140	175	3	He	0.536	ug/l	12390.88
Hg	201	175	1	NO GAS	0.056	ug/l	282.28
Hg	202	175	1	NO GAS	0.772	ug/l	8438.68
Hg	202	175	3	He	0.521	ug/l	3634.38
Tl	203	175	3	He	0.119	ug/l	1781.76
Tl	205	175	1	NO GAS	0.070	ug/l	5371.03
Tl	205	175	3	He	0.113	ug/l	4033.75
[Pb]	206	175	1	NO GAS	0.764	ug/l	18928.64
[Pb]	207	175	1	NO GAS	0.721	ug/l	15726.10
Pb	208	175	1	NO GAS	0.744	ug/l	73727.68
Th	232	175	3	He	0.130	ug/l	7583.80
U	238	175	1	NO GAS	0.139	ug/l	16103.85

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1778761.39	95.3
Sc	45	2	H2	64681.23	78.3
Sc	45	3	He	43006.38	85.5
Ge	72	1	NO GAS	847658.07	100.2
Ge	72	2	H2	101394.55	85.6
Ge	72	3	He	71032.74	94.1
Tb	159	1	NO GAS	20987639.61	114.9
Tb	159	3	He	7039414.11	99.7
Ho	165	1	NO GAS	19825116.29	116.8
Ho	165	3	He	6891159.14	103.4
Lu	175	1	NO GAS	21958406.38	115.8
Lu	175	3	He	4303930.55	103.4

ICPMS206-B Analytical Data

Sample Name B21121613-001A
File Name 060SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:40:47
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.598	ug/l	1696.42
Be	9	45	1	NO GAS	0.010	ug/l	7.67
B	11	45	1	NO GAS	183.299	ug/l	34842.56
Na	23	45	3	He	93046.811	ug/l	6927542.19
Mg	24	45	3	He	8140.644	ug/l	310425.96
Al	27	45	1	NO GAS	725.595	ug/l	1954230.77
Si	28	45	2	H2	32284.879	ug/l	457154.76
K	39	72	3	He	2872.441	ug/l	108493.51
Ca	40	72	2	H2	4679.865	ug/l	768926.63
Ti	47	72	1	NO GAS	40.943	ug/l	33573.45
V	51	72	1	NO GAS	43.106	ug/l	518835.14
V	51	72	3	He	46.357	ug/l	51580.67
Cr	52	72	1	NO GAS	6.564	ug/l	85170.14
Cr	52	72	3	He	6.728	ug/l	10652.35
Cr	53	72	1	NO GAS	72.067	ug/l	155337.97
Mn	55	72	1	NO GAS	15.533	ug/l	269027.15
Mn	55	72	3	He	16.337	ug/l	12033.81
Fe	56	72	2	H2	675.016	ug/l	613040.23
Fe	56	72	3	He	708.779	ug/l	1036516.74
Co	59	72	1	NO GAS	0.525	ug/l	8072.71
Ni	60	72	1	NO GAS	1.450	ug/l	4967.60
Ni	60	72	3	He	1.439	ug/l	1435.63
Ni	62	72	1	NO GAS	1.397	ug/l	998.06
Cu	63	72	1	NO GAS	3.028	ug/l	26465.69
Cu	63	72	3	He	1.968	ug/l	5908.86
Cu	65	72	1	NO GAS	1.970	ug/l	8683.89
Zn	66	72	1	NO GAS	4.178	ug/l	12251.87
Zn	66	72	3	He	4.279	ug/l	1881.24
As	75	72	1	NO GAS	0.242	ug/l	3819.30
As	75	72	3	He	0.273	ug/l	77.65
Se	78	72	2	H2	0.338	ug/l	31.32
Br	79	72	1	NO GAS	-0.095	ug/l	61885.55
Br	79	72	2	H2	0.708	ug/l	7949.53
Se	82	72	1	NO GAS	1.105	ug/l	451.80
Kr	84	72	1	NO GAS		ug/l	18473.79
Sr	88	72	1	NO GAS	58.781	ug/l	2063165.60
Sr	88	72	3	He	56.017	ug/l	76022.27

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.712	ug/l	5563.23
Mo	95	72	3	He	0.736	ug/l	1735.67
Mo	98	72	1	NO GAS	0.706	ug/l	9464.09
Ag	107	72	1	NO GAS	-0.058	ug/l	439.25
Ag	109	72	1	NO GAS	-0.058	ug/l	418.59
Cd	111	159	1	NO GAS	0.021	ug/l	83.13
Cd	111	159	3	He	0.017	ug/l	24.00
Cd	114	159	1	NO GAS	0.024	ug/l	58.16
Cd	114	159	3	He	0.032	ug/l	80.65
Sn	118	159	1	NO GAS	-2.194	ug/l	8841.65
Sn	118	159	3	He	-1.999	ug/l	1234.51
Sb	121	159	1	NO GAS	0.142	ug/l	3779.36
Sb	121	159	3	He	0.146	ug/l	510.01
Sb	123	159	1	NO GAS	0.147	ug/l	3055.87
Sb	123	159	3	He	0.159	ug/l	452.23
Ba	135	159	1	NO GAS	6.217	ug/l	34059.03
Ba	137	159	1	NO GAS	6.222	ug/l	60151.45
La	139	175	1	NO GAS	0.202	ug/l	19064.34
La	139	175	3	He	0.220	ug/l	3851.10
Ce	140	175	1	NO GAS	0.732	ug/l	67468.33
Ce	140	175	3	He	0.769	ug/l	17113.40
Hg	201	175	1	NO GAS	0.017	ug/l	97.31
Hg	202	175	1	NO GAS	0.021	ug/l	307.94
Hg	202	175	3	He	0.023	ug/l	175.63
Tl	203	175	3	He	0.069	ug/l	1029.84
Tl	205	175	1	NO GAS	0.042	ug/l	3350.41
Tl	205	175	3	He	0.072	ug/l	2538.39
[Pb]	206	175	1	NO GAS	0.292	ug/l	7332.97
[Pb]	207	175	1	NO GAS	0.273	ug/l	6033.49
Pb	208	175	1	NO GAS	0.282	ug/l	28386.27
Th	232	175	3	He	0.152	ug/l	8378.05
U	238	175	1	NO GAS	0.030	ug/l	3618.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1698520.20	91.0
Sc	45	2	H2	61145.33	74.0
Sc	45	3	He	42012.75	83.5
Ge	72	1	NO GAS	831907.53	98.3
Ge	72	2	H2	98123.42	82.8
Ge	72	3	He	68488.90	90.7
Tb	159	1	NO GAS	20872730.33	114.3
Tb	159	3	He	6911175.67	97.9
Ho	165	1	NO GAS	19573250.89	115.4
Ho	165	3	He	6764724.48	101.5
Lu	175	1	NO GAS	22147368.88	116.8
Lu	175	3	He	4144194.15	99.6

ICPMS206-B Analytical Data

Sample Name B21121613-001ADIL
File Name 061SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:46:30
Sample Type Sample
Total Dilution 5.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-5.960	ug/l	1273.13
Be	9	45	1	NO GAS	-0.011	ug/l	4.67
B	11	45	1	NO GAS	179.163	ug/l	6730.64
Na	23	45	3	He	93291.094	ug/l	1309218.01
Mg	24	45	3	He	8251.223	ug/l	59125.37
Al	27	45	1	NO GAS	765.602	ug/l	400211.43
Si	28	45	2	H2	33779.801	ug/l	92008.41
K	39	72	3	He	2807.376	ug/l	22629.51
Ca	40	72	2	H2	4714.362	ug/l	151559.60
Ti	47	72	1	NO GAS	41.064	ug/l	6643.04
V	51	72	1	NO GAS	39.368	ug/l	87427.56
V	51	72	3	He	46.533	ug/l	10175.34
Cr	52	72	1	NO GAS	6.735	ug/l	24562.66
Cr	52	72	3	He	6.681	ug/l	2162.53
Cr	53	72	1	NO GAS	167.312	ug/l	94377.13
Mn	55	72	1	NO GAS	16.354	ug/l	56228.76
Mn	55	72	3	He	16.464	ug/l	2374.08
Fe	56	72	2	H2	685.054	ug/l	121716.60
Fe	56	72	3	He	714.548	ug/l	204581.74
Co	59	72	1	NO GAS	0.587	ug/l	1826.49
Ni	60	72	1	NO GAS	1.574	ug/l	1107.85
Ni	60	72	3	He	1.664	ug/l	343.34
Ni	62	72	1	NO GAS	3.196	ug/l	595.50
Cu	63	72	1	NO GAS	3.642	ug/l	6615.33
Cu	63	72	3	He	2.645	ug/l	1680.08
Cu	65	72	1	NO GAS	2.655	ug/l	2470.37
Zn	66	72	1	NO GAS	22.946	ug/l	13197.21
Zn	66	72	3	He	23.325	ug/l	1996.80
As	75	72	1	NO GAS	-1.097	ug/l	2398.52
As	75	72	3	He	0.227	ug/l	16.33
Se	78	72	2	H2	0.705	ug/l	13.67
Br	79	72	1	NO GAS	5.275	ug/l	67994.06
Br	79	72	2	H2	9.691	ug/l	8685.17
Se	82	72	1	NO GAS	3.386	ug/l	332.69
Kr	84	72	1	NO GAS		ug/l	9490.65
Sr	88	72	1	NO GAS	56.835	ug/l	393006.86
Sr	88	72	3	He	57.680	ug/l	15466.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.729	ug/l	1186.72
Mo	95	72	3	He	0.745	ug/l	368.90
Mo	98	72	1	NO GAS	0.734	ug/l	2052.44
Ag	107	72	1	NO GAS	-0.356	ug/l	143.31
Ag	109	72	1	NO GAS	-0.347	ug/l	170.63
Cd	111	159	1	NO GAS	0.112	ug/l	94.13
Cd	111	159	3	He	0.060	ug/l	17.33
Cd	114	159	1	NO GAS	0.148	ug/l	136.48
Cd	114	159	3	He	0.111	ug/l	47.04
Sn	118	159	1	NO GAS	-12.027	ug/l	5057.50
Sn	118	159	3	He	-11.240	ug/l	627.79
Sb	121	159	1	NO GAS	0.233	ug/l	1353.40
Sb	121	159	3	He	0.197	ug/l	163.34
Sb	123	159	1	NO GAS	0.249	ug/l	1141.17
Sb	123	159	3	He	0.207	ug/l	135.56
Ba	135	159	1	NO GAS	7.136	ug/l	7749.93
Ba	137	159	1	NO GAS	7.083	ug/l	13608.88
La	139	175	1	NO GAS	0.247	ug/l	4485.22
La	139	175	3	He	0.224	ug/l	784.16
Ce	140	175	1	NO GAS	0.778	ug/l	13706.62
Ce	140	175	3	He	0.713	ug/l	3190.24
Hg	201	175	1	NO GAS	0.018	ug/l	30.99
Hg	202	175	1	NO GAS	0.026	ug/l	131.98
Hg	202	175	3	He	0.033	ug/l	69.32
Tl	203	175	3	He	0.233	ug/l	728.55
Tl	205	175	1	NO GAS	0.192	ug/l	3023.69
Tl	205	175	3	He	0.227	ug/l	1689.10
[Pb]	206	175	1	NO GAS	0.380	ug/l	1865.68
[Pb]	207	175	1	NO GAS	0.368	ug/l	1585.65
Pb	208	175	1	NO GAS	0.380	ug/l	7428.56
Th	232	175	3	He	0.121	ug/l	2137.73
U	238	175	1	NO GAS	0.031	ug/l	827.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1655802.64	88.7
Sc	45	2	H2	58819.61	71.2
Sc	45	3	He	39475.73	78.5
Ge	72	1	NO GAS	819081.77	96.8
Ge	72	2	H2	95960.24	81.0
Ge	72	3	He	66921.36	88.7
Tb	159	1	NO GAS	20668324.68	113.2
Tb	159	3	He	6961414.56	98.6
Ho	165	1	NO GAS	19250608.06	113.5
Ho	165	3	He	6763489.92	101.5
Lu	175	1	NO GAS	21128526.95	111.4
Lu	175	3	He	4143478.02	99.6

ICPMS206-B Analytical Data

Sample Name CCV
File Name 062_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:52:13
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	351.735	ug/l	230745.32
Be	9	45	1	NO GAS	42.574	ug/l	10880.53
B	11	45	1	NO GAS	41.563	ug/l	8008.26
Na	23	45	3	He	10665.038	ug/l	870700.05
Mg	24	45	3	He	10532.663	ug/l	437517.67
Al	27	45	1	NO GAS	42.297	ug/l	114264.89
Si	28	45	2	H2	192.334	ug/l	2978.34
K	39	72	3	He	9873.817	ug/l	399182.05
Ca	40	72	2	H2	10447.965	ug/l	1793620.94
Ti	47	72	1	NO GAS	44.374	ug/l	36344.32
V	51	72	1	NO GAS	43.840	ug/l	527661.91
V	51	72	3	He	46.543	ug/l	56293.24
Cr	52	72	1	NO GAS	45.203	ug/l	529609.70
Cr	52	72	3	He	46.613	ug/l	79387.50
Cr	53	72	1	NO GAS	68.843	ug/l	150017.38
Mn	55	72	1	NO GAS	46.801	ug/l	807484.24
Mn	55	72	3	He	45.626	ug/l	36546.54
Fe	56	72	2	H2	1123.517	ug/l	1066384.88
Fe	56	72	3	He	1123.470	ug/l	1785912.71
Co	59	72	1	NO GAS	49.031	ug/l	745321.71
Ni	60	72	1	NO GAS	48.676	ug/l	164848.44
Ni	60	72	3	He	47.192	ug/l	50352.12
Ni	62	72	1	NO GAS	49.825	ug/l	26091.99
Cu	63	72	1	NO GAS	48.906	ug/l	419794.38
Cu	63	72	3	He	48.685	ug/l	154265.73
Cu	65	72	1	NO GAS	48.092	ug/l	206288.09
Zn	66	72	1	NO GAS	48.437	ug/l	136862.51
Zn	66	72	3	He	48.611	ug/l	22313.84
As	75	72	1	NO GAS	51.030	ug/l	157276.90
As	75	72	3	He	49.267	ug/l	14383.63
Se	78	72	2	H2	52.330	ug/l	4751.07
Br	79	72	1	NO GAS	0.932	ug/l	68248.38
Br	79	72	2	H2	1.881	ug/l	9250.98
Se	82	72	1	NO GAS	52.962	ug/l	13754.31
Kr	84	72	1	NO GAS		ug/l	17904.29
Sr	88	72	1	NO GAS	51.829	ug/l	1818115.75
Sr	88	72	3	He	48.802	ug/l	72050.31

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	52.614	ug/l	405145.18
Mo	95	72	3	He	50.106	ug/l	126238.60
Mo	98	72	1	NO GAS	52.006	ug/l	684989.52
Ag	107	72	1	NO GAS	21.691	ug/l	471993.08
Ag	109	72	1	NO GAS	21.560	ug/l	461758.01
Cd	111	159	1	NO GAS	47.551	ug/l	287361.25
Cd	111	159	3	He	46.876	ug/l	66493.04
Cd	114	159	1	NO GAS	47.941	ug/l	663378.45
Cd	114	159	3	He	46.577	ug/l	171411.92
Sn	118	159	1	NO GAS	46.052	ug/l	833947.35
Sn	118	159	3	He	45.062	ug/l	119803.32
Sb	121	159	1	NO GAS	47.095	ug/l	1151027.01
Sb	121	159	3	He	45.800	ug/l	153418.84
Sb	123	159	1	NO GAS	47.568	ug/l	904575.42
Sb	123	159	3	He	45.375	ug/l	125823.74
Ba	135	159	1	NO GAS	47.325	ug/l	250945.44
Ba	137	159	1	NO GAS	47.047	ug/l	440235.77
La	139	175	1	NO GAS	46.302	ug/l	4080250.81
La	139	175	3	He	47.179	ug/l	839496.03
Ce	140	175	1	NO GAS	47.339	ug/l	4088987.07
Ce	140	175	3	He	48.104	ug/l	1087995.17
Hg	201	175	1	NO GAS	0.952	ug/l	4327.09
Hg	202	175	1	NO GAS	0.965	ug/l	9964.95
Hg	202	175	3	He	1.005	ug/l	6845.51
Tl	203	175	3	He	49.811	ug/l	694020.32
Tl	205	175	1	NO GAS	50.442	ug/l	3409777.21
Tl	205	175	3	He	50.705	ug/l	1674793.78
[Pb]	206	175	1	NO GAS	48.018	ug/l	1121099.38
[Pb]	207	175	1	NO GAS	47.328	ug/l	972155.83
Pb	208	175	1	NO GAS	47.299	ug/l	4418486.06
Th	232	175	3	He	51.043	ug/l	2540033.45
U	238	175	1	NO GAS	46.672	ug/l	5067264.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1696644.66	90.9
Sc	45	2	H2	66502.80	80.5
Sc	45	3	He	45784.87	91.0
Ge	72	1	NO GAS	830691.50	98.2
Ge	72	2	H2	102547.47	86.5
Ge	72	3	He	74485.69	98.7
Tb	159	1	NO GAS	20203750.96	110.6
Tb	159	3	He	7105314.07	100.7
Ho	165	1	NO GAS	18811324.62	110.9
Ho	165	3	He	6798718.53	102.0
Lu	175	1	NO GAS	20769070.84	109.5
Lu	175	3	He	4217421.02	101.4

ICPMS206-B Analytical Data

Sample Name CCB
File Name 063_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 00:57:53
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.439	ug/l	1755.75
Be	9	45	1	NO GAS	-0.003	ug/l	4.33
B	11	45	1	NO GAS	0.582	ug/l	247.29
Na	23	45	3	He	29.553	ug/l	8006.35
Mg	24	45	3	He	0.317	ug/l	23.29
Al	27	45	1	NO GAS	-0.026	ug/l	488.90
Si	28	45	2	H2	0.465	ug/l	20.66
K	39	72	3	He	-12.885	ug/l	1997.91
Ca	40	72	2	H2	-0.323	ug/l	423.13
Ti	47	72	1	NO GAS	0.007	ug/l	28.32
V	51	72	1	NO GAS	-0.346	ug/l	-11099.94
V	51	72	3	He	0.124	ug/l	218.89
Cr	52	72	1	NO GAS	0.199	ug/l	11484.57
Cr	52	72	3	He	-0.011	ug/l	109.78
Cr	53	72	1	NO GAS	36.400	ug/l	98077.85
Mn	55	72	1	NO GAS	0.004	ug/l	758.52
Mn	55	72	3	He	-0.003	ug/l	2.33
Fe	56	72	2	H2	-0.025	ug/l	269.87
Fe	56	72	3	He	0.030	ug/l	591.39
Co	59	72	1	NO GAS	-0.002	ug/l	39.92
Ni	60	72	1	NO GAS	-0.002	ug/l	53.23
Ni	60	72	3	He	-0.010	ug/l	15.56
Ni	62	72	1	NO GAS	0.017	ug/l	276.12
Cu	63	72	1	NO GAS	-0.008	ug/l	385.93
Cu	63	72	3	He	-0.013	ug/l	145.30
Cu	65	72	1	NO GAS	-0.012	ug/l	177.97
Zn	66	72	1	NO GAS	-0.075	ug/l	265.81
Zn	66	72	3	He	-0.129	ug/l	28.89
As	75	72	1	NO GAS	-0.012	ug/l	2971.41
As	75	72	3	He	0.000	ug/l	4.67
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	0.085	ug/l	61471.34
Br	79	72	2	H2	0.396	ug/l	7866.38
Se	82	72	1	NO GAS	0.745	ug/l	350.66
Kr	84	72	1	NO GAS		ug/l	6814.66
Sr	88	72	1	NO GAS	-0.001	ug/l	296.09
Sr	88	72	3	He	-0.009	ug/l	211.11

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	130.00
Mo	95	72	3	He	0.002	ug/l	38.89
Mo	98	72	1	NO GAS	0.005	ug/l	216.68
Ag	107	72	1	NO GAS	0.007	ug/l	1803.08
Ag	109	72	1	NO GAS	0.012	ug/l	1870.41
Cd	111	159	1	NO GAS	0.009	ug/l	9.64
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	-0.002	ug/l	-299.79
Cd	114	159	3	He	-0.002	ug/l	-42.66
Sn	118	159	1	NO GAS	-0.183	ug/l	43462.88
Sn	118	159	3	He	-0.050	ug/l	6245.71
Sb	121	159	1	NO GAS	0.057	ug/l	1593.43
Sb	121	159	3	He	0.037	ug/l	160.00
Sb	123	159	1	NO GAS	0.056	ug/l	1246.72
Sb	123	159	3	He	0.044	ug/l	146.67
Ba	135	159	1	NO GAS	0.004	ug/l	33.27
Ba	137	159	1	NO GAS	0.002	ug/l	73.19
La	139	175	1	NO GAS	0.000	ug/l	40.04
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	70.07
Ce	140	175	3	He	-0.001	ug/l	0.00
Hg	201	175	1	NO GAS	0.008	ug/l	51.32
Hg	202	175	1	NO GAS	0.007	ug/l	151.64
Hg	202	175	3	He	0.010	ug/l	91.98
Tl	203	175	3	He	0.036	ug/l	592.56
Tl	205	175	1	NO GAS	0.025	ug/l	2020.16
Tl	205	175	3	He	0.036	ug/l	1401.79
[Pb]	206	175	1	NO GAS	0.000	ug/l	75.56
[Pb]	207	175	1	NO GAS	0.001	ug/l	64.44
Pb	208	175	1	NO GAS	0.001	ug/l	330.00
Th	232	175	3	He	0.046	ug/l	3231.72
U	238	175	1	NO GAS	0.002	ug/l	353.93

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1622785.97	87.0
Sc	45	2	H2	62342.29	75.5
Sc	45	3	He	42350.72	84.2
Ge	72	1	NO GAS	810834.00	95.9
Ge	72	2	H2	100153.88	84.5
Ge	72	3	He	70243.86	93.1
Tb	159	1	NO GAS	20446313.93	111.9
Tb	159	3	He	7189632.45	101.9
Ho	165	1	NO GAS	19031921.46	112.2
Ho	165	3	He	6795656.72	101.9
Lu	175	1	NO GAS	20703236.46	109.2
Lu	175	3	He	4192894.05	100.8

ICPMS206-B Analytical Data

Sample Name B21121613-001APDS1
File Name 064_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:03:40
Sample Type AllRef
Total Dilution 1.0300
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1231.797	ug/l	759430.95
Be	9	45	1	NO GAS	37.853	ug/l	8755.44
B	11	45	1	NO GAS	218.533	ug/l	37522.43
Na	23	45	3	He	137130.019	ug/l	9499202.98
Mg	24	45	3	He	54993.063	ug/l	1952486.61
Al	27	45	1	NO GAS	764.753	ug/l	1860882.99
Si	28	45	2	H2	32390.412	ug/l	407734.86
K	39	72	3	He	44700.968	ug/l	1601397.70
Ca	40	72	2	H2	42799.268	ug/l	6478216.74
Ti	47	72	1	NO GAS	85.342	ug/l	65626.06
V	51	72	1	NO GAS	83.984	ug/l	955197.54
V	51	72	3	He	89.966	ug/l	96851.07
Cr	52	72	1	NO GAS	49.686	ug/l	546346.25
Cr	52	72	3	He	49.735	ug/l	75428.50
Cr	53	72	1	NO GAS	132.497	ug/l	233990.03
Mn	55	72	1	NO GAS	60.107	ug/l	974047.62
Mn	55	72	3	He	61.190	ug/l	43628.80
Fe	56	72	2	H2	4837.604	ug/l	4048048.21
Fe	56	72	3	He	4959.017	ug/l	7018325.94
Co	59	72	1	NO GAS	45.486	ug/l	649846.86
Ni	60	72	1	NO GAS	46.366	ug/l	147546.40
Ni	60	72	3	He	46.610	ug/l	44264.88
Ni	62	72	1	NO GAS	46.167	ug/l	22727.28
Cu	63	72	1	NO GAS	47.637	ug/l	384074.26
Cu	63	72	3	He	47.537	ug/l	134142.46
Cu	65	72	1	NO GAS	46.448	ug/l	187085.04
Zn	66	72	1	NO GAS	44.703	ug/l	118573.60
Zn	66	72	3	He	44.418	ug/l	18165.45
As	75	72	1	NO GAS	46.809	ug/l	135718.76
As	75	72	3	He	46.056	ug/l	11972.23
Se	78	72	2	H2	47.067	ug/l	3769.35
Br	79	72	1	NO GAS	0.488	ug/l	63248.40
Br	79	72	2	H2	1.989	ug/l	8438.84
Se	82	72	1	NO GAS	46.861	ug/l	11450.20
Kr	84	72	1	NO GAS		ug/l	28718.07
Sr	88	72	1	NO GAS	109.556	ug/l	3606550.01
Sr	88	72	3	He	105.360	ug/l	138302.64

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.208	ug/l	384720.19
Mo	95	72	3	He	52.848	ug/l	118507.90
Mo	98	72	1	NO GAS	53.362	ug/l	660298.75
Ag	107	72	1	NO GAS	21.715	ug/l	443661.35
Ag	109	72	1	NO GAS	21.556	ug/l	433521.17
Cd	111	159	1	NO GAS	44.294	ug/l	251253.20
Cd	111	159	3	He	44.675	ug/l	57285.86
Cd	114	159	1	NO GAS	44.716	ug/l	580910.00
Cd	114	159	3	He	45.207	ug/l	150301.26
Sn	118	159	1	NO GAS	46.541	ug/l	792054.60
Sn	118	159	3	He	46.058	ug/l	110673.80
Sb	121	159	1	NO GAS	46.434	ug/l	1065579.56
Sb	121	159	3	He	45.717	ug/l	138391.05
Sb	123	159	1	NO GAS	46.168	ug/l	824305.34
Sb	123	159	3	He	45.124	ug/l	113087.21
Ba	135	159	1	NO GAS	53.951	ug/l	268525.95
Ba	137	159	1	NO GAS	52.391	ug/l	460233.06
La	139	175	1	NO GAS	0.216	ug/l	18900.65
La	139	175	3	He	0.221	ug/l	3650.82
Ce	140	175	1	NO GAS	44.150	ug/l	3768269.99
Ce	140	175	3	He	48.658	ug/l	1019879.36
Hg	201	175	1	NO GAS	0.885	ug/l	3975.07
Hg	202	175	1	NO GAS	0.907	ug/l	9259.65
Hg	202	175	3	He	0.973	ug/l	6143.68
Tl	203	175	3	He	48.206	ug/l	622462.82
Tl	205	175	1	NO GAS	45.839	ug/l	3058381.27
Tl	205	175	3	He	49.642	ug/l	1519394.10
[Pb]	206	175	1	NO GAS	45.515	ug/l	1049938.64
[Pb]	207	175	1	NO GAS	44.905	ug/l	911597.92
Pb	208	175	1	NO GAS	45.547	ug/l	4204631.68
Th	232	175	3	He	52.339	ug/l	2413948.73
U	238	175	1	NO GAS	45.511	ug/l	4882753.95

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1580987.21	84.7
Sc	45	2	H2	55985.45	67.8
Sc	45	3	He	40342.37	80.2
Ge	72	1	NO GAS	802957.67	94.9
Ge	72	2	H2	93151.29	78.6
Ge	72	3	He	68325.97	90.5
Tb	159	1	NO GAS	19537637.99	107.0
Tb	159	3	He	6613665.25	93.7
Ho	165	1	NO GAS	18322718.53	108.0
Ho	165	3	He	6439619.34	96.6
Lu	175	1	NO GAS	21153090.26	111.5
Lu	175	3	He	4027578.66	96.8

ICPMS206-B Analytical Data

Sample Name B21121613-001AMS4
File Name 065MS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:09:20
Sample Type MS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	63.012	ug/l	40732.66
Be	9	45	1	NO GAS	40.081	ug/l	10697.57
B	11	45	1	NO GAS	278.476	ug/l	55224.44
Na	23	45	3	He	93727.390	ug/l	6879502.26
Mg	24	45	3	He	12686.221	ug/l	476825.72
Al	27	45	1	NO GAS	1530.065	ug/l	4273808.93
Si	28	45	2	H2	30455.484	ug/l	444571.75
K	39	72	3	He	6961.603	ug/l	264153.79
Ca	40	72	2	H2	8583.545	ug/l	1510084.84
Ti	47	72	1	NO GAS	130.702	ug/l	108660.15
V	51	72	1	NO GAS	140.720	ug/l	1729856.75
V	51	72	3	He	140.174	ug/l	158609.54
Cr	52	72	1	NO GAS	98.336	ug/l	1153015.60
Cr	52	72	3	He	100.149	ug/l	159613.00
Cr	53	72	1	NO GAS	159.619	ug/l	293512.69
Mn	55	72	1	NO GAS	477.213	ug/l	8369895.63
Mn	55	72	3	He	491.415	ug/l	368387.92
Fe	56	72	2	H2	1123.540	ug/l	1091378.64
Fe	56	72	3	He	1192.650	ug/l	1774433.27
Co	59	72	1	NO GAS	94.145	ug/l	1459264.54
Ni	60	72	1	NO GAS	91.741	ug/l	316167.86
Ni	60	72	3	He	99.151	ug/l	98955.36
Ni	62	72	1	NO GAS	93.544	ug/l	49527.81
Cu	63	72	1	NO GAS	94.989	ug/l	826079.75
Cu	63	72	3	He	101.440	ug/l	300729.66
Cu	65	72	1	NO GAS	98.447	ug/l	427823.63
Zn	66	72	1	NO GAS	132.757	ug/l	371713.09
Zn	66	72	3	He	95.701	ug/l	41038.16
As	75	72	1	NO GAS	94.304	ug/l	291533.46
As	75	72	3	He	95.073	ug/l	25974.60
Se	78	72	2	H2	92.912	ug/l	8631.19
Br	79	72	1	NO GAS	-0.861	ug/l	57687.08
Br	79	72	2	H2	-1.122	ug/l	7010.96
Se	82	72	1	NO GAS	95.751	ug/l	25066.73
Kr	84	72	1	NO GAS		ug/l	40814.20
Sr	88	72	1	NO GAS	158.141	ug/l	5641308.00
Sr	88	72	3	He	159.374	ug/l	219785.68

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	102.324	ug/l	798635.50
Mo	95	72	3	He	107.727	ug/l	254059.90
Mo	98	72	1	NO GAS	105.582	ug/l	1408740.50
Ag	107	72	1	NO GAS	9.846	ug/l	218033.66
Ag	109	72	1	NO GAS	9.911	ug/l	216056.19
Cd	111	159	1	NO GAS	45.286	ug/l	259267.69
Cd	111	159	3	He	46.853	ug/l	64609.87
Cd	114	159	1	NO GAS	46.228	ug/l	606579.01
Cd	114	159	3	He	46.163	ug/l	165109.81
Sn	118	159	1	NO GAS	97.585	ug/l	1626105.66
Sn	118	159	3	He	96.869	ug/l	243206.00
Sb	121	159	1	NO GAS	93.086	ug/l	2151297.01
Sb	121	159	3	He	91.588	ug/l	298254.82
Sb	123	159	1	NO GAS	97.341	ug/l	1747692.09
Sb	123	159	3	He	92.661	ug/l	249703.65
Ba	135	159	1	NO GAS	97.334	ug/l	486755.45
Ba	137	159	1	NO GAS	97.256	ug/l	861168.25
La	139	175	1	NO GAS	94.392	ug/l	8070737.64
La	139	175	3	He	102.500	ug/l	1772871.16
Ce	140	175	1	NO GAS	95.525	ug/l	8013182.53
Ce	140	175	3	He	103.013	ug/l	2264645.16
Hg	201	175	1	NO GAS	0.027	ug/l	132.31
Hg	202	175	1	NO GAS	0.030	ug/l	375.60
Hg	202	175	3	He	0.025	ug/l	192.63
Tl	203	175	3	He	99.265	ug/l	1344480.97
Tl	205	175	1	NO GAS	95.249	ug/l	6247062.33
Tl	205	175	3	He	103.298	ug/l	3316522.09
[Pb]	206	175	1	NO GAS	99.092	ug/l	2246194.29
[Pb]	207	175	1	NO GAS	95.320	ug/l	1900824.27
Pb	208	175	1	NO GAS	96.751	ug/l	8768626.34
Th	232	175	3	He	105.700	ug/l	5110958.81
U	238	175	1	NO GAS	98.797	ug/l	10403024.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1790879.26	96.0
Sc	45	2	H2	63027.82	76.3
Sc	45	3	He	41395.36	82.3
Ge	72	1	NO GAS	844798.16	99.9
Ge	72	2	H2	105026.66	88.6
Ge	72	3	He	69717.28	92.4
Tb	159	1	NO GAS	19207934.13	105.2
Tb	159	3	He	6904671.61	97.8
Ho	165	1	NO GAS	17989054.98	106.0
Ho	165	3	He	6699448.59	100.5
Lu	175	1	NO GAS	20240093.55	106.7
Lu	175	3	He	4099570.00	98.5

ICPMS206-B Analytical Data

Sample Name B21121613-001AMSD4
File Name 066MSD4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:14:57
Sample Type MSD4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	55.017	ug/l	38952.75
Be	9	45	1	NO GAS	39.082	ug/l	10120.23
B	11	45	1	NO GAS	262.738	ug/l	50483.53
Na	23	45	3	He	94544.126	ug/l	7475099.54
Mg	24	45	3	He	12162.313	ug/l	492466.98
Al	27	45	1	NO GAS	1482.315	ug/l	4048886.54
Si	28	45	2	H2	33209.399	ug/l	485176.45
K	39	72	3	He	7153.870	ug/l	280835.44
Ca	40	72	2	H2	8944.952	ug/l	1531867.04
Ti	47	72	1	NO GAS	126.069	ug/l	108829.31
V	51	72	1	NO GAS	136.565	ug/l	1747018.55
V	51	72	3	He	143.274	ug/l	167755.59
Cr	52	72	1	NO GAS	93.097	ug/l	1139993.50
Cr	52	72	3	He	101.571	ug/l	167592.25
Cr	53	72	1	NO GAS	147.170	ug/l	284993.73
Mn	55	72	1	NO GAS	472.602	ug/l	8589929.11
Mn	55	72	3	He	489.919	ug/l	380203.70
Fe	56	72	2	H2	1129.058	ug/l	1067815.94
Fe	56	72	3	He	1221.867	ug/l	1881415.08
Co	59	72	1	NO GAS	96.587	ug/l	1548319.72
Ni	60	72	1	NO GAS	94.443	ug/l	337242.95
Ni	60	72	3	He	97.877	ug/l	101157.21
Ni	62	72	1	NO GAS	93.561	ug/l	51390.07
Cu	63	72	1	NO GAS	95.349	ug/l	862381.57
Cu	63	72	3	He	101.722	ug/l	312137.38
Cu	65	72	1	NO GAS	96.048	ug/l	434114.68
Zn	66	72	1	NO GAS	90.784	ug/l	269769.58
Zn	66	72	3	He	94.893	ug/l	42113.83
As	75	72	1	NO GAS	92.117	ug/l	296607.14
As	75	72	3	He	94.786	ug/l	26803.05
Se	78	72	2	H2	96.965	ug/l	8776.24
Br	79	72	1	NO GAS	-0.356	ug/l	63401.87
Br	79	72	2	H2	0.661	ug/l	8255.78
Se	82	72	1	NO GAS	89.028	ug/l	24248.57
Kr	84	72	1	NO GAS		ug/l	42410.31
Sr	88	72	1	NO GAS	164.414	ug/l	6080657.39
Sr	88	72	3	He	162.147	ug/l	231413.76

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	105.252	ug/l	854115.15
Mo	95	72	3	He	107.765	ug/l	262991.01
Mo	98	72	1	NO GAS	103.164	ug/l	1432957.74
Ag	107	72	1	NO GAS	10.315	ug/l	237454.46
Ag	109	72	1	NO GAS	10.197	ug/l	231160.24
Cd	111	159	1	NO GAS	46.500	ug/l	291210.19
Cd	111	159	3	He	46.764	ug/l	66907.76
Cd	114	159	1	NO GAS	46.259	ug/l	663269.23
Cd	114	159	3	He	46.254	ug/l	171659.58
Sn	118	159	1	NO GAS	98.803	ug/l	1800278.50
Sn	118	159	3	He	97.358	ug/l	253564.24
Sb	121	159	1	NO GAS	96.315	ug/l	2439414.94
Sb	121	159	3	He	91.672	ug/l	309633.60
Sb	123	159	1	NO GAS	96.317	ug/l	1898221.60
Sb	123	159	3	He	92.161	ug/l	257711.84
Ba	135	159	1	NO GAS	99.167	ug/l	544942.47
Ba	137	159	1	NO GAS	97.019	ug/l	940801.36
La	139	175	1	NO GAS	97.514	ug/l	9032949.30
La	139	175	3	He	99.225	ug/l	1801391.34
Ce	140	175	1	NO GAS	96.295	ug/l	8746322.37
Ce	140	175	3	He	102.005	ug/l	2353873.17
Hg	201	175	1	NO GAS	0.017	ug/l	94.98
Hg	202	175	1	NO GAS	0.023	ug/l	326.27
Hg	202	175	3	He	0.023	ug/l	188.30
Tl	203	175	3	He	99.703	ug/l	1417110.17
Tl	205	175	1	NO GAS	95.016	ug/l	6749725.59
Tl	205	175	3	He	103.616	ug/l	3490442.75
[Pb]	206	175	1	NO GAS	97.173	ug/l	2383774.76
[Pb]	207	175	1	NO GAS	96.241	ug/l	2077696.44
Pb	208	175	1	NO GAS	96.886	ug/l	9512917.79
Th	232	175	3	He	104.684	ug/l	5312618.18
U	238	175	1	NO GAS	96.390	ug/l	11002276.51

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1723338.89	92.4
Sc	45	2	H2	63095.30	76.4
Sc	45	3	He	44616.63	88.7
Ge	72	1	NO GAS	874973.32	103.4
Ge	72	2	H2	102256.46	86.3
Ge	72	3	He	72165.32	95.6
Tb	159	1	NO GAS	20938922.14	114.6
Tb	159	3	He	7163656.79	101.5
Ho	165	1	NO GAS	19387913.07	114.3
Ho	165	3	He	6998290.44	105.0
Lu	175	1	NO GAS	21834361.72	115.1
Lu	175	3	He	4302734.67	103.4

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 067BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:20:32
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.003	ug/l	2055.05
Be	9	45	1	NO GAS	-0.005	ug/l	4.00
B	11	45	1	NO GAS	1.184	ug/l	376.60
Na	23	45	3	He	128.978	ug/l	15443.62
Mg	24	45	3	He	0.834	ug/l	43.25
Al	27	45	1	NO GAS	0.109	ug/l	880.03
Si	28	45	2	H2	3.185	ug/l	60.66
K	39	72	3	He	-8.484	ug/l	2182.38
Ca	40	72	2	H2	0.441	ug/l	564.73
Ti	47	72	1	NO GAS	0.019	ug/l	38.32
V	51	72	1	NO GAS	-0.995	ug/l	-19574.68
V	51	72	3	He	0.099	ug/l	192.22
Cr	52	72	1	NO GAS	0.121	ug/l	10985.25
Cr	52	72	3	He	-0.007	ug/l	116.44
Cr	53	72	1	NO GAS	29.939	ug/l	91576.46
Mn	55	72	1	NO GAS	0.011	ug/l	898.25
Mn	55	72	3	He	0.007	ug/l	10.00
Fe	56	72	2	H2	0.094	ug/l	389.82
Fe	56	72	3	He	0.148	ug/l	774.65
Co	59	72	1	NO GAS	0.004	ug/l	129.74
Ni	60	72	1	NO GAS	0.012	ug/l	103.13
Ni	60	72	3	He	0.008	ug/l	34.44
Ni	62	72	1	NO GAS	0.161	ug/l	362.62
Cu	63	72	1	NO GAS	0.001	ug/l	476.58
Cu	63	72	3	He	-0.003	ug/l	177.97
Cu	65	72	1	NO GAS	-0.003	ug/l	223.29
Zn	66	72	1	NO GAS	0.018	ug/l	542.09
Zn	66	72	3	He	0.021	ug/l	94.44
As	75	72	1	NO GAS	-0.134	ug/l	2686.79
As	75	72	3	He	0.035	ug/l	14.33
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	-2.036	ug/l	50159.85
Br	79	72	2	H2	-1.785	ug/l	6315.44
Se	82	72	1	NO GAS	0.259	ug/l	234.21
Kr	84	72	1	NO GAS		ug/l	7164.09
Sr	88	72	1	NO GAS	0.008	ug/l	638.76
Sr	88	72	3	He	0.001	ug/l	226.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.007	ug/l	126.67
Mo	95	72	3	He	0.003	ug/l	40.00
Mo	98	72	1	NO GAS	0.007	ug/l	240.50
Ag	107	72	1	NO GAS	0.006	ug/l	1830.41
Ag	109	72	1	NO GAS	0.005	ug/l	1787.75
Cd	111	159	1	NO GAS	0.005	ug/l	-12.69
Cd	111	159	3	He	0.006	ug/l	9.33
Cd	114	159	1	NO GAS	0.010	ug/l	-134.83
Cd	114	159	3	He	0.014	ug/l	15.50
Sn	118	159	1	NO GAS	-2.529	ug/l	2887.89
Sn	118	159	3	He	-2.336	ug/l	413.35
Sb	121	159	1	NO GAS	0.022	ug/l	735.58
Sb	121	159	3	He	0.016	ug/l	87.78
Sb	123	159	1	NO GAS	0.024	ug/l	640.02
Sb	123	159	3	He	0.012	ug/l	56.67
Ba	135	159	1	NO GAS	0.021	ug/l	133.07
Ba	137	159	1	NO GAS	0.025	ug/l	289.43
La	139	175	1	NO GAS	0.001	ug/l	150.16
La	139	175	3	He	0.002	ug/l	30.03
Ce	140	175	1	NO GAS	0.001	ug/l	163.50
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.001	ug/l	21.66
Hg	202	175	1	NO GAS	0.000	ug/l	85.98
Hg	202	175	3	He	0.001	ug/l	31.66
Tl	203	175	3	He	0.446	ug/l	6326.74
Tl	205	175	1	NO GAS	0.362	ug/l	25679.33
Tl	205	175	3	He	0.481	ug/l	16172.08
[Pb]	206	175	1	NO GAS	0.005	ug/l	190.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	116.67
Pb	208	175	1	NO GAS	0.004	ug/l	625.57
Th	232	175	3	He	0.073	ug/l	4637.16
U	238	175	1	NO GAS	0.006	ug/l	793.20

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1713626.22	91.8
Sc	45	2	H2	62766.70	76.0
Sc	45	3	He	42287.19	84.1
Ge	72	1	NO GAS	841405.51	99.5
Ge	72	2	H2	102523.49	86.5
Ge	72	3	He	70809.43	93.8
Tb	159	1	NO GAS	20682739.30	113.2
Tb	159	3	He	6981859.06	98.9
Ho	165	1	NO GAS	19185721.30	113.1
Ho	165	3	He	6857725.30	102.9
Lu	175	1	NO GAS	21674850.55	114.3
Lu	175	3	He	4235275.60	101.8

ICPMS206-B Analytical Data

Sample Name B21121616-001A
File Name 068SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:26:18
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.364	ug/l	2971.67
Be	9	45	1	NO GAS	-0.005	ug/l	3.67
B	11	45	1	NO GAS	70.771	ug/l	12646.10
Na	23	45	3	He	46342.385	ug/l	3241765.93
Mg	24	45	3	He	20127.076	ug/l	720652.00
Al	27	45	1	NO GAS	31.826	ug/l	80597.04
Si	28	45	2	H2	31312.783	ug/l	405906.34
K	39	72	3	He	1945.024	ug/l	73235.41
Ca	40	72	2	H2	9869.271	ug/l	1473920.00
Ti	47	72	1	NO GAS	7.673	ug/l	5889.82
V	51	72	1	NO GAS	-0.357	ug/l	-11028.69
V	51	72	3	He	0.772	ug/l	920.03
Cr	52	72	1	NO GAS	1.061	ug/l	20238.84
Cr	52	72	3	He	0.485	ug/l	868.31
Cr	53	72	1	NO GAS	70.383	ug/l	142458.17
Mn	55	72	1	NO GAS	1471.292	ug/l	23675904.84
Mn	55	72	3	He	1414.236	ug/l	1026668.84
Fe	56	72	2	H2	1500.149	ug/l	1238648.51
Fe	56	72	3	He	1520.434	ug/l	2191310.73
Co	59	72	1	NO GAS	0.736	ug/l	10509.17
Ni	60	72	1	NO GAS	1.142	ug/l	3663.16
Ni	60	72	3	He	0.862	ug/l	857.81
Ni	62	72	1	NO GAS	1.173	ug/l	821.73
Cu	63	72	1	NO GAS	2.302	ug/l	18872.17
Cu	63	72	3	He	1.623	ug/l	4833.74
Cu	65	72	1	NO GAS	1.723	ug/l	7112.10
Zn	66	72	1	NO GAS	4.961	ug/l	13504.67
Zn	66	72	3	He	4.965	ug/l	2139.05
As	75	72	1	NO GAS	0.147	ug/l	3333.16
As	75	72	3	He	0.142	ug/l	41.99
Se	78	72	2	H2	0.066	ug/l	7.00
Br	79	72	1	NO GAS	-2.409	ug/l	44031.01
Br	79	72	2	H2	-1.549	ug/l	5656.46
Se	82	72	1	NO GAS	1.435	ug/l	502.37
Kr	84	72	1	NO GAS		ug/l	25592.57
Sr	88	72	1	NO GAS	101.937	ug/l	3339302.57
Sr	88	72	3	He	94.024	ug/l	125650.86

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.232	ug/l	1733.44
Mo	95	72	3	He	0.199	ug/l	486.68
Mo	98	72	1	NO GAS	0.220	ug/l	2841.52
Ag	107	72	1	NO GAS	-0.050	ug/l	556.57
Ag	109	72	1	NO GAS	-0.050	ug/l	552.57
Cd	111	159	1	NO GAS	0.018	ug/l	64.36
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.025	ug/l	79.40
Cd	114	159	3	He	0.018	ug/l	33.03
Sn	118	159	1	NO GAS	-2.328	ug/l	6295.48
Sn	118	159	3	He	-2.177	ug/l	801.14
Sb	121	159	1	NO GAS	0.162	ug/l	4158.35
Sb	121	159	3	He	0.164	ug/l	572.24
Sb	123	159	1	NO GAS	0.165	ug/l	3327.04
Sb	123	159	3	He	0.156	ug/l	446.68
Ba	135	159	1	NO GAS	17.420	ug/l	92812.01
Ba	137	159	1	NO GAS	16.799	ug/l	158012.17
La	139	175	1	NO GAS	0.035	ug/l	3283.71
La	139	175	3	He	0.041	ug/l	720.75
Ce	140	175	1	NO GAS	0.135	ug/l	12240.57
Ce	140	175	3	He	0.152	ug/l	3413.88
Hg	201	175	1	NO GAS	0.007	ug/l	50.32
Hg	202	175	1	NO GAS	0.046	ug/l	576.56
Hg	202	175	3	He	0.035	ug/l	257.62
Tl	203	175	3	He	0.169	ug/l	2416.39
Tl	205	175	1	NO GAS	0.106	ug/l	7862.20
Tl	205	175	3	He	0.169	ug/l	5729.97
[Pb]	206	175	1	NO GAS	0.153	ug/l	3797.17
[Pb]	207	175	1	NO GAS	0.146	ug/l	3170.36
Pb	208	175	1	NO GAS	0.150	ug/l	14852.99
Th	232	175	3	He	0.174	ug/l	9516.52
U	238	175	1	NO GAS	0.010	ug/l	1259.14

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1591444.39	85.3
Sc	45	2	H2	55973.15	67.8
Sc	45	3	He	39451.72	78.4
Ge	72	1	NO GAS	776025.95	91.7
Ge	72	2	H2	89225.05	75.3
Ge	72	3	He	67522.08	89.5
Tb	159	1	NO GAS	20318821.65	111.2
Tb	159	3	He	6952530.88	98.5
Ho	165	1	NO GAS	19242801.50	113.4
Ho	165	3	He	6622851.94	99.3
Lu	175	1	NO GAS	21710476.79	114.5
Lu	175	3	He	4164078.41	100.1

ICPMS206-B Analytical Data

Sample Name B21121622-001G
File Name 069SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:32:03
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.926	ug/l	2649.68
Be	9	45	1	NO GAS	0.008	ug/l	6.33
B	11	45	1	NO GAS	32.481	ug/l	5479.12
Na	23	45	3	He	43109.689	ug/l	2811342.47
Mg	24	45	3	He	8252.722	ug/l	275253.49
Al	27	45	1	NO GAS	728.276	ug/l	1706346.02
Si	28	45	2	H2	19213.974	ug/l	221244.05
K	39	72	3	He	2505.939	ug/l	88652.23
Ca	40	72	2	H2	11269.411	ug/l	1619260.17
Ti	47	72	1	NO GAS	53.774	ug/l	40635.13
V	51	72	1	NO GAS	8.042	ug/l	83885.36
V	51	72	3	He	10.667	ug/l	11129.27
Cr	52	72	1	NO GAS	4.648	ug/l	58084.68
Cr	52	72	3	He	4.341	ug/l	6455.16
Cr	53	72	1	NO GAS	73.248	ug/l	144784.85
Mn	55	72	1	NO GAS	39.762	ug/l	633219.14
Mn	55	72	3	He	40.786	ug/l	28041.25
Fe	56	72	2	H2	587.676	ug/l	466956.94
Fe	56	72	3	He	626.450	ug/l	854987.52
Co	59	72	1	NO GAS	0.381	ug/l	5413.51
Ni	60	72	1	NO GAS	2.044	ug/l	6441.87
Ni	60	72	3	He	1.951	ug/l	1810.12
Ni	62	72	1	NO GAS	2.088	ug/l	1250.91
Cu	63	72	1	NO GAS	3.024	ug/l	24351.42
Cu	63	72	3	He	2.546	ug/l	7085.08
Cu	65	72	1	NO GAS	2.517	ug/l	10166.40
Zn	66	72	1	NO GAS	69.321	ug/l	180402.81
Zn	66	72	3	He	69.340	ug/l	27292.19
As	75	72	1	NO GAS	1.275	ug/l	6384.18
As	75	72	3	He	1.421	ug/l	360.26
Se	78	72	2	H2	0.162	ug/l	14.00
Br	79	72	1	NO GAS	-1.872	ug/l	46652.95
Br	79	72	2	H2	-1.187	ug/l	5686.45
Se	82	72	1	NO GAS	-0.050	ug/l	142.37
Kr	84	72	1	NO GAS		ug/l	34644.66
Sr	88	72	1	NO GAS	150.873	ug/l	4881899.87
Sr	88	72	3	He	142.497	ug/l	180235.09

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	8.260	ug/l	58734.52
Mo	95	72	3	He	8.423	ug/l	18243.63
Mo	98	72	1	NO GAS	8.308	ug/l	101118.29
Ag	107	72	1	NO GAS	-0.038	ug/l	803.86
Ag	109	72	1	NO GAS	-0.039	ug/l	759.21
Cd	111	159	1	NO GAS	0.017	ug/l	59.97
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.016	ug/l	-48.36
Cd	114	159	3	He	0.015	ug/l	19.07
Sn	118	159	1	NO GAS	-1.977	ug/l	12044.09
Sn	118	159	3	He	-1.811	ug/l	1638.98
Sb	121	159	1	NO GAS	0.787	ug/l	19040.20
Sb	121	159	3	He	0.762	ug/l	2435.76
Sb	123	159	1	NO GAS	0.812	ug/l	15311.83
Sb	123	159	3	He	0.762	ug/l	2011.25
Ba	135	159	1	NO GAS	27.300	ug/l	142041.10
Ba	137	159	1	NO GAS	27.027	ug/l	248169.95
La	139	175	1	NO GAS	0.455	ug/l	40603.13
La	139	175	3	He	0.492	ug/l	8247.23
Ce	140	175	1	NO GAS	1.004	ug/l	87696.36
Ce	140	175	3	He	1.069	ug/l	22832.93
Hg	201	175	1	NO GAS	0.033	ug/l	166.63
Hg	202	175	1	NO GAS	0.460	ug/l	4834.15
Hg	202	175	3	He	0.337	ug/l	2182.39
Tl	203	175	3	He	0.137	ug/l	1884.41
Tl	205	175	1	NO GAS	0.087	ug/l	6299.18
Tl	205	175	3	He	0.141	ug/l	4605.14
[Pb]	206	175	1	NO GAS	0.247	ug/l	5884.53
[Pb]	207	175	1	NO GAS	0.225	ug/l	4725.22
Pb	208	175	1	NO GAS	0.232	ug/l	22119.75
Th	232	175	3	He	0.324	ug/l	16110.87
U	238	175	1	NO GAS	0.444	ug/l	48785.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1478558.75	79.2
Sc	45	2	H2	49716.52	60.2
Sc	45	3	He	36755.59	73.1
Ge	72	1	NO GAS	765753.14	90.5
Ge	72	2	H2	85838.52	72.4
Ge	72	3	He	63944.23	84.7
Tb	159	1	NO GAS	19821775.66	108.5
Tb	159	3	He	6696858.03	94.9
Ho	165	1	NO GAS	19001158.41	112.0
Ho	165	3	He	6632889.17	99.5
Lu	175	1	NO GAS	20981700.76	110.6
Lu	175	3	He	3978312.24	95.6

ICPMS206-B Analytical Data

Sample Name B21121622-002G
File Name 070SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:37:47
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.279	ug/l	2181.04
Be	9	45	1	NO GAS	0.001	ug/l	4.67
B	11	45	1	NO GAS	22.183	ug/l	3655.00
Na	23	45	3	He	32733.217	ug/l	2047184.36
Mg	24	45	3	He	14339.208	ug/l	458545.24
Al	27	45	1	NO GAS	373.189	ug/l	844629.98
Si	28	45	2	H2	20124.495	ug/l	221620.14
K	39	72	3	He	1936.076	ug/l	67012.30
Ca	40	72	2	H2	13903.808	ug/l	1892021.09
Ti	47	72	1	NO GAS	38.111	ug/l	28359.62
V	51	72	1	NO GAS	7.076	ug/l	71892.97
V	51	72	3	He	10.609	ug/l	10751.24
Cr	52	72	1	NO GAS	2.984	ug/l	39811.28
Cr	52	72	3	He	2.593	ug/l	3789.61
Cr	53	72	1	NO GAS	81.382	ug/l	153904.85
Mn	55	72	1	NO GAS	5.786	ug/l	91284.79
Mn	55	72	3	He	5.917	ug/l	3954.20
Fe	56	72	2	H2	341.853	ug/l	257219.37
Fe	56	72	3	He	355.198	ug/l	471031.76
Co	59	72	1	NO GAS	0.211	ug/l	2974.40
Ni	60	72	1	NO GAS	1.003	ug/l	3140.75
Ni	60	72	3	He	0.846	ug/l	774.47
Ni	62	72	1	NO GAS	0.993	ug/l	715.27
Cu	63	72	1	NO GAS	1.536	ug/l	12385.44
Cu	63	72	3	He	1.077	ug/l	3004.00
Cu	65	72	1	NO GAS	1.139	ug/l	4645.07
Zn	66	72	1	NO GAS	92.873	ug/l	237860.55
Zn	66	72	3	He	94.557	ug/l	36111.04
As	75	72	1	NO GAS	0.221	ug/l	3406.77
As	75	72	3	He	0.242	ug/l	62.99
Se	78	72	2	H2	0.117	ug/l	10.00
Br	79	72	1	NO GAS	0.018	ug/l	56787.69
Br	79	72	2	H2	1.302	ug/l	6961.05
Se	82	72	1	NO GAS	0.254	ug/l	210.25
Kr	84	72	1	NO GAS		ug/l	31284.44
Sr	88	72	1	NO GAS	134.332	ug/l	4278571.14
Sr	88	72	3	He	123.915	ug/l	152217.35

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.205	ug/l	8497.82
Mo	95	72	3	He	1.185	ug/l	2519.10
Mo	98	72	1	NO GAS	1.170	ug/l	14145.86
Ag	107	72	1	NO GAS	-0.061	ug/l	338.60
Ag	109	72	1	NO GAS	-0.064	ug/l	269.95
Cd	111	159	1	NO GAS	0.013	ug/l	35.52
Cd	111	159	3	He	0.004	ug/l	6.00
Cd	114	159	1	NO GAS	0.011	ug/l	-113.56
Cd	114	159	3	He	0.009	ug/l	-0.13
Sn	118	159	1	NO GAS	-2.248	ug/l	7440.35
Sn	118	159	3	He	-2.085	ug/l	992.26
Sb	121	159	1	NO GAS	0.068	ug/l	1792.34
Sb	121	159	3	He	0.075	ug/l	271.12
Sb	123	159	1	NO GAS	0.074	ug/l	1538.98
Sb	123	159	3	He	0.091	ug/l	260.00
Ba	135	159	1	NO GAS	7.930	ug/l	40998.37
Ba	137	159	1	NO GAS	7.637	ug/l	69688.41
La	139	175	1	NO GAS	0.106	ug/l	9602.78
La	139	175	3	He	0.113	ug/l	1892.05
Ce	140	175	1	NO GAS	0.262	ug/l	23080.31
Ce	140	175	3	He	0.302	ug/l	6437.95
Hg	201	175	1	NO GAS	0.005	ug/l	38.66
Hg	202	175	1	NO GAS	0.009	ug/l	172.97
Hg	202	175	3	He	0.009	ug/l	78.31
Tl	203	175	3	He	0.087	ug/l	1227.81
Tl	205	175	1	NO GAS	0.059	ug/l	4431.81
Tl	205	175	3	He	0.093	ug/l	3081.71
[Pb]	206	175	1	NO GAS	0.057	ug/l	1416.75
[Pb]	207	175	1	NO GAS	0.052	ug/l	1150.06
Pb	208	175	1	NO GAS	0.055	ug/l	5435.99
Th	232	175	3	He	0.082	ug/l	4757.16
U	238	175	1	NO GAS	0.032	ug/l	3723.06

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1428816.84	76.6
Sc	45	2	H2	47563.59	57.6
Sc	45	3	He	35244.05	70.1
Ge	72	1	NO GAS	754193.34	89.2
Ge	72	2	H2	81329.68	68.6
Ge	72	3	He	62085.19	82.3
Tb	159	1	NO GAS	19689116.55	107.8
Tb	159	3	He	6712776.03	95.1
Ho	165	1	NO GAS	18640825.79	109.9
Ho	165	3	He	6530646.72	98.0
Lu	175	1	NO GAS	21145880.55	111.5
Lu	175	3	He	3958309.60	95.1

ICPMS206-B Analytical Data

Sample Name B21121622-003G
File Name 071SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:43:29
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.013	ug/l	2007.06
Be	9	45	1	NO GAS	-0.013	ug/l	1.67
B	11	45	1	NO GAS	44.659	ug/l	7287.43
Na	23	45	3	He	32624.889	ug/l	2055422.00
Mg	24	45	3	He	9346.606	ug/l	301334.25
Al	27	45	1	NO GAS	2.864	ug/l	7018.15
Si	28	45	2	H2	24392.864	ug/l	265329.00
K	39	72	3	He	1490.576	ug/l	51263.75
Ca	40	72	2	H2	7029.270	ug/l	962455.90
Ti	47	72	1	NO GAS	2.172	ug/l	1585.97
V	51	72	1	NO GAS	17.129	ug/l	177536.67
V	51	72	3	He	19.419	ug/l	19322.24
Cr	52	72	1	NO GAS	2.585	ug/l	34536.84
Cr	52	72	3	He	2.297	ug/l	3317.10
Cr	53	72	1	NO GAS	75.656	ug/l	141445.18
Mn	55	72	1	NO GAS	1.606	ug/l	24999.14
Mn	55	72	3	He	1.468	ug/l	968.46
Fe	56	72	2	H2	20.720	ug/l	15916.40
Fe	56	72	3	He	23.203	ug/l	30732.72
Co	59	72	1	NO GAS	0.054	ug/l	781.81
Ni	60	72	1	NO GAS	2.976	ug/l	8928.08
Ni	60	72	3	He	2.836	ug/l	2501.32
Ni	62	72	1	NO GAS	3.074	ug/l	1643.51
Cu	63	72	1	NO GAS	0.654	ug/l	5347.14
Cu	63	72	3	He	0.176	ug/l	618.22
Cu	65	72	1	NO GAS	0.251	ug/l	1151.81
Zn	66	72	1	NO GAS	8.113	ug/l	20533.56
Zn	66	72	3	He	8.160	ug/l	3135.88
As	75	72	1	NO GAS	0.331	ug/l	3593.32
As	75	72	3	He	0.050	ug/l	16.00
Se	78	72	2	H2	0.094	ug/l	8.33
Br	79	72	1	NO GAS	-2.135	ug/l	43053.83
Br	79	72	2	H2	-1.458	ug/l	5250.50
Se	82	72	1	NO GAS	1.275	ug/l	434.51
Kr	84	72	1	NO GAS		ug/l	19886.03
Sr	88	72	1	NO GAS	75.037	ug/l	2317367.33
Sr	88	72	3	He	68.714	ug/l	83150.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.278	ug/l	1952.36
Mo	95	72	3	He	0.263	ug/l	572.24
Mo	98	72	1	NO GAS	0.290	ug/l	3492.84
Ag	107	72	1	NO GAS	-0.067	ug/l	199.96
Ag	109	72	1	NO GAS	-0.068	ug/l	185.96
Cd	111	159	1	NO GAS	0.007	ug/l	-0.49
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.023	ug/l	36.91
Cd	114	159	3	He	0.009	ug/l	0.63
Sn	118	159	1	NO GAS	-2.362	ug/l	5560.01
Sn	118	159	3	He	-2.178	ug/l	766.69
Sb	121	159	1	NO GAS	0.057	ug/l	1547.87
Sb	121	159	3	He	0.063	ug/l	232.22
Sb	123	159	1	NO GAS	0.059	ug/l	1262.28
Sb	123	159	3	He	0.064	ug/l	187.78
Ba	135	159	1	NO GAS	3.007	ug/l	15620.18
Ba	137	159	1	NO GAS	3.049	ug/l	27979.34
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	36.70
Ce	140	175	1	NO GAS	0.001	ug/l	136.81
Ce	140	175	3	He	0.002	ug/l	56.72
Hg	201	175	1	NO GAS	0.004	ug/l	35.32
Hg	202	175	1	NO GAS	0.009	ug/l	170.97
Hg	202	175	3	He	0.010	ug/l	90.65
Tl	203	175	3	He	0.062	ug/l	912.52
Tl	205	175	1	NO GAS	0.040	ug/l	3101.47
Tl	205	175	3	He	0.065	ug/l	2261.73
[Pb]	206	175	1	NO GAS	0.015	ug/l	426.67
[Pb]	207	175	1	NO GAS	0.017	ug/l	413.34
Pb	208	175	1	NO GAS	0.017	ug/l	1863.39
Th	232	175	3	He	0.052	ug/l	3397.72
U	238	175	1	NO GAS	0.008	ug/l	1011.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1438334.89	77.1
Sc	45	2	H2	46952.00	56.8
Sc	45	3	He	35520.55	70.6
Ge	72	1	NO GAS	730828.25	86.4
Ge	72	2	H2	81787.13	69.0
Ge	72	3	He	61114.58	81.0
Tb	159	1	NO GAS	19778500.10	108.3
Tb	159	3	He	6667152.08	94.5
Ho	165	1	NO GAS	18788221.94	110.7
Ho	165	3	He	6454659.38	96.8
Lu	175	1	NO GAS	21279662.45	112.2
Lu	175	3	He	4014815.38	96.5

ICPMS206-B Analytical Data

Sample Name B21121623-001A
File Name 072SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:49:12
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.092	ug/l	2089.72
Be	9	45	1	NO GAS	-0.007	ug/l	3.00
B	11	45	1	NO GAS	54.654	ug/l	8844.49
Na	23	45	3	He	36438.001	ug/l	2317640.74
Mg	24	45	3	He	9098.660	ug/l	295902.02
Al	27	45	1	NO GAS	33.691	ug/l	76894.22
Si	28	45	2	H2	27392.613	ug/l	316121.47
K	39	72	3	He	1665.898	ug/l	58338.43
Ca	40	72	2	H2	8187.158	ug/l	1128733.63
Ti	47	72	1	NO GAS	5.058	ug/l	3676.94
V	51	72	1	NO GAS	-2.687	ug/l	-35235.57
V	51	72	3	He	0.922	ug/l	1003.37
Cr	52	72	1	NO GAS	0.850	ug/l	16998.37
Cr	52	72	3	He	0.439	ug/l	738.56
Cr	53	72	1	NO GAS	64.541	ug/l	126817.52
Mn	55	72	1	NO GAS	488.334	ug/l	7438865.33
Mn	55	72	3	He	477.306	ug/l	320564.87
Fe	56	72	2	H2	329.292	ug/l	251042.92
Fe	56	72	3	He	345.678	ug/l	461445.30
Co	59	72	1	NO GAS	0.577	ug/l	7813.03
Ni	60	72	1	NO GAS	1.315	ug/l	3989.26
Ni	60	72	3	He	1.255	ug/l	1146.72
Ni	62	72	1	NO GAS	1.398	ug/l	881.62
Cu	63	72	1	NO GAS	1.589	ug/l	12440.17
Cu	63	72	3	He	1.024	ug/l	2882.35
Cu	65	72	1	NO GAS	1.150	ug/l	4561.06
Zn	66	72	1	NO GAS	1.519	ug/l	4200.35
Zn	66	72	3	He	1.438	ug/l	626.68
As	75	72	1	NO GAS	0.632	ug/l	4404.30
As	75	72	3	He	0.984	ug/l	245.29
Se	78	72	2	H2	0.046	ug/l	5.00
Br	79	72	1	NO GAS	-1.655	ug/l	45869.23
Br	79	72	2	H2	-0.996	ug/l	5589.92
Se	82	72	1	NO GAS	0.752	ug/l	317.39
Kr	84	72	1	NO GAS		ug/l	21085.16
Sr	88	72	1	NO GAS	86.311	ug/l	2673431.93
Sr	88	72	3	He	80.768	ug/l	99896.82

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.064	ug/l	7298.33
Mo	95	72	3	He	1.047	ug/l	2237.95
Mo	98	72	1	NO GAS	1.038	ug/l	12205.23
Ag	107	72	1	NO GAS	-0.023	ug/l	1046.50
Ag	109	72	1	NO GAS	-0.022	ug/l	1051.83
Cd	111	159	1	NO GAS	0.011	ug/l	24.20
Cd	111	159	3	He	0.001	ug/l	2.00
Cd	114	159	1	NO GAS	0.022	ug/l	28.65
Cd	114	159	3	He	0.013	ug/l	13.51
Sn	118	159	1	NO GAS	-2.367	ug/l	5633.19
Sn	118	159	3	He	-2.170	ug/l	783.36
Sb	121	159	1	NO GAS	0.144	ug/l	3716.01
Sb	121	159	3	He	0.159	ug/l	531.13
Sb	123	159	1	NO GAS	0.145	ug/l	2943.62
Sb	123	159	3	He	0.160	ug/l	436.68
Ba	135	159	1	NO GAS	3.497	ug/l	18647.42
Ba	137	159	1	NO GAS	3.457	ug/l	32552.29
La	139	175	1	NO GAS	0.026	ug/l	2442.69
La	139	175	3	He	0.025	ug/l	430.45
Ce	140	175	1	NO GAS	0.089	ug/l	7973.51
Ce	140	175	3	He	0.092	ug/l	2002.17
Hg	201	175	1	NO GAS	0.055	ug/l	272.95
Hg	202	175	1	NO GAS	0.879	ug/l	9316.01
Hg	202	175	3	He	0.639	ug/l	4156.08
Tl	203	175	3	He	0.053	ug/l	791.20
Tl	205	175	1	NO GAS	0.031	ug/l	2514.68
Tl	205	175	3	He	0.050	ug/l	1793.76
[Pb]	206	175	1	NO GAS	0.050	ug/l	1276.73
[Pb]	207	175	1	NO GAS	0.053	ug/l	1157.83
Pb	208	175	1	NO GAS	0.052	ug/l	5203.73
Th	232	175	3	He	0.047	ug/l	3181.72
U	238	175	1	NO GAS	0.019	ug/l	2281.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1431300.85	76.7
Sc	45	2	H2	49829.38	60.3
Sc	45	3	He	35851.77	71.3
Ge	72	1	NO GAS	733012.53	86.7
Ge	72	2	H2	82369.79	69.5
Ge	72	3	He	62475.20	82.8
Tb	159	1	NO GAS	20302852.13	111.2
Tb	159	3	He	6650068.12	94.2
Ho	165	1	NO GAS	18896427.22	111.4
Ho	165	3	He	6531312.75	98.0
Lu	175	1	NO GAS	21295973.14	112.3
Lu	175	3	He	4019568.26	96.6

ICPMS206-B Analytical Data

Sample Name B21121957-001H
File Name 073SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 01:54:53
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.406	ug/l	1790.41
Be	9	45	1	NO GAS	-0.014	ug/l	1.33
B	11	45	1	NO GAS	58.155	ug/l	9486.05
Na	23	45	3	He	34517.651	ug/l	2245392.97
Mg	24	45	3	He	7535.929	ug/l	250719.53
Al	27	45	1	NO GAS	4.864	ug/l	11619.55
Si	28	45	2	H2	21751.805	ug/l	251573.16
K	39	72	3	He	1432.862	ug/l	51488.85
Ca	40	72	2	H2	5875.817	ug/l	841242.89
Ti	47	72	1	NO GAS	1.999	ug/l	1504.33
V	51	72	1	NO GAS	17.048	ug/l	181843.11
V	51	72	3	He	19.368	ug/l	20083.14
Cr	52	72	1	NO GAS	3.300	ug/l	42999.55
Cr	52	72	3	He	3.264	ug/l	4864.42
Cr	53	72	1	NO GAS	47.044	ug/l	105757.96
Mn	55	72	1	NO GAS	0.980	ug/l	15949.28
Mn	55	72	3	He	0.869	ug/l	600.07
Fe	56	72	2	H2	17.257	ug/l	13908.95
Fe	56	72	3	He	18.025	ug/l	24992.85
Co	59	72	1	NO GAS	0.025	ug/l	402.54
Ni	60	72	1	NO GAS	0.319	ug/l	1034.66
Ni	60	72	3	He	0.237	ug/l	240.00
Ni	62	72	1	NO GAS	0.173	ug/l	329.35
Cu	63	72	1	NO GAS	0.818	ug/l	6771.36
Cu	63	72	3	He	0.331	ug/l	1064.49
Cu	65	72	1	NO GAS	0.396	ug/l	1750.42
Zn	66	72	1	NO GAS	12.193	ug/l	31522.72
Zn	66	72	3	He	12.148	ug/l	4826.29
As	75	72	1	NO GAS	-0.193	ug/l	2264.89
As	75	72	3	He	0.074	ug/l	22.66
Se	78	72	2	H2	0.172	ug/l	14.67
Br	79	72	1	NO GAS	-3.439	ug/l	36847.93
Br	79	72	2	H2	-3.413	ug/l	4182.27
Se	82	72	1	NO GAS	0.629	ug/l	300.09
Kr	84	72	1	NO GAS		ug/l	18373.92
Sr	88	72	1	NO GAS	66.711	ug/l	2120160.28
Sr	88	72	3	He	62.076	ug/l	78358.46

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.054	ug/l	7418.40
Mo	95	72	3	He	1.055	ug/l	2304.63
Mo	98	72	1	NO GAS	1.019	ug/l	12293.58
Ag	107	72	1	NO GAS	-0.068	ug/l	190.63
Ag	109	72	1	NO GAS	-0.069	ug/l	167.97
Cd	111	159	1	NO GAS	0.010	ug/l	14.33
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.019	ug/l	-12.13
Cd	114	159	3	He	0.018	ug/l	30.61
Sn	118	159	1	NO GAS	-1.769	ug/l	15490.09
Sn	118	159	3	He	-1.586	ug/l	2174.61
Sb	121	159	1	NO GAS	0.062	ug/l	1660.10
Sb	121	159	3	He	0.061	ug/l	224.45
Sb	123	159	1	NO GAS	0.066	ug/l	1393.41
Sb	123	159	3	He	0.064	ug/l	190.00
Ba	135	159	1	NO GAS	2.036	ug/l	10569.31
Ba	137	159	1	NO GAS	2.042	ug/l	18747.22
La	139	175	1	NO GAS	0.001	ug/l	190.20
La	139	175	3	He	0.004	ug/l	73.41
Ce	140	175	1	NO GAS	0.003	ug/l	337.02
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.007	ug/l	48.66
Hg	202	175	1	NO GAS	0.027	ug/l	370.93
Hg	202	175	3	He	0.023	ug/l	171.97
Tl	203	175	3	He	0.041	ug/l	621.23
Tl	205	175	1	NO GAS	0.027	ug/l	2261.31
Tl	205	175	3	He	0.040	ug/l	1470.45
[Pb]	206	175	1	NO GAS	0.084	ug/l	2106.83
[Pb]	207	175	1	NO GAS	0.081	ug/l	1799.01
Pb	208	175	1	NO GAS	0.082	ug/l	8237.61
Th	232	175	3	He	0.035	ug/l	2571.06
U	238	175	1	NO GAS	0.007	ug/l	894.52

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1444051.40	77.4
Sc	45	2	H2	49929.54	60.5
Sc	45	3	He	36664.61	72.9
Ge	72	1	NO GAS	752031.34	88.9
Ge	72	2	H2	85559.31	72.2
Ge	72	3	He	63734.30	84.4
Tb	159	1	NO GAS	19767690.54	108.2
Tb	159	3	He	6699358.13	94.9
Ho	165	1	NO GAS	19167137.30	113.0
Ho	165	3	He	6614519.71	99.2
Lu	175	1	NO GAS	21638897.72	114.1
Lu	175	3	He	3974653.26	95.5

ICPMS206-B Analytical Data

Sample Name B21121957-001HDIL
File Name 074SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:00:38
Sample Type Sample
Total Dilution 5.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.629	ug/l	1805.07
Be	9	45	1	NO GAS	-0.035	ug/l	3.00
B	11	45	1	NO GAS	56.849	ug/l	1998.39
Na	23	45	3	He	31755.471	ug/l	413973.05
Mg	24	45	3	He	7398.804	ug/l	48845.79
Al	27	45	1	NO GAS	12.439	ug/l	6314.53
Si	28	45	2	H2	21136.097	ug/l	51115.18
K	39	72	3	He	1387.000	ug/l	11816.36
Ca	40	72	2	H2	5996.999	ug/l	178149.20
Ti	47	72	1	NO GAS	1.675	ug/l	269.87
V	51	72	1	NO GAS	14.804	ug/l	26319.51
V	51	72	3	He	19.371	ug/l	4087.20
Cr	52	72	1	NO GAS	2.922	ug/l	14733.98
Cr	52	72	3	He	3.080	ug/l	1014.69
Cr	53	72	1	NO GAS	95.381	ug/l	67147.36
Mn	55	72	1	NO GAS	1.238	ug/l	4521.69
Mn	55	72	3	He	1.097	ug/l	155.02
Fe	56	72	2	H2	18.785	ug/l	3335.37
Fe	56	72	3	He	21.008	ug/l	6226.43
Co	59	72	1	NO GAS	0.033	ug/l	156.36
Ni	60	72	1	NO GAS	0.255	ug/l	212.91
Ni	60	72	3	He	0.339	ug/l	85.56
Ni	62	72	1	NO GAS	0.967	ug/l	339.33
Cu	63	72	1	NO GAS	1.736	ug/l	3131.05
Cu	63	72	3	He	1.194	ug/l	815.86
Cu	65	72	1	NO GAS	1.236	ug/l	1175.81
Zn	66	72	1	NO GAS	26.816	ug/l	14171.01
Zn	66	72	3	He	27.487	ug/l	2233.50
As	75	72	1	NO GAS	3.452	ug/l	4702.43
As	75	72	3	He	0.102	ug/l	9.33
Se	78	72	2	H2	0.123	ug/l	3.67
Br	79	72	1	NO GAS	1.930	ug/l	58960.52
Br	79	72	2	H2	4.537	ug/l	7313.85
Se	82	72	1	NO GAS	4.807	ug/l	379.95
Kr	84	72	1	NO GAS		ug/l	13089.29
Sr	88	72	1	NO GAS	63.750	ug/l	407066.60
Sr	88	72	3	He	60.823	ug/l	15561.89

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.073	ug/l	1570.09
Mo	95	72	3	He	1.006	ug/l	464.45
Mo	98	72	1	NO GAS	0.986	ug/l	2502.17
Ag	107	72	1	NO GAS	-0.364	ug/l	101.32
Ag	109	72	1	NO GAS	-0.363	ug/l	93.98
Cd	111	159	1	NO GAS	0.043	ug/l	7.68
Cd	111	159	3	He	0.019	ug/l	6.00
Cd	114	159	1	NO GAS	0.113	ug/l	36.35
Cd	114	159	3	He	0.053	ug/l	5.07
Sn	118	159	1	NO GAS	-11.732	ug/l	5749.69
Sn	118	159	3	He	-10.759	ug/l	848.92
Sb	121	159	1	NO GAS	0.144	ug/l	855.59
Sb	121	159	3	He	0.128	ug/l	115.56
Sb	123	159	1	NO GAS	0.126	ug/l	627.80
Sb	123	159	3	He	0.158	ug/l	106.66
Ba	135	159	1	NO GAS	3.134	ug/l	3223.97
Ba	137	159	1	NO GAS	2.861	ug/l	5217.25
La	139	175	1	NO GAS	0.006	ug/l	193.54
La	139	175	3	He	0.009	ug/l	30.03
Ce	140	175	1	NO GAS	0.012	ug/l	280.29
Ce	140	175	3	He	0.017	ug/l	93.43
Hg	201	175	1	NO GAS	0.005	ug/l	19.00
Hg	202	175	1	NO GAS	0.026	ug/l	133.31
Hg	202	175	3	He	0.026	ug/l	57.99
Tl	203	175	3	He	0.173	ug/l	547.24
Tl	205	175	1	NO GAS	0.112	ug/l	1866.81
Tl	205	175	3	He	0.178	ug/l	1335.80
[Pb]	206	175	1	NO GAS	0.200	ug/l	1014.49
[Pb]	207	175	1	NO GAS	0.194	ug/l	856.70
Pb	208	175	1	NO GAS	0.202	ug/l	4049.14
Th	232	175	3	He	-0.011	ug/l	822.53
U	238	175	1	NO GAS	0.005	ug/l	247.29

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1475240.02	79.1
Sc	45	2	H2	52197.75	63.2
Sc	45	3	He	36366.72	72.3
Ge	72	1	NO GAS	755006.63	89.3
Ge	72	2	H2	88573.55	74.7
Ge	72	3	He	63899.26	84.7
Tb	159	1	NO GAS	19508524.92	106.8
Tb	159	3	He	6829196.40	96.8
Ho	165	1	NO GAS	18819254.84	110.9
Ho	165	3	He	6601631.71	99.0
Lu	175	1	NO GAS	20997367.46	110.7
Lu	175	3	He	4022424.71	96.7

ICPMS206-B Analytical Data

Sample Name CCV
File Name 075_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:06:24
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	287.850	ug/l	194169.05
Be	9	45	1	NO GAS	36.819	ug/l	9049.19
B	11	45	1	NO GAS	35.651	ug/l	6627.96
Na	23	45	3	He	10450.579	ug/l	777860.97
Mg	24	45	3	He	10258.504	ug/l	388334.73
Al	27	45	1	NO GAS	37.557	ug/l	97735.65
Si	28	45	2	H2	219.763	ug/l	2939.68
K	39	72	3	He	9529.420	ug/l	370271.93
Ca	40	72	2	H2	10091.439	ug/l	1614534.46
Ti	47	72	1	NO GAS	39.857	ug/l	31720.63
V	51	72	1	NO GAS	41.651	ug/l	485706.08
V	51	72	3	He	44.555	ug/l	51796.60
Cr	52	72	1	NO GAS	41.258	ug/l	470987.21
Cr	52	72	3	He	43.897	ug/l	71872.83
Cr	53	72	1	NO GAS	65.461	ug/l	140802.77
Mn	55	72	1	NO GAS	43.648	ug/l	731447.29
Mn	55	72	3	He	43.745	ug/l	33660.91
Fe	56	72	2	H2	1078.683	ug/l	954330.17
Fe	56	72	3	He	1089.425	ug/l	1663331.53
Co	59	72	1	NO GAS	44.325	ug/l	654609.22
Ni	60	72	1	NO GAS	44.143	ug/l	145195.17
Ni	60	72	3	He	46.339	ug/l	47482.26
Ni	62	72	1	NO GAS	46.678	ug/l	23696.66
Cu	63	72	1	NO GAS	46.254	ug/l	385755.10
Cu	63	72	3	He	47.324	ug/l	144102.87
Cu	65	72	1	NO GAS	46.362	ug/l	193133.55
Zn	66	72	1	NO GAS	45.875	ug/l	125758.55
Zn	66	72	3	He	47.325	ug/l	20869.73
As	75	72	1	NO GAS	48.443	ug/l	144914.74
As	75	72	3	He	48.608	ug/l	13631.50
Se	78	72	2	H2	52.876	ug/l	4474.38
Br	79	72	1	NO GAS	1.030	ug/l	66855.52
Br	79	72	2	H2	1.563	ug/l	8382.23
Se	82	72	1	NO GAS	50.210	ug/l	12652.23
Kr	84	72	1	NO GAS		ug/l	18920.08
Sr	88	72	1	NO GAS	51.256	ug/l	1745474.74
Sr	88	72	3	He	48.467	ug/l	68736.62

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.836	ug/l	379779.41
Mo	95	72	3	He	50.806	ug/l	122959.44
Mo	98	72	1	NO GAS	51.219	ug/l	655034.53
Ag	107	72	1	NO GAS	21.183	ug/l	447075.77
Ag	109	72	1	NO GAS	21.017	ug/l	436831.23
Cd	111	159	1	NO GAS	43.810	ug/l	264819.51
Cd	111	159	3	He	46.784	ug/l	63371.52
Cd	114	159	1	NO GAS	44.761	ug/l	620027.75
Cd	114	159	3	He	46.494	ug/l	163330.50
Sn	118	159	1	NO GAS	44.523	ug/l	808746.65
Sn	118	159	3	He	45.163	ug/l	114578.03
Sb	121	159	1	NO GAS	44.815	ug/l	1097415.36
Sb	121	159	3	He	46.209	ug/l	147779.53
Sb	123	159	1	NO GAS	45.244	ug/l	861299.44
Sb	123	159	3	He	46.273	ug/l	122498.67
Ba	135	159	1	NO GAS	45.577	ug/l	241895.56
Ba	137	159	1	NO GAS	45.406	ug/l	425058.85
La	139	175	1	NO GAS	45.024	ug/l	3992824.61
La	139	175	3	He	48.964	ug/l	829038.51
Ce	140	175	1	NO GAS	45.158	ug/l	3922085.98
Ce	140	175	3	He	48.995	ug/l	1054421.09
Hg	201	175	1	NO GAS	0.901	ug/l	4125.07
Hg	202	175	1	NO GAS	0.921	ug/l	9585.12
Hg	202	175	3	He	1.028	ug/l	6662.80
Tl	203	175	3	He	50.672	ug/l	671736.74
Tl	205	175	1	NO GAS	47.001	ug/l	3201903.39
Tl	205	175	3	He	52.589	ug/l	1652760.72
[Pb]	206	175	1	NO GAS	46.733	ug/l	1098777.72
[Pb]	207	175	1	NO GAS	45.370	ug/l	938496.85
Pb	208	175	1	NO GAS	45.968	ug/l	4324239.56
Th	232	175	3	He	52.445	ug/l	2483600.57
U	238	175	1	NO GAS	45.254	ug/l	4947199.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1639744.04	87.9
Sc	45	2	H2	57525.94	69.7
Sc	45	3	He	41729.15	83.0
Ge	72	1	NO GAS	808917.28	95.6
Ge	72	2	H2	95590.24	80.7
Ge	72	3	He	71556.99	94.8
Tb	159	1	NO GAS	20313007.08	111.2
Tb	159	3	He	6781112.33	96.1
Ho	165	1	NO GAS	19420959.86	114.5
Ho	165	3	He	6634050.85	99.5
Lu	175	1	NO GAS	21027300.10	110.9
Lu	175	3	He	4013792.61	96.5

ICPMS206-B Analytical Data

Sample Name CCB
File Name 076_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:12:07
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.669	ug/l	2329.70
Be	9	45	1	NO GAS	0.004	ug/l	5.00
B	11	45	1	NO GAS	0.327	ug/l	177.30
Na	23	45	3	He	60.349	ug/l	8778.94
Mg	24	45	3	He	0.419	ug/l	23.29
Al	27	45	1	NO GAS	-0.043	ug/l	388.90
Si	28	45	2	H2	31.556	ug/l	383.27
K	39	72	3	He	-7.694	ug/l	1945.68
Ca	40	72	2	H2	-0.189	ug/l	393.14
Ti	47	72	1	NO GAS	0.030	ug/l	43.31
V	51	72	1	NO GAS	-0.607	ug/l	-13477.13
V	51	72	3	He	0.115	ug/l	183.34
Cr	52	72	1	NO GAS	0.226	ug/l	11274.77
Cr	52	72	3	He	-0.017	ug/l	83.17
Cr	53	72	1	NO GAS	35.830	ug/l	92926.72
Mn	55	72	1	NO GAS	0.002	ug/l	695.31
Mn	55	72	3	He	-0.003	ug/l	2.67
Fe	56	72	2	H2	-0.047	ug/l	219.89
Fe	56	72	3	He	-0.009	ug/l	471.44
Co	59	72	1	NO GAS	-0.001	ug/l	53.23
Ni	60	72	1	NO GAS	0.000	ug/l	56.55
Ni	60	72	3	He	-0.016	ug/l	8.89
Ni	62	72	1	NO GAS	-0.005	ug/l	252.84
Cu	63	72	1	NO GAS	-0.011	ug/l	348.60
Cu	63	72	3	He	-0.015	ug/l	121.98
Cu	65	72	1	NO GAS	-0.007	ug/l	191.30
Zn	66	72	1	NO GAS	-0.076	ug/l	255.93
Zn	66	72	3	He	-0.050	ug/l	55.56
As	75	72	1	NO GAS	-0.034	ug/l	2690.36
As	75	72	3	He	0.010	ug/l	6.67
Se	78	72	2	H2	0.038	ug/l	4.67
Br	79	72	1	NO GAS	0.299	ug/l	60232.76
Br	79	72	2	H2	1.306	ug/l	7536.84
Se	82	72	1	NO GAS	0.745	ug/l	345.34
Kr	84	72	1	NO GAS		ug/l	6891.16
Sr	88	72	1	NO GAS	0.000	ug/l	306.07
Sr	88	72	3	He	-0.040	ug/l	147.78

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.008	ug/l	130.00
Mo	95	72	3	He	0.005	ug/l	41.11
Mo	98	72	1	NO GAS	0.005	ug/l	202.44
Ag	107	72	1	NO GAS	0.005	ug/l	1687.76
Ag	109	72	1	NO GAS	0.009	ug/l	1714.42
Cd	111	159	1	NO GAS	0.003	ug/l	-24.30
Cd	111	159	3	He	0.002	ug/l	2.67
Cd	114	159	1	NO GAS	-0.004	ug/l	-293.84
Cd	114	159	3	He	-0.005	ug/l	-45.47
Sn	118	159	1	NO GAS	-0.082	ug/l	42712.30
Sn	118	159	3	He	0.236	ug/l	6028.95
Sb	121	159	1	NO GAS	0.065	ug/l	1701.22
Sb	121	159	3	He	0.053	ug/l	186.67
Sb	123	159	1	NO GAS	0.062	ug/l	1291.17
Sb	123	159	3	He	0.057	ug/l	156.67
Ba	135	159	1	NO GAS	0.004	ug/l	36.59
Ba	137	159	1	NO GAS	0.003	ug/l	69.86
La	139	175	1	NO GAS	0.000	ug/l	66.73
La	139	175	3	He	0.000	ug/l	6.67
Ce	140	175	1	NO GAS	0.000	ug/l	43.38
Ce	140	175	3	He	-0.001	ug/l	3.34
Hg	201	175	1	NO GAS	0.007	ug/l	44.66
Hg	202	175	1	NO GAS	0.007	ug/l	144.97
Hg	202	175	3	He	0.009	ug/l	75.32
Tl	203	175	3	He	0.033	ug/l	491.25
Tl	205	175	1	NO GAS	0.027	ug/l	2080.16
Tl	205	175	3	He	0.037	ug/l	1289.14
[Pb]	206	175	1	NO GAS	0.001	ug/l	93.33
[Pb]	207	175	1	NO GAS	0.001	ug/l	77.78
Pb	208	175	1	NO GAS	0.001	ug/l	332.22
Th	232	175	3	He	0.045	ug/l	2875.72
U	238	175	1	NO GAS	0.003	ug/l	411.93

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1455630.98	78.0
Sc	45	2	H2	51321.39	62.1
Sc	45	3	He	36480.25	72.5
Ge	72	1	NO GAS	783282.92	92.6
Ge	72	2	H2	87988.25	74.2
Ge	72	3	He	63317.54	83.9
Tb	159	1	NO GAS	19536220.53	107.0
Tb	159	3	He	6327610.67	89.7
Ho	165	1	NO GAS	18077119.09	106.5
Ho	165	3	He	6190558.62	92.9
Lu	175	1	NO GAS	20056206.96	105.7
Lu	175	3	He	3831354.42	92.1

ICPMS206-B Analytical Data

Sample Name B21121957-001HPDS1
File Name 077_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:17:53
Sample Type AllRef
Total Dilution 1.0300
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1136.836	ug/l	676234.91
Be	9	45	1	NO GAS	36.721	ug/l	7834.53
B	11	45	1	NO GAS	95.067	ug/l	15118.24
Na	23	45	3	He	76092.246	ug/l	4853838.16
Mg	24	45	3	He	52178.986	ug/l	1704955.87
Al	27	45	1	NO GAS	43.778	ug/l	98787.25
Si	28	45	2	H2	20815.260	ug/l	238531.42
K	39	72	3	He	41722.144	ug/l	1413131.84
Ca	40	72	2	H2	43615.997	ug/l	6154848.04
Ti	47	72	1	NO GAS	46.161	ug/l	33397.88
V	51	72	1	NO GAS	59.363	ug/l	632608.36
V	51	72	3	He	63.951	ug/l	65138.04
Cr	52	72	1	NO GAS	47.067	ug/l	487303.18
Cr	52	72	3	He	46.670	ug/l	66945.93
Cr	53	72	1	NO GAS	136.306	ug/l	225275.27
Mn	55	72	1	NO GAS	45.496	ug/l	693795.58
Mn	55	72	3	He	45.616	ug/l	30764.82
Fe	56	72	2	H2	4085.198	ug/l	3187408.02
Fe	56	72	3	He	4369.357	ug/l	5846249.93
Co	59	72	1	NO GAS	45.442	ug/l	610566.39
Ni	60	72	1	NO GAS	44.719	ug/l	133842.39
Ni	60	72	3	He	45.320	ug/l	40698.00
Ni	62	72	1	NO GAS	45.452	ug/l	21058.37
Cu	63	72	1	NO GAS	45.762	ug/l	347089.53
Cu	63	72	3	He	45.920	ug/l	122550.46
Cu	65	72	1	NO GAS	44.420	ug/l	168367.32
Zn	66	72	1	NO GAS	50.359	ug/l	125635.90
Zn	66	72	3	He	52.220	ug/l	20178.87
As	75	72	1	NO GAS	46.767	ug/l	127613.88
As	75	72	3	He	46.555	ug/l	11444.97
Se	78	72	2	H2	46.244	ug/l	3452.68
Br	79	72	1	NO GAS	-2.921	ug/l	40465.51
Br	79	72	2	H2	-2.752	ug/l	4747.96
Se	82	72	1	NO GAS	45.589	ug/l	10485.95
Kr	84	72	1	NO GAS		ug/l	27945.01
Sr	88	72	1	NO GAS	115.296	ug/l	3572594.80
Sr	88	72	3	He	110.329	ug/l	136875.57

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	53.841	ug/l	366217.49
Mo	95	72	3	He	53.573	ug/l	113655.17
Mo	98	72	1	NO GAS	53.786	ug/l	626112.13
Ag	107	72	1	NO GAS	21.753	ug/l	418104.13
Ag	109	72	1	NO GAS	21.762	ug/l	411726.84
Cd	111	159	1	NO GAS	43.737	ug/l	240540.44
Cd	111	159	3	He	44.338	ug/l	55281.89
Cd	114	159	1	NO GAS	44.356	ug/l	558508.55
Cd	114	159	3	He	44.273	ug/l	143109.65
Sn	118	159	1	NO GAS	47.532	ug/l	783417.90
Sn	118	159	3	He	47.149	ug/l	110026.86
Sb	121	159	1	NO GAS	46.230	ug/l	1028258.42
Sb	121	159	3	He	45.420	ug/l	133663.02
Sb	123	159	1	NO GAS	46.665	ug/l	807698.41
Sb	123	159	3	He	45.973	ug/l	112031.53
Ba	135	159	1	NO GAS	49.357	ug/l	238223.90
Ba	137	159	1	NO GAS	48.434	ug/l	412426.03
La	139	175	1	NO GAS	0.005	ug/l	490.51
La	139	175	3	He	0.004	ug/l	70.07
Ce	140	175	1	NO GAS	46.470	ug/l	3709554.09
Ce	140	175	3	He	47.989	ug/l	974720.52
Hg	201	175	1	NO GAS	0.918	ug/l	3858.73
Hg	202	175	1	NO GAS	0.937	ug/l	8941.84
Hg	202	175	3	He	0.960	ug/l	5874.63
Tl	203	175	3	He	48.166	ug/l	602789.08
Tl	205	175	1	NO GAS	48.636	ug/l	3037569.33
Tl	205	175	3	He	50.934	ug/l	1511580.18
[Pb]	206	175	1	NO GAS	47.527	ug/l	1025350.27
[Pb]	207	175	1	NO GAS	46.847	ug/l	889211.23
Pb	208	175	1	NO GAS	47.881	ug/l	4133820.34
Th	232	175	3	He	52.306	ug/l	2337739.02
U	238	175	1	NO GAS	47.863	ug/l	4803634.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1462653.05	78.4
Sc	45	2	H2	50969.89	61.7
Sc	45	3	He	37063.49	73.7
Ge	72	1	NO GAS	755143.93	89.3
Ge	72	2	H2	86852.64	73.3
Ge	72	3	He	64588.67	85.6
Tb	159	1	NO GAS	18943060.31	103.7
Tb	159	3	He	6430701.57	91.1
Ho	165	1	NO GAS	17680516.98	104.2
Ho	165	3	He	6306647.31	94.6
Lu	175	1	NO GAS	19765659.96	104.2
Lu	175	3	He	3904455.60	93.8

ICPMS206-B Analytical Data

Sample Name B21121957-001HMS4
File Name 078MS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:23:31
Sample Type MS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	53.923	ug/l	36616.72
Be	9	45	1	NO GAS	40.124	ug/l	9697.42
B	11	45	1	NO GAS	144.114	ug/l	25904.02
Na	23	45	3	He	36733.434	ug/l	2665493.47
Mg	24	45	3	He	12063.881	ug/l	447759.28
Al	27	45	1	NO GAS	416.690	ug/l	1059679.76
Si	28	45	2	H2	25285.616	ug/l	300557.29
K	39	72	3	He	5385.138	ug/l	205465.28
Ca	40	72	2	H2	10818.126	ug/l	1556160.71
Ti	47	72	1	NO GAS	88.399	ug/l	70214.63
V	51	72	1	NO GAS	106.261	ug/l	1250414.18
V	51	72	3	He	108.545	ug/l	123141.29
Cr	52	72	1	NO GAS	91.609	ug/l	1032184.42
Cr	52	72	3	He	92.711	ug/l	148113.78
Cr	53	72	1	NO GAS	166.845	ug/l	291489.61
Mn	55	72	1	NO GAS	465.816	ug/l	7792441.05
Mn	55	72	3	He	452.754	ug/l	340413.85
Fe	56	72	2	H2	490.215	ug/l	391731.40
Fe	56	72	3	He	454.883	ug/l	678921.19
Co	59	72	1	NO GAS	97.427	ug/l	1437333.04
Ni	60	72	1	NO GAS	93.331	ug/l	306669.42
Ni	60	72	3	He	94.568	ug/l	94660.68
Ni	62	72	1	NO GAS	95.733	ug/l	48397.19
Cu	63	72	1	NO GAS	95.847	ug/l	797772.75
Cu	63	72	3	He	96.700	ug/l	287463.55
Cu	65	72	1	NO GAS	96.992	ug/l	403438.32
Zn	66	72	1	NO GAS	100.062	ug/l	273615.57
Zn	66	72	3	He	96.380	ug/l	41453.25
As	75	72	1	NO GAS	95.212	ug/l	281975.48
As	75	72	3	He	91.954	ug/l	25198.19
Se	78	72	2	H2	104.686	ug/l	7960.99
Br	79	72	1	NO GAS	-3.453	ug/l	39388.84
Br	79	72	2	H2	-2.472	ug/l	4881.12
Se	82	72	1	NO GAS	95.239	ug/l	23865.89
Kr	84	72	1	NO GAS		ug/l	41089.68
Sr	88	72	1	NO GAS	171.098	ug/l	5821421.68
Sr	88	72	3	He	160.732	ug/l	222258.13

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	106.446	ug/l	794995.53
Mo	95	72	3	He	105.668	ug/l	249852.50
Mo	98	72	1	NO GAS	106.276	ug/l	1358375.25
Ag	107	72	1	NO GAS	10.834	ug/l	229398.65
Ag	109	72	1	NO GAS	10.822	ug/l	225643.94
Cd	111	159	1	NO GAS	45.911	ug/l	268293.26
Cd	111	159	3	He	45.748	ug/l	62542.65
Cd	114	159	1	NO GAS	47.148	ug/l	630702.17
Cd	114	159	3	He	45.688	ug/l	162032.58
Sn	118	159	1	NO GAS	102.299	ug/l	1737531.21
Sn	118	159	3	He	97.576	ug/l	242857.35
Sb	121	159	1	NO GAS	97.482	ug/l	2304860.92
Sb	121	159	3	He	91.888	ug/l	296693.32
Sb	123	159	1	NO GAS	100.043	ug/l	1840167.61
Sb	123	159	3	He	92.766	ug/l	247860.37
Ba	135	159	1	NO GAS	96.024	ug/l	492483.62
Ba	137	159	1	NO GAS	94.817	ug/l	857808.94
La	139	175	1	NO GAS	98.126	ug/l	8556183.70
La	139	175	3	He	98.499	ug/l	1702142.17
Ce	140	175	1	NO GAS	97.361	ug/l	8322971.53
Ce	140	175	3	He	99.223	ug/l	2179485.14
Hg	201	175	1	NO GAS	0.012	ug/l	67.32
Hg	202	175	1	NO GAS	0.039	ug/l	472.58
Hg	202	175	3	He	0.030	ug/l	224.62
Tl	203	175	3	He	100.685	ug/l	1362414.46
Tl	205	175	1	NO GAS	96.481	ug/l	6450719.70
Tl	205	175	3	He	103.297	ug/l	3313558.97
[Pb]	206	175	1	NO GAS	100.702	ug/l	2326042.93
[Pb]	207	175	1	NO GAS	99.508	ug/l	2022639.60
Pb	208	175	1	NO GAS	99.515	ug/l	9198499.86
Th	232	175	3	He	105.316	ug/l	5088411.07
U	238	175	1	NO GAS	99.115	ug/l	10650775.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1604073.52	86.0
Sc	45	2	H2	53787.39	65.1
Sc	45	3	He	40901.49	81.3
Ge	72	1	NO GAS	805555.94	95.2
Ge	72	2	H2	91349.20	77.1
Ge	72	3	He	69921.36	92.6
Tb	159	1	NO GAS	19545086.27	107.0
Tb	159	3	He	6849255.26	97.0
Ho	165	1	NO GAS	18577797.98	109.5
Ho	165	3	He	6705311.74	100.6
Lu	175	1	NO GAS	20556304.33	108.4
Lu	175	3	He	4095509.84	98.4

ICPMS206-B Analytical Data

Sample Name B21121957-001HMSD4
File Name 079MSD4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:29:07
Sample Type MSD4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	52.292	ug/l	34913.72
Be	9	45	1	NO GAS	38.404	ug/l	9035.53
B	11	45	1	NO GAS	139.492	ug/l	24406.34
Na	23	45	3	He	37397.953	ug/l	2416861.63
Mg	24	45	3	He	12135.487	ug/l	401053.07
Al	27	45	1	NO GAS	398.866	ug/l	987800.06
Si	28	45	2	H2	23304.440	ug/l	277293.76
K	39	72	3	He	5412.973	ug/l	186513.17
Ca	40	72	2	H2	10430.404	ug/l	1502336.98
Ti	47	72	1	NO GAS	84.434	ug/l	65465.20
V	51	72	1	NO GAS	108.647	ug/l	1246497.77
V	51	72	3	He	114.205	ug/l	117025.89
Cr	52	72	1	NO GAS	89.972	ug/l	989504.07
Cr	52	72	3	He	96.510	ug/l	139305.40
Cr	53	72	1	NO GAS	150.112	ug/l	260133.44
Mn	55	72	1	NO GAS	468.704	ug/l	7650179.89
Mn	55	72	3	He	467.945	ug/l	317677.37
Fe	56	72	2	H2	455.959	ug/l	363391.80
Fe	56	72	3	He	460.496	ug/l	620667.44
Co	59	72	1	NO GAS	95.684	ug/l	1377656.44
Ni	60	72	1	NO GAS	91.211	ug/l	292464.45
Ni	60	72	3	He	97.191	ug/l	87869.55
Ni	62	72	1	NO GAS	97.004	ug/l	47843.68
Cu	63	72	1	NO GAS	94.222	ug/l	765407.86
Cu	63	72	3	He	99.742	ug/l	267716.80
Cu	65	72	1	NO GAS	96.057	ug/l	389816.32
Zn	66	72	1	NO GAS	104.045	ug/l	277568.72
Zn	66	72	3	He	105.558	ug/l	40970.13
As	75	72	1	NO GAS	95.111	ug/l	274930.15
As	75	72	3	He	96.197	ug/l	23796.49
Se	78	72	2	H2	98.443	ug/l	7498.87
Br	79	72	1	NO GAS	-4.115	ug/l	34471.08
Br	79	72	2	H2	-3.501	ug/l	4155.66
Se	82	72	1	NO GAS	92.620	ug/l	22658.42
Kr	84	72	1	NO GAS		ug/l	38548.72
Sr	88	72	1	NO GAS	167.209	ug/l	5549386.21
Sr	88	72	3	He	168.204	ug/l	209978.55

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	108.418	ug/l	789913.03
Mo	95	72	3	He	111.653	ug/l	238402.68
Mo	98	72	1	NO GAS	109.378	ug/l	1363703.56
Ag	107	72	1	NO GAS	10.815	ug/l	223533.34
Ag	109	72	1	NO GAS	10.690	ug/l	217493.87
Cd	111	159	1	NO GAS	44.790	ug/l	265782.35
Cd	111	159	3	He	46.620	ug/l	59331.18
Cd	114	159	1	NO GAS	45.145	ug/l	613460.24
Cd	114	159	3	He	46.853	ug/l	154704.22
Sn	118	159	1	NO GAS	98.972	ug/l	1708068.89
Sn	118	159	3	He	98.951	ug/l	229180.23
Sb	121	159	1	NO GAS	95.986	ug/l	2303901.06
Sb	121	159	3	He	95.111	ug/l	285807.34
Sb	123	159	1	NO GAS	96.944	ug/l	1810796.48
Sb	123	159	3	He	96.862	ug/l	240945.80
Ba	135	159	1	NO GAS	93.809	ug/l	488646.15
Ba	137	159	1	NO GAS	92.622	ug/l	850916.88
La	139	175	1	NO GAS	93.644	ug/l	8242707.11
La	139	175	3	He	102.862	ug/l	1631789.99
Ce	140	175	1	NO GAS	93.912	ug/l	8104000.07
Ce	140	175	3	He	104.817	ug/l	2112053.50
Hg	201	175	1	NO GAS	0.008	ug/l	51.32
Hg	202	175	1	NO GAS	0.034	ug/l	422.92
Hg	202	175	3	He	0.027	ug/l	186.30
Tl	203	175	3	He	106.079	ug/l	1317300.32
Tl	205	175	1	NO GAS	95.095	ug/l	6418216.29
Tl	205	175	3	He	109.665	ug/l	3226390.84
[Pb]	206	175	1	NO GAS	99.738	ug/l	2325636.27
[Pb]	207	175	1	NO GAS	94.826	ug/l	1945407.16
Pb	208	175	1	NO GAS	96.070	ug/l	8964154.78
Th	232	175	3	He	109.477	ug/l	4848595.29
U	238	175	1	NO GAS	98.026	ug/l	10632832.58

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1565188.30	83.9
Sc	45	2	H2	51375.40	62.2
Sc	45	3	He	36419.82	72.4
Ge	72	1	NO GAS	785826.89	92.9
Ge	72	2	H2	86066.20	72.6
Ge	72	3	He	63151.58	83.7
Tb	159	1	NO GAS	19842797.31	108.6
Tb	159	3	He	6379031.57	90.4
Ho	165	1	NO GAS	18226937.55	107.4
Ho	165	3	He	6235954.49	93.5
Lu	175	1	NO GAS	20741224.87	109.4
Lu	175	3	He	3763179.32	90.4

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 080BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:34:40
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.079	ug/l	2517.02
Be	9	45	1	NO GAS	-0.002	ug/l	3.67
B	11	45	1	NO GAS	0.633	ug/l	217.96
Na	23	45	3	He	144.649	ug/l	14716.31
Mg	24	45	3	He	1.080	ug/l	46.57
Al	27	45	1	NO GAS	0.152	ug/l	804.47
Si	28	45	2	H2	23.152	ug/l	303.94
K	39	72	3	He	-9.589	ug/l	1934.57
Ca	40	72	2	H2	0.777	ug/l	539.75
Ti	47	72	1	NO GAS	0.037	ug/l	48.31
V	51	72	1	NO GAS	-0.882	ug/l	-16247.58
V	51	72	3	He	0.138	ug/l	213.34
Cr	52	72	1	NO GAS	0.146	ug/l	10026.48
Cr	52	72	3	He	-0.022	ug/l	83.17
Cr	53	72	1	NO GAS	31.026	ug/l	82905.63
Mn	55	72	1	NO GAS	0.015	ug/l	868.31
Mn	55	72	3	He	0.013	ug/l	13.00
Fe	56	72	2	H2	0.087	ug/l	331.51
Fe	56	72	3	He	0.094	ug/l	626.37
Co	59	72	1	NO GAS	0.004	ug/l	113.11
Ni	60	72	1	NO GAS	0.001	ug/l	59.88
Ni	60	72	3	He	-0.010	ug/l	14.44
Ni	62	72	1	NO GAS	0.015	ug/l	252.84
Cu	63	72	1	NO GAS	0.001	ug/l	419.26
Cu	63	72	3	He	-0.010	ug/l	141.97
Cu	65	72	1	NO GAS	0.002	ug/l	220.63
Zn	66	72	1	NO GAS	-0.001	ug/l	432.27
Zn	66	72	3	He	0.039	ug/l	92.22
As	75	72	1	NO GAS	0.614	ug/l	4450.50
As	75	72	3	He	0.015	ug/l	8.00
Se	78	72	2	H2	0.007	ug/l	2.33
Br	79	72	1	NO GAS	-1.766	ug/l	46089.50
Br	79	72	2	H2	-1.354	ug/l	5769.60
Se	82	72	1	NO GAS	0.989	ug/l	381.27
Kr	84	72	1	NO GAS		ug/l	6608.29
Sr	88	72	1	NO GAS	0.008	ug/l	568.89
Sr	88	72	3	He	0.001	ug/l	205.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.013	ug/l	156.67
Mo	95	72	3	He	0.007	ug/l	44.44
Mo	98	72	1	NO GAS	0.006	ug/l	206.19
Ag	107	72	1	NO GAS	0.010	ug/l	1711.76
Ag	109	72	1	NO GAS	0.005	ug/l	1580.44
Cd	111	159	1	NO GAS	0.011	ug/l	19.32
Cd	111	159	3	He	0.007	ug/l	9.33
Cd	114	159	1	NO GAS	0.006	ug/l	-170.80
Cd	114	159	3	He	0.012	ug/l	8.46
Sn	118	159	1	NO GAS	-2.495	ug/l	3097.61
Sn	118	159	3	He	-2.339	ug/l	377.79
Sb	121	159	1	NO GAS	0.022	ug/l	653.35
Sb	121	159	3	He	0.019	ug/l	88.89
Sb	123	159	1	NO GAS	0.022	ug/l	528.90
Sb	123	159	3	He	0.024	ug/l	84.44
Ba	135	159	1	NO GAS	0.030	ug/l	156.36
Ba	137	159	1	NO GAS	0.018	ug/l	196.28
La	139	175	1	NO GAS	0.000	ug/l	96.76
La	139	175	3	He	0.001	ug/l	20.02
Ce	140	175	1	NO GAS	0.001	ug/l	153.49
Ce	140	175	3	He	0.000	ug/l	20.02
Hg	201	175	1	NO GAS	0.002	ug/l	21.00
Hg	202	175	1	NO GAS	0.001	ug/l	77.98
Hg	202	175	3	He	0.001	ug/l	28.00
Tl	203	175	3	He	0.569	ug/l	7159.62
Tl	205	175	1	NO GAS	0.463	ug/l	29148.90
Tl	205	175	3	He	0.581	ug/l	17343.16
[Pb]	206	175	1	NO GAS	0.004	ug/l	147.78
[Pb]	207	175	1	NO GAS	0.005	ug/l	150.00
Pb	208	175	1	NO GAS	0.005	ug/l	618.90
Th	232	175	3	He	0.076	ug/l	4265.78
U	238	175	1	NO GAS	0.007	ug/l	834.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1384643.07	74.2
Sc	45	2	H2	54323.25	65.8
Sc	45	3	He	37442.27	74.4
Ge	72	1	NO GAS	747041.98	88.3
Ge	72	2	H2	88907.38	75.0
Ge	72	3	He	64041.46	84.8
Tb	159	1	NO GAS	18374227.74	100.6
Tb	159	3	He	6534516.11	92.6
Ho	165	1	NO GAS	17421497.97	102.7
Ho	165	3	He	6376714.67	95.7
Lu	175	1	NO GAS	19162746.24	101.0
Lu	175	3	He	3767633.07	90.5

ICPMS206-B Analytical Data

Sample Name B21121957-0011
File Name 081SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:40:23
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.090	ug/l	1775.07
Be	9	45	1	NO GAS	-0.007	ug/l	3.67
B	11	45	1	NO GAS	65.276	ug/l	13149.04
Na	23	45	3	He	32821.684	ug/l	2946305.23
Mg	24	45	3	He	7629.027	ug/l	350222.22
Al	27	45	1	NO GAS	1.899	ug/l	5981.09
Si	28	45	2	H2	22469.292	ug/l	437107.11
K	39	72	3	He	1603.646	ug/l	73549.73
Ca	40	72	2	H2	7188.249	ug/l	1480833.50
Ti	47	72	1	NO GAS	1.768	ug/l	1509.33
V	51	72	1	NO GAS	20.584	ug/l	249810.95
V	51	72	3	He	19.094	ug/l	25403.58
Cr	52	72	1	NO GAS	2.753	ug/l	42215.66
Cr	52	72	3	He	2.869	ug/l	5506.71
Cr	53	72	1	NO GAS	-13.764	ug/l	23994.86
Mn	55	72	1	NO GAS	0.795	ug/l	14770.54
Mn	55	72	3	He	0.738	ug/l	653.75
Fe	56	72	2	H2	7.755	ug/l	9174.71
Fe	56	72	3	He	7.321	ug/l	13407.12
Co	59	72	1	NO GAS	0.018	ug/l	342.66
Ni	60	72	1	NO GAS	0.257	ug/l	958.14
Ni	60	72	3	He	0.152	ug/l	208.89
Ni	62	72	1	NO GAS	0.230	ug/l	402.54
Cu	63	72	1	NO GAS	1.013	ug/l	9376.78
Cu	63	72	3	He	0.544	ug/l	2104.38
Cu	65	72	1	NO GAS	0.623	ug/l	2978.35
Zn	66	72	1	NO GAS	9.130	ug/l	26827.62
Zn	66	72	3	He	8.454	ug/l	4341.71
As	75	72	1	NO GAS	0.224	ug/l	3847.21
As	75	72	3	He	0.113	ug/l	41.66
Se	78	72	2	H2	0.163	ug/l	20.33
Br	79	72	1	NO GAS	6.142	ug/l	103707.57
Br	79	72	2	H2	6.439	ug/l	15476.79
Se	82	72	1	NO GAS	0.954	ug/l	424.53
Kr	84	72	1	NO GAS		ug/l	21005.19
Sr	88	72	1	NO GAS	62.138	ug/l	2234636.95
Sr	88	72	3	He	56.713	ug/l	91789.82

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.878	ug/l	7001.55
Mo	95	72	3	He	0.829	ug/l	2330.19
Mo	98	72	1	NO GAS	0.891	ug/l	12190.17
Ag	107	72	1	NO GAS	-0.075	ug/l	66.65
Ag	109	72	1	NO GAS	-0.075	ug/l	64.66
Cd	111	159	1	NO GAS	0.023	ug/l	81.11
Cd	111	159	3	He	0.013	ug/l	18.66
Cd	114	159	1	NO GAS	-0.060	ug/l	-979.96
Cd	114	159	3	He	-0.098	ug/l	-402.21
Sn	118	159	1	NO GAS	40.755	ug/l	657764.07
Sn	118	159	3	He	36.353	ug/l	99306.16
Sb	121	159	1	NO GAS	0.026	ug/l	728.91
Sb	121	159	3	He	0.013	ug/l	78.89
Sb	123	159	1	NO GAS	0.027	ug/l	610.02
Sb	123	159	3	He	0.016	ug/l	70.00
Ba	135	159	1	NO GAS	2.071	ug/l	9737.06
Ba	137	159	1	NO GAS	2.125	ug/l	17631.61
La	139	175	1	NO GAS	0.004	ug/l	394.13
La	139	175	3	He	0.003	ug/l	50.05
Ce	140	175	1	NO GAS	0.002	ug/l	236.91
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.002	ug/l	21.66
Hg	202	175	1	NO GAS	0.019	ug/l	247.95
Hg	202	175	3	He	0.016	ug/l	134.64
Tl	203	175	3	He	0.275	ug/l	3903.74
Tl	205	175	1	NO GAS	0.196	ug/l	12452.19
Tl	205	175	3	He	0.280	ug/l	9420.41
[Pb]	206	175	1	NO GAS	0.038	ug/l	877.81
[Pb]	207	175	1	NO GAS	0.042	ug/l	830.03
Pb	208	175	1	NO GAS	0.040	ug/l	3589.09
Th	232	175	3	He	0.015	ug/l	1709.77
U	238	175	1	NO GAS	0.007	ug/l	779.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1786168.09	95.7
Sc	45	2	H2	84004.45	101.7
Sc	45	3	He	50591.31	100.6
Ge	72	1	NO GAS	851175.15	100.6
Ge	72	2	H2	123100.36	103.9
Ge	72	3	He	81738.96	108.3
Tb	159	1	NO GAS	17879998.95	97.9
Tb	159	3	He	7213003.22	102.2
Ho	165	1	NO GAS	17047354.04	100.5
Ho	165	3	He	6844074.04	102.7
Lu	175	1	NO GAS	18897787.75	99.6
Lu	175	3	He	4195498.74	100.8

ICPMS206-B Analytical Data

Sample Name B21121957-001IDIL
File Name 082_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:46:07
Sample Type AIRRef
Total Dilution 5.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.631	ug/l	2143.71
Be	9	45	1	NO GAS	-0.079	ug/l	1.00
B	11	45	1	NO GAS	57.818	ug/l	1990.39
Na	23	45	3	He	29877.171	ug/l	391038.02
Mg	24	45	3	He	6935.086	ug/l	45904.80
Al	27	45	1	NO GAS	5.547	ug/l	3039.18
Si	28	45	2	H2	26795.849	ug/l	54592.56
K	39	72	3	He	1351.825	ug/l	11599.60
Ca	40	72	2	H2	6689.710	ug/l	177191.35
Ti	47	72	1	NO GAS	1.681	ug/l	273.20
V	51	72	1	NO GAS	15.641	ug/l	28402.81
V	51	72	3	He	18.460	ug/l	3906.04
Cr	52	72	1	NO GAS	2.144	ug/l	13172.49
Cr	52	72	3	He	3.032	ug/l	1001.39
Cr	53	72	1	NO GAS	68.808	ug/l	60090.40
Mn	55	72	1	NO GAS	0.786	ug/l	3124.12
Mn	55	72	3	He	0.790	ug/l	113.01
Fe	56	72	2	H2	10.749	ug/l	1805.88
Fe	56	72	3	He	10.122	ug/l	3263.72
Co	59	72	1	NO GAS	0.007	ug/l	83.17
Ni	60	72	1	NO GAS	0.353	ug/l	276.12
Ni	60	72	3	He	0.288	ug/l	76.67
Ni	62	72	1	NO GAS	0.235	ug/l	272.80
Cu	63	72	1	NO GAS	2.059	ug/l	3653.02
Cu	63	72	3	He	1.665	ug/l	1074.15
Cu	65	72	1	NO GAS	1.682	ug/l	1534.44
Zn	66	72	1	NO GAS	15.363	ug/l	8355.27
Zn	66	72	3	He	15.322	ug/l	1281.17
As	75	72	1	NO GAS	-2.173	ug/l	1616.70
As	75	72	3	He	0.087	ug/l	8.67
Se	78	72	2	H2	0.253	ug/l	5.00
Br	79	72	1	NO GAS	10.811	ug/l	69597.70
Br	79	72	2	H2	17.335	ug/l	8106.01
Se	82	72	1	NO GAS	0.143	ug/l	157.69
Kr	84	72	1	NO GAS		ug/l	9344.20
Sr	88	72	1	NO GAS	60.513	ug/l	388730.95
Sr	88	72	3	He	58.469	ug/l	14999.15

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.996	ug/l	1471.20
Mo	95	72	3	He	0.954	ug/l	444.46
Mo	98	72	1	NO GAS	0.979	ug/l	2499.25
Ag	107	72	1	NO GAS	-0.364	ug/l	99.98
Ag	109	72	1	NO GAS	-0.363	ug/l	95.98
Cd	111	159	1	NO GAS	0.060	ug/l	26.61
Cd	111	159	3	He	0.023	ug/l	6.67
Cd	114	159	1	NO GAS	-0.028	ug/l	-335.04
Cd	114	159	3	He	-0.020	ug/l	-46.04
Sn	118	159	1	NO GAS	28.433	ug/l	135260.63
Sn	118	159	3	He	25.985	ug/l	18319.40
Sb	121	159	1	NO GAS	0.076	ug/l	521.13
Sb	121	159	3	He	0.054	ug/l	66.67
Sb	123	159	1	NO GAS	0.061	ug/l	382.23
Sb	123	159	3	He	0.059	ug/l	53.33
Ba	135	159	1	NO GAS	2.417	ug/l	2442.03
Ba	137	159	1	NO GAS	2.289	ug/l	4089.14
La	139	175	1	NO GAS	0.002	ug/l	110.11
La	139	175	3	He	0.009	ug/l	30.03
Ce	140	175	1	NO GAS	0.004	ug/l	136.81
Ce	140	175	3	He	0.006	ug/l	46.71
Hg	201	175	1	NO GAS	0.005	ug/l	18.67
Hg	202	175	1	NO GAS	0.017	ug/l	109.65
Hg	202	175	3	He	0.018	ug/l	46.99
Tl	203	175	3	He	0.614	ug/l	1705.10
Tl	205	175	1	NO GAS	0.426	ug/l	6011.28
Tl	205	175	3	He	0.601	ug/l	3964.41
[Pb]	206	175	1	NO GAS	0.086	ug/l	462.23
[Pb]	207	175	1	NO GAS	0.089	ug/l	408.90
Pb	208	175	1	NO GAS	0.091	ug/l	1894.51
Th	232	175	3	He	0.038	ug/l	1276.47
U	238	175	1	NO GAS	0.008	ug/l	296.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1446855.49	77.5
Sc	45	2	H2	44544.79	53.9
Sc	45	3	He	36517.97	72.6
Ge	72	1	NO GAS	759648.06	89.8
Ge	72	2	H2	79988.13	67.5
Ge	72	3	He	64060.87	84.9
Tb	159	1	NO GAS	19088409.40	104.5
Tb	159	3	He	6713282.58	95.1
Ho	165	1	NO GAS	18058935.38	106.4
Ho	165	3	He	6526407.74	97.9
Lu	175	1	NO GAS	20423311.55	107.7
Lu	175	3	He	3989289.17	95.9

ICPMS206-B Analytical Data

Sample Name B21121957-001IMS
File Name 083MS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:51:52
Sample Type MS
Total Dilution 1.0300
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1323.190	ug/l	731074.34
Be	9	45	1	NO GAS	39.839	ug/l	8664.75
B	11	45	1	NO GAS	92.566	ug/l	15015.55
Na	23	45	3	He	73066.214	ug/l	5416724.50
Mg	24	45	3	He	50907.672	ug/l	1932529.53
Al	27	45	1	NO GAS	42.476	ug/l	97751.74
Si	28	45	2	H2	22119.690	ug/l	303120.47
K	39	72	3	He	43168.825	ug/l	1615471.36
Ca	40	72	2	H2	48596.732	ug/l	7559136.24
Ti	47	72	1	NO GAS	47.894	ug/l	34050.81
V	51	72	1	NO GAS	64.535	ug/l	676087.46
V	51	72	3	He	64.423	ug/l	72474.19
Cr	52	72	1	NO GAS	47.677	ug/l	484125.95
Cr	52	72	3	He	46.474	ug/l	73697.98
Cr	53	72	1	NO GAS	74.461	ug/l	138796.36
Mn	55	72	1	NO GAS	46.932	ug/l	702006.05
Mn	55	72	3	He	45.293	ug/l	33755.15
Fe	56	72	2	H2	4414.524	ug/l	3796775.71
Fe	56	72	3	He	4320.444	ug/l	6389520.62
Co	59	72	1	NO GAS	46.332	ug/l	610935.23
Ni	60	72	1	NO GAS	45.980	ug/l	135181.40
Ni	60	72	3	He	46.238	ug/l	45898.16
Ni	62	72	1	NO GAS	46.091	ug/l	20975.05
Cu	63	72	1	NO GAS	48.208	ug/l	359010.76
Cu	63	72	3	He	45.282	ug/l	133511.99
Cu	65	72	1	NO GAS	46.615	ug/l	173359.68
Zn	66	72	1	NO GAS	56.478	ug/l	138296.19
Zn	66	72	3	He	55.169	ug/l	23547.77
As	75	72	1	NO GAS	51.908	ug/l	138800.08
As	75	72	3	He	50.715	ug/l	13773.25
Se	78	72	2	H2	52.355	ug/l	4307.71
Br	79	72	1	NO GAS	7.835	ug/l	98670.15
Br	79	72	2	H2	9.169	ug/l	13871.79
Se	82	72	1	NO GAS	55.012	ug/l	12423.71
Kr	84	72	1	NO GAS		ug/l	27188.52
Sr	88	72	1	NO GAS	113.525	ug/l	3452779.92
Sr	88	72	3	He	106.204	ug/l	145617.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	51.938	ug/l	346692.74
Mo	95	72	3	He	50.058	ug/l	117312.90
Mo	98	72	1	NO GAS	51.855	ug/l	592841.47
Ag	107	72	1	NO GAS	21.959	ug/l	414195.34
Ag	109	72	1	NO GAS	21.560	ug/l	400558.39
Cd	111	159	1	NO GAS	46.214	ug/l	235732.36
Cd	111	159	3	He	46.329	ug/l	57814.35
Cd	114	159	1	NO GAS	46.967	ug/l	548982.80
Cd	114	159	3	He	47.506	ug/l	153757.34
Sn	118	159	1	NO GAS	86.334	ug/l	1287362.07
Sn	118	159	3	He	85.876	ug/l	195877.47
Sb	121	159	1	NO GAS	50.476	ug/l	1042394.82
Sb	121	159	3	He	49.803	ug/l	146723.08
Sb	123	159	1	NO GAS	51.054	ug/l	818228.12
Sb	123	159	3	He	49.660	ug/l	121129.50
Ba	135	159	1	NO GAS	51.392	ug/l	229847.58
Ba	137	159	1	NO GAS	50.421	ug/l	398481.20
La	139	175	1	NO GAS	0.006	ug/l	540.57
La	139	175	3	He	0.005	ug/l	86.75
Ce	140	175	1	NO GAS	49.044	ug/l	3549623.87
Ce	140	175	3	He	48.843	ug/l	990576.69
Hg	201	175	1	NO GAS	0.979	ug/l	3723.05
Hg	202	175	1	NO GAS	0.993	ug/l	8584.05
Hg	202	175	3	He	1.009	ug/l	6162.69
Tl	203	175	3	He	47.394	ug/l	592190.09
Tl	205	175	1	NO GAS	46.229	ug/l	2619218.17
Tl	205	175	3	He	49.117	ug/l	1454116.45
[Pb]	206	175	1	NO GAS	47.733	ug/l	934838.69
[Pb]	207	175	1	NO GAS	46.438	ug/l	799302.59
Pb	208	175	1	NO GAS	47.067	ug/l	3688210.99
Th	232	175	3	He	50.762	ug/l	2264149.18
U	238	175	1	NO GAS	46.786	ug/l	4260334.92

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1497725.00	80.3
Sc	45	2	H2	60983.34	73.8
Sc	45	3	He	43065.72	85.6
Ge	72	1	NO GAS	742714.53	87.8
Ge	72	2	H2	95726.10	80.8
Ge	72	3	He	71365.42	94.6
Tb	159	1	NO GAS	17688849.68	96.8
Tb	159	3	He	6436200.87	91.2
Ho	165	1	NO GAS	16468930.64	97.1
Ho	165	3	He	6448332.74	96.7
Lu	175	1	NO GAS	17981590.54	94.8
Lu	175	3	He	3898868.86	93.7

ICPMS206-B Analytical Data

Sample Name B21121957-001IMSD
File Name 084MSD.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 02:57:36
Sample Type MSD
Total Dilution 1.0300
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1671.125	ug/l	967662.72
Be	9	45	1	NO GAS	40.567	ug/l	10392.34
B	11	45	1	NO GAS	95.734	ug/l	18290.67
Na	23	45	3	He	74915.771	ug/l	6122765.81
Mg	24	45	3	He	52194.954	ug/l	2184687.27
Al	27	45	1	NO GAS	43.213	ug/l	117016.30
Si	28	45	2	H2	21701.299	ug/l	350315.50
K	39	72	3	He	44371.733	ug/l	1787367.54
Ca	40	72	2	H2	48205.067	ug/l	8782943.35
Ti	47	72	1	NO GAS	50.564	ug/l	39881.90
V	51	72	1	NO GAS	68.639	ug/l	798350.41
V	51	72	3	He	65.650	ug/l	79520.53
Cr	52	72	1	NO GAS	48.981	ug/l	552204.35
Cr	52	72	3	He	47.736	ug/l	81434.34
Cr	53	72	1	NO GAS	69.180	ug/l	146329.30
Mn	55	72	1	NO GAS	47.620	ug/l	791196.35
Mn	55	72	3	He	47.164	ug/l	37830.11
Fe	56	72	2	H2	4254.376	ug/l	4283588.43
Fe	56	72	3	He	4427.461	ug/l	7047756.43
Co	59	72	1	NO GAS	45.963	ug/l	672952.38
Ni	60	72	1	NO GAS	45.590	ug/l	148723.03
Ni	60	72	3	He	46.334	ug/l	49500.33
Ni	62	72	1	NO GAS	47.593	ug/l	24016.40
Cu	63	72	1	NO GAS	48.023	ug/l	396993.06
Cu	63	72	3	He	46.307	ug/l	146972.44
Cu	65	72	1	NO GAS	46.409	ug/l	191676.12
Zn	66	72	1	NO GAS	55.119	ug/l	149801.04
Zn	66	72	3	He	54.426	ug/l	25010.94
As	75	72	1	NO GAS	51.626	ug/l	153170.61
As	75	72	3	He	50.080	ug/l	14639.82
Se	78	72	2	H2	51.381	ug/l	4951.42
Br	79	72	1	NO GAS	7.210	ug/l	105675.60
Br	79	72	2	H2	6.760	ug/l	14211.39
Se	82	72	1	NO GAS	55.409	ug/l	13848.08
Kr	84	72	1	NO GAS		ug/l	29877.94
Sr	88	72	1	NO GAS	109.498	ug/l	3697863.93
Sr	88	72	3	He	105.289	ug/l	155422.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.420	ug/l	373747.98
Mo	95	72	3	He	48.784	ug/l	123045.22
Mo	98	72	1	NO GAS	50.197	ug/l	636772.53
Ag	107	72	1	NO GAS	20.673	ug/l	433055.16
Ag	109	72	1	NO GAS	20.453	ug/l	421870.94
Cd	111	159	1	NO GAS	47.833	ug/l	250175.58
Cd	111	159	3	He	47.946	ug/l	61675.92
Cd	114	159	1	NO GAS	49.598	ug/l	593891.39
Cd	114	159	3	He	46.838	ug/l	156272.72
Sn	118	159	1	NO GAS	90.889	ug/l	1387216.07
Sn	118	159	3	He	88.233	ug/l	207297.64
Sb	121	159	1	NO GAS	51.150	ug/l	1081967.48
Sb	121	159	3	He	51.124	ug/l	155293.11
Sb	123	159	1	NO GAS	52.369	ug/l	861899.30
Sb	123	159	3	He	49.859	ug/l	125365.16
Ba	135	159	1	NO GAS	51.289	ug/l	235375.74
Ba	137	159	1	NO GAS	50.403	ug/l	408174.03
La	139	175	1	NO GAS	0.005	ug/l	477.16
La	139	175	3	He	0.005	ug/l	83.42
Ce	140	175	1	NO GAS	48.134	ug/l	3664367.36
Ce	140	175	3	He	50.010	ug/l	1025041.26
Hg	201	175	1	NO GAS	0.941	ug/l	3773.06
Hg	202	175	1	NO GAS	0.977	ug/l	8896.50
Hg	202	175	3	He	1.023	ug/l	6315.06
Tl	203	175	3	He	48.049	ug/l	606939.92
Tl	205	175	1	NO GAS	46.273	ug/l	2754921.52
Tl	205	175	3	He	49.576	ug/l	1484847.30
[Pb]	206	175	1	NO GAS	47.177	ug/l	970523.43
[Pb]	207	175	1	NO GAS	46.663	ug/l	844969.79
Pb	208	175	1	NO GAS	46.871	ug/l	3859558.11
Th	232	175	3	He	50.716	ug/l	2287864.08
U	238	175	1	NO GAS	46.733	ug/l	4471964.21

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1750906.79	93.8
Sc	45	2	H2	71801.30	86.9
Sc	45	3	He	47492.36	94.4
Ge	72	1	NO GAS	823094.81	97.3
Ge	72	2	H2	112117.16	94.6
Ge	72	3	He	76824.49	101.8
Tb	159	1	NO GAS	18006260.63	98.6
Tb	159	3	He	6633948.61	94.0
Ho	165	1	NO GAS	17218505.82	101.5
Ho	165	3	He	6433780.43	96.5
Lu	175	1	NO GAS	18865664.79	99.5
Lu	175	3	He	3938739.95	94.7

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 085BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:03:14
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	3.484	ug/l	4075.01
Be	9	45	1	NO GAS	-0.008	ug/l	3.33
B	11	45	1	NO GAS	0.748	ug/l	306.61
Na	23	45	3	He	141.663	ug/l	17511.12
Mg	24	45	3	He	2.309	ug/l	106.45
Al	27	45	1	NO GAS	0.170	ug/l	1101.16
Si	28	45	2	H2	8.082	ug/l	145.31
K	39	72	3	He	-2.625	ug/l	2505.76
Ca	40	72	2	H2	0.963	ug/l	694.68
Ti	47	72	1	NO GAS	0.059	ug/l	71.63
V	51	72	1	NO GAS	-1.470	ug/l	-25125.57
V	51	72	3	He	0.169	ug/l	283.34
Cr	52	72	1	NO GAS	0.256	ug/l	12400.15
Cr	52	72	3	He	-0.014	ug/l	109.78
Cr	53	72	1	NO GAS	43.772	ug/l	111733.91
Mn	55	72	1	NO GAS	0.014	ug/l	948.16
Mn	55	72	3	He	0.007	ug/l	10.33
Fe	56	72	2	H2	0.165	ug/l	483.11
Fe	56	72	3	He	0.216	ug/l	912.91
Co	59	72	1	NO GAS	0.004	ug/l	133.07
Ni	60	72	1	NO GAS	-0.001	ug/l	59.88
Ni	60	72	3	He	-0.007	ug/l	20.00
Ni	62	72	1	NO GAS	0.010	ug/l	279.45
Cu	63	72	1	NO GAS	0.005	ug/l	505.91
Cu	63	72	3	He	-0.009	ug/l	165.30
Cu	65	72	1	NO GAS	-0.005	ug/l	211.96
Zn	66	72	1	NO GAS	-0.044	ug/l	359.04
Zn	66	72	3	He	-0.052	ug/l	65.55
As	75	72	1	NO GAS	-0.230	ug/l	2371.07
As	75	72	3	He	0.006	ug/l	6.67
Se	78	72	2	H2	0.037	ug/l	5.67
Br	79	72	1	NO GAS	-1.451	ug/l	53216.61
Br	79	72	2	H2	-1.247	ug/l	7147.40
Se	82	72	1	NO GAS	-0.788	ug/l	-34.62
Kr	84	72	1	NO GAS		ug/l	8132.60
Sr	88	72	1	NO GAS	0.009	ug/l	638.75
Sr	88	72	3	He	-0.017	ug/l	210.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.030	ug/l	308.90
Mo	95	72	3	He	0.026	ug/l	100.00
Mo	98	72	1	NO GAS	0.027	ug/l	510.08
Ag	107	72	1	NO GAS	0.002	ug/l	1737.09
Ag	109	72	1	NO GAS	0.007	ug/l	1803.75
Cd	111	159	1	NO GAS	0.000	ug/l	-38.36
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.008	ug/l	-155.22
Cd	114	159	3	He	0.014	ug/l	15.43
Sn	118	159	1	NO GAS	-2.191	ug/l	8006.19
Sn	118	159	3	He	-2.023	ug/l	1181.17
Sb	121	159	1	NO GAS	0.018	ug/l	567.79
Sb	121	159	3	He	0.022	ug/l	106.66
Sb	123	159	1	NO GAS	0.017	ug/l	454.46
Sb	123	159	3	He	0.013	ug/l	57.78
Ba	135	159	1	NO GAS	0.023	ug/l	126.42
Ba	137	159	1	NO GAS	0.017	ug/l	199.61
La	139	175	1	NO GAS	0.001	ug/l	153.49
La	139	175	3	He	0.002	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	206.88
Ce	140	175	3	He	0.003	ug/l	73.41
Hg	201	175	1	NO GAS	0.005	ug/l	34.32
Hg	202	175	1	NO GAS	0.006	ug/l	132.64
Hg	202	175	3	He	0.006	ug/l	60.66
Tl	203	175	3	He	0.242	ug/l	3297.72
Tl	205	175	1	NO GAS	0.198	ug/l	12613.17
Tl	205	175	3	He	0.242	ug/l	7824.48
[Pb]	206	175	1	NO GAS	0.007	ug/l	210.00
[Pb]	207	175	1	NO GAS	0.007	ug/l	176.67
Pb	208	175	1	NO GAS	0.006	ug/l	772.24
Th	232	175	3	He	0.062	ug/l	3871.75
U	238	175	1	NO GAS	0.005	ug/l	644.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1806643.87	96.8
Sc	45	2	H2	69148.67	83.7
Sc	45	3	He	45163.42	89.8
Ge	72	1	NO GAS	830582.89	98.2
Ge	72	2	H2	108758.71	91.8
Ge	72	3	He	73752.29	97.7
Tb	159	1	NO GAS	18780285.87	102.8
Tb	159	3	He	6978884.73	98.9
Ho	165	1	NO GAS	17883582.95	105.4
Ho	165	3	He	6624963.48	99.4
Lu	175	1	NO GAS	19134166.62	100.9
Lu	175	3	He	4020481.01	96.6

ICPMS206-B Analytical Data

Sample Name B21121959-001A
File Name 086SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:08:58
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.759	ug/l	3728.33
Be	9	45	1	NO GAS	0.004	ug/l	7.67
B	11	45	1	NO GAS	75.207	ug/l	18577.60
Na	23	45	3	He	49636.918	ug/l	5027877.77
Mg	24	45	3	He	23545.066	ug/l	1220821.18
Al	27	45	1	NO GAS	5.334	ug/l	19336.60
Si	28	45	2	H2	35029.942	ug/l	795115.07
K	39	72	3	He	2460.557	ug/l	121394.95
Ca	40	72	2	H2	11957.709	ug/l	2694654.14
Ti	47	72	1	NO GAS	3.925	ug/l	3661.95
V	51	72	1	NO GAS	1.799	ug/l	16518.88
V	51	72	3	He	1.074	ug/l	1650.09
Cr	52	72	1	NO GAS	0.031	ug/l	11134.97
Cr	52	72	3	He	0.132	ug/l	429.16
Cr	53	72	1	NO GAS	-15.255	ug/l	24145.24
Mn	55	72	1	NO GAS	1660.136	ug/l	32543973.73
Mn	55	72	3	He	1628.900	ug/l	1561595.03
Fe	56	72	2	H2	1378.533	ug/l	1696319.92
Fe	56	72	3	He	1266.690	ug/l	2410434.52
Co	59	72	1	NO GAS	1.586	ug/l	27491.57
Ni	60	72	1	NO GAS	2.197	ug/l	8541.93
Ni	60	72	3	He	2.106	ug/l	2718.02
Ni	62	72	1	NO GAS	2.151	ug/l	1583.61
Cu	63	72	1	NO GAS	1.097	ug/l	11216.22
Cu	63	72	3	He	0.499	ug/l	2124.05
Cu	65	72	1	NO GAS	0.547	ug/l	2935.02
Zn	66	72	1	NO GAS	3.906	ug/l	12995.39
Zn	66	72	3	He	4.768	ug/l	2716.90
As	75	72	1	NO GAS	0.512	ug/l	5292.76
As	75	72	3	He	0.356	ug/l	130.31
Se	78	72	2	H2	0.042	ug/l	7.33
Br	79	72	1	NO GAS	4.140	ug/l	100504.92
Br	79	72	2	H2	5.043	ug/l	15256.91
Se	82	72	1	NO GAS	1.011	ug/l	498.38
Kr	84	72	1	NO GAS		ug/l	30194.62
Sr	88	72	1	NO GAS	90.941	ug/l	3625965.97
Sr	88	72	3	He	91.953	ug/l	162221.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.220	ug/l	2006.81
Mo	95	72	3	He	0.196	ug/l	632.24
Mo	98	72	1	NO GAS	0.187	ug/l	2971.41
Ag	107	72	1	NO GAS	-0.075	ug/l	83.99
Ag	109	72	1	NO GAS	-0.074	ug/l	93.32
Cd	111	159	1	NO GAS	0.004	ug/l	-21.12
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.021	ug/l	27.53
Cd	114	159	3	He	0.013	ug/l	13.37
Sn	118	159	1	NO GAS	-2.479	ug/l	3593.32
Sn	118	159	3	He	-2.267	ug/l	591.13
Sb	121	159	1	NO GAS	0.337	ug/l	8191.06
Sb	121	159	3	He	0.344	ug/l	1187.84
Sb	123	159	1	NO GAS	0.339	ug/l	6435.79
Sb	123	159	3	He	0.342	ug/l	972.26
Ba	135	159	1	NO GAS	17.541	ug/l	90724.54
Ba	137	159	1	NO GAS	17.177	ug/l	156938.35
La	139	175	1	NO GAS	0.016	ug/l	1438.21
La	139	175	3	He	0.020	ug/l	357.04
Ce	140	175	1	NO GAS	0.059	ug/l	5002.60
Ce	140	175	3	He	0.069	ug/l	1621.76
Hg	201	175	1	NO GAS	0.005	ug/l	36.99
Hg	202	175	1	NO GAS	0.024	ug/l	309.61
Hg	202	175	3	He	0.019	ug/l	159.64
Tl	203	175	3	He	0.167	ug/l	2471.05
Tl	205	175	1	NO GAS	0.130	ug/l	8767.09
Tl	205	175	3	He	0.168	ug/l	5898.66
[Pb]	206	175	1	NO GAS	0.035	ug/l	848.92
[Pb]	207	175	1	NO GAS	0.033	ug/l	708.92
Pb	208	175	1	NO GAS	0.034	ug/l	3292.39
Th	232	175	3	He	0.062	ug/l	4143.77
U	238	175	1	NO GAS	0.005	ug/l	643.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2242549.33	120.2
Sc	45	2	H2	128730.81	155.9
Sc	45	3	He	57161.52	113.6
Ge	72	1	NO GAS	952114.39	112.6
Ge	72	2	H2	164141.95	138.5
Ge	72	3	He	89129.38	118.1
Tb	159	1	NO GAS	20143121.79	110.3
Tb	159	3	He	7116649.47	100.8
Ho	165	1	NO GAS	18688606.91	110.1
Ho	165	3	He	7036458.60	105.5
Lu	175	1	NO GAS	20320259.96	107.1
Lu	175	3	He	4318723.88	103.8

ICPMS206-B Analytical Data

Sample Name B21121959-001B
File Name 087SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:14:42
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	3.947	ug/l	4243.01
Be	9	45	1	NO GAS	0.021	ug/l	10.33
B	11	45	1	NO GAS	71.573	ug/l	13443.90
Na	23	45	3	He	45221.672	ug/l	3361205.33
Mg	24	45	3	He	19915.522	ug/l	758506.44
Al	27	45	1	NO GAS	355.841	ug/l	940563.11
Si	28	45	2	H2	31391.199	ug/l	450045.21
K	39	72	3	He	2197.826	ug/l	84536.52
Ca	40	72	2	H2	11067.008	ug/l	1796769.79
Ti	47	72	1	NO GAS	33.487	ug/l	27009.95
V	51	72	1	NO GAS	0.891	ug/l	3733.85
V	51	72	3	He	2.709	ug/l	3120.88
Cr	52	72	1	NO GAS	1.916	ug/l	31020.52
Cr	52	72	3	He	1.351	ug/l	2262.36
Cr	53	72	1	NO GAS	73.187	ug/l	154375.50
Mn	55	72	1	NO GAS	1578.461	ug/l	26793192.43
Mn	55	72	3	He	1611.979	ug/l	1200505.10
Fe	56	72	2	H2	2278.688	ug/l	2044784.00
Fe	56	72	3	He	2329.627	ug/l	3444072.39
Co	59	72	1	NO GAS	2.164	ug/l	32473.89
Ni	60	72	1	NO GAS	3.764	ug/l	12606.48
Ni	60	72	3	He	4.049	ug/l	4040.52
Ni	62	72	1	NO GAS	4.294	ug/l	2458.66
Cu	63	72	1	NO GAS	5.996	ug/l	51079.90
Cu	63	72	3	He	5.380	ug/l	16014.74
Cu	65	72	1	NO GAS	5.454	ug/l	23236.86
Zn	66	72	1	NO GAS	7.886	ug/l	22333.52
Zn	66	72	3	He	7.762	ug/l	3384.82
As	75	72	1	NO GAS	0.269	ug/l	3822.86
As	75	72	3	He	0.555	ug/l	155.30
Se	78	72	2	H2	0.072	ug/l	8.00
Br	79	72	1	NO GAS	-1.798	ug/l	50243.10
Br	79	72	2	H2	-1.267	ug/l	6365.34
Se	82	72	1	NO GAS	-0.052	ug/l	151.03
Kr	84	72	1	NO GAS		ug/l	27944.99
Sr	88	72	1	NO GAS	106.090	ug/l	3663255.64
Sr	88	72	3	He	100.868	ug/l	138271.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.400	ug/l	3106.43
Mo	95	72	3	He	0.379	ug/l	920.03
Mo	98	72	1	NO GAS	0.377	ug/l	5042.49
Ag	107	72	1	NO GAS	0.030	ug/l	2291.71
Ag	109	72	1	NO GAS	0.026	ug/l	2176.05
Cd	111	159	1	NO GAS	0.017	ug/l	57.54
Cd	111	159	3	He	0.010	ug/l	14.00
Cd	114	159	1	NO GAS	0.026	ug/l	83.48
Cd	114	159	3	He	0.021	ug/l	42.73
Sn	118	159	1	NO GAS	-1.772	ug/l	14837.49
Sn	118	159	3	He	-1.624	ug/l	2095.71
Sb	121	159	1	NO GAS	0.510	ug/l	11884.48
Sb	121	159	3	He	0.517	ug/l	1675.66
Sb	123	159	1	NO GAS	0.534	ug/l	9705.23
Sb	123	159	3	He	0.520	ug/l	1388.96
Ba	135	159	1	NO GAS	19.311	ug/l	96213.76
Ba	137	159	1	NO GAS	18.837	ug/l	165672.37
La	139	175	1	NO GAS	0.177	ug/l	14621.79
La	139	175	3	He	0.174	ug/l	2959.98
Ce	140	175	1	NO GAS	0.574	ug/l	46311.19
Ce	140	175	3	He	0.600	ug/l	12978.70
Hg	201	175	1	NO GAS	0.014	ug/l	72.99
Hg	202	175	1	NO GAS	0.055	ug/l	594.23
Hg	202	175	3	He	0.039	ug/l	276.62
Tl	203	175	3	He	0.081	ug/l	1162.49
Tl	205	175	1	NO GAS	0.058	ug/l	3955.56
Tl	205	175	3	He	0.085	ug/l	2912.38
[Pb]	206	175	1	NO GAS	0.579	ug/l	12667.61
[Pb]	207	175	1	NO GAS	0.546	ug/l	10505.96
Pb	208	175	1	NO GAS	0.567	ug/l	49582.35
Th	232	175	3	He	0.127	ug/l	6971.61
U	238	175	1	NO GAS	0.019	ug/l	2010.07

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1669078.79	89.4
Sc	45	2	H2	61888.22	74.9
Sc	45	3	He	42005.68	83.5
Ge	72	1	NO GAS	817262.94	96.6
Ge	72	2	H2	97059.53	81.9
Ge	72	3	He	69264.70	91.8
Tb	159	1	NO GAS	19001123.37	104.0
Tb	159	3	He	6733912.37	95.4
Ho	165	1	NO GAS	17400042.14	102.5
Ho	165	3	He	6697028.15	100.5
Lu	175	1	NO GAS	19378846.91	102.2
Lu	175	3	He	4029978.56	96.8

ICPMS206-B Analytical Data

Sample Name B21121961-001A
File Name 088SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:20:28
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.979	ug/l	2633.02
Be	9	45	1	NO GAS	-0.011	ug/l	3.00
B	11	45	1	NO GAS	58.399	ug/l	14054.22
Na	23	45	3	He	36970.129	ug/l	3749300.74
Mg	24	45	3	He	8979.345	ug/l	465725.27
Al	27	45	1	NO GAS	5.941	ug/l	20770.39
Si	28	45	2	H2	26870.280	ug/l	613724.70
K	39	72	3	He	1948.424	ug/l	96095.27
Ca	40	72	2	H2	9972.563	ug/l	2296077.00
Ti	47	72	1	NO GAS	2.298	ug/l	2129.10
V	51	72	1	NO GAS	1.294	ug/l	9654.31
V	51	72	3	He	0.780	ug/l	1217.83
Cr	52	72	1	NO GAS	-0.246	ug/l	7416.99
Cr	52	72	3	He	0.039	ug/l	239.53
Cr	53	72	1	NO GAS	-18.281	ug/l	18442.23
Mn	55	72	1	NO GAS	524.960	ug/l	10125588.67
Mn	55	72	3	He	490.308	ug/l	466486.37
Fe	56	72	2	H2	321.344	ug/l	409170.36
Fe	56	72	3	He	306.542	ug/l	579540.61
Co	59	72	1	NO GAS	0.502	ug/l	8621.86
Ni	60	72	1	NO GAS	1.002	ug/l	3862.85
Ni	60	72	3	He	0.974	ug/l	1265.61
Ni	62	72	1	NO GAS	1.022	ug/l	898.25
Cu	63	72	1	NO GAS	0.559	ug/l	5879.22
Cu	63	72	3	He	0.085	ug/l	550.90
Cu	65	72	1	NO GAS	0.136	ug/l	912.51
Zn	66	72	1	NO GAS	2.194	ug/l	7438.79
Zn	66	72	3	He	2.469	ug/l	1447.85
As	75	72	1	NO GAS	1.390	ug/l	8134.77
As	75	72	3	He	1.060	ug/l	373.27
Se	78	72	2	H2	0.019	ug/l	5.00
Br	79	72	1	NO GAS	4.497	ug/l	101526.80
Br	79	72	2	H2	4.470	ug/l	15170.35
Se	82	72	1	NO GAS	0.137	ug/l	226.90
Kr	84	72	1	NO GAS		ug/l	24646.17
Sr	88	72	1	NO GAS	72.383	ug/l	2839310.39
Sr	88	72	3	He	70.612	ug/l	123744.74

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.610	ug/l	5332.03
Mo	95	72	3	He	0.569	ug/l	1744.55
Mo	98	72	1	NO GAS	0.569	ug/l	8547.83
Ag	107	72	1	NO GAS	-0.074	ug/l	95.98
Ag	109	72	1	NO GAS	-0.074	ug/l	93.98
Cd	111	159	1	NO GAS	0.005	ug/l	-11.74
Cd	111	159	3	He	0.002	ug/l	3.33
Cd	114	159	1	NO GAS	0.019	ug/l	-6.01
Cd	114	159	3	He	0.009	ug/l	0.67
Sn	118	159	1	NO GAS	-2.551	ug/l	2435.39
Sn	118	159	3	He	-2.330	ug/l	444.45
Sb	121	159	1	NO GAS	0.142	ug/l	3629.33
Sb	121	159	3	He	0.168	ug/l	612.24
Sb	123	159	1	NO GAS	0.142	ug/l	2841.38
Sb	123	159	3	He	0.159	ug/l	476.68
Ba	135	159	1	NO GAS	3.267	ug/l	17178.64
Ba	137	159	1	NO GAS	3.179	ug/l	29525.70
La	139	175	1	NO GAS	0.003	ug/l	323.67
La	139	175	3	He	0.006	ug/l	103.44
Ce	140	175	1	NO GAS	0.017	ug/l	1548.33
Ce	140	175	3	He	0.016	ug/l	410.42
Hg	201	175	1	NO GAS	0.035	ug/l	171.63
Hg	202	175	1	NO GAS	0.557	ug/l	5733.95
Hg	202	175	3	He	0.446	ug/l	3199.04
Tl	203	175	3	He	0.109	ug/l	1687.10
Tl	205	175	1	NO GAS	0.102	ug/l	7124.01
Tl	205	175	3	He	0.116	ug/l	4243.77
[Pb]	206	175	1	NO GAS	0.007	ug/l	238.89
[Pb]	207	175	1	NO GAS	0.006	ug/l	168.89
Pb	208	175	1	NO GAS	0.007	ug/l	878.91
Th	232	175	3	He	0.008	ug/l	1446.45
U	238	175	1	NO GAS	0.017	ug/l	1927.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132684.71	114.3
Sc	45	2	H2	98639.68	119.4
Sc	45	3	He	57167.94	113.6
Ge	72	1	NO GAS	928296.41	109.7
Ge	72	2	H2	137558.95	116.1
Ge	72	3	He	88482.42	117.2
Tb	159	1	NO GAS	20071747.50	109.9
Tb	159	3	He	7274577.91	103.1
Ho	165	1	NO GAS	18633630.68	109.8
Ho	165	3	He	7180824.63	107.7
Lu	175	1	NO GAS	20601511.41	108.6
Lu	175	3	He	4416391.65	106.1

ICPMS206-B Analytical Data

Sample Name CCV
File Name 089_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:26:11
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	363.455	ug/l	246267.18
Be	9	45	1	NO GAS	41.198	ug/l	11254.36
B	11	45	1	NO GAS	40.350	ug/l	8311.02
Na	23	45	3	He	10598.190	ug/l	927997.37
Mg	24	45	3	He	10395.164	ug/l	463520.17
Al	27	45	1	NO GAS	42.738	ug/l	123371.38
Si	28	45	2	H2	203.644	ug/l	3447.01
K	39	72	3	He	10162.931	ug/l	445716.48
Ca	40	72	2	H2	11000.694	ug/l	2114569.23
Ti	47	72	1	NO GAS	43.365	ug/l	38070.35
V	51	72	1	NO GAS	45.922	ug/l	592295.58
V	51	72	3	He	46.335	ug/l	60827.52
Cr	52	72	1	NO GAS	45.683	ug/l	574028.19
Cr	52	72	3	He	45.265	ug/l	83680.56
Cr	53	72	1	NO GAS	73.576	ug/l	168792.72
Mn	55	72	1	NO GAS	47.013	ug/l	870005.90
Mn	55	72	3	He	45.074	ug/l	39169.86
Fe	56	72	2	H2	1117.706	ug/l	1187975.60
Fe	56	72	3	He	1099.261	ug/l	1895852.98
Co	59	72	1	NO GAS	47.858	ug/l	780386.37
Ni	60	72	1	NO GAS	47.652	ug/l	173053.37
Ni	60	72	3	He	46.803	ug/l	54173.58
Ni	62	72	1	NO GAS	48.403	ug/l	27181.70
Cu	63	72	1	NO GAS	49.118	ug/l	452071.80
Cu	63	72	3	He	47.534	ug/l	163448.85
Cu	65	72	1	NO GAS	48.454	ug/l	222819.79
Zn	66	72	1	NO GAS	47.644	ug/l	144232.75
Zn	66	72	3	He	47.263	ug/l	23538.79
As	75	72	1	NO GAS	49.495	ug/l	163597.96
As	75	72	3	He	48.611	ug/l	15399.35
Se	78	72	2	H2	52.168	ug/l	5303.13
Br	79	72	1	NO GAS	0.670	ug/l	71411.30
Br	79	72	2	H2	1.972	ug/l	10436.04
Se	82	72	1	NO GAS	52.156	ug/l	14517.29
Kr	84	72	1	NO GAS		ug/l	19233.08
Sr	88	72	1	NO GAS	52.640	ug/l	1978244.19
Sr	88	72	3	He	49.349	ug/l	79054.08

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.934	ug/l	420369.51
Mo	95	72	3	He	49.448	ug/l	135172.77
Mo	98	72	1	NO GAS	49.997	ug/l	706078.34
Ag	107	72	1	NO GAS	21.186	ug/l	494034.93
Ag	109	72	1	NO GAS	21.036	ug/l	482940.27
Cd	111	159	1	NO GAS	49.321	ug/l	295195.82
Cd	111	159	3	He	46.639	ug/l	68955.95
Cd	114	159	1	NO GAS	49.392	ug/l	676578.15
Cd	114	159	3	He	47.000	ug/l	180194.45
Sn	118	159	1	NO GAS	48.468	ug/l	867115.81
Sn	118	159	3	He	46.322	ug/l	128069.30
Sb	121	159	1	NO GAS	49.019	ug/l	1186592.74
Sb	121	159	3	He	46.947	ug/l	163833.66
Sb	123	159	1	NO GAS	50.018	ug/l	942006.08
Sb	123	159	3	He	46.979	ug/l	135735.11
Ba	135	159	1	NO GAS	50.053	ug/l	262818.69
Ba	137	159	1	NO GAS	49.868	ug/l	462073.96
La	139	175	1	NO GAS	47.770	ug/l	4258120.94
La	139	175	3	He	49.466	ug/l	896333.28
Ce	140	175	1	NO GAS	47.101	ug/l	4115672.40
Ce	140	175	3	He	49.343	ug/l	1136294.74
Hg	201	175	1	NO GAS	0.949	ug/l	4366.76
Hg	202	175	1	NO GAS	0.963	ug/l	10052.99
Hg	202	175	3	He	1.002	ug/l	6949.21
Tl	203	175	3	He	50.382	ug/l	715045.78
Tl	205	175	1	NO GAS	49.374	ug/l	3375947.55
Tl	205	175	3	He	51.623	ug/l	1738048.00
[Pb]	206	175	1	NO GAS	48.496	ug/l	1145180.43
[Pb]	207	175	1	NO GAS	47.102	ug/l	978772.07
Pb	208	175	1	NO GAS	48.653	ug/l	4597336.64
Th	232	175	3	He	50.420	ug/l	2555705.77
U	238	175	1	NO GAS	47.521	ug/l	5219402.61

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1813681.73	97.2
Sc	45	2	H2	72706.59	88.0
Sc	45	3	He	49142.18	97.7
Ge	72	1	NO GAS	889838.86	105.2
Ge	72	2	H2	114821.32	96.9
Ge	72	3	He	80804.98	107.1
Tb	159	1	NO GAS	20028188.52	109.6
Tb	159	3	He	7403363.21	104.9
Ho	165	1	NO GAS	19444544.27	114.6
Ho	165	3	He	7048599.55	105.7
Lu	175	1	NO GAS	21008577.63	110.8
Lu	175	3	He	4297588.37	103.3

ICPMS206-B Analytical Data

Sample Name CCB
File Name 090_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:31:52
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.188	ug/l	3478.99
Be	9	45	1	NO GAS	-0.010	ug/l	3.00
B	11	45	1	NO GAS	0.407	ug/l	246.62
Na	23	45	3	He	32.024	ug/l	8843.41
Mg	24	45	3	He	1.076	ug/l	56.55
Al	27	45	1	NO GAS	-0.060	ug/l	457.79
Si	28	45	2	H2	28.505	ug/l	481.25
K	39	72	3	He	-9.519	ug/l	2302.40
Ca	40	72	2	H2	-0.649	ug/l	408.14
Ti	47	72	1	NO GAS	0.025	ug/l	44.98
V	51	72	1	NO GAS	-0.636	ug/l	-15506.79
V	51	72	3	He	0.110	ug/l	220.00
Cr	52	72	1	NO GAS	0.293	ug/l	13358.90
Cr	52	72	3	He	-0.002	ug/l	133.07
Cr	53	72	1	NO GAS	37.824	ug/l	106765.82
Mn	55	72	1	NO GAS	0.004	ug/l	811.75
Mn	55	72	3	He	-0.002	ug/l	3.33
Fe	56	72	2	H2	-0.064	ug/l	259.88
Fe	56	72	3	He	-0.032	ug/l	539.75
Co	59	72	1	NO GAS	-0.001	ug/l	53.23
Ni	60	72	1	NO GAS	-0.005	ug/l	46.57
Ni	60	72	3	He	-0.002	ug/l	25.56
Ni	62	72	1	NO GAS	0.027	ug/l	299.41
Cu	63	72	1	NO GAS	-0.005	ug/l	432.59
Cu	63	72	3	He	-0.009	ug/l	172.30
Cu	65	72	1	NO GAS	-0.007	ug/l	212.63
Zn	66	72	1	NO GAS	0.021	ug/l	561.92
Zn	66	72	3	He	-0.023	ug/l	81.11
As	75	72	1	NO GAS	0.266	ug/l	4035.84
As	75	72	3	He	0.005	ug/l	6.67
Se	78	72	2	H2	0.045	ug/l	6.67
Br	79	72	1	NO GAS	-0.337	ug/l	62713.91
Br	79	72	2	H2	0.101	ug/l	8468.81
Se	82	72	1	NO GAS	0.487	ug/l	303.42
Kr	84	72	1	NO GAS		ug/l	7759.87
Sr	88	72	1	NO GAS	0.002	ug/l	412.53
Sr	88	72	3	He	-0.005	ug/l	234.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	156.67
Mo	95	72	3	He	0.005	ug/l	48.89
Mo	98	72	1	NO GAS	0.005	ug/l	221.81
Ag	107	72	1	NO GAS	0.010	ug/l	1993.07
Ag	109	72	1	NO GAS	0.007	ug/l	1866.41
Cd	111	159	1	NO GAS	-0.003	ug/l	-63.75
Cd	111	159	3	He	0.000	ug/l	1.33
Cd	114	159	1	NO GAS	0.002	ug/l	-252.08
Cd	114	159	3	He	0.001	ug/l	-30.81
Sn	118	159	1	NO GAS	0.012	ug/l	46044.58
Sn	118	159	3	He	0.135	ug/l	6720.33
Sb	121	159	1	NO GAS	0.049	ug/l	1384.51
Sb	121	159	3	He	0.031	ug/l	138.89
Sb	123	159	1	NO GAS	0.054	ug/l	1182.28
Sb	123	159	3	He	0.042	ug/l	142.22
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	-0.002	ug/l	36.59
La	139	175	1	NO GAS	0.000	ug/l	53.39
La	139	175	3	He	0.001	ug/l	16.68
Ce	140	175	1	NO GAS	0.000	ug/l	93.43
Ce	140	175	3	He	0.000	ug/l	16.68
Hg	201	175	1	NO GAS	0.004	ug/l	32.32
Hg	202	175	1	NO GAS	0.004	ug/l	120.98
Hg	202	175	3	He	0.004	ug/l	54.99
Tl	203	175	3	He	0.053	ug/l	817.86
Tl	205	175	1	NO GAS	0.038	ug/l	2914.76
Tl	205	175	3	He	0.052	ug/l	1925.08
[Pb]	206	175	1	NO GAS	0.000	ug/l	73.33
[Pb]	207	175	1	NO GAS	0.000	ug/l	57.78
Pb	208	175	1	NO GAS	0.001	ug/l	310.01
Th	232	175	3	He	0.037	ug/l	2773.05
U	238	175	1	NO GAS	0.002	ug/l	344.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1855711.57	99.4
Sc	45	2	H2	70382.91	85.2
Sc	45	3	He	45661.10	90.8
Ge	72	1	NO GAS	863831.06	102.1
Ge	72	2	H2	110967.57	93.6
Ge	72	3	He	76082.22	100.8
Tb	159	1	NO GAS	20131080.16	110.2
Tb	159	3	He	7191328.78	101.9
Ho	165	1	NO GAS	19001100.64	112.0
Ho	165	3	He	7005201.52	105.1
Lu	175	1	NO GAS	21102717.18	111.3
Lu	175	3	He	4152165.40	99.8

ICPMS206-B Analytical Data

Sample Name B21121961-001B
File Name 091SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:37:38
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.348	ug/l	3755.00
Be	9	45	1	NO GAS	-0.010	ug/l	3.00
B	11	45	1	NO GAS	52.743	ug/l	11243.42
Na	23	45	3	He	37370.755	ug/l	2921767.04
Mg	24	45	3	He	9240.310	ug/l	369285.12
Al	27	45	1	NO GAS	36.635	ug/l	110034.32
Si	28	45	2	H2	24863.376	ug/l	374867.23
K	39	72	3	He	1774.852	ug/l	72620.62
Ca	40	72	2	H2	8563.865	ug/l	1506957.55
Ti	47	72	1	NO GAS	5.396	ug/l	4461.74
V	51	72	1	NO GAS	-1.254	ug/l	-22435.47
V	51	72	3	He	0.967	ug/l	1228.94
Cr	52	72	1	NO GAS	1.018	ug/l	21281.36
Cr	52	72	3	He	0.460	ug/l	901.58
Cr	53	72	1	NO GAS	65.841	ug/l	146230.79
Mn	55	72	1	NO GAS	511.271	ug/l	8856317.70
Mn	55	72	3	He	475.665	ug/l	374268.71
Fe	56	72	2	H2	389.908	ug/l	379613.10
Fe	56	72	3	He	395.716	ug/l	618434.51
Co	59	72	1	NO GAS	0.543	ug/l	8365.59
Ni	60	72	1	NO GAS	1.203	ug/l	4158.95
Ni	60	72	3	He	1.159	ug/l	1241.17
Ni	62	72	1	NO GAS	1.123	ug/l	858.33
Cu	63	72	1	NO GAS	1.465	ug/l	13085.18
Cu	63	72	3	He	0.882	ug/l	2933.34
Cu	65	72	1	NO GAS	0.981	ug/l	4457.72
Zn	66	72	1	NO GAS	2.460	ug/l	7441.40
Zn	66	72	3	He	2.521	ug/l	1220.05
As	75	72	1	NO GAS	1.104	ug/l	6447.05
As	75	72	3	He	0.958	ug/l	279.28
Se	78	72	2	H2	0.057	ug/l	7.33
Br	79	72	1	NO GAS	-3.203	ug/l	42356.73
Br	79	72	2	H2	-2.965	ug/l	5506.72
Se	82	72	1	NO GAS	1.150	ug/l	465.11
Kr	84	72	1	NO GAS		ug/l	24296.35
Sr	88	72	1	NO GAS	79.569	ug/l	2803775.20
Sr	88	72	3	He	77.492	ug/l	112256.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.735	ug/l	5761.06
Mo	95	72	3	He	0.762	ug/l	1921.24
Mo	98	72	1	NO GAS	0.749	ug/l	10063.16
Ag	107	72	1	NO GAS	-0.015	ug/l	1379.12
Ag	109	72	1	NO GAS	-0.013	ug/l	1376.45
Cd	111	159	1	NO GAS	0.010	ug/l	17.12
Cd	111	159	3	He	0.005	ug/l	7.33
Cd	114	159	1	NO GAS	0.021	ug/l	19.42
Cd	114	159	3	He	0.011	ug/l	7.34
Sn	118	159	1	NO GAS	-2.124	ug/l	9963.39
Sn	118	159	3	He	-1.950	ug/l	1382.30
Sb	121	159	1	NO GAS	0.180	ug/l	4677.38
Sb	121	159	3	He	0.167	ug/l	588.90
Sb	123	159	1	NO GAS	0.176	ug/l	3588.21
Sb	123	159	3	He	0.171	ug/l	493.34
Ba	135	159	1	NO GAS	3.610	ug/l	19536.75
Ba	137	159	1	NO GAS	3.599	ug/l	34402.55
La	139	175	1	NO GAS	0.028	ug/l	2686.31
La	139	175	3	He	0.029	ug/l	527.22
Ce	140	175	1	NO GAS	0.096	ug/l	8808.20
Ce	140	175	3	He	0.111	ug/l	2566.17
Hg	201	175	1	NO GAS	0.039	ug/l	203.29
Hg	202	175	1	NO GAS	0.502	ug/l	5519.24
Hg	202	175	3	He	0.374	ug/l	2601.04
Tl	203	175	3	He	0.043	ug/l	705.22
Tl	205	175	1	NO GAS	0.026	ug/l	2192.40
Tl	205	175	3	He	0.042	ug/l	1643.77
[Pb]	206	175	1	NO GAS	0.065	ug/l	1675.66
[Pb]	207	175	1	NO GAS	0.064	ug/l	1435.64
Pb	208	175	1	NO GAS	0.062	ug/l	6420.58
Th	232	175	3	He	0.109	ug/l	6472.81
U	238	175	1	NO GAS	0.020	ug/l	2407.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1886241.08	101.1
Sc	45	2	H2	65091.56	78.8
Sc	45	3	He	44067.51	87.6
Ge	72	1	NO GAS	833917.28	98.6
Ge	72	2	H2	105155.85	88.7
Ge	72	3	He	73165.30	96.9
Tb	159	1	NO GAS	20608068.18	112.8
Tb	159	3	He	7051778.51	99.9
Ho	165	1	NO GAS	19938764.31	117.5
Ho	165	3	He	6972774.51	104.6
Lu	175	1	NO GAS	21963295.23	115.8
Lu	175	3	He	4274225.80	102.7

ICPMS206-B Analytical Data

Sample Name B21121965-001A
File Name 092SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:43:22
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.718	ug/l	3573.66
Be	9	45	1	NO GAS	-0.010	ug/l	3.33
B	11	45	1	NO GAS	161.142	ug/l	37551.31
Na	23	45	3	He	92066.444	ug/l	9618078.95
Mg	24	45	3	He	29935.705	ug/l	1602066.50
Al	27	45	1	NO GAS	8.014	ug/l	27096.46
Si	28	45	2	H2	35779.466	ug/l	824382.88
K	39	72	3	He	3266.725	ug/l	165247.85
Ca	40	72	2	H2	21921.988	ug/l	5125108.33
Ti	47	72	1	NO GAS	3.063	ug/l	2863.86
V	51	72	1	NO GAS	16.999	ug/l	226097.72
V	51	72	3	He	15.880	ug/l	23788.98
Cr	52	72	1	NO GAS	0.163	ug/l	12792.97
Cr	52	72	3	He	0.453	ug/l	1117.82
Cr	53	72	1	NO GAS	-18.426	ug/l	18378.74
Mn	55	72	1	NO GAS	202.170	ug/l	3941187.57
Mn	55	72	3	He	190.728	ug/l	188603.81
Fe	56	72	2	H2	446.340	ug/l	577056.38
Fe	56	72	3	He	418.872	ug/l	822692.67
Co	59	72	1	NO GAS	1.491	ug/l	25742.10
Ni	60	72	1	NO GAS	4.379	ug/l	16845.12
Ni	60	72	3	He	3.982	ug/l	5274.20
Ni	62	72	1	NO GAS	4.810	ug/l	3120.84
Cu	63	72	1	NO GAS	1.414	ug/l	14230.56
Cu	63	72	3	He	0.228	ug/l	1132.15
Cu	65	72	1	NO GAS	0.338	ug/l	1899.73
Zn	66	72	1	NO GAS	3.397	ug/l	11368.05
Zn	66	72	3	He	3.133	ug/l	1880.12
As	75	72	1	NO GAS	1.705	ug/l	9326.75
As	75	72	3	He	1.133	ug/l	414.59
Se	78	72	2	H2	0.137	ug/l	19.67
Br	79	72	1	NO GAS	9.514	ug/l	138435.80
Br	79	72	2	H2	9.969	ug/l	21404.79
Se	82	72	1	NO GAS	1.314	ug/l	578.22
Kr	84	72	1	NO GAS		ug/l	44247.86
Sr	88	72	1	NO GAS	156.623	ug/l	6213598.43
Sr	88	72	3	He	149.911	ug/l	272657.04

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	2.919	ug/l	25487.61
Mo	95	72	3	He	2.844	ug/l	8883.57
Mo	98	72	1	NO GAS	2.906	ug/l	43438.69
Ag	107	72	1	NO GAS	-0.072	ug/l	132.64
Ag	109	72	1	NO GAS	-0.074	ug/l	83.32
Cd	111	159	1	NO GAS	0.003	ug/l	-29.00
Cd	111	159	3	He	0.002	ug/l	4.00
Cd	114	159	1	NO GAS	0.013	ug/l	-97.52
Cd	114	159	3	He	0.011	ug/l	7.57
Sn	118	159	1	NO GAS	-2.573	ug/l	1976.23
Sn	118	159	3	He	-2.383	ug/l	312.23
Sb	121	159	1	NO GAS	0.409	ug/l	9595.14
Sb	121	159	3	He	0.384	ug/l	1366.74
Sb	123	159	1	NO GAS	0.411	ug/l	7522.92
Sb	123	159	3	He	0.356	ug/l	1046.71
Ba	135	159	1	NO GAS	16.005	ug/l	80058.59
Ba	137	159	1	NO GAS	15.380	ug/l	135734.01
La	139	175	1	NO GAS	0.009	ug/l	850.90
La	139	175	3	He	0.012	ug/l	216.89
Ce	140	175	1	NO GAS	0.032	ug/l	2669.63
Ce	140	175	3	He	0.029	ug/l	717.42
Hg	201	175	1	NO GAS	0.048	ug/l	218.29
Hg	202	175	1	NO GAS	0.695	ug/l	6747.49
Hg	202	175	3	He	0.522	ug/l	3723.72
Tl	203	175	3	He	0.066	ug/l	1053.83
Tl	205	175	1	NO GAS	0.066	ug/l	4522.95
Tl	205	175	3	He	0.066	ug/l	2521.05
[Pb]	206	175	1	NO GAS	0.048	ug/l	1116.72
[Pb]	207	175	1	NO GAS	0.049	ug/l	995.60
Pb	208	175	1	NO GAS	0.047	ug/l	4344.72
Th	232	175	3	He	0.012	ug/l	1631.11
U	238	175	1	NO GAS	0.136	ug/l	13978.14

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2100113.58	112.5
Sc	45	2	H2	99490.31	120.5
Sc	45	3	He	58975.68	117.2
Ge	72	1	NO GAS	940774.29	111.2
Ge	72	2	H2	139651.07	117.8
Ge	72	3	He	91945.77	121.8
Tb	159	1	NO GAS	19125756.54	104.7
Tb	159	3	He	7353244.81	104.2
Ho	165	1	NO GAS	17825440.65	105.1
Ho	165	3	He	7144881.25	107.2
Lu	175	1	NO GAS	19596389.03	103.3
Lu	175	3	He	4402621.06	105.8

ICPMS206-B Analytical Data

Sample Name B21121965-001B
File Name 093SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:49:06
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.263	ug/l	3405.66
Be	9	45	1	NO GAS	-0.001	ug/l	5.33
B	11	45	1	NO GAS	158.676	ug/l	32467.11
Na	23	45	3	He	93247.891	ug/l	7678786.97
Mg	24	45	3	He	31770.786	ug/l	1339041.39
Al	27	45	1	NO GAS	71.185	ug/l	206630.82
Si	28	45	2	H2	34273.879	ug/l	552280.11
K	39	72	3	He	3126.158	ug/l	128148.15
Ca	40	72	2	H2	20429.512	ug/l	3832823.00
Ti	47	72	1	NO GAS	10.766	ug/l	8806.34
V	51	72	1	NO GAS	18.373	ug/l	216027.04
V	51	72	3	He	19.187	ug/l	23249.35
Cr	52	72	1	NO GAS	1.810	ug/l	30197.33
Cr	52	72	3	He	1.329	ug/l	2395.45
Cr	53	72	1	NO GAS	65.615	ug/l	144729.21
Mn	55	72	1	NO GAS	137.720	ug/l	2366998.88
Mn	55	72	3	He	132.228	ug/l	105883.99
Fe	56	72	2	H2	370.237	ug/l	384050.93
Fe	56	72	3	He	381.387	ug/l	606212.81
Co	59	72	1	NO GAS	1.528	ug/l	23230.05
Ni	60	72	1	NO GAS	5.339	ug/l	18080.67
Ni	60	72	3	He	5.108	ug/l	5469.82
Ni	62	72	1	NO GAS	4.927	ug/l	2818.01
Cu	63	72	1	NO GAS	2.692	ug/l	23463.77
Cu	63	72	3	He	1.370	ug/l	4529.37
Cu	65	72	1	NO GAS	1.547	ug/l	6838.05
Zn	66	72	1	NO GAS	2.763	ug/l	8228.36
Zn	66	72	3	He	2.828	ug/l	1381.18
As	75	72	1	NO GAS	0.766	ug/l	5372.85
As	75	72	3	He	0.748	ug/l	223.62
Se	78	72	2	H2	0.191	ug/l	21.33
Br	79	72	1	NO GAS	-2.818	ug/l	44441.70
Br	79	72	2	H2	-2.649	ug/l	6152.31
Se	82	72	1	NO GAS	0.105	ug/l	193.62
Kr	84	72	1	NO GAS		ug/l	39952.50
Sr	88	72	1	NO GAS	165,100	ug/l	5769425.67
Sr	88	72	3	He	155.072	ug/l	228341.19

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.117	ug/l	23985.46
Mo	95	72	3	He	3.059	ug/l	7738.57
Mo	98	72	1	NO GAS	3.096	ug/l	40798.26
Ag	107	72	1	NO GAS	-0.059	ug/l	398.59
Ag	109	72	1	NO GAS	-0.057	ug/l	433.92
Cd	111	159	1	NO GAS	0.013	ug/l	31.58
Cd	111	159	3	He	0.006	ug/l	9.33
Cd	114	159	1	NO GAS	0.021	ug/l	8.67
Cd	114	159	3	He	0.012	ug/l	9.39
Sn	118	159	1	NO GAS	-2.221	ug/l	7709.94
Sn	118	159	3	He	-2.005	ug/l	1232.28
Sb	121	159	1	NO GAS	0.242	ug/l	5802.21
Sb	121	159	3	He	0.244	ug/l	840.03
Sb	123	159	1	NO GAS	0.241	ug/l	4521.78
Sb	123	159	3	He	0.250	ug/l	708.91
Ba	135	159	1	NO GAS	15.154	ug/l	76408.35
Ba	137	159	1	NO GAS	14.547	ug/l	129443.09
La	139	175	1	NO GAS	0.029	ug/l	2652.95
La	139	175	3	He	0.033	ug/l	583.94
Ce	140	175	1	NO GAS	0.079	ug/l	6871.85
Ce	140	175	3	He	0.082	ug/l	1862.02
Hg	201	175	1	NO GAS	0.058	ug/l	274.95
Hg	202	175	1	NO GAS	0.779	ug/l	8017.86
Hg	202	175	3	He	0.574	ug/l	3901.06
Tl	203	175	3	He	0.031	ug/l	519.24
Tl	205	175	1	NO GAS	0.021	ug/l	1713.45
Tl	205	175	3	He	0.026	ug/l	1093.83
[Pb]	206	175	1	NO GAS	0.143	ug/l	3385.97
[Pb]	207	175	1	NO GAS	0.135	ug/l	2809.18
Pb	208	175	1	NO GAS	0.138	ug/l	13054.53
Th	232	175	3	He	0.049	ug/l	3375.72
U	238	175	1	NO GAS	0.145	ug/l	15848.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1826552.14	97.9
Sc	45	2	H2	69632.03	84.3
Sc	45	3	He	46469.24	92.4
Ge	72	1	NO GAS	827112.30	97.8
Ge	72	2	H2	112100.95	94.6
Ge	72	3	He	74463.14	98.7
Tb	159	1	NO GAS	19206256.83	105.1
Tb	159	3	He	7008228.82	99.3
Ho	165	1	NO GAS	18344524.71	108.1
Ho	165	3	He	6828595.59	102.4
Lu	175	1	NO GAS	20678941.54	109.0
Lu	175	3	He	4203729.36	101.0

ICPMS206-B Analytical Data

Sample Name B21121967-001A
File Name 094SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 03:54:50
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.406	ug/l	1708.42
Be	9	45	1	NO GAS	-0.007	ug/l	4.67
B	11	45	1	NO GAS	210.728	ug/l	53748.36
Na	23	45	3	He	88415.498	ug/l	10670917.55
Mg	24	45	3	He	31768.216	ug/l	1963659.35
Al	27	45	1	NO GAS	8.956	ug/l	33135.26
Si	28	45	2	H2	17568.219	ug/l	480879.07
K	39	72	3	He	2713.386	ug/l	149613.89
Ca	40	72	2	H2	33932.152	ug/l	9316223.51
Ti	47	72	1	NO GAS	1.275	ug/l	1264.43
V	51	72	1	NO GAS	8.036	ug/l	107497.49
V	51	72	3	He	7.077	ug/l	11570.68
Cr	52	72	1	NO GAS	-0.035	ug/l	10722.27
Cr	52	72	3	He	0.049	ug/l	292.76
Cr	53	72	1	NO GAS	-14.988	ug/l	25488.39
Mn	55	72	1	NO GAS	344.113	ug/l	7022852.44
Mn	55	72	3	He	328.202	ug/l	352305.59
Fe	56	72	2	H2	83.099	ug/l	126688.43
Fe	56	72	3	He	79.603	ug/l	170370.93
Co	59	72	1	NO GAS	2.019	ug/l	36423.99
Ni	60	72	1	NO GAS	11.692	ug/l	46922.43
Ni	60	72	3	He	10.837	ug/l	15522.81
Ni	62	72	1	NO GAS	11.801	ug/l	7560.16
Cu	63	72	1	NO GAS	3.324	ug/l	34287.41
Cu	63	72	3	He	2.053	ug/l	8969.59
Cu	65	72	1	NO GAS	2.266	ug/l	11767.78
Zn	66	72	1	NO GAS	18.101	ug/l	60861.06
Zn	66	72	3	He	17.448	ug/l	10811.33
As	75	72	1	NO GAS	0.921	ug/l	6928.34
As	75	72	3	He	0.438	ug/l	177.96
Se	78	72	2	H2	2.497	ug/l	365.93
Br	79	72	1	NO GAS	38.463	ug/l	361260.66
Br	79	72	2	H2	39.593	ug/l	63101.66
Se	82	72	1	NO GAS	5.011	ug/l	1716.82
Kr	84	72	1	NO GAS		ug/l	75689.19
Sr	88	72	1	NO GAS	279.200	ug/l	11588378.44
Sr	88	72	3	He	268.963	ug/l	530810.15

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.464	ug/l	4311.72
Mo	95	72	3	He	0.437	ug/l	1523.42
Mo	98	72	1	NO GAS	0.442	ug/l	7062.62
Ag	107	72	1	NO GAS	-0.075	ug/l	67.99
Ag	109	72	1	NO GAS	-0.075	ug/l	59.99
Cd	111	159	1	NO GAS	0.154	ug/l	852.77
Cd	111	159	3	He	0.144	ug/l	221.29
Cd	114	159	1	NO GAS	0.162	ug/l	1902.98
Cd	114	159	3	He	0.144	ug/l	534.24
Sn	118	159	1	NO GAS	-2.588	ug/l	1763.28
Sn	118	159	3	He	-2.371	ug/l	357.78
Sb	121	159	1	NO GAS	0.266	ug/l	6433.54
Sb	121	159	3	He	0.286	ug/l	1067.82
Sb	123	159	1	NO GAS	0.276	ug/l	5219.78
Sb	123	159	3	He	0.263	ug/l	812.25
Ba	135	159	1	NO GAS	54.295	ug/l	277547.23
Ba	137	159	1	NO GAS	53.897	ug/l	486250.24
La	139	175	1	NO GAS	0.004	ug/l	380.39
La	139	175	3	He	0.003	ug/l	53.39
Ce	140	175	1	NO GAS	0.009	ug/l	847.56
Ce	140	175	3	He	0.009	ug/l	253.60
Hg	201	175	1	NO GAS	0.005	ug/l	36.66
Hg	202	175	1	NO GAS	0.004	ug/l	112.98
Hg	202	175	3	He	0.006	ug/l	72.99
Tl	203	175	3	He	0.038	ug/l	685.21
Tl	205	175	1	NO GAS	0.038	ug/l	2794.73
Tl	205	175	3	He	0.039	ug/l	1665.10
[Pb]	206	175	1	NO GAS	0.119	ug/l	2740.27
[Pb]	207	175	1	NO GAS	0.111	ug/l	2236.85
Pb	208	175	1	NO GAS	0.115	ug/l	10580.43
Th	232	175	3	He	0.096	ug/l	6274.77
U	238	175	1	NO GAS	0.054	ug/l	5803.65

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2280443.96	122.2
Sc	45	2	H2	118180.12	143.1
Sc	45	3	He	68116.81	135.4
Ge	72	1	NO GAS	982240.27	116.1
Ge	72	2	H2	164167.51	138.5
Ge	72	3	He	99818.15	132.2
Tb	159	1	NO GAS	19477251.77	106.6
Tb	159	3	He	7656897.36	108.5
Ho	165	1	NO GAS	18300945.30	107.9
Ho	165	3	He	7411174.56	111.2
Lu	175	1	NO GAS	19948708.21	105.2
Lu	175	3	He	4619351.17	111.0

ICPMS206-B Analytical Data

Sample Name B21121967-001B
File Name 095SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:00:34
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.575	ug/l	2276.37
Be	9	45	1	NO GAS	-0.005	ug/l	5.00
B	11	45	1	NO GAS	213.654	ug/l	52174.65
Na	23	45	3	He	95803.213	ug/l	9860636.24
Mg	24	45	3	He	32366.437	ug/l	1705287.97
Al	27	45	1	NO GAS	315.531	ug/l	1092300.46
Si	28	45	2	H2	16776.711	ug/l	379823.15
K	39	72	3	He	2636.526	ug/l	128246.42
Ca	40	72	2	H2	34991.040	ug/l	7931841.78
Ti	47	72	1	NO GAS	27.958	ug/l	25921.93
V	51	72	1	NO GAS	8.255	ug/l	105802.58
V	51	72	3	He	9.736	ug/l	13990.31
Cr	52	72	1	NO GAS	3.119	ug/l	51332.82
Cr	52	72	3	He	2.324	ug/l	4827.82
Cr	53	72	1	NO GAS	82.570	ug/l	193791.40
Mn	55	72	1	NO GAS	347.774	ug/l	6789968.73
Mn	55	72	3	He	345.517	ug/l	326882.16
Fe	56	72	2	H2	1758.335	ug/l	2204891.37
Fe	56	72	3	He	1688.739	ug/l	3171290.38
Co	59	72	1	NO GAS	2.398	ug/l	41332.49
Ni	60	72	1	NO GAS	13.910	ug/l	53395.55
Ni	60	72	3	He	12.303	ug/l	15531.71
Ni	62	72	1	NO GAS	13.782	ug/l	8388.86
Cu	63	72	1	NO GAS	8.514	ug/l	83137.30
Cu	63	72	3	He	7.111	ug/l	26816.21
Cu	65	72	1	NO GAS	7.529	ug/l	36775.50
Zn	66	72	1	NO GAS	37.942	ug/l	121363.92
Zn	66	72	3	He	37.178	ug/l	20181.11
As	75	72	1	NO GAS	1.051	ug/l	7062.56
As	75	72	3	He	0.720	ug/l	253.95
Se	78	72	2	H2	2.240	ug/l	271.62
Br	79	72	1	NO GAS	3.708	ug/l	97082.91
Br	79	72	2	H2	4.643	ug/l	15163.73
Se	82	72	1	NO GAS	4.130	ug/l	1386.74
Kr	84	72	1	NO GAS		ug/l	75154.96
Sr	88	72	1	NO GAS	291.039	ug/l	11546652.51
Sr	88	72	3	He	282.168	ug/l	490793.52

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.513	ug/l	4555.68
Mo	95	72	3	He	0.540	ug/l	1646.76
Mo	98	72	1	NO GAS	0.509	ug/l	7759.62
Ag	107	72	1	NO GAS	-0.056	ug/l	549.24
Ag	109	72	1	NO GAS	-0.057	ug/l	501.91
Cd	111	159	1	NO GAS	0.248	ug/l	1397.03
Cd	111	159	3	He	0.242	ug/l	353.27
Cd	114	159	1	NO GAS	0.264	ug/l	3252.14
Cd	114	159	3	He	0.255	ug/l	927.40
Sn	118	159	1	NO GAS	-1.865	ug/l	13648.85
Sn	118	159	3	He	-1.702	ug/l	2065.70
Sb	121	159	1	NO GAS	0.465	ug/l	11107.24
Sb	121	159	3	He	0.462	ug/l	1624.54
Sb	123	159	1	NO GAS	0.478	ug/l	8899.20
Sb	123	159	3	He	0.446	ug/l	1293.40
Ba	135	159	1	NO GAS	57.131	ug/l	291285.04
Ba	137	159	1	NO GAS	55.182	ug/l	496485.67
La	139	175	1	NO GAS	0.146	ug/l	12771.49
La	139	175	3	He	0.153	ug/l	2873.20
Ce	140	175	1	NO GAS	0.337	ug/l	28755.39
Ce	140	175	3	He	0.328	ug/l	7826.63
Hg	201	175	1	NO GAS	0.059	ug/l	274.95
Hg	202	175	1	NO GAS	0.060	ug/l	683.88
Hg	202	175	3	He	0.062	ug/l	468.91
Tl	203	175	3	He	0.022	ug/l	413.26
Tl	205	175	1	NO GAS	0.016	ug/l	1386.74
Tl	205	175	3	He	0.021	ug/l	970.51
[Pb]	206	175	1	NO GAS	6.322	ug/l	145403.02
[Pb]	207	175	1	NO GAS	6.198	ug/l	125336.94
Pb	208	175	1	NO GAS	6.248	ug/l	574631.71
Th	232	175	3	He	0.048	ug/l	3519.74
U	238	175	1	NO GAS	0.064	ug/l	6978.59

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2183166.28	117.0
Sc	45	2	H2	97770.66	118.4
Sc	45	3	He	58099.76	115.5
Ge	72	1	NO GAS	939320.61	111.0
Ge	72	2	H2	135659.62	114.5
Ge	72	3	He	87987.12	116.6
Tb	159	1	NO GAS	19432090.57	106.4
Tb	159	3	He	7297635.45	103.4
Ho	165	1	NO GAS	17889276.56	105.4
Ho	165	3	He	7172005.03	107.6
Lu	175	1	NO GAS	20479624.32	108.0
Lu	175	3	He	4445678.96	106.8

ICPMS206-B Analytical Data

Sample Name B21121968-001A
File Name 096SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:06:18
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.352	ug/l	1795.74
Be	9	45	1	NO GAS	-0.011	ug/l	4.00
B	11	45	1	NO GAS	54.433	ug/l	16910.20
Na	23	45	3	He	35064.485	ug/l	4521139.58
Mg	24	45	3	He	10115.897	ug/l	666898.79
Al	27	45	1	NO GAS	1.661	ug/l	8172.01
Si	28	45	2	H2	23269.172	ug/l	767950.67
K	39	72	3	He	1989.335	ug/l	116465.61
Ca	40	72	2	H2	9887.824	ug/l	2988090.87
Ti	47	72	1	NO GAS	1.970	ug/l	2097.44
V	51	72	1	NO GAS	22.473	ug/l	342277.25
V	51	72	3	He	20.232	ug/l	34604.17
Cr	52	72	1	NO GAS	1.746	ug/l	37924.16
Cr	52	72	3	He	1.829	ug/l	4581.56
Cr	53	72	1	NO GAS	-12.638	ug/l	32260.05
Mn	55	72	1	NO GAS	0.389	ug/l	9503.95
Mn	55	72	3	He	0.402	ug/l	461.39
Fe	56	72	2	H2	0.907	ug/l	2044.13
Fe	56	72	3	He	0.817	ug/l	2648.92
Co	59	72	1	NO GAS	0.044	ug/l	951.48
Ni	60	72	1	NO GAS	2.870	ug/l	12548.20
Ni	60	72	3	He	2.647	ug/l	4018.28
Ni	62	72	1	NO GAS	2.709	ug/l	2152.56
Cu	63	72	1	NO GAS	0.645	ug/l	7690.27
Cu	63	72	3	He	0.170	ug/l	1034.16
Cu	65	72	1	NO GAS	0.245	ug/l	1645.10
Zn	66	72	1	NO GAS	8.693	ug/l	32008.88
Zn	66	72	3	He	8.141	ug/l	5376.45
As	75	72	1	NO GAS	0.166	ug/l	4592.72
As	75	72	3	He	0.070	ug/l	35.66
Se	78	72	2	H2	0.165	ug/l	29.99
Br	79	72	1	NO GAS	7.469	ug/l	140552.81
Br	79	72	2	H2	7.747	ug/l	24532.98
Se	82	72	1	NO GAS	0.936	ug/l	525.01
Kr	84	72	1	NO GAS		ug/l	24976.22
Sr	88	72	1	NO GAS	66.263	ug/l	2981161.87
Sr	88	72	3	He	63.500	ug/l	132179.28

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.239	ug/l	2460.21
Mo	95	72	3	He	0.224	ug/l	846.70
Mo	98	72	1	NO GAS	0.237	ug/l	4198.00
Ag	107	72	1	NO GAS	-0.075	ug/l	68.65
Ag	109	72	1	NO GAS	-0.075	ug/l	63.99
Cd	111	159	1	NO GAS	0.006	ug/l	-8.66
Cd	111	159	3	He	0.003	ug/l	6.00
Cd	114	159	1	NO GAS	0.019	ug/l	-10.02
Cd	114	159	3	He	0.009	ug/l	-0.15
Sn	118	159	1	NO GAS	-2.098	ug/l	10209.81
Sn	118	159	3	He	-1.925	ug/l	1610.09
Sb	121	159	1	NO GAS	0.005	ug/l	312.23
Sb	121	159	3	He	0.007	ug/l	63.34
Sb	123	159	1	NO GAS	0.006	ug/l	290.00
Sb	123	159	3	He	0.005	ug/l	42.22
Ba	135	159	1	NO GAS	3.130	ug/l	16622.52
Ba	137	159	1	NO GAS	3.086	ug/l	28945.70
La	139	175	1	NO GAS	0.000	ug/l	93.43
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	83.42
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.002	ug/l	24.66
Hg	202	175	1	NO GAS	0.001	ug/l	85.98
Hg	202	175	3	He	0.004	ug/l	56.99
Tl	203	175	3	He	0.033	ug/l	619.89
Tl	205	175	1	NO GAS	0.029	ug/l	2295.75
Tl	205	175	3	He	0.035	ug/l	1545.11
[Pb]	206	175	1	NO GAS	0.006	ug/l	214.45
[Pb]	207	175	1	NO GAS	0.006	ug/l	168.89
Pb	208	175	1	NO GAS	0.006	ug/l	774.46
Th	232	175	3	He	-0.010	ug/l	523.91
U	238	175	1	NO GAS	0.008	ug/l	980.84

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2747430.39	147.2
Sc	45	2	H2	142431.37	172.5
Sc	45	3	He	72661.40	144.4
Ge	72	1	NO GAS	1064767.60	125.9
Ge	72	2	H2	180533.75	152.3
Ge	72	3	He	105090.24	139.2
Tb	159	1	NO GAS	20217387.51	110.7
Tb	159	3	He	7866913.51	111.5
Ho	165	1	NO GAS	18852106.03	111.1
Ho	165	3	He	7621929.11	114.3
Lu	175	1	NO GAS	20633904.43	108.8
Lu	175	3	He	4686448.42	112.6

ICPMS206-B Analytical Data

Sample Name B21121968-001B
File Name 097SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:12:02
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.445	ug/l	2311.03
Be	9	45	1	NO GAS	-0.014	ug/l	2.00
B	11	45	1	NO GAS	52.989	ug/l	13071.00
Na	23	45	3	He	35098.027	ug/l	3400722.66
Mg	24	45	3	He	10234.378	ug/l	507211.34
Al	27	45	1	NO GAS	3.726	ug/l	13607.70
Si	28	45	2	H2	22134.067	ug/l	467069.98
K	39	72	3	He	1845.398	ug/l	84858.89
Ca	40	72	2	H2	8660.911	ug/l	1902432.53
Ti	47	72	1	NO GAS	2.335	ug/l	2102.44
V	51	72	1	NO GAS	21.775	ug/l	280799.09
V	51	72	3	He	20.786	ug/l	27852.98
Cr	52	72	1	NO GAS	3.719	ug/l	56792.83
Cr	52	72	3	He	3.014	ug/l	5816.21
Cr	53	72	1	NO GAS	74.894	ug/l	173110.91
Mn	55	72	1	NO GAS	0.675	ug/l	13395.54
Mn	55	72	3	He	0.550	ug/l	492.06
Fe	56	72	2	H2	8.254	ug/l	10398.13
Fe	56	72	3	He	8.333	ug/l	15284.45
Co	59	72	1	NO GAS	0.054	ug/l	974.77
Ni	60	72	1	NO GAS	3.753	ug/l	13871.67
Ni	60	72	3	He	3.308	ug/l	3928.26
Ni	62	72	1	NO GAS	3.730	ug/l	2398.77
Cu	63	72	1	NO GAS	0.717	ug/l	7175.46
Cu	63	72	3	He	0.173	ug/l	822.52
Cu	65	72	1	NO GAS	0.279	ug/l	1555.10
Zn	66	72	1	NO GAS	8.895	ug/l	27719.35
Zn	66	72	3	He	8.699	ug/l	4495.08
As	75	72	1	NO GAS	0.419	ug/l	4747.13
As	75	72	3	He	0.086	ug/l	32.99
Se	78	72	2	H2	0.144	ug/l	19.33
Br	79	72	1	NO GAS	-3.497	ug/l	43754.47
Br	79	72	2	H2	-3.386	ug/l	6451.89
Se	82	72	1	NO GAS	0.249	ug/l	250.85
Kr	84	72	1	NO GAS		ug/l	23173.68
Sr	88	72	1	NO GAS	72.733	ug/l	2770739.24
Sr	88	72	3	He	68.053	ug/l	111001.38

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.434	ug/l	3707.11
Mo	95	72	3	He	0.398	ug/l	1147.83
Mo	98	72	1	NO GAS	0.414	ug/l	6085.14
Ag	107	72	1	NO GAS	-0.067	ug/l	253.95
Ag	109	72	1	NO GAS	-0.069	ug/l	198.63
Cd	111	159	1	NO GAS	0.007	ug/l	-0.97
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.025	ug/l	66.70
Cd	114	159	3	He	0.010	ug/l	3.22
Sn	118	159	1	NO GAS	-2.104	ug/l	10033.28
Sn	118	159	3	He	-1.879	ug/l	1633.43
Sb	121	159	1	NO GAS	0.023	ug/l	736.69
Sb	121	159	3	He	0.023	ug/l	115.55
Sb	123	159	1	NO GAS	0.024	ug/l	620.02
Sb	123	159	3	He	0.034	ug/l	121.11
Ba	135	159	1	NO GAS	3.335	ug/l	17585.05
Ba	137	159	1	NO GAS	3.137	ug/l	29192.50
La	139	175	1	NO GAS	0.000	ug/l	86.75
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.001	ug/l	176.85
Ce	140	175	3	He	0.001	ug/l	50.05
Hg	201	175	1	NO GAS	0.004	ug/l	34.66
Hg	202	175	1	NO GAS	0.008	ug/l	163.97
Hg	202	175	3	He	0.008	ug/l	85.98
Tl	203	175	3	He	0.014	ug/l	297.95
Tl	205	175	1	NO GAS	0.009	ug/l	960.04
Tl	205	175	3	He	0.014	ug/l	735.21
[Pb]	206	175	1	NO GAS	0.010	ug/l	295.56
[Pb]	207	175	1	NO GAS	0.011	ug/l	270.00
Pb	208	175	1	NO GAS	0.010	ug/l	1178.92
Th	232	175	3	He	0.017	ug/l	1946.41
U	238	175	1	NO GAS	0.008	ug/l	975.84

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2186240.99	117.2
Sc	45	2	H2	91115.51	110.3
Sc	45	3	He	54613.10	108.6
Ge	72	1	NO GAS	901765.46	106.6
Ge	72	2	H2	131212.94	110.7
Ge	72	3	He	82342.19	109.1
Tb	159	1	NO GAS	20077642.35	109.9
Tb	159	3	He	7396553.90	104.8
Ho	165	1	NO GAS	18817867.41	110.9
Ho	165	3	He	7332336.25	110.0
Lu	175	1	NO GAS	20747930.12	109.4
Lu	175	3	He	4462722.98	107.2

ICPMS206-B Analytical Data

Sample Name CCV
File Name 098_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:17:46
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	478.110	ug/l	311822.79
Be	9	45	1	NO GAS	45.706	ug/l	14409.71
B	11	45	1	NO GAS	45.671	ug/l	10831.90
Na	23	45	3	He	11258.092	ug/l	1181175.47
Mg	24	45	3	He	11123.489	ug/l	593868.98
Al	27	45	1	NO GAS	45.997	ug/l	153231.32
Si	28	45	2	H2	255.880	ug/l	5821.85
K	39	72	3	He	10955.829	ug/l	540762.72
Ca	40	72	2	H2	12163.748	ug/l	2838904.24
Ti	47	72	1	NO GAS	46.930	ug/l	44087.03
V	51	72	1	NO GAS	46.094	ug/l	636118.07
V	51	72	3	He	47.804	ug/l	70668.02
Cr	52	72	1	NO GAS	48.899	ug/l	656552.49
Cr	52	72	3	He	46.150	ug/l	96051.12
Cr	53	72	1	NO GAS	81.805	ug/l	195056.68
Mn	55	72	1	NO GAS	48.992	ug/l	969726.12
Mn	55	72	3	He	46.876	ug/l	45884.97
Fe	56	72	2	H2	1200.598	ug/l	1549232.99
Fe	56	72	3	He	1112.745	ug/l	2160518.08
Co	59	72	1	NO GAS	49.150	ug/l	857405.83
Ni	60	72	1	NO GAS	49.234	ug/l	191293.32
Ni	60	72	3	He	46.841	ug/l	61059.14
Ni	62	72	1	NO GAS	48.087	ug/l	28887.66
Cu	63	72	1	NO GAS	49.466	ug/l	487073.40
Cu	63	72	3	He	45.972	ug/l	178011.36
Cu	65	72	1	NO GAS	48.334	ug/l	237815.32
Zn	66	72	1	NO GAS	46.847	ug/l	151748.85
Zn	66	72	3	He	47.218	ug/l	26478.74
As	75	72	1	NO GAS	48.487	ug/l	171527.95
As	75	72	3	He	47.790	ug/l	17047.60
Se	78	72	2	H2	50.639	ug/l	6252.60
Br	79	72	1	NO GAS	0.710	ug/l	76688.25
Br	79	72	2	H2	1.250	ug/l	11890.85
Se	82	72	1	NO GAS	49.075	ug/l	14630.12
Kr	84	72	1	NO GAS		ug/l	19999.27
Sr	88	72	1	NO GAS	51.169	ug/l	2058211.26
Sr	88	72	3	He	47.345	ug/l	85386.36

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.789	ug/l	430852.73
Mo	95	72	3	He	46.403	ug/l	142879.33
Mo	98	72	1	NO GAS	48.408	ug/l	731522.27
Ag	107	72	1	NO GAS	19.929	ug/l	497338.30
Ag	109	72	1	NO GAS	19.722	ug/l	484587.37
Cd	111	159	1	NO GAS	48.419	ug/l	291390.10
Cd	111	159	3	He	47.850	ug/l	72140.94
Cd	114	159	1	NO GAS	49.453	ug/l	681054.16
Cd	114	159	3	He	47.115	ug/l	184212.99
Sn	118	159	1	NO GAS	48.993	ug/l	880844.39
Sn	118	159	3	He	48.093	ug/l	135397.88
Sb	121	159	1	NO GAS	49.521	ug/l	1205177.87
Sb	121	159	3	He	48.450	ug/l	172522.25
Sb	123	159	1	NO GAS	49.016	ug/l	928192.12
Sb	123	159	3	He	48.317	ug/l	142407.01
Ba	135	159	1	NO GAS	49.827	ug/l	263077.85
Ba	137	159	1	NO GAS	47.838	ug/l	445694.41
La	139	175	1	NO GAS	48.173	ug/l	4231187.65
La	139	175	3	He	48.926	ug/l	934756.70
Ce	140	175	1	NO GAS	48.107	ug/l	4142326.19
Ce	140	175	3	He	48.632	ug/l	1180963.00
Hg	201	175	1	NO GAS	0.925	ug/l	4190.75
Hg	202	175	1	NO GAS	0.934	ug/l	9611.46
Hg	202	175	3	He	0.939	ug/l	6863.85
Tl	203	175	3	He	48.101	ug/l	719578.07
Tl	205	175	1	NO GAS	48.501	ug/l	3267245.68
Tl	205	175	3	He	48.746	ug/l	1728744.28
[Pb]	206	175	1	NO GAS	46.927	ug/l	1092033.18
[Pb]	207	175	1	NO GAS	46.849	ug/l	959202.11
Pb	208	175	1	NO GAS	47.535	ug/l	4426066.33
Th	232	175	3	He	48.530	ug/l	2592957.32
U	238	175	1	NO GAS	45.377	ug/l	4910978.68

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2093528.10	112.2
Sc	45	2	H2	97828.69	118.4
Sc	45	3	He	58824.94	116.9
Ge	72	1	NO GAS	951833.32	112.5
Ge	72	2	H2	139468.14	117.7
Ge	72	3	He	91006.49	120.6
Tb	159	1	NO GAS	20118108.23	110.1
Tb	159	3	He	7550012.14	107.0
Ho	165	1	NO GAS	18742431.77	110.5
Ho	165	3	He	7387526.33	110.8
Lu	175	1	NO GAS	20705100.83	109.2
Lu	175	3	He	4527711.35	108.8

ICPMS206-B Analytical Data

Sample Name CCB
File Name 099_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:23:28
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 026CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.900	ug/l	2655.68
Be	9	45	1	NO GAS	-0.013	ug/l	2.33
B	11	45	1	NO GAS	0.794	ug/l	375.26
Na	23	45	3	He	27.971	ug/l	10402.05
Mg	24	45	3	He	0.823	ug/l	56.55
Al	27	45	1	NO GAS	-0.031	ug/l	623.35
Si	28	45	2	H2	64.286	ug/l	1416.45
K	39	72	3	He	-6.594	ug/l	2814.70
Ca	40	72	2	H2	0.173	ug/l	683.01
Ti	47	72	1	NO GAS	0.035	ug/l	58.31
V	51	72	1	NO GAS	-0.452	ug/l	-14410.01
V	51	72	3	He	0.140	ug/l	296.67
Cr	52	72	1	NO GAS	0.353	ug/l	15306.71
Cr	52	72	3	He	-0.024	ug/l	109.78
Cr	53	72	1	NO GAS	44.366	ug/l	127450.94
Mn	55	72	1	NO GAS	0.019	ug/l	1157.75
Mn	55	72	3	He	0.001	ug/l	6.67
Fe	56	72	2	H2	-0.058	ug/l	323.18
Fe	56	72	3	He	-0.080	ug/l	536.41
Co	59	72	1	NO GAS	0.000	ug/l	76.51
Ni	60	72	1	NO GAS	-0.008	ug/l	39.92
Ni	60	72	3	He	-0.016	ug/l	12.22
Ni	62	72	1	NO GAS	0.198	ug/l	425.83
Cu	63	72	1	NO GAS	-0.003	ug/l	494.58
Cu	63	72	3	He	-0.013	ug/l	183.96
Cu	65	72	1	NO GAS	-0.003	ug/l	249.29
Zn	66	72	1	NO GAS	-0.050	ug/l	385.63
Zn	66	72	3	He	-0.103	ug/l	51.11
As	75	72	1	NO GAS	0.258	ug/l	4366.68
As	75	72	3	He	-0.005	ug/l	4.00
Se	78	72	2	H2	0.020	ug/l	5.00
Br	79	72	1	NO GAS	0.200	ug/l	72016.42
Br	79	72	2	H2	1.021	ug/l	11261.58
Se	82	72	1	NO GAS	0.803	ug/l	423.19
Kr	84	72	1	NO GAS		ug/l	8189.18
Sr	88	72	1	NO GAS	0.002	ug/l	462.43
Sr	88	72	3	He	-0.020	ug/l	246.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.006	ug/l	136.67
Mo	95	72	3	He	0.009	ug/l	70.00
Mo	98	72	1	NO GAS	0.002	ug/l	203.83
Ag	107	72	1	NO GAS	0.000	ug/l	1909.07
Ag	109	72	1	NO GAS	-0.001	ug/l	1856.41
Cd	111	159	1	NO GAS	0.016	ug/l	50.25
Cd	111	159	3	He	0.001	ug/l	2.67
Cd	114	159	1	NO GAS	-0.002	ug/l	-296.76
Cd	114	159	3	He	0.002	ug/l	-29.34
Sn	118	159	1	NO GAS	0.075	ug/l	46905.63
Sn	118	159	3	He	0.188	ug/l	7282.81
Sb	121	159	1	NO GAS	0.051	ug/l	1414.52
Sb	121	159	3	He	0.041	ug/l	185.56
Sb	123	159	1	NO GAS	0.053	ug/l	1171.16
Sb	123	159	3	He	0.048	ug/l	167.78
Ba	135	159	1	NO GAS	0.005	ug/l	39.92
Ba	137	159	1	NO GAS	0.000	ug/l	46.57
La	139	175	1	NO GAS	0.000	ug/l	53.39
La	139	175	3	He	0.001	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	106.77
Ce	140	175	3	He	0.001	ug/l	53.39
Hg	201	175	1	NO GAS	0.006	ug/l	42.99
Hg	202	175	1	NO GAS	0.004	ug/l	115.64
Hg	202	175	3	He	0.003	ug/l	47.99
Tl	203	175	3	He	0.028	ug/l	499.91
Tl	205	175	1	NO GAS	0.025	ug/l	1969.04
Tl	205	175	3	He	0.029	ug/l	1229.81
[Pb]	206	175	1	NO GAS	0.000	ug/l	68.89
[Pb]	207	175	1	NO GAS	0.001	ug/l	76.67
Pb	208	175	1	NO GAS	0.001	ug/l	313.34
Th	232	175	3	He	0.035	ug/l	2810.39
U	238	175	1	NO GAS	0.003	ug/l	472.91

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132400.54	114.3
Sc	45	2	H2	93655.85	113.4
Sc	45	3	He	55839.41	111.0
Ge	72	1	NO GAS	939196.60	111.0
Ge	72	2	H2	135050.58	114.0
Ge	72	3	He	88483.38	117.2
Tb	159	1	NO GAS	20002551.43	109.5
Tb	159	3	He	7637602.86	108.2
Ho	165	1	NO GAS	19176062.05	113.0
Ho	165	3	He	7248520.45	108.7
Lu	175	1	NO GAS	20353483.81	107.3
Lu	175	3	He	4390424.38	105.5

ICPMS206-B Analytical Data

Sample Name BLANK
File Name 100CALB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:29:16
Sample Type CalBlk
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.000	ug/l	2535.02
Be	9	45	1	NO GAS	0.000	ug/l	2.00
B	11	45	1	NO GAS	0.000	ug/l	307.27
Na	23	45	3	He	0.000	ug/l	9282.53
Mg	24	45	3	He	0.000	ug/l	73.19
Al	27	45	1	NO GAS	0.000	ug/l	553.35
Si	28	45	2	H2	0.000	ug/l	1120.49
K	39	72	3	He	0.000	ug/l	2821.37
Ca	40	72	2	H2	0.000	ug/l	551.41
Ti	47	72	1	NO GAS	0.000	ug/l	38.32
V	51	72	1	NO GAS	0.000	ug/l	-23371.87
V	51	72	3	He	0.000	ug/l	317.78
Cr	52	72	1	NO GAS	0.000	ug/l	15070.33
Cr	52	72	3	He	0.000	ug/l	133.07
Cr	53	72	1	NO GAS	0.000	ug/l	126167.55
Mn	55	72	1	NO GAS	0.000	ug/l	1061.27
Mn	55	72	3	He	0.000	ug/l	9.33
Fe	56	72	2	H2	0.000	ug/l	298.19
Fe	56	72	3	He	0.000	ug/l	546.41
Co	59	72	1	NO GAS	0.000	ug/l	59.88
Ni	60	72	1	NO GAS	0.000	ug/l	16.63
Ni	60	72	3	He	0.000	ug/l	32.22
Ni	62	72	1	NO GAS	0.000	ug/l	392.57
Cu	63	72	1	NO GAS	0.000	ug/l	467.25
Cu	63	72	3	He	0.000	ug/l	183.97
Cu	65	72	1	NO GAS	0.000	ug/l	235.96
Zn	66	72	1	NO GAS	0.000	ug/l	325.76
Zn	66	72	3	He	0.000	ug/l	57.78
As	75	72	1	NO GAS	0.000	ug/l	3634.94
As	75	72	3	He	0.000	ug/l	6.33
Se	78	72	2	H2	0.000	ug/l	3.33
Br	79	72	1	NO GAS	0.000	ug/l	71221.84
Br	79	72	2	H2	0.000	ug/l	10286.23
Se	82	72	1	NO GAS	0.000	ug/l	170.34
Kr	84	72	1	NO GAS		ug/l	8129.26
Sr	88	72	1	NO GAS	0.000	ug/l	385.91
Sr	88	72	3	He	0.000	ug/l	223.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.000	ug/l	87.78
Mo	95	72	3	He	0.000	ug/l	38.89
Mo	98	72	1	NO GAS	0.000	ug/l	153.83
Ag	107	72	1	NO GAS	0.000	ug/l	1838.41
Ag	109	72	1	NO GAS	0.000	ug/l	1730.42
Cd	111	159	1	NO GAS	0.000	ug/l	12.97
Cd	111	159	3	He	0.000	ug/l	3.33
Cd	114	159	1	NO GAS	0.000	ug/l	-217.98
Cd	114	159	3	He	0.000	ug/l	-26.96
Sn	118	159	1	NO GAS	0.000	ug/l	46101.39
Sn	118	159	3	He	0.000	ug/l	7071.60
Sb	121	159	1	NO GAS	0.000	ug/l	571.13
Sb	121	159	3	He	0.000	ug/l	74.45
Sb	123	159	1	NO GAS	0.000	ug/l	446.67
Sb	123	159	3	He	0.000	ug/l	48.89
Ba	135	159	1	NO GAS	0.000	ug/l	23.29
Ba	137	159	1	NO GAS	0.000	ug/l	43.25
La	139	175	1	NO GAS	0.000	ug/l	70.07
La	139	175	3	He	0.000	ug/l	10.01
Ce	140	175	1	NO GAS	0.000	ug/l	60.06
Ce	140	175	3	He	0.000	ug/l	13.35
Hg	201	175	1	NO GAS	0.000	ug/l	21.67
Hg	202	175	1	NO GAS	0.000	ug/l	79.32
Hg	202	175	3	He	0.000	ug/l	36.66
Tl	203	175	3	He	0.000	ug/l	391.26
Tl	205	175	1	NO GAS	0.000	ug/l	1693.44
Tl	205	175	3	He	0.000	ug/l	994.51
[Pb]	206	175	1	NO GAS	0.000	ug/l	65.56
[Pb]	207	175	1	NO GAS	0.000	ug/l	58.89
Pb	208	175	1	NO GAS	0.000	ug/l	251.11
Th	232	175	3	He	0.000	ug/l	1375.13
U	238	175	1	NO GAS	0.000	ug/l	182.63

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2081740.17	100.0
Sc	45	2	H2	90811.41	100.0
Sc	45	3	He	54923.83	100.0
Ge	72	1	NO GAS	895833.15	100.0
Ge	72	2	H2	129474.72	100.0
Ge	72	3	He	84293.88	100.0
Tb	159	1	NO GAS	20122691.15	100.0
Tb	159	3	He	7346789.03	100.0
Ho	165	1	NO GAS	18771236.20	100.0
Ho	165	3	He	7241593.42	100.0
Lu	175	1	NO GAS	20014819.53	100.0
Lu	175	3	He	4411221.64	100.0

ICPMS206-B Analytical Data

Sample Name 0.025 PPB STD
File Name 101CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:35:07
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.359	ug/l	2757.01
Be	9	45	1	NO GAS	0.034	ug/l	11.67
B	11	45	1	NO GAS	-0.200	ug/l	260.62
Na	23	45	3	He	-1.795	ug/l	9090.22
Mg	24	45	3	He	4.452	ug/l	282.78
Al	27	45	1	NO GAS	0.076	ug/l	776.69
Si	28	45	2	H2	-16.094	ug/l	877.18
K	39	72	3	He	4.117	ug/l	3086.97
Ca	40	72	2	H2	6.850	ug/l	1945.82
Ti	47	72	1	NO GAS	0.023	ug/l	59.97
V	51	72	1	NO GAS	1.308	ug/l	-5059.91
V	51	72	3	He	0.049	ug/l	393.34
Cr	52	72	1	NO GAS	-0.004	ug/l	15359.99
Cr	52	72	3	He	0.000	ug/l	136.39
Cr	53	72	1	NO GAS	-1.459	ug/l	127460.79
Mn	55	72	1	NO GAS	0.017	ug/l	1417.27
Mn	55	72	3	He	0.021	ug/l	28.33
Fe	56	72	2	H2	0.545	ug/l	932.91
Fe	56	72	3	He	0.577	ug/l	1509.33
Co	59	72	1	NO GAS	0.024	ug/l	472.41
Ni	60	72	1	NO GAS	0.033	ug/l	139.72
Ni	60	72	3	He	0.008	ug/l	42.22
Ni	62	72	1	NO GAS	-0.044	ug/l	375.93
Cu	63	72	1	NO GAS	0.009	ug/l	559.90
Cu	63	72	3	He	0.000	ug/l	188.96
Cu	65	72	1	NO GAS	-0.003	ug/l	229.29
Zn	66	72	1	NO GAS	-0.018	ug/l	275.77
Zn	66	72	3	He	0.028	ug/l	73.33
As	75	72	1	NO GAS	0.090	ug/l	3981.21
As	75	72	3	He	0.019	ug/l	12.67
Se	78	72	2	H2	0.028	ug/l	6.33
Br	79	72	1	NO GAS	0.253	ug/l	74465.13
Br	79	72	2	H2	0.645	ug/l	10812.16
Se	82	72	1	NO GAS	0.727	ug/l	388.59
Kr	84	72	1	NO GAS		ug/l	8322.33
Sr	88	72	1	NO GAS	0.027	ug/l	1427.25
Sr	88	72	3	He	0.007	ug/l	240.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.026	ug/l	302.23
Mo	95	72	3	He	0.037	ug/l	135.56
Mo	98	72	1	NO GAS	0.025	ug/l	507.31
Ag	107	72	1	NO GAS	0.007	ug/l	2045.06
Ag	109	72	1	NO GAS	0.011	ug/l	2019.73
Cd	111	159	1	NO GAS	0.016	ug/l	109.43
Cd	111	159	3	He	0.027	ug/l	43.99
Cd	114	159	1	NO GAS	0.022	ug/l	96.72
Cd	114	159	3	He	0.028	ug/l	80.05
Sn	118	159	1	NO GAS	-2.342	ug/l	4105.75
Sn	118	159	3	He	-2.413	ug/l	713.36
Sb	121	159	1	NO GAS	0.014	ug/l	936.70
Sb	121	159	3	He	0.016	ug/l	136.67
Sb	123	159	1	NO GAS	0.017	ug/l	796.69
Sb	123	159	3	He	0.024	ug/l	120.00
Ba	135	159	1	NO GAS	0.027	ug/l	169.67
Ba	137	159	1	NO GAS	0.022	ug/l	249.51
La	139	175	1	NO GAS	0.025	ug/l	2179.07
La	139	175	3	He	0.022	ug/l	433.78
Ce	140	175	1	NO GAS	0.022	ug/l	1915.42
Ce	140	175	3	He	0.024	ug/l	607.30
Hg	201	175	1	NO GAS	-0.001	ug/l	19.67
Hg	202	175	1	NO GAS	0.000	ug/l	84.31
Hg	202	175	3	He	0.000	ug/l	35.99
Tl	203	175	3	He	0.022	ug/l	713.21
Tl	205	175	1	NO GAS	0.019	ug/l	3037.00
Tl	205	175	3	He	0.019	ug/l	1669.43
[Pb]	206	175	1	NO GAS	0.021	ug/l	553.35
[Pb]	207	175	1	NO GAS	0.024	ug/l	528.90
Pb	208	175	1	NO GAS	0.024	ug/l	2422.33
Th	232	175	3	He	0.011	ug/l	1954.42
U	238	175	1	NO GAS	0.023	ug/l	2573.72

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2048032.19	98.4
Sc	45	2	H2	90734.66	99.9
Sc	45	3	He	54742.12	99.7
Ge	72	1	NO GAS	915678.62	102.2
Ge	72	2	H2	128265.42	99.1
Ge	72	3	He	86604.34	102.7
Tb	159	1	NO GAS	19978249.42	99.3
Tb	159	3	He	7546185.19	102.7
Ho	165	1	NO GAS	18567037.84	98.9
Ho	165	3	He	7288028.81	100.6
Lu	175	1	NO GAS	20430529.81	102.1
Lu	175	3	He	4460535.43	101.1

ICPMS206-B Analytical Data

Sample Name 1000 PPB STD
File Name 109CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:21:50
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2635.605	ug/l	1853064.76
Be	9	45	1	NO GAS	994.983	ug/l	358862.55
B	11	45	1	NO GAS	984.340	ug/l	256318.61
Na	23	45	3	He	50139.285	ug/l	5971619.29
Mg	24	45	3	He	50477.693	ug/l	3133926.50
Al	27	45	1	NO GAS	1017.243	ug/l	3930546.85
Si	28	45	2	H2	-60.329	ug/l	271.95
K	39	72	3	He	50794.757	ug/l	2853738.00
Ca	40	72	2	H2	50632.558	ug/l	13297281.21
Ti	47	72	1	NO GAS	6.022	ug/l	5869.86
V	51	72	1	NO GAS	1059.981	ug/l	16413589.48
V	51	72	3	He	1064.698	ug/l	1740143.95
Cr	52	72	1	NO GAS	1077.371	ug/l	14975915.32
Cr	52	72	3	He	1068.350	ug/l	2313511.29
Cr	53	72	1	NO GAS	1554.208	ug/l	1877649.39
Mn	55	72	1	NO GAS	1064.460	ug/l	22614027.52
Mn	55	72	3	He	1026.955	ug/l	1085845.29
Fe	56	72	2	H2	6126.841	ug/l	9222012.70
Fe	56	72	3	He	6002.966	ug/l	11838353.09
Co	59	72	1	NO GAS	1042.515	ug/l	19180562.91
Ni	60	72	1	NO GAS	1036.039	ug/l	4142280.70
Ni	60	72	3	He	1037.120	ug/l	1389841.81
Ni	62	72	1	NO GAS	1015.748	ug/l	630257.94
Cu	63	72	1	NO GAS	995.485	ug/l	10112740.37
Cu	63	72	3	He	1007.005	ug/l	4039726.17
Cu	65	72	1	NO GAS	1001.844	ug/l	5050804.76
Zn	66	72	1	NO GAS	996.669	ug/l	3342841.59
Zn	66	72	3	He	998.466	ug/l	591139.61
As	75	72	1	NO GAS	976.197	ug/l	3547449.36
As	75	72	3	He	1010.422	ug/l	389324.04
Se	78	72	2	H2	991.649	ug/l	136788.76
Br	79	72	1	NO GAS	0.753	ug/l	83523.57
Br	79	72	2	H2	2.293	ug/l	15932.88
Se	82	72	1	NO GAS	952.005	ug/l	291842.72
Kr	84	72	1	NO GAS		ug/l	250585.46
Sr	88	72	1	NO GAS	1018.491	ug/l	42347001.67
Sr	88	72	3	He	1025.320	ug/l	1948859.24

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.058	ug/l	617.79
Mo	95	72	3	He	0.045	ug/l	187.78
Mo	98	72	1	NO GAS	0.069	ug/l	1221.60
Ag	107	72	1	NO GAS	387.961	ug/l	9784047.20
Ag	109	72	1	NO GAS	345.258	ug/l	8575759.65
Cd	111	159	1	NO GAS	994.591	ug/l	5832079.61
Cd	111	159	3	He	1033.583	ug/l	1551973.58
Cd	114	159	1	NO GAS	997.586	ug/l	13573049.57
Cd	114	159	3	He	984.849	ug/l	3854819.18
Sn	118	159	1	NO GAS	-2.263	ug/l	5303.73
Sn	118	159	3	He	-2.332	ug/l	943.37
Sb	121	159	1	NO GAS	0.128	ug/l	3707.12
Sb	121	159	3	He	0.109	ug/l	477.79
Sb	123	159	1	NO GAS	0.138	ug/l	3127.00
Sb	123	159	3	He	0.119	ug/l	408.90
Ba	135	159	1	NO GAS	959.649	ug/l	5041482.17
Ba	137	159	1	NO GAS	952.610	ug/l	8681002.39
La	139	175	1	NO GAS	0.013	ug/l	1111.18
La	139	175	3	He	0.007	ug/l	156.83
Ce	140	175	1	NO GAS	0.021	ug/l	1788.60
Ce	140	175	3	He	0.023	ug/l	590.62
Hg	201	175	1	NO GAS	0.010	ug/l	63.32
Hg	202	175	1	NO GAS	0.015	ug/l	224.63
Hg	202	175	3	He	0.009	ug/l	100.31
Tl	203	175	3	He	945.949	ug/l	13638262.56
Tl	205	175	1	NO GAS	947.788	ug/l	61933537.97
Tl	205	175	3	He	926.340	ug/l	32746002.05
[Pb]	206	175	1	NO GAS	936.742	ug/l	20637301.22
[Pb]	207	175	1	NO GAS	931.293	ug/l	17790120.57
Pb	208	175	1	NO GAS	945.581	ug/l	82675786.41
Th	232	175	3	He	958.885	ug/l	49467446.54
U	238	175	1	NO GAS	958.649	ug/l	96466665.46

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2587187.90	124.3
Sc	45	2	H2	122340.96	134.7
Sc	45	3	He	71977.32	131.0
Ge	72	1	NO GAS	981882.38	109.6
Ge	72	2	H2	164993.13	127.4
Ge	72	3	He	103955.29	123.3
Tb	159	1	NO GAS	19202678.04	95.4
Tb	159	3	He	7636798.82	103.9
Ho	165	1	NO GAS	18349965.78	97.8
Ho	165	3	He	7295134.62	100.7
Lu	175	1	NO GAS	19795901.66	98.9
Lu	175	3	He	4536571.51	102.8

ICPMS206-B Analytical Data

Sample Name 0.05 PPB STD
File Name 102CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:40:58
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.289	ug/l	2783.01
Be	9	45	1	NO GAS	0.049	ug/l	16.33
B	11	45	1	NO GAS	-0.399	ug/l	225.29
Na	23	45	3	He	-0.358	ug/l	9430.39
Mg	24	45	3	He	12.492	ug/l	682.00
Al	27	45	1	NO GAS	0.066	ug/l	765.58
Si	28	45	2	H2	-25.231	ug/l	723.87
K	39	72	3	He	8.203	ug/l	3366.47
Ca	40	72	2	H2	14.009	ug/l	3418.67
Ti	47	72	1	NO GAS	0.075	ug/l	108.28
V	51	72	1	NO GAS	0.700	ug/l	-13915.98
V	51	72	3	He	0.060	ug/l	418.90
Cr	52	72	1	NO GAS	0.052	ug/l	16495.45
Cr	52	72	3	He	0.061	ug/l	252.84
Cr	53	72	1	NO GAS	-2.611	ug/l	129505.53
Mn	55	72	1	NO GAS	0.044	ug/l	2029.45
Mn	55	72	3	He	0.047	ug/l	52.67
Fe	56	72	2	H2	1.225	ug/l	1734.25
Fe	56	72	3	He	1.396	ug/l	2928.84
Co	59	72	1	NO GAS	0.057	ug/l	1074.58
Ni	60	72	1	NO GAS	0.062	ug/l	256.16
Ni	60	72	3	He	0.051	ug/l	92.22
Ni	62	72	1	NO GAS	0.018	ug/l	425.84
Cu	63	72	1	NO GAS	0.035	ug/l	827.86
Cu	63	72	3	He	0.038	ug/l	323.27
Cu	65	72	1	NO GAS	0.034	ug/l	413.26
Zn	66	72	1	NO GAS	0.025	ug/l	425.59
Zn	66	72	3	He	0.020	ug/l	71.11
As	75	72	1	NO GAS	-0.082	ug/l	3547.11
As	75	72	3	He	0.049	ug/l	23.00
Se	78	72	2	H2	0.056	ug/l	9.33
Br	79	72	1	NO GAS	0.295	ug/l	76825.26
Br	79	72	2	H2	1.275	ug/l	11454.73
Se	82	72	1	NO GAS	0.722	ug/l	397.89
Kr	84	72	1	NO GAS		ug/l	8089.38
Sr	88	72	1	NO GAS	0.052	ug/l	2488.60
Sr	88	72	3	He	0.069	ug/l	346.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.048	ug/l	496.68
Mo	95	72	3	He	0.046	ug/l	165.56
Mo	98	72	1	NO GAS	0.048	ug/l	863.72
Ag	107	72	1	NO GAS	0.019	ug/l	2389.71
Ag	109	72	1	NO GAS	0.019	ug/l	2270.72
Cd	111	159	1	NO GAS	0.048	ug/l	306.46
Cd	111	159	3	He	0.049	ug/l	74.65
Cd	114	159	1	NO GAS	0.054	ug/l	552.60
Cd	114	159	3	He	0.061	ug/l	207.78
Sn	118	159	1	NO GAS	-2.295	ug/l	4964.28
Sn	118	159	3	He	-2.379	ug/l	796.69
Sb	121	159	1	NO GAS	0.041	ug/l	1603.43
Sb	121	159	3	He	0.062	ug/l	300.01
Sb	123	159	1	NO GAS	0.039	ug/l	1235.61
Sb	123	159	3	He	0.045	ug/l	181.11
Ba	135	159	1	NO GAS	0.053	ug/l	312.72
Ba	137	159	1	NO GAS	0.059	ug/l	608.81
La	139	175	1	NO GAS	0.054	ug/l	4708.86
La	139	175	3	He	0.053	ug/l	1067.80
Ce	140	175	1	NO GAS	0.052	ug/l	4525.29
Ce	140	175	3	He	0.051	ug/l	1301.39
Hg	201	175	1	NO GAS	-0.001	ug/l	20.33
Hg	202	175	1	NO GAS	0.001	ug/l	90.98
Hg	202	175	3	He	0.001	ug/l	44.32
Tl	203	175	3	He	0.049	ug/l	1111.16
Tl	205	175	1	NO GAS	0.046	ug/l	4850.81
Tl	205	175	3	He	0.050	ug/l	2807.04
[Pb]	206	175	1	NO GAS	0.051	ug/l	1233.39
[Pb]	207	175	1	NO GAS	0.050	ug/l	1046.71
Pb	208	175	1	NO GAS	0.052	ug/l	4975.92
Th	232	175	3	He	0.032	ug/l	3060.39
U	238	175	1	NO GAS	0.051	ug/l	5527.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2101237.32	100.9
Sc	45	2	H2	89330.51	98.4
Sc	45	3	He	56099.52	102.1
Ge	72	1	NO GAS	942436.42	105.2
Ge	72	2	H2	128772.89	99.5
Ge	72	3	He	88878.59	105.4
Tb	159	1	NO GAS	20064071.28	99.7
Tb	159	3	He	7469174.59	101.7
Ho	165	1	NO GAS	19166687.68	102.1
Ho	165	3	He	7453297.88	102.9
Lu	175	1	NO GAS	20643325.30	103.1
Lu	175	3	He	4557951.07	103.3

ICPMS206-B Analytical Data

Sample Name 0.10 PPB STD
File Name 103CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:46:50
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.637	ug/l	3092.33
Be	9	45	1	NO GAS	0.102	ug/l	32.32
B	11	45	1	NO GAS	-0.388	ug/l	231.29
Na	23	45	3	He	23.637	ug/l	11806.30
Mg	24	45	3	He	26.321	ug/l	1364.02
Al	27	45	1	NO GAS	0.550	ug/l	2311.29
Si	28	45	2	H2	-34.705	ug/l	562.57
K	39	72	3	He	23.232	ug/l	4104.97
Ca	40	72	2	H2	32.200	ug/l	7123.02
Ti	47	72	1	NO GAS	0.142	ug/l	171.58
V	51	72	1	NO GAS	-0.063	ug/l	-25580.33
V	51	72	3	He	0.092	ug/l	466.68
Cr	52	72	1	NO GAS	0.022	ug/l	15999.34
Cr	52	72	3	He	0.123	ug/l	369.28
Cr	53	72	1	NO GAS	-0.437	ug/l	131157.68
Mn	55	72	1	NO GAS	0.109	ug/l	3317.11
Mn	55	72	3	He	0.125	ug/l	123.01
Fe	56	72	2	H2	3.109	ug/l	3928.55
Fe	56	72	3	He	3.252	ug/l	6086.46
Co	59	72	1	NO GAS	0.122	ug/l	2199.13
Ni	60	72	1	NO GAS	0.121	ug/l	475.73
Ni	60	72	3	He	0.135	ug/l	190.00
Ni	62	72	1	NO GAS	0.019	ug/l	419.18
Cu	63	72	1	NO GAS	0.128	ug/l	1727.75
Cu	63	72	3	He	0.126	ug/l	630.22
Cu	65	72	1	NO GAS	0.129	ug/l	863.86
Zn	66	72	1	NO GAS	0.198	ug/l	971.13
Zn	66	72	3	He	0.236	ug/l	181.11
As	75	72	1	NO GAS	0.074	ug/l	4035.11
As	75	72	3	He	0.102	ug/l	40.32
Se	78	72	2	H2	0.066	ug/l	10.33
Br	79	72	1	NO GAS	0.054	ug/l	74645.65
Br	79	72	2	H2	0.054	ug/l	10239.62
Se	82	72	1	NO GAS	1.250	ug/l	548.29
Kr	84	72	1	NO GAS		ug/l	8046.07
Sr	88	72	1	NO GAS	0.122	ug/l	5227.18
Sr	88	72	3	He	0.126	ug/l	442.23

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.112	ug/l	1038.93
Mo	95	72	3	He	0.115	ug/l	351.12
Mo	98	72	1	NO GAS	0.118	ug/l	1872.91
Ag	107	72	1	NO GAS	0.045	ug/l	2995.03
Ag	109	72	1	NO GAS	0.047	ug/l	2923.03
Cd	111	159	1	NO GAS	0.129	ug/l	796.80
Cd	111	159	3	He	0.106	ug/l	159.97
Cd	114	159	1	NO GAS	0.114	ug/l	1403.30
Cd	114	159	3	He	0.126	ug/l	458.71
Sn	118	159	1	NO GAS	-2.257	ug/l	5599.93
Sn	118	159	3	He	-2.339	ug/l	908.93
Sb	121	159	1	NO GAS	0.104	ug/l	3217.02
Sb	121	159	3	He	0.114	ug/l	490.01
Sb	123	159	1	NO GAS	0.102	ug/l	2503.55
Sb	123	159	3	He	0.112	ug/l	382.23
Ba	135	159	1	NO GAS	0.117	ug/l	662.04
Ba	137	159	1	NO GAS	0.116	ug/l	1137.80
La	139	175	1	NO GAS	0.117	ug/l	10437.49
La	139	175	3	He	0.119	ug/l	2339.24
Ce	140	175	1	NO GAS	0.112	ug/l	9953.29
Ce	140	175	3	He	0.115	ug/l	2886.56
Hg	201	175	1	NO GAS	0.000	ug/l	23.66
Hg	202	175	1	NO GAS	0.001	ug/l	96.65
Hg	202	175	3	He	0.000	ug/l	40.32
Tl	203	175	3	He	0.110	ug/l	1972.41
Tl	205	175	1	NO GAS	0.100	ug/l	8740.36
Tl	205	175	3	He	0.107	ug/l	4767.82
[Pb]	206	175	1	NO GAS	0.115	ug/l	2758.05
[Pb]	207	175	1	NO GAS	0.110	ug/l	2303.53
Pb	208	175	1	NO GAS	0.116	ug/l	11033.93
Th	232	175	3	He	0.083	ug/l	5653.30
U	238	175	1	NO GAS	0.111	ug/l	12077.52

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2127167.07	102.2
Sc	45	2	H2	86463.90	95.2
Sc	45	3	He	56759.41	103.3
Ge	72	1	NO GAS	934375.36	104.3
Ge	72	2	H2	128279.73	99.1
Ge	72	3	He	89286.35	105.9
Tb	159	1	NO GAS	19935785.08	99.1
Tb	159	3	He	7521535.75	102.4
Ho	165	1	NO GAS	19396388.62	103.3
Ho	165	3	He	7154318.08	98.8
Lu	175	1	NO GAS	21081868.42	105.3
Lu	175	3	He	4510628.02	102.3

ICPMS206-B Analytical Data

Sample Name 0.5 PPB STD
File Name 104CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:52:42
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	4.062	ug/l	5539.12
Be	9	45	1	NO GAS	0.477	ug/l	140.64
B	11	45	1	NO GAS	-0.046	ug/l	298.61
Na	23	45	3	He	115.066	ug/l	20638.98
Mg	24	45	3	He	121.152	ug/l	6082.41
Al	27	45	1	NO GAS	0.541	ug/l	2241.27
Si	28	45	2	H2	-40.155	ug/l	503.24
K	39	72	3	He	108.204	ug/l	8280.96
Ca	40	72	2	H2	117.241	ug/l	25293.19
Ti	47	72	1	NO GAS	0.457	ug/l	461.45
V	51	72	1	NO GAS	0.195	ug/l	-21687.25
V	51	72	3	He	0.452	ug/l	981.15
Cr	52	72	1	NO GAS	0.442	ug/l	21594.46
Cr	52	72	3	He	0.489	ug/l	1061.27
Cr	53	72	1	NO GAS	0.641	ug/l	132541.10
Mn	55	72	1	NO GAS	0.489	ug/l	11001.85
Mn	55	72	3	He	0.503	ug/l	470.72
Fe	56	72	2	H2	12.350	ug/l	15231.11
Fe	56	72	3	He	12.875	ug/l	22609.06
Co	59	72	1	NO GAS	0.461	ug/l	8145.87
Ni	60	72	1	NO GAS	0.484	ug/l	1859.76
Ni	60	72	3	He	0.509	ug/l	625.57
Ni	62	72	1	NO GAS	0.318	ug/l	598.83
Cu	63	72	1	NO GAS	0.509	ug/l	5410.48
Cu	63	72	3	He	0.531	ug/l	2043.72
Cu	65	72	1	NO GAS	0.512	ug/l	2703.69
Zn	66	72	1	NO GAS	0.449	ug/l	1776.14
Zn	66	72	3	He	0.531	ug/l	334.45
As	75	72	1	NO GAS	0.247	ug/l	4640.32
As	75	72	3	He	0.464	ug/l	161.97
Se	78	72	2	H2	0.643	ug/l	74.65
Br	79	72	1	NO GAS	0.333	ug/l	76688.16
Br	79	72	2	H2	0.907	ug/l	11434.74
Se	82	72	1	NO GAS	0.753	ug/l	406.56
Kr	84	72	1	NO GAS		ug/l	8072.67
Sr	88	72	1	NO GAS	0.514	ug/l	20762.07
Sr	88	72	3	He	0.502	ug/l	1065.59

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.515	ug/l	4459.53
Mo	95	72	3	He	0.504	ug/l	1414.52
Mo	98	72	1	NO GAS	0.494	ug/l	7335.73
Ag	107	72	1	NO GAS	0.211	ug/l	6988.80
Ag	109	72	1	NO GAS	0.207	ug/l	6710.74
Cd	111	159	1	NO GAS	0.482	ug/l	2998.49
Cd	111	159	3	He	0.497	ug/l	742.54
Cd	114	159	1	NO GAS	0.503	ug/l	7021.54
Cd	114	159	3	He	0.506	ug/l	1932.84
Sn	118	159	1	NO GAS	-1.863	ug/l	12846.36
Sn	118	159	3	He	-1.964	ug/l	1934.58
Sb	121	159	1	NO GAS	0.451	ug/l	12345.93
Sb	121	159	3	He	0.438	ug/l	1674.54
Sb	123	159	1	NO GAS	0.448	ug/l	9727.47
Sb	123	159	3	He	0.493	ug/l	1518.98
Ba	135	159	1	NO GAS	0.500	ug/l	2801.41
Ba	137	159	1	NO GAS	0.451	ug/l	4388.61
La	139	175	1	NO GAS	0.498	ug/l	43707.96
La	139	175	3	He	0.484	ug/l	9726.27
Ce	140	175	1	NO GAS	0.497	ug/l	43209.16
Ce	140	175	3	He	0.470	ug/l	11970.08
Hg	201	175	1	NO GAS	0.007	ug/l	52.66
Hg	202	175	1	NO GAS	0.008	ug/l	161.30
Hg	202	175	3	He	0.009	ug/l	100.31
Tl	203	175	3	He	0.478	ug/l	7408.36
Tl	205	175	1	NO GAS	0.465	ug/l	33766.60
Tl	205	175	3	He	0.484	ug/l	18415.53
[Pb]	206	175	1	NO GAS	0.482	ug/l	11253.15
[Pb]	207	175	1	NO GAS	0.494	ug/l	10000.05
Pb	208	175	1	NO GAS	0.493	ug/l	45592.93
Th	232	175	3	He	0.409	ug/l	22859.68
U	238	175	1	NO GAS	0.470	ug/l	49992.79

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2088269.70	100.3
Sc	45	2	H2	90163.49	99.3
Sc	45	3	He	57487.26	104.7
Ge	72	1	NO GAS	935245.84	104.4
Ge	72	2	H2	132566.41	102.4
Ge	72	3	He	90181.46	107.0
Tb	159	1	NO GAS	20316626.54	101.0
Tb	159	3	He	7556717.02	102.9
Ho	165	1	NO GAS	19084270.06	101.7
Ho	165	3	He	7344201.23	101.4
Lu	175	1	NO GAS	20835216.78	104.1
Lu	175	3	He	4608059.51	104.5

ICPMS206-B Analytical Data

Sample Name 1 PPB STD
File Name 105CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 04:58:34
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	9.555	ug/l	9512.71
Be	9	45	1	NO GAS	1.082	ug/l	312.94
B	11	45	1	NO GAS	0.537	ug/l	415.93
Na	23	45	3	He	269.025	ug/l	35142.38
Mg	24	45	3	He	284.205	ug/l	14114.60
Al	27	45	1	NO GAS	1.138	ug/l	4047.19
Si	28	45	2	H2	-47.427	ug/l	404.59
K	39	72	3	He	245.265	ug/l	14584.08
Ca	40	72	2	H2	268.939	ug/l	57421.79
Ti	47	72	1	NO GAS	1.099	ug/l	1091.17
V	51	72	1	NO GAS	1.485	ug/l	-2822.80
V	51	72	3	He	1.083	ug/l	1827.89
Cr	52	72	1	NO GAS	0.960	ug/l	29490.94
Cr	52	72	3	He	1.126	ug/l	2199.14
Cr	53	72	1	NO GAS	-6.003	ug/l	130071.75
Mn	55	72	1	NO GAS	1.029	ug/l	22717.01
Mn	55	72	3	He	1.133	ug/l	1023.14
Fe	56	72	2	H2	26.930	ug/l	32934.37
Fe	56	72	3	He	29.120	ug/l	49110.60
Co	59	72	1	NO GAS	1.082	ug/l	19712.73
Ni	60	72	1	NO GAS	1.101	ug/l	4365.29
Ni	60	72	3	He	1.213	ug/l	1407.85
Ni	62	72	1	NO GAS	0.926	ug/l	991.41
Cu	63	72	1	NO GAS	1.079	ug/l	11329.60
Cu	63	72	3	He	1.210	ug/l	4295.69
Cu	65	72	1	NO GAS	1.075	ug/l	5615.17
Zn	66	72	1	NO GAS	1.021	ug/l	3732.43
Zn	66	72	3	He	1.159	ug/l	641.13
As	75	72	1	NO GAS	1.089	ug/l	7841.64
As	75	72	3	He	1.102	ug/l	365.60
Se	78	72	2	H2	1.332	ug/l	151.30
Br	79	72	1	NO GAS	0.045	ug/l	77450.93
Br	79	72	2	H2	0.570	ug/l	11121.71
Se	82	72	1	NO GAS	1.963	ug/l	787.84
Kr	84	72	1	NO GAS		ug/l	8265.74
Sr	88	72	1	NO GAS	1.087	ug/l	45059.04
Sr	88	72	3	He	1.160	ug/l	2097.93

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.059	ug/l	9408.34
Mo	95	72	3	He	1.233	ug/l	3311.47
Mo	98	72	1	NO GAS	1.072	ug/l	16296.87
Ag	107	72	1	NO GAS	0.453	ug/l	13294.81
Ag	109	72	1	NO GAS	0.449	ug/l	12902.60
Cd	111	159	1	NO GAS	1.099	ug/l	6869.22
Cd	111	159	3	He	1.129	ug/l	1663.76
Cd	114	159	1	NO GAS	1.145	ug/l	16348.72
Cd	114	159	3	He	1.144	ug/l	4360.33
Sn	118	159	1	NO GAS	-1.285	ug/l	23414.06
Sn	118	159	3	He	-1.281	ug/l	3756.02
Sb	121	159	1	NO GAS	1.028	ug/l	27501.41
Sb	121	159	3	He	1.072	ug/l	3950.52
Sb	123	159	1	NO GAS	1.028	ug/l	21833.78
Sb	123	159	3	He	1.139	ug/l	3411.50
Ba	135	159	1	NO GAS	1.054	ug/l	5912.77
Ba	137	159	1	NO GAS	1.087	ug/l	10585.98
La	139	175	1	NO GAS	1.109	ug/l	97068.13
La	139	175	3	He	1.117	ug/l	21793.91
Ce	140	175	1	NO GAS	1.064	ug/l	92420.43
Ce	140	175	3	He	1.091	ug/l	26987.22
Hg	201	175	1	NO GAS	0.021	ug/l	112.31
Hg	202	175	1	NO GAS	0.021	ug/l	286.94
Hg	202	175	3	He	0.021	ug/l	179.30
Tl	203	175	3	He	1.122	ug/l	16381.61
Tl	205	175	1	NO GAS	1.027	ug/l	72356.74
Tl	205	175	3	He	1.136	ug/l	40695.68
[Pb]	206	175	1	NO GAS	1.119	ug/l	25991.30
[Pb]	207	175	1	NO GAS	1.111	ug/l	22381.12
Pb	208	175	1	NO GAS	1.126	ug/l	103797.22
Th	232	175	3	He	1.007	ug/l	52726.51
U	238	175	1	NO GAS	1.077	ug/l	114122.22

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2062331.27	99.1
Sc	45	2	H2	92208.47	101.5
Sc	45	3	He	57320.00	104.4
Ge	72	1	NO GAS	969929.11	108.3
Ge	72	2	H2	132863.41	102.6
Ge	72	3	He	87909.35	104.3
Tb	159	1	NO GAS	20435835.95	101.6
Tb	159	3	He	7486314.70	101.9
Ho	165	1	NO GAS	19005717.55	101.2
Ho	165	3	He	7259442.94	100.2
Lu	175	1	NO GAS	20813195.38	104.0
Lu	175	3	He	4481773.13	101.6

ICPMS206-B Analytical Data

Sample Name 10 PPB STD
File Name 106CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:04:25
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	85.210	ug/l	66835.72
Be	9	45	1	NO GAS	8.806	ug/l	2765.34
B	11	45	1	NO GAS	8.351	ug/l	2229.71
Na	23	45	3	He	2373.541	ug/l	221385.23
Mg	24	45	3	He	2322.382	ug/l	108491.94
Al	27	45	1	NO GAS	9.137	ug/l	31365.28
Si	28	45	2	H2	-0.166	ug/l	980.50
K	39	72	3	He	2231.743	ug/l	106012.53
Ca	40	72	2	H2	2514.467	ug/l	466994.14
Ti	47	72	1	NO GAS	9.082	ug/l	8774.66
V	51	72	1	NO GAS	8.955	ug/l	112520.61
V	51	72	3	He	9.719	ug/l	13407.62
Cr	52	72	1	NO GAS	9.049	ug/l	141394.02
Cr	52	72	3	He	9.875	ug/l	17754.21
Cr	53	72	1	NO GAS	3.182	ug/l	141177.33
Mn	55	72	1	NO GAS	8.929	ug/l	189615.64
Mn	55	72	3	He	9.762	ug/l	8510.99
Fe	56	72	2	H2	253.961	ug/l	270136.65
Fe	56	72	3	He	254.852	ug/l	414501.43
Co	59	72	1	NO GAS	9.410	ug/l	172129.81
Ni	60	72	1	NO GAS	9.618	ug/l	38211.34
Ni	60	72	3	He	10.346	ug/l	11447.28
Ni	62	72	1	NO GAS	9.397	ug/l	6225.51
Cu	63	72	1	NO GAS	9.902	ug/l	100574.93
Cu	63	72	3	He	10.619	ug/l	35271.00
Cu	65	72	1	NO GAS	9.692	ug/l	48848.56
Zn	66	72	1	NO GAS	9.653	ug/l	32516.16
Zn	66	72	3	He	9.726	ug/l	4800.73
As	75	72	1	NO GAS	8.903	ug/l	36116.13
As	75	72	3	He	10.159	ug/l	3231.01
Se	78	72	2	H2	11.521	ug/l	1122.15
Br	79	72	1	NO GAS	0.101	ug/l	78389.12
Br	79	72	2	H2	1.579	ug/l	10652.38
Se	82	72	1	NO GAS	9.820	ug/l	3194.93
Kr	84	72	1	NO GAS		ug/l	10882.07
Sr	88	72	1	NO GAS	10.044	ug/l	415712.24
Sr	88	72	3	He	10.149	ug/l	16117.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	9.841	ug/l	87293.00
Mo	95	72	3	He	10.573	ug/l	27374.04
Mo	98	72	1	NO GAS	9.704	ug/l	147204.65
Ag	107	72	1	NO GAS	4.077	ug/l	104305.80
Ag	109	72	1	NO GAS	4.000	ug/l	100655.44
Cd	111	159	1	NO GAS	9.375	ug/l	59581.32
Cd	111	159	3	He	9.631	ug/l	13969.96
Cd	114	159	1	NO GAS	9.336	ug/l	137252.59
Cd	114	159	3	He	9.646	ug/l	36441.86
Sn	118	159	1	NO GAS	7.301	ug/l	182336.25
Sn	118	159	3	He	7.551	ug/l	27136.21
Sb	121	159	1	NO GAS	9.002	ug/l	240769.82
Sb	121	159	3	He	9.517	ug/l	33986.97
Sb	123	159	1	NO GAS	8.980	ug/l	190649.35
Sb	123	159	3	He	9.544	ug/l	27813.04
Ba	135	159	1	NO GAS	9.260	ug/l	52702.82
Ba	137	159	1	NO GAS	9.545	ug/l	94035.59
La	139	175	1	NO GAS	9.559	ug/l	870417.35
La	139	175	3	He	9.800	ug/l	183904.37
Ce	140	175	1	NO GAS	9.297	ug/l	840209.10
Ce	140	175	3	He	10.011	ug/l	238178.99
Hg	201	175	1	NO GAS	0.192	ug/l	888.85
Hg	202	175	1	NO GAS	0.194	ug/l	2094.73
Hg	202	175	3	He	0.208	ug/l	1400.45
Tl	203	175	3	He	10.215	ug/l	140371.25
Tl	205	175	1	NO GAS	9.286	ug/l	666414.45
Tl	205	175	3	He	10.204	ug/l	343808.66
[Pb]	206	175	1	NO GAS	9.632	ug/l	232445.59
[Pb]	207	175	1	NO GAS	9.356	ug/l	195639.59
Pb	208	175	1	NO GAS	9.571	ug/l	916302.39
Th	232	175	3	He	9.900	ug/l	486785.27
U	238	175	1	NO GAS	9.236	ug/l	1017308.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2265665.73	108.8
Sc	45	2	H2	80044.29	88.1
Sc	45	3	He	54158.98	98.6
Ge	72	1	NO GAS	979066.15	109.3
Ge	72	2	H2	116795.57	90.2
Ge	72	3	He	85630.73	101.6
Tb	159	1	NO GAS	20932849.19	104.0
Tb	159	3	He	7376704.05	100.4
Ho	165	1	NO GAS	19804794.51	105.5
Ho	165	3	He	7205577.15	99.5
Lu	175	1	NO GAS	21763163.86	108.7
Lu	175	3	He	4309824.46	97.7

ICPMS206-B Analytical Data

Sample Name 50 PPB STD
File Name 107CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:10:16
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	451.172	ug/l	304909.64
Be	9	45	1	NO GAS	49.424	ug/l	13913.72
B	11	45	1	NO GAS	48.140	ug/l	10068.25
Na	23	45	3	He	12716.737	ug/l	1232014.44
Mg	24	45	3	He	11838.899	ug/l	594422.76
Al	27	45	1	NO GAS	49.029	ug/l	148311.05
Si	28	45	2	H2	188.806	ug/l	4103.02
K	39	72	3	He	11193.166	ug/l	550023.47
Ca	40	72	2	H2	12418.885	ug/l	2630695.20
Ti	47	72	1	NO GAS	46.805	ug/l	42949.65
V	51	72	1	NO GAS	46.486	ug/l	657767.67
V	51	72	3	He	49.358	ug/l	70590.84
Cr	52	72	1	NO GAS	46.963	ug/l	633147.15
Cr	52	72	3	He	49.859	ug/l	94199.83
Cr	53	72	1	NO GAS	41.929	ug/l	175600.20
Mn	55	72	1	NO GAS	47.374	ug/l	953788.16
Mn	55	72	3	He	49.666	ug/l	45754.24
Fe	56	72	2	H2	1237.376	ug/l	1504066.03
Fe	56	72	3	He	1283.018	ug/l	2203633.71
Co	59	72	1	NO GAS	47.196	ug/l	822137.46
Ni	60	72	1	NO GAS	47.933	ug/l	181460.27
Ni	60	72	3	He	50.448	ug/l	58894.94
Ni	62	72	1	NO GAS	49.748	ug/l	29621.02
Cu	63	72	1	NO GAS	49.114	ug/l	472952.62
Cu	63	72	3	He	50.794	ug/l	177636.39
Cu	65	72	1	NO GAS	49.036	ug/l	234277.72
Zn	66	72	1	NO GAS	47.176	ug/l	150130.44
Zn	66	72	3	He	50.729	ug/l	26229.53
As	75	72	1	NO GAS	48.049	ug/l	168963.93
As	75	72	3	He	50.589	ug/l	16986.23
Se	78	72	2	H2	53.153	ug/l	5926.55
Br	79	72	1	NO GAS	0.127	ug/l	74836.97
Br	79	72	2	H2	0.752	ug/l	11321.58
Se	82	72	1	NO GAS	50.054	ug/l	14717.73
Kr	84	72	1	NO GAS		ug/l	19379.65
Sr	88	72	1	NO GAS	49.630	ug/l	1954347.15
Sr	88	72	3	He	51.090	ug/l	84792.50

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.877	ug/l	412558.08
Mo	95	72	3	He	51.069	ug/l	139640.11
Mo	98	72	1	NO GAS	48.087	ug/l	694151.92
Ag	107	72	1	NO GAS	19.906	ug/l	477651.92
Ag	109	72	1	NO GAS	19.923	ug/l	470739.59
Cd	111	159	1	NO GAS	49.145	ug/l	280674.73
Cd	111	159	3	He	50.027	ug/l	72275.05
Cd	114	159	1	NO GAS	48.854	ug/l	647450.58
Cd	114	159	3	He	49.908	ug/l	187819.63
Sn	118	159	1	NO GAS	47.909	ug/l	841121.18
Sn	118	159	3	He	47.208	ug/l	131773.09
Sb	121	159	1	NO GAS	47.520	ug/l	1142173.84
Sb	121	159	3	He	48.569	ug/l	172407.93
Sb	123	159	1	NO GAS	47.248	ug/l	901288.39
Sb	123	159	3	He	48.485	ug/l	140451.43
Ba	135	159	1	NO GAS	49.749	ug/l	254650.75
Ba	137	159	1	NO GAS	47.998	ug/l	426337.66
La	139	175	1	NO GAS	49.300	ug/l	4011464.50
La	139	175	3	He	48.641	ug/l	911701.81
Ce	140	175	1	NO GAS	48.483	ug/l	3914568.10
Ce	140	175	3	He	48.435	ug/l	1151630.04
Hg	201	175	1	NO GAS	1.010	ug/l	4089.07
Hg	202	175	1	NO GAS	0.988	ug/l	9228.63
Hg	202	175	3	He	1.018	ug/l	6710.48
Tl	203	175	3	He	50.978	ug/l	698221.12
Tl	205	175	1	NO GAS	49.620	ug/l	3175401.38
Tl	205	175	3	He	51.899	ug/l	1743339.40
[Pb]	206	175	1	NO GAS	48.979	ug/l	1056305.08
[Pb]	207	175	1	NO GAS	48.462	ug/l	906009.11
Pb	208	175	1	NO GAS	49.469	ug/l	4232101.83
Th	232	175	3	He	51.787	ug/l	2537167.25
U	238	175	1	NO GAS	48.788	ug/l	4801283.96

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2018978.14	97.0
Sc	45	2	H2	93289.84	102.7
Sc	45	3	He	58211.24	106.0
Ge	72	1	NO GAS	930154.06	103.8
Ge	72	2	H2	133296.79	103.0
Ge	72	3	He	90545.24	107.4
Tb	159	1	NO GAS	18718159.37	93.0
Tb	159	3	He	7348364.67	100.0
Ho	165	1	NO GAS	17528716.23	93.4
Ho	165	3	He	7068048.69	97.6
Lu	175	1	NO GAS	19390700.02	96.9
Lu	175	3	He	4305685.59	97.6

ICPMS206-B Analytical Data

Sample Name 100 PPB STD
File Name 108CAL5.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:16:05
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020B-CAL
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1069.724	ug/l	708297.94
Be	9	45	1	NO GAS	100.407	ug/l	31458.50
B	11	45	1	NO GAS	101.103	ug/l	23178.18
Na	23	45	3	He	24625.576	ug/l	2703618.45
Mg	24	45	3	He	24392.602	ug/l	1392240.20
Al	27	45	1	NO GAS	100.570	ug/l	338126.04
Si	28	45	2	H2	410.386	ug/l	9422.06
K	39	72	3	He	24090.864	ug/l	1284170.05
Ca	40	72	2	H2	23773.835	ug/l	5826619.59
Ti	47	72	1	NO GAS	101.689	ug/l	94351.53
V	51	72	1	NO GAS	101.858	ug/l	1488476.59
V	51	72	3	He	100.349	ug/l	155816.61
Cr	52	72	1	NO GAS	101.614	ug/l	1367085.54
Cr	52	72	3	He	100.082	ug/l	205590.81
Cr	53	72	1	NO GAS	104.789	ug/l	244939.56
Mn	55	72	1	NO GAS	101.420	ug/l	2064639.16
Mn	55	72	3	He	100.189	ug/l	100404.51
Fe	56	72	2	H2	2339.198	ug/l	3286681.57
Fe	56	72	3	He	2602.129	ug/l	4863962.43
Co	59	72	1	NO GAS	101.460	ug/l	1788066.89
Ni	60	72	1	NO GAS	101.071	ug/l	387110.97
Ni	60	72	3	He	99.739	ug/l	126701.32
Ni	62	72	1	NO GAS	100.188	ug/l	59931.52
Cu	63	72	1	NO GAS	100.452	ug/l	978151.50
Cu	63	72	3	He	99.539	ug/l	378642.99
Cu	65	72	1	NO GAS	100.512	ug/l	485668.11
Zn	66	72	1	NO GAS	101.447	ug/l	326276.73
Zn	66	72	3	He	99.661	ug/l	55983.23
As	75	72	1	NO GAS	101.085	ug/l	355288.36
As	75	72	3	He	99.689	ug/l	36420.55
Se	78	72	2	H2	98.267	ug/l	12662.30
Br	79	72	1	NO GAS	0.823	ug/l	80491.66
Br	79	72	2	H2	0.322	ug/l	12609.93
Se	82	72	1	NO GAS	99.979	ug/l	29537.88
Kr	84	72	1	NO GAS		ug/l	31794.13
Sr	88	72	1	NO GAS	100.180	ug/l	3989793.74
Sr	88	72	3	He	99.438	ug/l	179440.16

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	100.577	ug/l	858672.43
Mo	95	72	3	He	99.406	ug/l	295772.33
Mo	98	72	1	NO GAS	100.985	ug/l	1474337.75
Ag	107	72	1	NO GAS	40.039	ug/l	969950.18
Ag	109	72	1	NO GAS	40.038	ug/l	954983.26
Cd	111	159	1	NO GAS	100.489	ug/l	569214.46
Cd	111	159	3	He	100.022	ug/l	145066.31
Cd	114	159	1	NO GAS	100.638	ug/l	1323356.05
Cd	114	159	3	He	100.080	ug/l	378370.17
Sn	118	159	1	NO GAS	101.354	ug/l	1718635.56
Sn	118	159	3	He	101.680	ug/l	276872.66
Sb	121	159	1	NO GAS	101.340	ug/l	2416370.33
Sb	121	159	3	He	100.763	ug/l	359124.80
Sb	123	159	1	NO GAS	101.478	ug/l	1920387.42
Sb	123	159	3	He	100.802	ug/l	293168.93
Ba	135	159	1	NO GAS	100.199	ug/l	509026.77
Ba	137	159	1	NO GAS	101.046	ug/l	890055.94
La	139	175	1	NO GAS	100.393	ug/l	8070390.16
La	139	175	3	He	100.698	ug/l	1946132.31
Ce	140	175	1	NO GAS	100.828	ug/l	8038615.00
Ce	140	175	3	He	100.780	ug/l	2469618.78
Hg	201	175	1	NO GAS	1.996	ug/l	7964.16
Hg	202	175	1	NO GAS	2.007	ug/l	18447.48
Hg	202	175	3	He	1.990	ug/l	13486.27
Tl	203	175	3	He	99.488	ug/l	1404723.43
Tl	205	175	1	NO GAS	100.261	ug/l	6340544.08
Tl	205	175	3	He	99.029	ug/l	3427826.15
[Pb]	206	175	1	NO GAS	100.546	ug/l	2141764.50
[Pb]	207	175	1	NO GAS	100.832	ug/l	1863639.03
Pb	208	175	1	NO GAS	100.307	ug/l	8488818.40
Th	232	175	3	He	99.117	ug/l	5008271.64
U	238	175	1	NO GAS	100.682	ug/l	9795766.44

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2251194.05	108.1
Sc	45	2	H2	116064.13	127.8
Sc	45	3	He	66213.54	120.6
Ge	72	1	NO GAS	940583.84	105.0
Ge	72	2	H2	154064.69	119.0
Ge	72	3	He	98609.76	117.0
Tb	159	1	NO GAS	18584674.43	92.4
Tb	159	3	He	7379678.58	100.4
Ho	165	1	NO GAS	17290564.54	92.1
Ho	165	3	He	7338443.86	101.3
Lu	175	1	NO GAS	19210667.91	96.0
Lu	175	3	He	4440233.78	100.7

ICPMS206-B Analytical Data

Sample Name 100 ppb Bromine
File Name 110CAL.S.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:27:26
Sample Type CalStd
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.463	ug/l	4239.01
Be	9	45	1	NO GAS	0.193	ug/l	71.99
B	11	45	1	NO GAS	5.777	ug/l	1875.74
Na	23	45	3	He	39.462	ug/l	15940.74
Mg	24	45	3	He	5.205	ug/l	395.89
Al	27	45	1	NO GAS	9.077	ug/l	35467.70
Si	28	45	2	H2	-65.415	ug/l	168.64
K	39	72	3	He	540.856	ug/l	32726.87
Ca	40	72	2	H2	8.611	ug/l	2975.47
Ti	47	72	1	NO GAS	0.089	ug/l	134.93
V	51	72	1	NO GAS	1.758	ug/l	1515.63
V	51	72	3	He	0.020	ug/l	411.12
Cr	52	72	1	NO GAS	-0.038	ug/l	16881.69
Cr	52	72	3	He	0.145	ug/l	462.43
Cr	53	72	1	NO GAS	-55.818	ug/l	80133.17
Mn	55	72	1	NO GAS	0.119	ug/l	3899.42
Mn	55	72	3	He	0.120	ug/l	133.68
Fe	56	72	2	H2	1.235	ug/l	2239.06
Fe	56	72	3	He	1.153	ug/l	2848.85
Co	59	72	1	NO GAS	0.111	ug/l	2219.10
Ni	60	72	1	NO GAS	0.182	ug/l	785.13
Ni	60	72	3	He	0.213	ug/l	314.45
Ni	62	72	1	NO GAS	0.245	ug/l	615.46
Cu	63	72	1	NO GAS	0.203	ug/l	2719.02
Cu	63	72	3	He	0.196	ug/l	978.17
Cu	65	72	1	NO GAS	0.195	ug/l	1307.80
Zn	66	72	1	NO GAS	0.611	ug/l	2541.64
Zn	66	72	3	He	0.613	ug/l	420.01
As	75	72	1	NO GAS	0.809	ug/l	7270.37
As	75	72	3	He	0.143	ug/l	60.99
Se	78	72	2	H2	0.209	ug/l	33.32
Br	79	72	1	NO GAS	100.000	ug/l	840232.42
Br	79	72	2	H2	100.000	ug/l	136619.15
Se	82	72	1	NO GAS	4.274	ug/l	1584.40
Kr	84	72	1	NO GAS		ug/l	8848.23
Sr	88	72	1	NO GAS	0.099	ug/l	4784.60
Sr	88	72	3	He	0.113	ug/l	474.46

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.018	ug/l	268.89
Mo	95	72	3	He	0.015	ug/l	93.33
Mo	98	72	1	NO GAS	0.011	ug/l	353.21
Ag	107	72	1	NO GAS	1.533	ug/l	42967.48
Ag	109	72	1	NO GAS	1.581	ug/l	43517.05
Cd	111	159	1	NO GAS	0.105	ug/l	649.79
Cd	111	159	3	He	0.099	ug/l	154.64
Cd	114	159	1	NO GAS	0.106	ug/l	1280.03
Cd	114	159	3	He	0.107	ug/l	399.85
Sn	118	159	1	NO GAS	-2.186	ug/l	6824.69
Sn	118	159	3	He	-2.296	ug/l	1064.49
Sb	121	159	1	NO GAS	0.021	ug/l	1098.94
Sb	121	159	3	He	0.021	ug/l	157.78
Sb	123	159	1	NO GAS	0.022	ug/l	885.59
Sb	123	159	3	He	0.030	ug/l	143.34
Ba	135	159	1	NO GAS	0.144	ug/l	805.10
Ba	137	159	1	NO GAS	0.138	ug/l	1334.09
La	139	175	1	NO GAS	0.002	ug/l	236.91
La	139	175	3	He	0.001	ug/l	36.70
Ce	140	175	1	NO GAS	0.003	ug/l	320.33
Ce	140	175	3	He	0.004	ug/l	113.45
Hg	201	175	1	NO GAS	0.004	ug/l	39.32
Hg	202	175	1	NO GAS	0.004	ug/l	122.64
Hg	202	175	3	He	0.004	ug/l	68.65
Tl	203	175	3	He	0.363	ug/l	5726.63
Tl	205	175	1	NO GAS	0.330	ug/l	24181.68
Tl	205	175	3	He	0.359	ug/l	13940.34
[Pb]	206	175	1	NO GAS	0.119	ug/l	2783.62
[Pb]	207	175	1	NO GAS	0.114	ug/l	2316.86
Pb	208	175	1	NO GAS	0.117	ug/l	10904.98
Th	232	175	3	He	0.296	ug/l	16954.97
U	238	175	1	NO GAS	0.126	ug/l	13355.01

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2572099.57	123.6
Sc	45	2	H2	123889.40	136.4
Sc	45	3	He	68062.89	123.9
Ge	72	1	NO GAS	1035774.36	115.6
Ge	72	2	H2	165543.65	127.9
Ge	72	3	He	100629.48	119.4
Tb	159	1	NO GAS	19790598.44	98.3
Tb	159	3	He	7802654.00	106.2
Ho	165	1	NO GAS	18498642.37	98.5
Ho	165	3	He	7530503.57	104.0
Lu	175	1	NO GAS	20575906.01	102.8
Lu	175	3	He	4609688.43	104.5

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 111BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:33:14
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.780	ug/l	3103.67
Be	9	45	1	NO GAS	0.057	ug/l	24.00
B	11	45	1	NO GAS	1.265	ug/l	716.54
Na	23	45	3	He	127.207	ug/l	25494.39
Mg	24	45	3	He	1.046	ug/l	149.70
Al	27	45	1	NO GAS	1.119	ug/l	4964.09
Si	28	45	2	H2	-8.004	ug/l	1025.91
K	39	72	3	He	6.398	ug/l	3657.09
Ca	40	72	2	H2	2.406	ug/l	1229.44
Ti	47	72	1	NO GAS	0.006	ug/l	49.97
V	51	72	1	NO GAS	1.399	ug/l	-4482.46
V	51	72	3	He	-0.079	ug/l	250.00
Cr	52	72	1	NO GAS	-0.187	ug/l	14910.39
Cr	52	72	3	He	0.011	ug/l	179.65
Cr	53	72	1	NO GAS	-58.478	ug/l	78340.31
Mn	55	72	1	NO GAS	0.007	ug/l	1413.94
Mn	55	72	3	He	0.018	ug/l	29.33
Fe	56	72	2	H2	0.358	ug/l	847.95
Fe	56	72	3	He	0.301	ug/l	1206.12
Co	59	72	1	NO GAS	0.013	ug/l	342.66
Ni	60	72	1	NO GAS	0.030	ug/l	143.05
Ni	60	72	3	He	0.000	ug/l	37.78
Ni	62	72	1	NO GAS	0.168	ug/l	578.87
Cu	63	72	1	NO GAS	0.023	ug/l	809.86
Cu	63	72	3	He	0.017	ug/l	279.61
Cu	65	72	1	NO GAS	0.014	ug/l	359.93
Zn	66	72	1	NO GAS	0.033	ug/l	505.49
Zn	66	72	3	He	0.048	ug/l	94.45
As	75	72	1	NO GAS	0.241	ug/l	5157.28
As	75	72	3	He	0.020	ug/l	14.67
Se	78	72	2	H2	0.055	ug/l	11.33
Br	79	72	1	NO GAS	-1.595	ug/l	71505.24
Br	79	72	2	H2	-0.253	ug/l	11814.23
Se	82	72	1	NO GAS	1.192	ug/l	606.85
Kr	84	72	1	NO GAS		ug/l	9114.50
Sr	88	72	1	NO GAS	0.015	ug/l	1127.82
Sr	88	72	3	He	0.020	ug/l	298.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.007	ug/l	174.45
Mo	95	72	3	He	0.003	ug/l	55.56
Mo	98	72	1	NO GAS	0.004	ug/l	251.40
Ag	107	72	1	NO GAS	0.107	ug/l	5074.47
Ag	109	72	1	NO GAS	0.170	ug/l	6559.23
Cd	111	159	1	NO GAS	0.004	ug/l	35.21
Cd	111	159	3	He	0.020	ug/l	33.33
Cd	114	159	1	NO GAS	0.013	ug/l	-41.94
Cd	114	159	3	He	0.021	ug/l	55.84
Sn	118	159	1	NO GAS	-2.326	ug/l	4421.90
Sn	118	159	3	He	-2.424	ug/l	696.69
Sb	121	159	1	NO GAS	0.000	ug/l	570.02
Sb	121	159	3	He	0.013	ug/l	125.56
Sb	123	159	1	NO GAS	-0.002	ug/l	408.90
Sb	123	159	3	He	-0.001	ug/l	47.78
Ba	135	159	1	NO GAS	0.033	ug/l	192.96
Ba	137	159	1	NO GAS	0.040	ug/l	422.50
La	139	175	1	NO GAS	0.002	ug/l	210.22
La	139	175	3	He	0.004	ug/l	86.75
Ce	140	175	1	NO GAS	0.003	ug/l	290.30
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.001	ug/l	28.33
Hg	202	175	1	NO GAS	0.001	ug/l	86.98
Hg	202	175	3	He	0.001	ug/l	47.32
Tl	203	175	3	He	0.210	ug/l	3576.39
Tl	205	175	1	NO GAS	0.212	ug/l	16106.49
Tl	205	175	3	He	0.209	ug/l	8780.15
[Pb]	206	175	1	NO GAS	0.011	ug/l	323.34
[Pb]	207	175	1	NO GAS	0.014	ug/l	330.01
Pb	208	175	1	NO GAS	0.013	ug/l	1426.71
Th	232	175	3	He	0.053	ug/l	4337.79
U	238	175	1	NO GAS	0.016	ug/l	1807.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2632555.81	126.5
Sc	45	2	H2	110032.54	121.2
Sc	45	3	He	67294.14	122.5
Ge	72	1	NO GAS	1064867.36	118.9
Ge	72	2	H2	155009.15	119.7
Ge	72	3	He	99063.30	117.5
Tb	159	1	NO GAS	20303508.63	100.9
Tb	159	3	He	7679126.72	104.5
Ho	165	1	NO GAS	19085175.54	101.7
Ho	165	3	He	7505515.36	103.6
Lu	175	1	NO GAS	20814109.21	104.0
Lu	175	3	He	4738398.34	107.4

ICPMS206-B Analytical Data

Sample Name QCS
File Name 112_QCS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:38:59
Sample Type QCS
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	44.876	ug/l	33828.49
Be	9	45	1	NO GAS	25.036	ug/l	8502.37
B	11	45	1	NO GAS	50.564	ug/l	12717.48
Na	23	45	3	He	2488.573	ug/l	285113.46
Mg	24	45	3	He	2403.282	ug/l	138196.50
Al	27	45	1	NO GAS	254.127	ug/l	923837.76
Si	28	45	2	H2	565.019	ug/l	12573.46
K	39	72	3	He	2413.248	ug/l	133177.19
Ca	40	72	2	H2	2600.611	ug/l	671005.70
Ti	47	72	1	NO GAS	48.506	ug/l	49863.16
V	51	72	1	NO GAS	50.084	ug/l	796782.13
V	51	72	3	He	50.671	ug/l	79800.15
Cr	52	72	1	NO GAS	49.480	ug/l	746232.65
Cr	52	72	3	He	51.481	ug/l	107071.89
Cr	53	72	1	NO GAS	19.689	ug/l	170213.74
Mn	55	72	1	NO GAS	254.141	ug/l	5727784.47
Mn	55	72	3	He	256.660	ug/l	260203.94
Fe	56	72	2	H2	245.295	ug/l	363050.92
Fe	56	72	3	He	256.003	ug/l	484527.48
Co	59	72	1	NO GAS	49.816	ug/l	972308.15
Ni	60	72	1	NO GAS	50.488	ug/l	214193.26
Ni	60	72	3	He	52.862	ug/l	67924.51
Ni	62	72	1	NO GAS	49.565	ug/l	33073.96
Cu	63	72	1	NO GAS	52.021	ug/l	561284.35
Cu	63	72	3	He	54.517	ug/l	209874.73
Cu	65	72	1	NO GAS	52.024	ug/l	278544.78
Zn	66	72	1	NO GAS	50.778	ug/l	181075.90
Zn	66	72	3	He	53.685	ug/l	30544.51
As	75	72	1	NO GAS	49.178	ug/l	193596.60
As	75	72	3	He	50.897	ug/l	18814.48
Se	78	72	2	H2	52.951	ug/l	7177.46
Br	79	72	1	NO GAS	0.610	ug/l	87500.35
Br	79	72	2	H2	1.703	ug/l	14930.52
Se	82	72	1	NO GAS	50.284	ug/l	16555.81
Kr	84	72	1	NO GAS		ug/l	21921.08
Sr	88	72	1	NO GAS	48.634	ug/l	2145212.26
Sr	88	72	3	He	52.024	ug/l	95062.66

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.025	ug/l	454175.95
Mo	95	72	3	He	50.785	ug/l	152871.30
Mo	98	72	1	NO GAS	47.094	ug/l	761590.13
Ag	107	72	1	NO GAS	25.237	ug/l	677918.64
Ag	109	72	1	NO GAS	24.919	ug/l	659049.83
Cd	111	159	1	NO GAS	26.010	ug/l	157019.20
Cd	111	159	3	He	27.052	ug/l	40201.73
Cd	114	159	1	NO GAS	26.157	ug/l	366166.13
Cd	114	159	3	He	26.187	ug/l	101396.30
Sn	118	159	1	NO GAS	49.424	ug/l	915152.92
Sn	118	159	3	He	50.581	ug/l	144776.60
Sb	121	159	1	NO GAS	50.260	ug/l	1276162.84
Sb	121	159	3	He	51.913	ug/l	189580.05
Sb	123	159	1	NO GAS	49.678	ug/l	1001416.52
Sb	123	159	3	He	52.102	ug/l	155241.09
Ba	135	159	1	NO GAS	51.256	ug/l	277148.08
Ba	137	159	1	NO GAS	50.369	ug/l	472676.67
La	139	175	1	NO GAS	50.909	ug/l	4392384.16
La	139	175	3	He	51.030	ug/l	989039.05
Ce	140	175	1	NO GAS	50.780	ug/l	4347966.56
Ce	140	175	3	He	52.273	ug/l	1284758.44
Hg	201	175	1	NO GAS	0.979	ug/l	4203.41
Hg	202	175	1	NO GAS	0.984	ug/l	9750.18
Hg	202	175	3	He	1.010	ug/l	6882.52
Tl	203	175	3	He	53.628	ug/l	759413.72
Tl	205	175	1	NO GAS	48.992	ug/l	3322779.60
Tl	205	175	3	He	53.218	ug/l	1848238.62
[Pb]	206	175	1	NO GAS	50.509	ug/l	1154374.93
[Pb]	207	175	1	NO GAS	49.509	ug/l	981528.28
Pb	208	175	1	NO GAS	50.763	ug/l	4605994.16
Th	232	175	3	He	53.131	ug/l	2692214.78
U	238	175	1	NO GAS	52.163	ug/l	5447031.62

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2436849.72	117.1
Sc	45	2	H2	117413.38	129.3
Sc	45	3	He	66624.28	121.3
Ge	72	1	NO GAS	1041647.99	116.3
Ge	72	2	H2	162091.94	125.2
Ge	72	3	He	99674.38	118.2
Tb	159	1	NO GAS	19775924.81	98.3
Tb	159	3	He	7556990.16	102.9
Ho	165	1	NO GAS	18262726.46	97.3
Ho	165	3	He	7345086.49	101.4
Lu	175	1	NO GAS	20546087.86	102.7
Lu	175	3	He	4453170.20	101.0

ICPMS206-B Analytical Data

Sample Name ICSA
File Name 113ICSA.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:44:41
Sample Type ICSA
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.180	ug/l	2365.70
Be	9	45	1	NO GAS	0.017	ug/l	7.67
B	11	45	1	NO GAS	0.605	ug/l	481.25
Na	23	45	3	He	96156.145	ug/l	8525205.22
Mg	24	45	3	He	38617.401	ug/l	1785609.91
Al	27	45	1	NO GAS	36345.365	ug/l	125167278.14
Si	28	45	2	H2	-66.447	ug/l	108.65
K	39	72	3	He	35298.623	ug/l	1652284.21
Ca	40	72	2	H2	106618.250	ug/l	23498382.85
Ti	47	72	1	NO GAS	788.404	ug/l	750123.51
V	51	72	1	NO GAS	1.080	ug/l	-8868.45
V	51	72	3	He	-0.162	ug/l	105.56
Cr	52	72	1	NO GAS	0.653	ug/l	25159.05
Cr	52	72	3	He	0.871	ug/l	1706.72
Cr	53	72	1	NO GAS	-79.782	ug/l	48291.26
Mn	55	72	1	NO GAS	0.181	ug/l	4924.35
Mn	55	72	3	He	0.198	ug/l	184.02
Fe	56	72	2	H2	90797.874	ug/l	114607886.92
Fe	56	72	3	He	94804.754	ug/l	155645931.66
Co	59	72	1	NO GAS	0.353	ug/l	6445.15
Ni	60	72	1	NO GAS	1.355	ug/l	5343.65
Ni	60	72	3	He	0.170	ug/l	223.34
Ni	62	72	1	NO GAS	3.012	ug/l	2259.02
Cu	63	72	1	NO GAS	1.438	ug/l	14861.63
Cu	63	72	3	He	0.023	ug/l	266.95
Cu	65	72	1	NO GAS	0.491	ug/l	2685.02
Zn	66	72	1	NO GAS	0.757	ug/l	2844.97
Zn	66	72	3	He	0.454	ug/l	283.34
As	75	72	1	NO GAS	-0.033	ug/l	3787.74
As	75	72	3	He	0.069	ug/l	28.66
Se	78	72	2	H2	0.139	ug/l	19.67
Br	79	72	1	NO GAS	0.396	ug/l	79548.22
Br	79	72	2	H2	0.644	ug/l	11667.75
Se	82	72	1	NO GAS	1.174	ug/l	546.30
Kr	84	72	1	NO GAS		ug/l	8751.72
Sr	88	72	1	NO GAS	1.214	ug/l	50023.28
Sr	88	72	3	He	1.309	ug/l	2300.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	771.166	ug/l	6754848.79
Mo	95	72	3	He	821.142	ug/l	2145745.84
Mo	98	72	1	NO GAS	768.894	ug/l	11515789.28
Ag	107	72	1	NO GAS	0.023	ug/l	2563.70
Ag	109	72	1	NO GAS	0.058	ug/l	3290.79
Cd	111	159	1	NO GAS	0.030	ug/l	190.74
Cd	111	159	3	He	0.198	ug/l	274.62
Cd	114	159	1	NO GAS	0.081	ug/l	918.41
Cd	114	159	3	He	0.153	ug/l	521.53
Sn	118	159	1	NO GAS	-2.146	ug/l	7420.40
Sn	118	159	3	He	-2.207	ug/l	1174.50
Sb	121	159	1	NO GAS	0.055	ug/l	1921.25
Sb	121	159	3	He	0.038	ug/l	198.89
Sb	123	159	1	NO GAS	0.050	ug/l	1433.41
Sb	123	159	3	He	0.058	ug/l	206.67
Ba	135	159	1	NO GAS	0.058	ug/l	332.68
Ba	137	159	1	NO GAS	0.070	ug/l	691.98
La	139	175	1	NO GAS	0.010	ug/l	897.62
La	139	175	3	He	0.010	ug/l	200.21
Ce	140	175	1	NO GAS	0.003	ug/l	323.67
Ce	140	175	3	He	0.005	ug/l	123.46
Hg	201	175	1	NO GAS	0.006	ug/l	45.32
Hg	202	175	1	NO GAS	0.005	ug/l	125.65
Hg	202	175	3	He	0.004	ug/l	64.66
Tl	203	175	3	He	0.177	ug/l	2809.71
Tl	205	175	1	NO GAS	0.160	ug/l	12370.68
Tl	205	175	3	He	0.174	ug/l	6839.54
[Pb]	206	175	1	NO GAS	0.019	ug/l	490.01
[Pb]	207	175	1	NO GAS	0.018	ug/l	414.46
Pb	208	175	1	NO GAS	0.019	ug/l	1963.41
Th	232	175	3	He	0.157	ug/l	9044.96
U	238	175	1	NO GAS	0.006	ug/l	830.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2306357.16	110.8
Sc	45	2	H2	90397.68	99.5
Sc	45	3	He	53622.41	97.6
Ge	72	1	NO GAS	964924.16	107.7
Ge	72	2	H2	138496.87	107.0
Ge	72	3	He	86551.29	102.7
Tb	159	1	NO GAS	19488014.41	96.8
Tb	159	3	He	6967589.06	94.8
Ho	165	1	NO GAS	18458253.85	98.3
Ho	165	3	He	6850327.12	94.6
Lu	175	1	NO GAS	20187537.24	100.9
Lu	175	3	He	4314301.60	97.8

ICPMS206-B Analytical Data

Sample Name ICSAB
File Name 114ICSB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:50:25
Sample Type ICSB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.591	ug/l	1993.73
Be	9	45	1	NO GAS	0.022	ug/l	8.00
B	11	45	1	NO GAS	-0.295	ug/l	237.29
Na	23	45	3	He	92370.567	ug/l	7328518.71
Mg	24	45	3	He	35999.423	ug/l	1489694.49
Al	27	45	1	NO GAS	34292.967	ug/l	102820764.03
Si	28	45	2	H2	-65.945	ug/l	92.65
K	39	72	3	He	32991.151	ug/l	1417966.26
Ca	40	72	2	H2	96843.091	ug/l	18546511.03
Ti	47	72	1	NO GAS	726.812	ug/l	648337.60
V	51	72	1	NO GAS	18.311	ug/l	237950.69
V	51	72	3	He	18.545	ug/l	23477.45
Cr	52	72	1	NO GAS	18.479	ug/l	251716.59
Cr	52	72	3	He	20.194	ug/l	33566.76
Cr	53	72	1	NO GAS	-57.552	ug/l	68246.55
Mn	55	72	1	NO GAS	18.438	ug/l	361940.12
Mn	55	72	3	He	19.144	ug/l	15484.93
Fe	56	72	2	H2	86805.917	ug/l	95215723.67
Fe	56	72	3	He	96300.033	ug/l	145176515.84
Co	59	72	1	NO GAS	18.925	ug/l	320813.22
Ni	60	72	1	NO GAS	19.620	ug/l	72294.96
Ni	60	72	3	He	19.861	ug/l	20371.25
Ni	62	72	1	NO GAS	21.397	ug/l	12633.16
Cu	63	72	1	NO GAS	19.978	ug/l	187554.87
Cu	63	72	3	He	19.511	ug/l	60007.26
Cu	65	72	1	NO GAS	18.966	ug/l	88347.64
Zn	66	72	1	NO GAS	9.807	ug/l	30643.96
Zn	66	72	3	He	10.107	ug/l	4630.67
As	75	72	1	NO GAS	9.844	ug/l	36592.89
As	75	72	3	He	10.422	ug/l	3076.67
Se	78	72	2	H2	10.980	ug/l	1108.15
Br	79	72	1	NO GAS	0.891	ug/l	77876.88
Br	79	72	2	H2	2.132	ug/l	11487.95
Se	82	72	1	NO GAS	10.788	ug/l	3230.82
Kr	84	72	1	NO GAS		ug/l	8581.93
Sr	88	72	1	NO GAS	1.226	ug/l	47364.08
Sr	88	72	3	He	1.322	ug/l	2131.27

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	795.754	ug/l	6535239.69
Mo	95	72	3	He	868.529	ug/l	2084264.62
Mo	98	72	1	NO GAS	791.217	ug/l	11114305.05
Ag	107	72	1	NO GAS	4.910	ug/l	116051.60
Ag	109	72	1	NO GAS	4.843	ug/l	112681.05
Cd	111	159	1	NO GAS	9.217	ug/l	53893.65
Cd	111	159	3	He	9.732	ug/l	12844.55
Cd	114	159	1	NO GAS	9.263	ug/l	125467.00
Cd	114	159	3	He	9.569	ug/l	32888.15
Sn	118	159	1	NO GAS	-2.154	ug/l	7147.48
Sn	118	159	3	He	-2.206	ug/l	1133.38
Sb	121	159	1	NO GAS	0.013	ug/l	863.36
Sb	121	159	3	He	0.020	ug/l	133.34
Sb	123	159	1	NO GAS	0.016	ug/l	741.14
Sb	123	159	3	He	0.030	ug/l	124.45
Ba	135	159	1	NO GAS	0.068	ug/l	379.26
Ba	137	159	1	NO GAS	0.069	ug/l	665.37
La	139	175	1	NO GAS	0.009	ug/l	774.14
La	139	175	3	He	0.009	ug/l	170.18
Ce	140	175	1	NO GAS	0.003	ug/l	300.31
Ce	140	175	3	He	0.004	ug/l	110.11
Hg	201	175	1	NO GAS	0.001	ug/l	26.99
Hg	202	175	1	NO GAS	0.002	ug/l	97.65
Hg	202	175	3	He	0.003	ug/l	51.66
Tl	203	175	3	He	0.143	ug/l	2235.73
Tl	205	175	1	NO GAS	0.141	ug/l	10848.40
Tl	205	175	3	He	0.138	ug/l	5346.57
[Pb]	206	175	1	NO GAS	0.019	ug/l	474.46
[Pb]	207	175	1	NO GAS	0.019	ug/l	410.01
Pb	208	175	1	NO GAS	0.019	ug/l	1886.73
Th	232	175	3	He	0.086	ug/l	5312.58
U	238	175	1	NO GAS	0.002	ug/l	385.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2008179.97	96.5
Sc	45	2	H2	72539.00	79.9
Sc	45	3	He	47980.30	87.4
Ge	72	1	NO GAS	905190.47	101.0
Ge	72	2	H2	120344.68	92.9
Ge	72	3	He	79484.66	94.3
Tb	159	1	NO GAS	19147312.26	95.2
Tb	159	3	He	6711538.33	91.4
Ho	165	1	NO GAS	17747591.55	94.5
Ho	165	3	He	6647417.24	91.8
Lu	175	1	NO GAS	19685215.77	98.4
Lu	175	3	He	4107604.26	93.1

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 115BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 05:56:09
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.826	ug/l	2007.72
Be	9	45	1	NO GAS	0.062	ug/l	19.67
B	11	45	1	NO GAS	-0.305	ug/l	241.29
Na	23	45	3	He	28.610	ug/l	11563.92
Mg	24	45	3	He	4.160	ug/l	262.82
Al	27	45	1	NO GAS	0.805	ug/l	3019.17
Si	28	45	2	H2	-64.750	ug/l	126.64
K	39	72	3	He	8.039	ug/l	3270.89
Ca	40	72	2	H2	7.477	ug/l	2165.75
Ti	47	72	1	NO GAS	0.059	ug/l	98.29
V	51	72	1	NO GAS	0.853	ug/l	-12449.38
V	51	72	3	He	-0.090	ug/l	203.34
Cr	52	72	1	NO GAS	-0.567	ug/l	8591.90
Cr	52	72	3	He	0.060	ug/l	246.18
Cr	53	72	1	NO GAS	-90.580	ug/l	36781.57
Mn	55	72	1	NO GAS	0.068	ug/l	2598.40
Mn	55	72	3	He	0.080	ug/l	79.68
Fe	56	72	2	H2	2.587	ug/l	3455.34
Fe	56	72	3	He	2.880	ug/l	5293.24
Co	59	72	1	NO GAS	0.052	ug/l	1011.36
Ni	60	72	1	NO GAS	0.067	ug/l	286.10
Ni	60	72	3	He	0.044	ug/l	82.22
Ni	62	72	1	NO GAS	0.091	ug/l	482.39
Cu	63	72	1	NO GAS	0.061	ug/l	1121.82
Cu	63	72	3	He	0.059	ug/l	384.93
Cu	65	72	1	NO GAS	0.056	ug/l	537.90
Zn	66	72	1	NO GAS	0.025	ug/l	439.06
Zn	66	72	3	He	0.082	ug/l	100.00
As	75	72	1	NO GAS	-0.121	ug/l	3516.09
As	75	72	3	He	0.045	ug/l	21.00
Se	78	72	2	H2	0.079	ug/l	12.33
Br	79	72	1	NO GAS	-0.242	ug/l	75768.48
Br	79	72	2	H2	0.357	ug/l	10998.60
Se	82	72	1	NO GAS	1.548	ug/l	670.72
Kr	84	72	1	NO GAS		ug/l	8541.98
Sr	88	72	1	NO GAS	0.061	ug/l	2937.81
Sr	88	72	3	He	0.067	ug/l	336.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.103	ug/l	1008.93
Mo	95	72	3	He	0.121	ug/l	354.45
Mo	98	72	1	NO GAS	0.104	ug/l	1731.57
Ag	107	72	1	NO GAS	0.028	ug/l	2696.36
Ag	109	72	1	NO GAS	0.031	ug/l	2656.37
Cd	111	159	1	NO GAS	0.054	ug/l	360.21
Cd	111	159	3	He	0.068	ug/l	103.31
Cd	114	159	1	NO GAS	0.057	ug/l	627.79
Cd	114	159	3	He	0.067	ug/l	228.72
Sn	118	159	1	NO GAS	-2.373	ug/l	3749.71
Sn	118	159	3	He	-2.457	ug/l	588.90
Sb	121	159	1	NO GAS	0.004	ug/l	700.02
Sb	121	159	3	He	0.006	ug/l	97.78
Sb	123	159	1	NO GAS	0.011	ug/l	698.91
Sb	123	159	3	He	0.008	ug/l	74.44
Ba	135	159	1	NO GAS	0.063	ug/l	382.58
Ba	137	159	1	NO GAS	0.071	ug/l	748.54
La	139	175	1	NO GAS	0.010	ug/l	977.70
La	139	175	3	He	0.011	ug/l	220.23
Ce	140	175	1	NO GAS	0.011	ug/l	1057.79
Ce	140	175	3	He	0.011	ug/l	280.29
Hg	201	175	1	NO GAS	0.000	ug/l	22.67
Hg	202	175	1	NO GAS	0.001	ug/l	94.98
Hg	202	175	3	He	0.001	ug/l	45.99
Tl	203	175	3	He	0.169	ug/l	2751.05
Tl	205	175	1	NO GAS	0.167	ug/l	13531.71
Tl	205	175	3	He	0.178	ug/l	7093.59
[Pb]	206	175	1	NO GAS	0.056	ug/l	1393.41
[Pb]	207	175	1	NO GAS	0.055	ug/l	1187.84
Pb	208	175	1	NO GAS	0.058	ug/l	5694.94
Th	232	175	3	He	0.050	ug/l	3855.74
U	238	175	1	NO GAS	0.051	ug/l	5733.97

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2064322.18	99.2
Sc	45	2	H2	85648.32	94.3
Sc	45	3	He	53468.76	97.4
Ge	72	1	NO GAS	974543.58	108.8
Ge	72	2	H2	133775.58	103.3
Ge	72	3	He	86600.85	102.7
Tb	159	1	NO GAS	21053830.80	104.6
Tb	159	3	He	7496557.07	102.0
Ho	165	1	NO GAS	19418284.68	103.4
Ho	165	3	He	7207185.00	99.5
Lu	175	1	NO GAS	21337327.62	106.6
Lu	175	3	He	4404643.34	99.9

ICPMS206-B Analytical Data

Sample Name CCV
File Name 116_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:01:53
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	368.093	ug/l	267676.04
Be	9	45	1	NO GAS	41.028	ug/l	12192.79
B	11	45	1	NO GAS	40.326	ug/l	8946.55
Na	23	45	3	He	11791.071	ug/l	1074511.18
Mg	24	45	3	He	10898.707	ug/l	514214.72
Al	27	45	1	NO GAS	45.228	ug/l	144485.72
Si	28	45	2	H2	179.543	ug/l	3671.01
K	39	72	3	He	10640.166	ug/l	509929.67
Ca	40	72	2	H2	11070.885	ug/l	2350649.69
Ti	47	72	1	NO GAS	46.426	ug/l	44561.36
V	51	72	1	NO GAS	43.312	ug/l	638944.54
V	51	72	3	He	48.603	ug/l	67790.13
Cr	52	72	1	NO GAS	44.496	ug/l	628358.33
Cr	52	72	3	He	50.991	ug/l	93913.40
Cr	53	72	1	NO GAS	0.920	ug/l	138148.85
Mn	55	72	1	NO GAS	46.647	ug/l	982378.01
Mn	55	72	3	He	48.647	ug/l	43686.94
Fe	56	72	2	H2	1168.175	ug/l	1421163.57
Fe	56	72	3	He	1256.420	ug/l	2104040.61
Co	59	72	1	NO GAS	47.173	ug/l	859121.29
Ni	60	72	1	NO GAS	48.176	ug/l	190595.55
Ni	60	72	3	He	51.921	ug/l	59090.91
Ni	62	72	1	NO GAS	49.387	ug/l	30744.04
Cu	63	72	1	NO GAS	49.788	ug/l	501218.51
Cu	63	72	3	He	52.471	ug/l	178902.17
Cu	65	72	1	NO GAS	49.019	ug/l	244908.87
Zn	66	72	1	NO GAS	47.023	ug/l	156321.57
Zn	66	72	3	He	51.901	ug/l	26153.77
As	75	72	1	NO GAS	49.013	ug/l	180088.84
As	75	72	3	He	51.654	ug/l	16908.16
Se	78	72	2	H2	54.460	ug/l	6076.24
Br	79	72	1	NO GAS	0.943	ug/l	84011.42
Br	79	72	2	H2	1.187	ug/l	11780.91
Se	82	72	1	NO GAS	52.624	ug/l	16169.45
Kr	84	72	1	NO GAS		ug/l	21381.53
Sr	88	72	1	NO GAS	51.303	ug/l	2111947.75
Sr	88	72	3	He	52.297	ug/l	84631.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.254	ug/l	443335.22
Mo	95	72	3	He	52.617	ug/l	140267.89
Mo	98	72	1	NO GAS	49.219	ug/l	742624.08
Ag	107	72	1	NO GAS	20.381	ug/l	511164.56
Ag	109	72	1	NO GAS	20.120	ug/l	496773.73
Cd	111	159	1	NO GAS	48.689	ug/l	301104.44
Cd	111	159	3	He	49.586	ug/l	71966.90
Cd	114	159	1	NO GAS	48.231	ug/l	691884.16
Cd	114	159	3	He	48.958	ug/l	185211.91
Sn	118	159	1	NO GAS	46.993	ug/l	894225.65
Sn	118	159	3	He	48.149	ug/l	134933.59
Sb	121	159	1	NO GAS	47.471	ug/l	1234731.39
Sb	121	159	3	He	47.794	ug/l	170555.27
Sb	123	159	1	NO GAS	46.009	ug/l	949782.17
Sb	123	159	3	He	49.000	ug/l	142658.60
Ba	135	159	1	NO GAS	48.700	ug/l	269833.46
Ba	137	159	1	NO GAS	48.136	ug/l	462708.49
La	139	175	1	NO GAS	49.991	ug/l	4334458.21
La	139	175	3	He	49.303	ug/l	935999.84
Ce	140	175	1	NO GAS	49.569	ug/l	4267347.30
Ce	140	175	3	He	48.775	ug/l	1173988.03
Hg	201	175	1	NO GAS	0.989	ug/l	4271.75
Hg	202	175	1	NO GAS	0.957	ug/l	9527.75
Hg	202	175	3	He	1.007	ug/l	6721.15
Tl	203	175	3	He	50.799	ug/l	704519.78
Tl	205	175	1	NO GAS	47.953	ug/l	3269685.47
Tl	205	175	3	He	50.754	ug/l	1725656.23
[Pb]	206	175	1	NO GAS	47.938	ug/l	1101555.30
[Pb]	207	175	1	NO GAS	48.050	ug/l	957643.58
Pb	208	175	1	NO GAS	48.307	ug/l	4406656.74
Th	232	175	3	He	51.321	ug/l	2547425.12
U	238	175	1	NO GAS	47.864	ug/l	5020567.68

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2132670.39	102.4
Sc	45	2	H2	86511.79	95.3
Sc	45	3	He	54705.69	99.6
Ge	72	1	NO GAS	973025.35	108.6
Ge	72	2	H2	133401.70	103.0
Ge	72	3	He	88269.26	104.7
Tb	159	1	NO GAS	20253123.87	100.6
Tb	159	3	He	7384896.41	100.5
Ho	165	1	NO GAS	18864040.46	100.5
Ho	165	3	He	7037433.12	97.2
Lu	175	1	NO GAS	20665335.86	103.3
Lu	175	3	He	4360475.84	98.8

ICPMS206-B Analytical Data

Sample Name CCB
File Name 117_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:07:35
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.797	ug/l	1907.73
Be	9	45	1	NO GAS	0.026	ug/l	9.00
B	11	45	1	NO GAS	-0.106	ug/l	271.28
Na	23	45	3	He	-12.140	ug/l	7757.34
Mg	24	45	3	He	-0.571	ug/l	43.25
Al	27	45	1	NO GAS	0.173	ug/l	1040.04
Si	28	45	2	H2	-69.688	ug/l	52.66
K	39	72	3	He	1.241	ug/l	2876.93
Ca	40	72	2	H2	0.366	ug/l	626.37
Ti	47	72	1	NO GAS	0.005	ug/l	44.98
V	51	72	1	NO GAS	0.865	ug/l	-11798.26
V	51	72	3	He	-0.117	ug/l	163.33
Cr	52	72	1	NO GAS	-0.370	ug/l	10948.59
Cr	52	72	3	He	0.013	ug/l	156.36
Cr	53	72	1	NO GAS	-65.606	ug/l	62433.02
Mn	55	72	1	NO GAS	-0.006	ug/l	988.08
Mn	55	72	3	He	-0.002	ug/l	7.33
Fe	56	72	2	H2	0.889	ug/l	1347.74
Fe	56	72	3	He	0.843	ug/l	1894.18
Co	59	72	1	NO GAS	0.002	ug/l	103.13
Ni	60	72	1	NO GAS	0.012	ug/l	63.21
Ni	60	72	3	He	-0.018	ug/l	12.22
Ni	62	72	1	NO GAS	-0.046	ug/l	385.91
Cu	63	72	1	NO GAS	0.003	ug/l	523.91
Cu	63	72	3	He	0.000	ug/l	185.63
Cu	65	72	1	NO GAS	0.004	ug/l	267.28
Zn	66	72	1	NO GAS	-0.024	ug/l	266.01
Zn	66	72	3	He	-0.005	ug/l	55.56
As	75	72	1	NO GAS	0.262	ug/l	4733.33
As	75	72	3	He	0.002	ug/l	7.00
Se	78	72	2	H2	0.053	ug/l	9.00
Br	79	72	1	NO GAS	-0.346	ug/l	72637.93
Br	79	72	2	H2	0.292	ug/l	10559.19
Se	82	72	1	NO GAS	1.417	ug/l	607.50
Kr	84	72	1	NO GAS		ug/l	8482.02
Sr	88	72	1	NO GAS	0.002	ug/l	482.39
Sr	88	72	3	He	0.006	ug/l	233.34

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.022	ug/l	281.12
Mo	95	72	3	He	0.028	ug/l	110.00
Mo	98	72	1	NO GAS	0.020	ug/l	458.84
Ag	107	72	1	NO GAS	0.009	ug/l	2147.72
Ag	109	72	1	NO GAS	0.011	ug/l	2085.72
Cd	111	159	1	NO GAS	-0.006	ug/l	-22.54
Cd	111	159	3	He	0.001	ug/l	4.00
Cd	114	159	1	NO GAS	-0.007	ug/l	-302.55
Cd	114	159	3	He	0.000	ug/l	-26.75
Sn	118	159	1	NO GAS	0.220	ug/l	47713.05
Sn	118	159	3	He	0.074	ug/l	7187.20
Sb	121	159	1	NO GAS	0.035	ug/l	1406.74
Sb	121	159	3	He	0.035	ug/l	195.56
Sb	123	159	1	NO GAS	0.033	ug/l	1063.38
Sb	123	159	3	He	0.035	ug/l	148.89
Ba	135	159	1	NO GAS	0.004	ug/l	43.25
Ba	137	159	1	NO GAS	0.004	ug/l	76.51
La	139	175	1	NO GAS	0.001	ug/l	120.12
La	139	175	3	He	0.000	ug/l	13.35
Ce	140	175	1	NO GAS	0.001	ug/l	136.80
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.005	ug/l	41.66
Hg	202	175	1	NO GAS	0.006	ug/l	131.64
Hg	202	175	3	He	0.005	ug/l	66.66
Tl	203	175	3	He	0.091	ug/l	1646.43
Tl	205	175	1	NO GAS	0.100	ug/l	8177.83
Tl	205	175	3	He	0.094	ug/l	4188.43
[Pb]	206	175	1	NO GAS	0.002	ug/l	117.78
[Pb]	207	175	1	NO GAS	0.002	ug/l	94.44
Pb	208	175	1	NO GAS	0.002	ug/l	414.45
Th	232	175	3	He	0.031	ug/l	2923.72
U	238	175	1	NO GAS	0.002	ug/l	384.60

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1987890.14	95.5
Sc	45	2	H2	81881.85	90.2
Sc	45	3	He	52078.22	94.8
Ge	72	1	NO GAS	943315.89	105.3
Ge	72	2	H2	129316.77	99.9
Ge	72	3	He	84359.91	100.1
Tb	159	1	NO GAS	19179817.27	95.3
Tb	159	3	He	7265332.52	98.9
Ho	165	1	NO GAS	18250684.83	97.2
Ho	165	3	He	7245450.61	100.1
Lu	175	1	NO GAS	19698609.79	98.4
Lu	175	3	He	4369713.78	99.1

ICPMS206-B Analytical Data

Sample Name B22010751-001A
File Name 118SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:13:22
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.282	ug/l	1484.44
Be	9	45	1	NO GAS	0.014	ug/l	6.67
B	11	45	1	NO GAS	217.102	ug/l	49146.09
Na	23	45	3	He	144917.666	ug/l	14853555.75
Mg	24	45	3	He	44665.741	ug/l	2389115.09
Al	27	45	1	NO GAS	7.666	ug/l	26153.33
Si	28	45	2	H2	21142.537	ug/l	389954.32
K	39	72	3	He	3824.259	ug/l	196153.03
Ca	40	72	2	H2	46446.521	ug/l	11197961.59
Ti	47	72	1	NO GAS	1.696	ug/l	1630.95
V	51	72	1	NO GAS	10.986	ug/l	139830.72
V	51	72	3	He	9.638	ug/l	14522.99
Cr	52	72	1	NO GAS	0.806	ug/l	26924.90
Cr	52	72	3	He	1.328	ug/l	2734.83
Cr	53	72	1	NO GAS	-103.429	ug/l	22213.99
Mn	55	72	1	NO GAS	132.130	ug/l	2722191.65
Mn	55	72	3	He	133.053	ug/l	126563.25
Fe	56	72	2	H2	7.702	ug/l	10991.55
Fe	56	72	3	He	7.864	ug/l	14554.16
Co	59	72	1	NO GAS	0.935	ug/l	16808.52
Ni	60	72	1	NO GAS	7.318	ug/l	28364.39
Ni	60	72	3	He	7.172	ug/l	8680.07
Ni	62	72	1	NO GAS	7.343	ug/l	4821.17
Cu	63	72	1	NO GAS	4.822	ug/l	48103.78
Cu	63	72	3	He	3.026	ug/l	11123.44
Cu	65	72	1	NO GAS	3.121	ug/l	15492.07
Zn	66	72	1	NO GAS	8.319	ug/l	27523.53
Zn	66	72	3	He	9.536	ug/l	5141.94
As	75	72	1	NO GAS	1.119	ug/l	8067.08
As	75	72	3	He	0.501	ug/l	180.63
Se	78	72	2	H2	6.202	ug/l	789.20
Br	79	72	1	NO GAS	72.318	ug/l	579231.14
Br	79	72	2	H2	87.026	ug/l	110463.59
Se	82	72	1	NO GAS	8.525	ug/l	2786.96
Kr	84	72	1	NO GAS		ug/l	97038.23
Sr	88	72	1	NO GAS	370.104	ug/l	14942264.08
Sr	88	72	3	He	389.765	ug/l	666620.47

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.579	ug/l	13719.18
Mo	95	72	3	He	1.630	ug/l	4645.15
Mo	98	72	1	NO GAS	1.534	ug/l	22828.83
Ag	107	72	1	NO GAS	-0.074	ug/l	157.30
Ag	109	72	1	NO GAS	-0.071	ug/l	129.98
Cd	111	159	1	NO GAS	0.045	ug/l	270.31
Cd	111	159	3	He	0.074	ug/l	108.65
Cd	114	159	1	NO GAS	0.069	ug/l	718.76
Cd	114	159	3	He	0.074	ug/l	248.72
Sn	118	159	1	NO GAS	-2.464	ug/l	1846.47
Sn	118	159	3	He	-2.573	ug/l	267.78
Sb	121	159	1	NO GAS	0.200	ug/l	5255.34
Sb	121	159	3	He	0.195	ug/l	756.69
Sb	123	159	1	NO GAS	0.194	ug/l	4054.43
Sb	123	159	3	He	0.190	ug/l	588.91
Ba	135	159	1	NO GAS	78.491	ug/l	395497.49
Ba	137	159	1	NO GAS	77.844	ug/l	681341.89
La	139	175	1	NO GAS	0.008	ug/l	644.01
La	139	175	3	He	0.010	ug/l	200.20
Ce	140	175	1	NO GAS	0.016	ug/l	1271.35
Ce	140	175	3	He	0.016	ug/l	413.76
Hg	201	175	1	NO GAS	0.007	ug/l	47.99
Hg	202	175	1	NO GAS	0.007	ug/l	136.64
Hg	202	175	3	He	0.007	ug/l	84.98
Tl	203	175	3	He	0.084	ug/l	1565.11
Tl	205	175	1	NO GAS	0.079	ug/l	6572.61
Tl	205	175	3	He	0.084	ug/l	3864.40
[Pb]	206	175	1	NO GAS	0.077	ug/l	1644.54
[Pb]	207	175	1	NO GAS	0.073	ug/l	1336.74
Pb	208	175	1	NO GAS	0.074	ug/l	6278.33
Th	232	175	3	He	0.060	ug/l	4379.12
U	238	175	1	NO GAS	0.272	ug/l	25719.07

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2345658.46	112.7
Sc	45	2	H2	109645.67	120.7
Sc	45	3	He	61999.78	112.9
Ge	72	1	NO GAS	985447.02	110.0
Ge	72	2	H2	151492.32	117.0
Ge	72	3	He	93517.47	110.9
Tb	159	1	NO GAS	19285948.60	95.8
Tb	159	3	He	7241479.30	98.6
Ho	165	1	NO GAS	17871663.43	95.2
Ho	165	3	He	7108556.53	98.2
Lu	175	1	NO GAS	19345868.00	96.7
Lu	175	3	He	4409191.59	100.0

ICPMS206-B Analytical Data

Sample Name B22010971-001A
File Name 119SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:19:26
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.392	ug/l	2305.70
Be	9	45	1	NO GAS	0.012	ug/l	7.00
B	11	45	1	NO GAS	33.895	ug/l	9085.27
Na	23	45	3	He	41115.614	ug/l	4360032.74
Mg	24	45	3	He	8440.655	ug/l	466252.73
Al	27	45	1	NO GAS	4.343	ug/l	17268.86
Si	28	45	2	H2	23545.780	ug/l	422131.18
K	39	72	3	He	2911.928	ug/l	156423.53
Ca	40	72	2	H2	13349.543	ug/l	3270771.45
Ti	47	72	1	NO GAS	1.362	ug/l	1432.69
V	51	72	1	NO GAS	10.026	ug/l	136502.18
V	51	72	3	He	9.093	ug/l	14292.78
Cr	52	72	1	NO GAS	1.337	ug/l	36907.46
Cr	52	72	3	He	2.148	ug/l	4518.35
Cr	53	72	1	NO GAS	-99.905	ug/l	28038.58
Mn	55	72	1	NO GAS	3.786	ug/l	85767.18
Mn	55	72	3	He	4.258	ug/l	4228.96
Fe	56	72	2	H2	3.675	ug/l	5514.88
Fe	56	72	3	He	3.566	ug/l	7218.01
Co	59	72	1	NO GAS	0.024	ug/l	535.62
Ni	60	72	1	NO GAS	0.432	ug/l	1839.81
Ni	60	72	3	He	0.353	ug/l	480.01
Ni	62	72	1	NO GAS	0.217	ug/l	598.83
Cu	63	72	1	NO GAS	0.730	ug/l	8341.09
Cu	63	72	3	He	0.215	ug/l	1020.16
Cu	65	72	1	NO GAS	0.242	ug/l	1557.10
Zn	66	72	1	NO GAS	3.415	ug/l	12415.58
Zn	66	72	3	He	4.286	ug/l	2445.75
As	75	72	1	NO GAS	1.314	ug/l	9199.64
As	75	72	3	He	1.495	ug/l	547.23
Se	78	72	2	H2	0.115	ug/l	18.67
Br	79	72	1	NO GAS	10.133	ug/l	158742.88
Br	79	72	2	H2	11.442	ug/l	25379.47
Se	82	72	1	NO GAS	0.948	ug/l	517.02
Kr	84	72	1	NO GAS		ug/l	37625.05
Sr	88	72	1	NO GAS	113.141	ug/l	4948366.88
Sr	88	72	3	He	122.695	ug/l	218807.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	4.748	ug/l	44602.93
Mo	95	72	3	He	5.298	ug/l	15625.33
Mo	98	72	1	NO GAS	4.610	ug/l	74060.85
Ag	107	72	1	NO GAS	-0.072	ug/l	203.30
Ag	109	72	1	NO GAS	-0.069	ug/l	182.63
Cd	111	159	1	NO GAS	0.001	ug/l	18.63
Cd	111	159	3	He	0.004	ug/l	9.33
Cd	114	159	1	NO GAS	0.020	ug/l	71.00
Cd	114	159	3	He	0.008	ug/l	5.35
Sn	118	159	1	NO GAS	-2.413	ug/l	2987.72
Sn	118	159	3	He	-2.486	ug/l	517.79
Sb	121	159	1	NO GAS	0.424	ug/l	11995.65
Sb	121	159	3	He	0.473	ug/l	1814.57
Sb	123	159	1	NO GAS	0.422	ug/l	9492.90
Sb	123	159	3	He	0.496	ug/l	1537.86
Ba	135	159	1	NO GAS	20.921	ug/l	120039.62
Ba	137	159	1	NO GAS	20.369	ug/l	202666.93
La	139	175	1	NO GAS	0.001	ug/l	163.50
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.001	ug/l	193.54
Ce	140	175	3	He	0.002	ug/l	60.06
Hg	201	175	1	NO GAS	0.019	ug/l	103.65
Hg	202	175	1	NO GAS	0.371	ug/l	3812.39
Hg	202	175	3	He	0.267	ug/l	1865.75
Tl	203	175	3	He	0.056	ug/l	1202.48
Tl	205	175	1	NO GAS	0.045	ug/l	4911.97
Tl	205	175	3	He	0.054	ug/l	2913.04
[Pb]	206	175	1	NO GAS	0.122	ug/l	2926.97
[Pb]	207	175	1	NO GAS	0.111	ug/l	2317.98
Pb	208	175	1	NO GAS	0.117	ug/l	11082.79
Th	232	175	3	He	-0.015	ug/l	651.89
U	238	175	1	NO GAS	0.264	ug/l	28349.67

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2562160.90	123.1
Sc	45	2	H2	106643.70	117.4
Sc	45	3	He	64096.77	116.7
Ge	72	1	NO GAS	1033880.83	115.4
Ge	72	2	H2	153973.71	118.9
Ge	72	3	He	97415.43	115.6
Tb	159	1	NO GAS	20983849.36	104.3
Tb	159	3	He	7613802.75	103.6
Ho	165	1	NO GAS	19240068.35	102.5
Ho	165	3	He	7211992.57	99.6
Lu	175	1	NO GAS	21028098.19	105.1
Lu	175	3	He	4503672.05	102.1

ICPMS206-B Analytical Data

Sample Name B22010971-001B
File Name 120SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:25:10
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.386	ug/l	2917.67
Be	9	45	1	NO GAS	0.020	ug/l	8.00
B	11	45	1	NO GAS	36.059	ug/l	8111.63
Na	23	45	3	He	49448.621	ug/l	4076507.55
Mg	24	45	3	He	9482.145	ug/l	408482.95
Al	27	45	1	NO GAS	33.517	ug/l	108128.79
Si	28	45	2	H2	23353.440	ug/l	337624.77
K	39	72	3	He	3116.182	ug/l	130927.77
Ca	40	72	2	H2	11985.035	ug/l	2542804.53
Ti	47	72	1	NO GAS	3.366	ug/l	3143.76
V	51	72	1	NO GAS	7.853	ug/l	91573.14
V	51	72	3	He	10.401	ug/l	12778.25
Cr	52	72	1	NO GAS	2.556	ug/l	49577.44
Cr	52	72	3	He	2.690	ug/l	4395.22
Cr	53	72	1	NO GAS	59.454	ug/l	195260.68
Mn	55	72	1	NO GAS	7.080	ug/l	144388.36
Mn	55	72	3	He	8.162	ug/l	6341.83
Fe	56	72	2	H2	31.008	ug/l	38004.12
Fe	56	72	3	He	36.855	ug/l	53837.66
Co	59	72	1	NO GAS	0.057	ug/l	1057.95
Ni	60	72	1	NO GAS	0.552	ug/l	2122.61
Ni	60	72	3	He	0.492	ug/l	513.35
Ni	62	72	1	NO GAS	0.453	ug/l	678.67
Cu	63	72	1	NO GAS	1.184	ug/l	11951.91
Cu	63	72	3	He	0.611	ug/l	1968.06
Cu	65	72	1	NO GAS	0.619	ug/l	3218.34
Zn	66	72	1	NO GAS	19.323	ug/l	62078.82
Zn	66	72	3	He	23.029	ug/l	10066.42
As	75	72	1	NO GAS	1.473	ug/l	8877.42
As	75	72	3	He	1.501	ug/l	429.59
Se	78	72	2	H2	0.116	ug/l	16.33
Br	79	72	1	NO GAS	3.220	ug/l	96467.46
Br	79	72	2	H2	4.067	ug/l	14640.96
Se	82	72	1	NO GAS	1.366	ug/l	584.22
Kr	84	72	1	NO GAS		ug/l	35408.04
Sr	88	72	1	NO GAS	126.896	ug/l	5026235.47
Sr	88	72	3	He	141.379	ug/l	197477.38

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	5.590	ug/l	47557.73
Mo	95	72	3	He	6.737	ug/l	15554.14
Mo	98	72	1	NO GAS	5.681	ug/l	82637.10
Ag	107	72	1	NO GAS	-0.039	ug/l	976.51
Ag	109	72	1	NO GAS	-0.034	ug/l	995.17
Cd	111	159	1	NO GAS	0.005	ug/l	45.73
Cd	111	159	3	He	0.009	ug/l	16.00
Cd	114	159	1	NO GAS	0.022	ug/l	104.05
Cd	114	159	3	He	0.012	ug/l	17.12
Sn	118	159	1	NO GAS	-1.951	ug/l	11278.36
Sn	118	159	3	He	-1.976	ug/l	1686.77
Sb	121	159	1	NO GAS	0.445	ug/l	12214.71
Sb	121	159	3	He	0.545	ug/l	1835.68
Sb	123	159	1	NO GAS	0.442	ug/l	9610.73
Sb	123	159	3	He	0.537	ug/l	1467.86
Ba	135	159	1	NO GAS	21.650	ug/l	120545.78
Ba	137	159	1	NO GAS	21.732	ug/l	209940.04
La	139	175	1	NO GAS	0.024	ug/l	2199.07
La	139	175	3	He	0.021	ug/l	383.73
Ce	140	175	1	NO GAS	0.053	ug/l	4785.63
Ce	140	175	3	He	0.054	ug/l	1244.66
Hg	201	175	1	NO GAS	0.033	ug/l	169.97
Hg	202	175	1	NO GAS	0.448	ug/l	4676.46
Hg	202	175	3	He	0.337	ug/l	2155.06
Tl	203	175	3	He	0.035	ug/l	829.20
Tl	205	175	1	NO GAS	0.024	ug/l	3547.12
Tl	205	175	3	He	0.030	ug/l	1905.75
[Pb]	206	175	1	NO GAS	0.041	ug/l	1042.27
[Pb]	207	175	1	NO GAS	0.047	ug/l	1033.38
Pb	208	175	1	NO GAS	0.044	ug/l	4408.07
Th	232	175	3	He	0.094	ug/l	5714.65
U	238	175	1	NO GAS	0.300	ug/l	32861.35

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2150636.15	103.3
Sc	45	2	H2	85995.09	94.7
Sc	45	3	He	50064.43	91.2
Ge	72	1	NO GAS	935545.08	104.4
Ge	72	2	H2	133324.27	103.0
Ge	72	3	He	76482.36	90.7
Tb	159	1	NO GAS	20352007.12	101.1
Tb	159	3	He	6754364.70	91.9
Ho	165	1	NO GAS	19491028.68	103.8
Ho	165	3	He	6567077.21	90.7
Lu	175	1	NO GAS	21432475.68	107.1
Lu	175	3	He	4147121.32	94.0

ICPMS206-B Analytical Data

Sample Name B22010971-001BDIL
File Name 121SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:30:55
Sample Type Sample
Total Dilution 5.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-7.084	ug/l	1552.43
Be	9	45	1	NO GAS	0.018	ug/l	3.00
B	11	45	1	NO GAS	36.755	ug/l	1789.07
Na	23	45	3	He	43994.414	ug/l	739069.31
Mg	24	45	3	He	8981.144	ug/l	77942.30
Al	27	45	1	NO GAS	37.709	ug/l	23261.42
Si	28	45	2	H2	23500.425	ug/l	64235.11
K	39	72	3	He	2674.278	ug/l	26340.35
Ca	40	72	2	H2	11783.183	ug/l	467969.54
Ti	47	72	1	NO GAS	3.159	ug/l	608.05
V	51	72	1	NO GAS	6.677	ug/l	-4866.54
V	51	72	3	He	8.565	ug/l	2511.31
Cr	52	72	1	NO GAS	1.839	ug/l	20175.44
Cr	52	72	3	He	2.362	ug/l	934.85
Cr	53	72	1	NO GAS	-10.630	ug/l	126890.06
Mn	55	72	1	NO GAS	6.918	ug/l	28487.69
Mn	55	72	3	He	7.269	ug/l	1217.83
Fe	56	72	2	H2	31.325	ug/l	7404.70
Fe	56	72	3	He	33.561	ug/l	10938.21
Co	59	72	1	NO GAS	0.050	ug/l	232.88
Ni	60	72	1	NO GAS	0.660	ug/l	509.01
Ni	60	72	3	He	0.538	ug/l	144.45
Ni	62	72	1	NO GAS	0.289	ug/l	435.81
Cu	63	72	1	NO GAS	1.335	ug/l	3008.35
Cu	63	72	3	He	0.719	ug/l	632.22
Cu	65	72	1	NO GAS	0.802	ug/l	995.17
Zn	66	72	1	NO GAS	9.323	ug/l	6163.09
Zn	66	72	3	He	9.961	ug/l	984.48
As	75	72	1	NO GAS	0.796	ug/l	4264.49
As	75	72	3	He	1.512	ug/l	97.65
Se	78	72	2	H2	0.151	ug/l	6.33
Br	79	72	1	NO GAS	9.194	ug/l	85191.39
Br	79	72	2	H2	13.224	ug/l	12356.87
Se	82	72	1	NO GAS	6.556	ug/l	560.27
Kr	84	72	1	NO GAS		ug/l	13515.40
Sr	88	72	1	NO GAS	124.432	ug/l	965057.46
Sr	88	72	3	He	130.713	ug/l	39297.97

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	5.758	ug/l	9659.57
Mo	95	72	3	He	6.169	ug/l	3082.54
Mo	98	72	1	NO GAS	5.512	ug/l	15815.54
Ag	107	72	1	NO GAS	-0.340	ug/l	282.62
Ag	109	72	1	NO GAS	-0.321	ug/l	282.61
Cd	111	159	1	NO GAS	0.031	ug/l	51.90
Cd	111	159	3	He	0.034	ug/l	12.67
Cd	114	159	1	NO GAS	0.130	ug/l	152.06
Cd	114	159	3	He	0.055	ug/l	14.37
Sn	118	159	1	NO GAS	-11.672	ug/l	4238.86
Sn	118	159	3	He	-11.973	ug/l	726.69
Sb	121	159	1	NO GAS	0.453	ug/l	2882.51
Sb	121	159	3	He	0.554	ug/l	456.68
Sb	123	159	1	NO GAS	0.422	ug/l	2157.94
Sb	123	159	3	He	0.521	ug/l	342.23
Ba	135	159	1	NO GAS	23.799	ug/l	25970.04
Ba	137	159	1	NO GAS	23.285	ug/l	44090.62
La	139	175	1	NO GAS	0.034	ug/l	687.39
La	139	175	3	He	0.027	ug/l	110.11
Ce	140	175	1	NO GAS	0.056	ug/l	1071.14
Ce	140	175	3	He	0.067	ug/l	330.34
Hg	201	175	1	NO GAS	0.027	ug/l	46.99
Hg	202	175	1	NO GAS	0.422	ug/l	953.18
Hg	202	175	3	He	0.317	ug/l	447.58
Tl	203	175	3	He	0.110	ug/l	675.22
Tl	205	175	1	NO GAS	0.081	ug/l	2970.32
Tl	205	175	3	He	0.116	ug/l	1732.43
[Pb]	206	175	1	NO GAS	0.078	ug/l	443.34
[Pb]	207	175	1	NO GAS	0.065	ug/l	334.45
Pb	208	175	1	NO GAS	0.069	ug/l	1584.49
Th	232	175	3	He	-0.005	ug/l	1286.47
U	238	175	1	NO GAS	0.303	ug/l	6818.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2019529.16	97.0
Sc	45	2	H2	80250.14	88.4
Sc	45	3	He	50281.72	91.5
Ge	72	1	NO GAS	915885.45	102.2
Ge	72	2	H2	124660.43	96.3
Ge	72	3	He	81779.19	97.0
Tb	159	1	NO GAS	19923419.38	99.0
Tb	159	3	He	7175828.60	97.7
Ho	165	1	NO GAS	19203281.36	102.3
Ho	165	3	He	6985191.61	96.5
Lu	175	1	NO GAS	21489562.35	107.4
Lu	175	3	He	4270795.23	96.8

ICPMS206-B Analytical Data

Sample Name B22010971-001BPDS1
File Name 122_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:36:39
Sample Type AIRRef
Total Dilution 1.0300
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1530.328	ug/l	1052052.40
Be	9	45	1	NO GAS	41.488	ug/l	11243.02
B	11	45	1	NO GAS	82.319	ug/l	16367.16
Na	23	45	3	He	96850.309	ug/l	7902589.33
Mg	24	45	3	He	60834.485	ug/l	2588795.88
Al	27	45	1	NO GAS	78.675	ug/l	228848.13
Si	28	45	2	H2	23720.313	ug/l	299167.74
K	39	72	3	He	47948.529	ug/l	2013230.68
Ca	40	72	2	H2	54870.309	ug/l	10298149.47
Ti	47	72	1	NO GAS	53.878	ug/l	46995.08
V	51	72	1	NO GAS	53.713	ug/l	725629.75
V	51	72	3	He	58.503	ug/l	71798.94
Cr	52	72	1	NO GAS	47.863	ug/l	613284.14
Cr	52	72	3	He	53.972	ug/l	87521.57
Cr	53	72	1	NO GAS	161.393	ug/l	290853.76
Mn	55	72	1	NO GAS	50.939	ug/l	974849.86
Mn	55	72	3	He	56.591	ug/l	44734.86
Fe	56	72	2	H2	4558.481	ug/l	4896683.11
Fe	56	72	3	He	4977.245	ug/l	7334920.05
Co	59	72	1	NO GAS	44.575	ug/l	738107.51
Ni	60	72	1	NO GAS	45.529	ug/l	163835.81
Ni	60	72	3	He	51.038	ug/l	51131.97
Ni	62	72	1	NO GAS	44.720	ug/l	25355.69
Cu	63	72	1	NO GAS	46.493	ug/l	425657.58
Cu	63	72	3	He	50.233	ug/l	150812.17
Cu	65	72	1	NO GAS	45.943	ug/l	208712.35
Zn	66	72	1	NO GAS	46.264	ug/l	139966.62
Zn	66	72	3	He	49.294	ug/l	21867.66
As	75	72	1	NO GAS	45.656	ug/l	152835.93
As	75	72	3	He	50.288	ug/l	14492.71
Se	78	72	2	H2	47.906	ug/l	4721.06
Br	79	72	1	NO GAS	3.535	ug/l	95269.99
Br	79	72	2	H2	4.636	ug/l	13705.25
Se	82	72	1	NO GAS	44.486	ug/l	12457.11
Kr	84	72	1	NO GAS		ug/l	45786.39
Sr	88	72	1	NO GAS	171.783	ug/l	6428472.44
Sr	88	72	3	He	182.828	ug/l	259939.63

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	55.608	ug/l	446115.13
Mo	95	72	3	He	61.009	ug/l	143203.93
Mo	98	72	1	NO GAS	54.773	ug/l	751439.36
Ag	107	72	1	NO GAS	20.476	ug/l	466980.95
Ag	109	72	1	NO GAS	20.309	ug/l	455885.28
Cd	111	159	1	NO GAS	44.631	ug/l	263548.66
Cd	111	159	3	He	47.022	ug/l	61871.54
Cd	114	159	1	NO GAS	44.057	ug/l	603078.90
Cd	114	159	3	He	47.060	ug/l	161388.01
Sn	118	159	1	NO GAS	45.431	ug/l	827989.90
Sn	118	159	3	He	48.062	ug/l	122305.72
Sb	121	159	1	NO GAS	45.629	ug/l	1133450.09
Sb	121	159	3	He	47.102	ug/l	152292.02
Sb	123	159	1	NO GAS	44.942	ug/l	885954.38
Sb	123	159	3	He	47.800	ug/l	126143.41
Ba	135	159	1	NO GAS	69.082	ug/l	365679.27
Ba	137	159	1	NO GAS	68.323	ug/l	627471.28
La	139	175	1	NO GAS	0.031	ug/l	2609.55
La	139	175	3	He	0.029	ug/l	510.53
Ce	140	175	1	NO GAS	49.518	ug/l	4046345.71
Ce	140	175	3	He	48.674	ug/l	1071289.40
Hg	201	175	1	NO GAS	0.974	ug/l	3992.40
Hg	202	175	1	NO GAS	1.425	ug/l	13440.59
Hg	202	175	3	He	1.298	ug/l	7913.16
Tl	203	175	3	He	49.896	ug/l	632834.56
Tl	205	175	1	NO GAS	47.048	ug/l	3046288.67
Tl	205	175	3	He	50.056	ug/l	1556608.08
[Pb]	206	175	1	NO GAS	47.631	ug/l	1039438.46
[Pb]	207	175	1	NO GAS	47.140	ug/l	891837.59
Pb	208	175	1	NO GAS	47.561	ug/l	4118724.91
Th	232	175	3	He	53.315	ug/l	2419022.05
U	238	175	1	NO GAS	48.286	ug/l	4812631.15

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2004468.94	96.3
Sc	45	2	H2	77259.54	85.1
Sc	45	3	He	50838.79	92.6
Ge	72	1	NO GAS	910238.35	101.6
Ge	72	2	H2	121371.85	93.7
Ge	72	3	He	80055.26	95.0
Tb	159	1	NO GAS	19956377.76	99.2
Tb	159	3	He	6894380.75	93.8
Ho	165	1	NO GAS	18476078.13	98.4
Ho	165	3	He	6755669.70	93.3
Lu	175	1	NO GAS	20195618.03	100.9
Lu	175	3	He	4105873.12	93.1

ICPMS206-B Analytical Data

Sample Name B22010971-001BMS4
File Name 123MS4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:42:19
Sample Type MS4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	66.304	ug/l	50778.39
Be	9	45	1	NO GAS	43.240	ug/l	13185.98
B	11	45	1	NO GAS	136.611	ug/l	30351.02
Na	23	45	3	He	49974.207	ug/l	4580551.70
Mg	24	45	3	He	13825.019	ug/l	660282.66
Al	27	45	1	NO GAS	508.199	ug/l	1661789.65
Si	28	45	2	H2	23921.068	ug/l	362427.47
K	39	72	3	He	7660.232	ug/l	356505.34
Ca	40	72	2	H2	16853.642	ug/l	3627492.56
Ti	47	72	1	NO GAS	96.381	ug/l	93330.28
V	51	72	1	NO GAS	103.986	ug/l	1586397.87
V	51	72	3	He	112.521	ug/l	151632.94
Cr	52	72	1	NO GAS	97.487	ug/l	1369536.03
Cr	52	72	3	He	105.981	ug/l	188999.01
Cr	53	72	1	NO GAS	181.972	ug/l	341981.92
Mn	55	72	1	NO GAS	488.372	ug/l	10372884.71
Mn	55	72	3	He	520.447	ug/l	452764.61
Fe	56	72	2	H2	488.974	ug/l	603147.65
Fe	56	72	3	He	545.432	ug/l	885375.87
Co	59	72	1	NO GAS	95.807	ug/l	1762248.13
Ni	60	72	1	NO GAS	93.674	ug/l	374483.09
Ni	60	72	3	He	107.284	ug/l	118264.11
Ni	62	72	1	NO GAS	93.174	ug/l	58192.11
Cu	63	72	1	NO GAS	94.607	ug/l	961476.29
Cu	63	72	3	He	107.198	ug/l	353912.08
Cu	65	72	1	NO GAS	96.210	ug/l	485199.14
Zn	66	72	1	NO GAS	91.740	ug/l	307937.60
Zn	66	72	3	He	100.650	ug/l	49084.91
As	75	72	1	NO GAS	92.199	ug/l	338625.19
As	75	72	3	He	100.556	ug/l	31885.56
Se	78	72	2	H2	99.830	ug/l	11289.23
Br	79	72	1	NO GAS	2.580	ug/l	96615.33
Br	79	72	2	H2	4.074	ug/l	14850.68
Se	82	72	1	NO GAS	89.536	ug/l	27633.16
Kr	84	72	1	NO GAS		ug/l	61258.71
Sr	88	72	1	NO GAS	220.443	ug/l	9162537.66
Sr	88	72	3	He	238.570	ug/l	373261.77

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.777	ug/l	933684.07
Mo	95	72	3	He	119.857	ug/l	309569.19
Mo	98	72	1	NO GAS	109.216	ug/l	1664062.58
Ag	107	72	1	NO GAS	10.197	ug/l	259302.89
Ag	109	72	1	NO GAS	9.808	ug/l	245562.66
Cd	111	159	1	NO GAS	47.761	ug/l	295315.93
Cd	111	159	3	He	49.603	ug/l	71313.80
Cd	114	159	1	NO GAS	47.165	ug/l	676359.44
Cd	114	159	3	He	49.218	ug/l	184402.47
Sn	118	159	1	NO GAS	100.595	ug/l	1859955.51
Sn	118	159	3	He	101.950	ug/l	275157.73
Sb	121	159	1	NO GAS	96.715	ug/l	2513088.40
Sb	121	159	3	He	98.576	ug/l	348261.85
Sb	123	159	1	NO GAS	94.967	ug/l	1959311.55
Sb	123	159	3	He	98.144	ug/l	282981.11
Ba	135	159	1	NO GAS	114.714	ug/l	635420.72
Ba	137	159	1	NO GAS	113.990	ug/l	1095300.26
La	139	175	1	NO GAS	102.445	ug/l	9088490.25
La	139	175	3	He	100.536	ug/l	1935181.49
Ce	140	175	1	NO GAS	100.320	ug/l	8830002.61
Ce	140	175	3	He	101.218	ug/l	2470175.56
Hg	201	175	1	NO GAS	0.035	ug/l	177.30
Hg	202	175	1	NO GAS	0.474	ug/l	4876.48
Hg	202	175	3	He	0.325	ug/l	2225.73
Tl	203	175	3	He	101.352	ug/l	1425256.42
Tl	205	175	1	NO GAS	95.811	ug/l	6678046.29
Tl	205	175	3	He	98.433	ug/l	3393842.41
[Pb]	206	175	1	NO GAS	99.559	ug/l	2338137.48
[Pb]	207	175	1	NO GAS	100.329	ug/l	2044545.42
Pb	208	175	1	NO GAS	99.761	ug/l	9299715.36
Th	232	175	3	He	104.953	ug/l	5280987.83
U	238	175	1	NO GAS	99.995	ug/l	10734206.30

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2189030.20	105.2
Sc	45	2	H2	90071.69	99.2
Sc	45	3	He	55379.98	100.8
Ge	72	1	NO GAS	981710.04	109.6
Ge	72	2	H2	135177.08	104.4
Ge	72	3	He	85530.71	101.5
Tb	159	1	NO GAS	20247325.57	100.6
Tb	159	3	He	7315475.06	99.6
Ho	165	1	NO GAS	19007830.70	101.3
Ho	165	3	He	7255301.56	100.2
Lu	175	1	NO GAS	21119042.88	105.5
Lu	175	3	He	4421010.44	100.2

ICPMS206-B Analytical Data

Sample Name B22010971-001BMSD4
File Name 124MSD4.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:47:54
Sample Type MSD4
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	60.059	ug/l	48189.68
Be	9	45	1	NO GAS	42.799	ug/l	12620.35
B	11	45	1	NO GAS	127.654	ug/l	27452.12
Na	23	45	3	He	51725.876	ug/l	4614227.57
Mg	24	45	3	He	14373.668	ug/l	668211.45
Al	27	45	1	NO GAS	503.151	ug/l	1590136.14
Si	28	45	2	H2	24561.714	ug/l	341764.92
K	39	72	3	He	7498.016	ug/l	343758.93
Ca	40	72	2	H2	16637.420	ug/l	3451224.85
Ti	47	72	1	NO GAS	94.538	ug/l	90435.25
V	51	72	1	NO GAS	102.053	ug/l	1537158.84
V	51	72	3	He	111.266	ug/l	147635.34
Cr	52	72	1	NO GAS	94.556	ug/l	1312368.14
Cr	52	72	3	He	107.580	ug/l	188872.95
Cr	53	72	1	NO GAS	167.746	ug/l	322112.66
Mn	55	72	1	NO GAS	471.498	ug/l	9893437.96
Mn	55	72	3	He	515.508	ug/l	441628.41
Fe	56	72	2	H2	491.906	ug/l	584937.55
Fe	56	72	3	He	535.308	ug/l	855490.73
Co	59	72	1	NO GAS	94.147	ug/l	1710625.50
Ni	60	72	1	NO GAS	93.257	ug/l	368255.05
Ni	60	72	3	He	106.559	ug/l	115655.04
Ni	62	72	1	NO GAS	94.194	ug/l	58118.57
Cu	63	72	1	NO GAS	94.582	ug/l	949740.04
Cu	63	72	3	He	108.158	ug/l	351591.79
Cu	65	72	1	NO GAS	95.998	ug/l	478359.06
Zn	66	72	1	NO GAS	93.112	ug/l	308849.93
Zn	66	72	3	He	102.177	ug/l	49058.28
As	75	72	1	NO GAS	91.402	ug/l	331610.87
As	75	72	3	He	102.366	ug/l	31961.36
Se	78	72	2	H2	99.295	ug/l	10819.37
Br	79	72	1	NO GAS	1.399	ug/l	87067.94
Br	79	72	2	H2	2.939	ug/l	13205.91
Se	82	72	1	NO GAS	89.228	ug/l	27202.06
Kr	84	72	1	NO GAS		ug/l	60544.23
Sr	88	72	1	NO GAS	222.348	ug/l	9129584.71
Sr	88	72	3	He	245.867	ug/l	378740.88

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	104.670	ug/l	921428.66
Mo	95	72	3	He	121.111	ug/l	307981.45
Mo	98	72	1	NO GAS	106.922	ug/l	1610003.90
Ag	107	72	1	NO GAS	10.135	ug/l	254597.80
Ag	109	72	1	NO GAS	9.975	ug/l	246678.84
Cd	111	159	1	NO GAS	45.578	ug/l	294995.83
Cd	111	159	3	He	49.985	ug/l	70819.93
Cd	114	159	1	NO GAS	45.746	ug/l	686403.60
Cd	114	159	3	He	49.469	ug/l	182685.11
Sn	118	159	1	NO GAS	100.112	ug/l	1937428.48
Sn	118	159	3	He	102.895	ug/l	273638.71
Sb	121	159	1	NO GAS	94.543	ug/l	2571569.22
Sb	121	159	3	He	99.332	ug/l	345796.64
Sb	123	159	1	NO GAS	94.413	ug/l	2038868.82
Sb	123	159	3	He	100.518	ug/l	285651.32
Ba	135	159	1	NO GAS	110.196	ug/l	638927.26
Ba	137	159	1	NO GAS	109.464	ug/l	1100835.24
La	139	175	1	NO GAS	97.843	ug/l	9058879.08
La	139	175	3	He	102.157	ug/l	1947774.35
Ce	140	175	1	NO GAS	96.094	ug/l	8826973.12
Ce	140	175	3	He	101.583	ug/l	2455392.78
Hg	201	175	1	NO GAS	0.031	ug/l	163.97
Hg	202	175	1	NO GAS	0.449	ug/l	4814.48
Hg	202	175	3	He	0.331	ug/l	2240.39
Tl	203	175	3	He	102.914	ug/l	1432948.66
Tl	205	175	1	NO GAS	90.313	ug/l	6571219.28
Tl	205	175	3	He	102.779	ug/l	3509786.72
[Pb]	206	175	1	NO GAS	95.460	ug/l	2340707.71
[Pb]	207	175	1	NO GAS	95.551	ug/l	2031988.81
Pb	208	175	1	NO GAS	96.029	ug/l	9345656.72
Th	232	175	3	He	109.522	ug/l	5456010.70
U	238	175	1	NO GAS	95.820	ug/l	10733015.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2115330.59	101.6
Sc	45	2	H2	82752.83	91.1
Sc	45	3	He	53903.52	98.1
Ge	72	1	NO GAS	970035.48	108.3
Ge	72	2	H2	130316.57	100.7
Ge	72	3	He	84224.59	99.9
Tb	159	1	NO GAS	21197997.04	105.3
Tb	159	3	He	7206242.14	98.1
Ho	165	1	NO GAS	19803588.10	105.5
Ho	165	3	He	7124911.69	98.4
Lu	175	1	NO GAS	22029246.18	110.1
Lu	175	3	He	4378479.63	99.3

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 125BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:54:12
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.126	ug/l	1597.76
Be	9	45	1	NO GAS	0.020	ug/l	7.00
B	11	45	1	NO GAS	0.134	ug/l	299.95
Na	23	45	3	He	168.807	ug/l	23144.36
Mg	24	45	3	He	1.911	ug/l	153.03
Al	27	45	1	NO GAS	0.551	ug/l	2009.02
Si	28	45	2	H2	-68.031	ug/l	73.99
K	39	72	3	He	0.741	ug/l	2793.59
Ca	40	72	2	H2	2.256	ug/l	989.55
Ti	47	72	1	NO GAS	0.016	ug/l	49.98
V	51	72	1	NO GAS	0.238	ug/l	-20370.17
V	51	72	3	He	-0.059	ug/l	234.45
Cr	52	72	1	NO GAS	-0.081	ug/l	13775.09
Cr	52	72	3	He	-0.012	ug/l	109.78
Cr	53	72	1	NO GAS	-22.620	ug/l	101135.75
Mn	55	72	1	NO GAS	0.016	ug/l	1340.74
Mn	55	72	3	He	0.027	ug/l	31.67
Fe	56	72	2	H2	0.542	ug/l	911.25
Fe	56	72	3	He	0.572	ug/l	1429.36
Co	59	72	1	NO GAS	0.007	ug/l	169.67
Ni	60	72	1	NO GAS	0.036	ug/l	139.72
Ni	60	72	3	He	-0.002	ug/l	28.89
Ni	62	72	1	NO GAS	0.124	ug/l	455.77
Cu	63	72	1	NO GAS	0.023	ug/l	663.88
Cu	63	72	3	He	0.010	ug/l	212.96
Cu	65	72	1	NO GAS	0.007	ug/l	259.95
Zn	66	72	1	NO GAS	0.064	ug/l	522.06
Zn	66	72	3	He	0.054	ug/l	82.22
As	75	72	1	NO GAS	-0.346	ug/l	2318.36
As	75	72	3	He	0.015	ug/l	10.67
Se	78	72	2	H2	0.026	ug/l	6.00
Br	79	72	1	NO GAS	-1.351	ug/l	60974.17
Br	79	72	2	H2	-1.620	ug/l	8480.45
Se	82	72	1	NO GAS	0.560	ug/l	308.07
Kr	84	72	1	NO GAS		ug/l	8162.57
Sr	88	72	1	NO GAS	0.022	ug/l	1174.40
Sr	88	72	3	He	0.027	ug/l	258.90

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.020	ug/l	243.34
Mo	95	72	3	He	0.012	ug/l	68.89
Mo	98	72	1	NO GAS	0.012	ug/l	307.93
Ag	107	72	1	NO GAS	0.010	ug/l	2023.06
Ag	109	72	1	NO GAS	0.013	ug/l	1989.07
Cd	111	159	1	NO GAS	0.001	ug/l	20.69
Cd	111	159	3	He	0.007	ug/l	13.33
Cd	114	159	1	NO GAS	0.010	ug/l	-51.75
Cd	114	159	3	He	0.019	ug/l	45.91
Sn	118	159	1	NO GAS	-2.365	ug/l	3480.17
Sn	118	159	3	He	-2.448	ug/l	595.57
Sb	121	159	1	NO GAS	0.010	ug/l	780.03
Sb	121	159	3	He	0.010	ug/l	107.78
Sb	123	159	1	NO GAS	0.012	ug/l	647.79
Sb	123	159	3	He	0.018	ug/l	98.89
Ba	135	159	1	NO GAS	0.054	ug/l	292.76
Ba	137	159	1	NO GAS	0.040	ug/l	385.91
La	139	175	1	NO GAS	0.003	ug/l	337.02
La	139	175	3	He	0.002	ug/l	40.04
Ce	140	175	1	NO GAS	0.002	ug/l	246.92
Ce	140	175	3	He	0.004	ug/l	100.10
Hg	201	175	1	NO GAS	0.001	ug/l	25.33
Hg	202	175	1	NO GAS	0.000	ug/l	78.98
Hg	202	175	3	He	0.000	ug/l	33.66
Tl	203	175	3	He	0.356	ug/l	5249.88
Tl	205	175	1	NO GAS	0.297	ug/l	20665.37
Tl	205	175	3	He	0.354	ug/l	12832.22
[Pb]	206	175	1	NO GAS	0.011	ug/l	311.12
[Pb]	207	175	1	NO GAS	0.012	ug/l	277.78
Pb	208	175	1	NO GAS	0.011	ug/l	1212.25
Th	232	175	3	He	0.059	ug/l	4246.44
U	238	175	1	NO GAS	0.013	ug/l	1504.11

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1897446.01	91.1
Sc	45	2	H2	80029.77	88.1
Sc	45	3	He	51695.14	94.1
Ge	72	1	NO GAS	890332.24	99.4
Ge	72	2	H2	125985.77	97.3
Ge	72	3	He	82547.36	97.9
Tb	159	1	NO GAS	19444245.54	96.6
Tb	159	3	He	7268122.50	98.9
Ho	165	1	NO GAS	17955256.81	95.7
Ho	165	3	He	7029036.19	97.1
Lu	175	1	NO GAS	19932396.91	99.6
Lu	175	3	He	4297698.54	97.4

ICPMS206-B Analytical Data

Sample Name B22010972-001A
File Name 126SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 06:59:56
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.546	ug/l	1425.11
Be	9	45	1	NO GAS	0.004	ug/l	3.67
B	11	45	1	NO GAS	25.052	ug/l	6036.52
Na	23	45	3	He	37151.525	ug/l	3669560.08
Mg	24	45	3	He	14520.531	ug/l	747178.23
Al	27	45	1	NO GAS	3.672	ug/l	13041.69
Si	28	45	2	H2	24252.863	ug/l	420157.41
K	39	72	3	He	2377.758	ug/l	122470.27
Ca	40	72	2	H2	17068.764	ug/l	4097635.25
Ti	47	72	1	NO GAS	1.521	ug/l	1496.01
V	51	72	1	NO GAS	10.991	ug/l	141653.97
V	51	72	3	He	9.589	ug/l	14372.83
Cr	52	72	1	NO GAS	1.105	ug/l	31287.00
Cr	52	72	3	He	1.950	ug/l	3922.71
Cr	53	72	1	NO GAS	-97.583	ug/l	28823.78
Mn	55	72	1	NO GAS	0.068	ug/l	2571.78
Mn	55	72	3	He	0.105	ug/l	109.68
Fe	56	72	2	H2	0.722	ug/l	1341.07
Fe	56	72	3	He	0.544	ug/l	1562.65
Co	59	72	1	NO GAS	0.022	ug/l	465.75
Ni	60	72	1	NO GAS	0.401	ug/l	1586.93
Ni	60	72	3	He	0.221	ug/l	301.12
Ni	62	72	1	NO GAS	0.224	ug/l	565.56
Cu	63	72	1	NO GAS	1.062	ug/l	11114.82
Cu	63	72	3	He	0.632	ug/l	2469.02
Cu	65	72	1	NO GAS	0.670	ug/l	3559.68
Zn	66	72	1	NO GAS	9.411	ug/l	31344.09
Zn	66	72	3	He	9.863	ug/l	5287.54
As	75	72	1	NO GAS	0.716	ug/l	6481.01
As	75	72	3	He	0.475	ug/l	170.63
Se	78	72	2	H2	0.064	ug/l	12.00
Br	79	72	1	NO GAS	20.130	ug/l	218914.59
Br	79	72	2	H2	19.847	ug/l	34327.98
Se	82	72	1	NO GAS	1.371	ug/l	613.51
Kr	84	72	1	NO GAS		ug/l	37168.12
Sr	88	72	1	NO GAS	120.078	ug/l	4908988.14
Sr	88	72	3	He	122.360	ug/l	208271.10

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.728	ug/l	6455.77
Mo	95	72	3	He	0.771	ug/l	2207.94
Mo	98	72	1	NO GAS	0.737	ug/l	11179.44
Ag	107	72	1	NO GAS	-0.069	ug/l	263.28
Ag	109	72	1	NO GAS	-0.066	ug/l	254.62
Cd	111	159	1	NO GAS	-0.002	ug/l	-2.79
Cd	111	159	3	He	0.000	ug/l	4.00
Cd	114	159	1	NO GAS	0.016	ug/l	9.61
Cd	114	159	3	He	0.009	ug/l	8.22
Sn	118	159	1	NO GAS	-2.477	ug/l	1720.03
Sn	118	159	3	He	-2.577	ug/l	263.34
Sb	121	159	1	NO GAS	-0.003	ug/l	495.57
Sb	121	159	3	He	0.003	ug/l	85.55
Sb	123	159	1	NO GAS	0.000	ug/l	444.45
Sb	123	159	3	He	0.006	ug/l	66.67
Ba	135	159	1	NO GAS	6.145	ug/l	33502.24
Ba	137	159	1	NO GAS	6.174	ug/l	58381.00
La	139	175	1	NO GAS	0.001	ug/l	156.83
La	139	175	3	He	0.003	ug/l	63.40
Ce	140	175	1	NO GAS	0.001	ug/l	186.86
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.000	ug/l	20.66
Hg	202	175	1	NO GAS	0.000	ug/l	85.65
Hg	202	175	3	He	0.002	ug/l	50.66
Tl	203	175	3	He	0.271	ug/l	4247.77
Tl	205	175	1	NO GAS	0.205	ug/l	15782.90
Tl	205	175	3	He	0.274	ug/l	10566.27
[Pb]	206	175	1	NO GAS	0.003	ug/l	140.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	116.67
Pb	208	175	1	NO GAS	0.004	ug/l	587.79
Th	232	175	3	He	-0.004	ug/l	1169.82
U	238	175	1	NO GAS	0.032	ug/l	3550.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2277644.53	109.4
Sc	45	2	H2	103008.25	113.4
Sc	45	3	He	59669.91	108.6
Ge	72	1	NO GAS	971779.90	108.5
Ge	72	2	H2	150788.05	116.5
Ge	72	3	He	92992.39	110.3
Tb	159	1	NO GAS	20020687.28	99.5
Tb	159	3	He	7447267.00	101.4
Ho	165	1	NO GAS	19039752.42	101.4
Ho	165	3	He	7214526.09	99.6
Lu	175	1	NO GAS	20869679.78	104.3
Lu	175	3	He	4474526.09	101.4

ICPMS206-B Analytical Data

Sample Name B22010972-001B
File Name 127SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:05:40
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.129	ug/l	1748.41
Be	9	45	1	NO GAS	0.027	ug/l	8.67
B	11	45	1	NO GAS	24.862	ug/l	4989.74
Na	23	45	3	He	37714.437	ug/l	2924836.83
Mg	24	45	3	He	14708.653	ug/l	593958.05
Al	27	45	1	NO GAS	64.487	ug/l	182291.33
Si	28	45	2	H2	24298.392	ug/l	290142.91
K	39	72	3	He	2254.929	ug/l	94298.65
Ca	40	72	2	H2	15183.684	ug/l	2815160.40
Ti	47	72	1	NO GAS	7.990	ug/l	6716.40
V	51	72	1	NO GAS	8.562	ug/l	92357.26
V	51	72	3	He	9.729	ug/l	11819.75
Cr	52	72	1	NO GAS	2.420	ug/l	43386.58
Cr	52	72	3	He	2.293	ug/l	3723.06
Cr	53	72	1	NO GAS	51.890	ug/l	170310.58
Mn	55	72	1	NO GAS	0.847	ug/l	16562.18
Mn	55	72	3	He	0.847	ug/l	658.08
Fe	56	72	2	H2	50.669	ug/l	54164.43
Fe	56	72	3	He	59.669	ug/l	85818.97
Co	59	72	1	NO GAS	0.065	ug/l	1094.54
Ni	60	72	1	NO GAS	0.715	ug/l	2508.58
Ni	60	72	3	He	0.453	ug/l	468.90
Ni	62	72	1	NO GAS	0.438	ug/l	608.81
Cu	63	72	1	NO GAS	0.749	ug/l	7037.44
Cu	63	72	3	He	0.206	ug/l	762.87
Cu	65	72	1	NO GAS	0.284	ug/l	1461.78
Zn	66	72	1	NO GAS	14.111	ug/l	41345.41
Zn	66	72	3	He	14.721	ug/l	6372.38
As	75	72	1	NO GAS	0.974	ug/l	6493.29
As	75	72	3	He	0.515	ug/l	149.64
Se	78	72	2	H2	0.109	ug/l	13.67
Br	79	72	1	NO GAS	3.133	ug/l	87407.79
Br	79	72	2	H2	4.743	ug/l	13379.02
Se	82	72	1	NO GAS	1.373	ug/l	531.65
Kr	84	72	1	NO GAS		ug/l	34454.47
Sr	88	72	1	NO GAS	130.105	ug/l	4686973.72
Sr	88	72	3	He	132.160	ug/l	182398.19

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.212	ug/l	9442.81
Mo	95	72	3	He	1.315	ug/l	3029.19
Mo	98	72	1	NO GAS	1.241	ug/l	16530.32
Ag	107	72	1	NO GAS	0.542	ug/l	13599.02
Ag	109	72	1	NO GAS	0.539	ug/l	13246.81
Cd	111	159	1	NO GAS	-0.001	ug/l	7.43
Cd	111	159	3	He	-0.001	ug/l	1.33
Cd	114	159	1	NO GAS	0.008	ug/l	-109.60
Cd	114	159	3	He	0.008	ug/l	3.87
Sn	118	159	1	NO GAS	-2.122	ug/l	8361.23
Sn	118	159	3	He	-2.275	ug/l	1016.71
Sb	121	159	1	NO GAS	0.014	ug/l	967.82
Sb	121	159	3	He	0.027	ug/l	162.23
Sb	123	159	1	NO GAS	0.018	ug/l	843.36
Sb	123	159	3	He	0.036	ug/l	146.67
Ba	135	159	1	NO GAS	5.720	ug/l	32465.50
Ba	137	159	1	NO GAS	5.705	ug/l	56178.25
La	139	175	1	NO GAS	0.016	ug/l	1471.58
La	139	175	3	He	0.015	ug/l	293.64
Ce	140	175	1	NO GAS	0.036	ug/l	3183.59
Ce	140	175	3	He	0.034	ug/l	807.52
Hg	201	175	1	NO GAS	0.003	ug/l	37.66
Hg	202	175	1	NO GAS	0.008	ug/l	167.63
Hg	202	175	3	He	0.007	ug/l	81.65
Tl	203	175	3	He	0.113	ug/l	1935.08
Tl	205	175	1	NO GAS	0.073	ug/l	6915.00
Tl	205	175	3	He	0.112	ug/l	4727.15
[Pb]	206	175	1	NO GAS	0.025	ug/l	644.46
[Pb]	207	175	1	NO GAS	0.022	ug/l	513.35
Pb	208	175	1	NO GAS	0.022	ug/l	2304.53
Th	232	175	3	He	0.114	ug/l	6912.25
U	238	175	1	NO GAS	0.036	ug/l	4040.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1895263.21	91.0
Sc	45	2	H2	71025.92	78.2
Sc	45	3	He	46845.79	85.3
Ge	72	1	NO GAS	854579.07	95.4
Ge	72	2	H2	116586.37	90.0
Ge	72	3	He	75407.54	89.5
Tb	159	1	NO GAS	20800748.35	103.4
Tb	159	3	He	7060510.05	96.1
Ho	165	1	NO GAS	19094043.37	101.7
Ho	165	3	He	6901951.71	95.3
Lu	175	1	NO GAS	21157172.26	105.7
Lu	175	3	He	4306763.33	97.6

ICPMS206-B Analytical Data

Sample Name B22010973-001A
File Name 128SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:11:23
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.930	ug/l	1027.83
Be	9	45	1	NO GAS	0.009	ug/l	4.33
B	11	45	1	NO GAS	71.355	ug/l	13667.40
Na	23	45	3	He	41820.887	ug/l	4049514.97
Mg	24	45	3	He	12677.852	ug/l	639690.61
Al	27	45	1	NO GAS	1.899	ug/l	5764.34
Si	28	45	2	H2	9900.838	ug/l	166145.46
K	39	72	3	He	3441.129	ug/l	176685.78
Ca	40	72	2	H2	13360.787	ug/l	3057083.59
Ti	47	72	1	NO GAS	0.593	ug/l	576.39
V	51	72	1	NO GAS	1.690	ug/l	326.27
V	51	72	3	He	-0.092	ug/l	217.78
Cr	52	72	1	NO GAS	-0.502	ug/l	8961.34
Cr	52	72	3	He	0.066	ug/l	276.13
Cr	53	72	1	NO GAS	-102.812	ug/l	22123.73
Mn	55	72	1	NO GAS	25.253	ug/l	495825.72
Mn	55	72	3	He	25.690	ug/l	24422.65
Fe	56	72	2	H2	21.040	ug/l	27872.73
Fe	56	72	3	He	21.423	ug/l	38579.99
Co	59	72	1	NO GAS	0.032	ug/l	595.50
Ni	60	72	1	NO GAS	0.361	ug/l	1340.74
Ni	60	72	3	He	0.243	ug/l	328.89
Ni	62	72	1	NO GAS	0.189	ug/l	538.95
Cu	63	72	1	NO GAS	0.748	ug/l	7526.88
Cu	63	72	3	He	0.224	ug/l	1013.17
Cu	65	72	1	NO GAS	0.259	ug/l	1451.11
Zn	66	72	1	NO GAS	3.565	ug/l	11416.90
Zn	66	72	3	He	3.723	ug/l	2043.48
As	75	72	1	NO GAS	0.357	ug/l	5057.85
As	75	72	3	He	0.160	ug/l	62.32
Se	78	72	2	H2	0.055	ug/l	10.33
Br	79	72	1	NO GAS	9.225	ug/l	133205.86
Br	79	72	2	H2	9.786	ug/l	21918.02
Se	82	72	1	NO GAS	0.759	ug/l	415.20
Kr	84	72	1	NO GAS		ug/l	28494.63
Sr	88	72	1	NO GAS	91.475	ug/l	3522292.77
Sr	88	72	3	He	87.896	ug/l	150401.51

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.902	ug/l	138782.27
Mo	95	72	3	He	16.881	ug/l	47656.99
Mo	98	72	1	NO GAS	16.550	ug/l	232234.90
Ag	107	72	1	NO GAS	-0.077	ug/l	63.32
Ag	109	72	1	NO GAS	-0.073	ug/l	71.98
Cd	111	159	1	NO GAS	0.001	ug/l	11.12
Cd	111	159	3	He	0.009	ug/l	16.00
Cd	114	159	1	NO GAS	0.024	ug/l	105.17
Cd	114	159	3	He	0.016	ug/l	35.48
Sn	118	159	1	NO GAS	-2.426	ug/l	2488.63
Sn	118	159	3	He	-2.549	ug/l	340.01
Sb	121	159	1	NO GAS	0.036	ug/l	1327.84
Sb	121	159	3	He	0.024	ug/l	161.11
Sb	123	159	1	NO GAS	0.037	ug/l	1051.15
Sb	123	159	3	He	0.038	ug/l	163.34
Ba	135	159	1	NO GAS	2.378	ug/l	11704.45
Ba	137	159	1	NO GAS	2.402	ug/l	20336.28
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	30.03
Ce	140	175	1	NO GAS	0.002	ug/l	223.57
Ce	140	175	3	He	0.003	ug/l	83.42
Hg	201	175	1	NO GAS	0.001	ug/l	23.00
Hg	202	175	1	NO GAS	0.025	ug/l	292.28
Hg	202	175	3	He	0.018	ug/l	157.30
Tl	203	175	3	He	0.129	ug/l	2218.40
Tl	205	175	1	NO GAS	0.117	ug/l	8758.18
Tl	205	175	3	He	0.133	ug/l	5633.28
[Pb]	206	175	1	NO GAS	0.014	ug/l	360.01
[Pb]	207	175	1	NO GAS	0.012	ug/l	261.11
Pb	208	175	1	NO GAS	0.013	ug/l	1282.26
Th	232	175	3	He	-0.014	ug/l	683.22
U	238	175	1	NO GAS	0.007	ug/l	838.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2077201.94	99.8
Sc	45	2	H2	99297.16	109.3
Sc	45	3	He	58481.60	106.5
Ge	72	1	NO GAS	971566.89	108.5
Ge	72	2	H2	143695.04	111.0
Ge	72	3	He	93461.69	110.9
Tb	159	1	NO GAS	19874735.29	98.8
Tb	159	3	He	7482455.89	101.8
Ho	165	1	NO GAS	18876155.28	100.6
Ho	165	3	He	7325530.95	101.2
Lu	175	1	NO GAS	20458449.71	102.2
Lu	175	3	He	4455255.36	101.0

ICPMS206-B Analytical Data

Sample Name CCV
File Name 129_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:17:08
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	335.828	ug/l	239165.82
Be	9	45	1	NO GAS	43.391	ug/l	10961.90
B	11	45	1	NO GAS	43.884	ug/l	8250.36
Na	23	45	3	He	11350.143	ug/l	912980.35
Mg	24	45	3	He	11254.512	ug/l	468638.05
Al	27	45	1	NO GAS	44.410	ug/l	120574.76
Si	28	45	2	H2	182.651	ug/l	3141.01
K	39	72	3	He	10455.004	ug/l	442106.46
Ca	40	72	2	H2	11092.975	ug/l	2023790.85
Ti	47	72	1	NO GAS	45.037	ug/l	38790.09
V	51	72	1	NO GAS	43.411	ug/l	575456.95
V	51	72	3	He	47.730	ug/l	58747.39
Cr	52	72	1	NO GAS	44.201	ug/l	560224.83
Cr	52	72	3	He	49.500	ug/l	80428.54
Cr	53	72	1	NO GAS	33.883	ug/l	156780.09
Mn	55	72	1	NO GAS	44.747	ug/l	845825.35
Mn	55	72	3	He	47.264	ug/l	37444.56
Fe	56	72	2	H2	1123.887	ug/l	1174188.32
Fe	56	72	3	He	1244.387	ug/l	1838137.59
Co	59	72	1	NO GAS	45.453	ug/l	743150.32
Ni	60	72	1	NO GAS	46.177	ug/l	164120.94
Ni	60	72	3	He	51.592	ug/l	51792.99
Ni	62	72	1	NO GAS	47.619	ug/l	26631.70
Cu	63	72	1	NO GAS	47.918	ug/l	433225.53
Cu	63	72	3	He	51.610	ug/l	155238.62
Cu	65	72	1	NO GAS	47.414	ug/l	212694.08
Zn	66	72	1	NO GAS	47.200	ug/l	141017.29
Zn	66	72	3	He	50.916	ug/l	22635.42
As	75	72	1	NO GAS	47.444	ug/l	156584.77
As	75	72	3	He	50.550	ug/l	14597.79
Se	78	72	2	H2	55.187	ug/l	5286.13
Br	79	72	1	NO GAS	0.793	ug/l	74489.34
Br	79	72	2	H2	1.624	ug/l	10505.98
Se	82	72	1	NO GAS	49.761	ug/l	13725.01
Kr	84	72	1	NO GAS		ug/l	18490.45
Sr	88	72	1	NO GAS	51.460	ug/l	1901676.94
Sr	88	72	3	He	52.733	ug/l	75286.01

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	50.696	ug/l	401655.45
Mo	95	72	3	He	54.961	ug/l	129274.11
Mo	98	72	1	NO GAS	50.308	ug/l	681590.42
Ag	107	72	1	NO GAS	20.676	ug/l	465674.82
Ag	109	72	1	NO GAS	20.782	ug/l	460778.11
Cd	111	159	1	NO GAS	46.603	ug/l	279800.01
Cd	111	159	3	He	49.196	ug/l	66691.95
Cd	114	159	1	NO GAS	46.571	ug/l	648596.56
Cd	114	159	3	He	48.282	ug/l	170562.56
Sn	118	159	1	NO GAS	45.714	ug/l	845226.50
Sn	118	159	3	He	46.455	ug/l	121843.10
Sb	121	159	1	NO GAS	45.770	ug/l	1155517.11
Sb	121	159	3	He	48.144	ug/l	160375.19
Sb	123	159	1	NO GAS	45.367	ug/l	908999.56
Sb	123	159	3	He	47.978	ug/l	130449.44
Ba	135	159	1	NO GAS	46.675	ug/l	251015.73
Ba	137	159	1	NO GAS	47.201	ug/l	440453.33
La	139	175	1	NO GAS	47.601	ug/l	4034172.11
La	139	175	3	He	47.314	ug/l	853984.59
Ce	140	175	1	NO GAS	47.674	ug/l	4009319.18
Ce	140	175	3	He	47.263	ug/l	1081416.88
Hg	201	175	1	NO GAS	0.983	ug/l	4143.41
Hg	202	175	1	NO GAS	0.967	ug/l	9413.71
Hg	202	175	3	He	1.033	ug/l	6553.11
Tl	203	175	3	He	51.338	ug/l	676926.30
Tl	205	175	1	NO GAS	48.203	ug/l	3211253.22
Tl	205	175	3	He	51.970	ug/l	1680539.07
[Pb]	206	175	1	NO GAS	48.283	ug/l	1084045.98
[Pb]	207	175	1	NO GAS	47.785	ug/l	930462.06
Pb	208	175	1	NO GAS	48.332	ug/l	4306991.55
Th	232	175	3	He	53.022	ug/l	2501964.27
U	238	175	1	NO GAS	48.294	ug/l	4951372.02

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1812362.64	87.1
Sc	45	2	H2	73134.71	80.5
Sc	45	3	He	48282.19	87.9
Ge	72	1	NO GAS	872828.10	97.4
Ge	72	2	H2	114661.70	88.6
Ge	72	3	He	77876.45	92.4
Tb	159	1	NO GAS	1965598.87	97.7
Tb	159	3	He	6894775.00	93.8
Ho	165	1	NO GAS	18426234.34	98.2
Ho	165	3	He	6754646.34	93.3
Lu	175	1	NO GAS	20172676.34	100.8
Lu	175	3	He	4144878.74	94.0

ICPMS206-B Analytical Data

Sample Name CCB
File Name 130_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:22:48
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.319	ug/l	1553.76
Be	9	45	1	NO GAS	0.009	ug/l	4.00
B	11	45	1	NO GAS	-0.090	ug/l	255.28
Na	23	45	3	He	3.892	ug/l	8196.43
Mg	24	45	3	He	-0.061	ug/l	59.88
Al	27	45	1	NO GAS	0.006	ug/l	506.68
Si	28	45	2	H2	-70.784	ug/l	41.32
K	39	72	3	He	0.146	ug/l	2526.87
Ca	40	72	2	H2	-0.012	ug/l	574.73
Ti	47	72	1	NO GAS	0.001	ug/l	38.32
V	51	72	1	NO GAS	0.455	ug/l	-16609.60
V	51	72	3	He	-0.024	ug/l	255.56
Cr	52	72	1	NO GAS	-0.140	ug/l	12936.14
Cr	52	72	3	He	0.015	ug/l	143.05
Cr	53	72	1	NO GAS	-19.144	ug/l	103706.15
Mn	55	72	1	NO GAS	0.004	ug/l	1097.87
Mn	55	72	3	He	0.001	ug/l	9.33
Fe	56	72	2	H2	0.012	ug/l	321.51
Fe	56	72	3	He	0.076	ug/l	596.39
Co	59	72	1	NO GAS	0.002	ug/l	83.17
Ni	60	72	1	NO GAS	0.010	ug/l	53.23
Ni	60	72	3	He	-0.015	ug/l	14.44
Ni	62	72	1	NO GAS	-0.144	ug/l	302.74
Cu	63	72	1	NO GAS	-0.001	ug/l	449.92
Cu	63	72	3	He	-0.007	ug/l	144.97
Cu	65	72	1	NO GAS	-0.005	ug/l	208.63
Zn	66	72	1	NO GAS	-0.012	ug/l	282.55
Zn	66	72	3	He	-0.033	ug/l	37.78
As	75	72	1	NO GAS	0.125	ug/l	3924.51
As	75	72	3	He	-0.002	ug/l	5.00
Se	78	72	2	H2	0.005	ug/l	4.00
Br	79	72	1	NO GAS	0.270	ug/l	70944.22
Br	79	72	2	H2	-1.564	ug/l	9177.78
Se	82	72	1	NO GAS	0.789	ug/l	388.58
Kr	84	72	1	NO GAS		ug/l	8219.11
Sr	88	72	1	NO GAS	0.002	ug/l	452.44
Sr	88	72	3	He	-0.006	ug/l	191.12

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.016	ug/l	215.56
Mo	95	72	3	He	0.010	ug/l	56.67
Mo	98	72	1	NO GAS	0.011	ug/l	302.23
Ag	107	72	1	NO GAS	0.004	ug/l	1870.41
Ag	109	72	1	NO GAS	0.002	ug/l	1735.75
Cd	111	159	1	NO GAS	-0.005	ug/l	-17.17
Cd	111	159	3	He	-0.001	ug/l	2.00
Cd	114	159	1	NO GAS	-0.003	ug/l	-251.36
Cd	114	159	3	He	-0.005	ug/l	-41.24
Sn	118	159	1	NO GAS	-0.006	ug/l	44617.16
Sn	118	159	3	He	0.028	ug/l	6687.00
Sb	121	159	1	NO GAS	0.034	ug/l	1400.08
Sb	121	159	3	He	0.023	ug/l	146.67
Sb	123	159	1	NO GAS	0.035	ug/l	1132.27
Sb	123	159	3	He	0.032	ug/l	133.34
Ba	135	159	1	NO GAS	0.011	ug/l	79.84
Ba	137	159	1	NO GAS	0.006	ug/l	99.80
La	139	175	1	NO GAS	0.000	ug/l	103.44
La	139	175	3	He	0.000	ug/l	13.35
Ce	140	175	1	NO GAS	0.001	ug/l	150.15
Ce	140	175	3	He	0.001	ug/l	36.70
Hg	201	175	1	NO GAS	0.002	ug/l	32.32
Hg	202	175	1	NO GAS	0.004	ug/l	120.64
Hg	202	175	3	He	0.002	ug/l	48.32
Tl	203	175	3	He	0.081	ug/l	1419.12
Tl	205	175	1	NO GAS	0.063	ug/l	5898.99
Tl	205	175	3	He	0.080	ug/l	3474.39
[Pb]	206	175	1	NO GAS	0.001	ug/l	94.45
[Pb]	207	175	1	NO GAS	0.000	ug/l	68.89
Pb	208	175	1	NO GAS	0.001	ug/l	353.34
Th	232	175	3	He	0.039	ug/l	3109.72
U	238	175	1	NO GAS	0.003	ug/l	529.90

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1847973.82	88.8
Sc	45	2	H2	90468.98	99.6
Sc	45	3	He	46742.13	85.1
Ge	72	1	NO GAS	870243.34	97.1
Ge	72	2	H2	137036.01	105.8
Ge	72	3	He	75353.06	89.4
Tb	159	1	NO GAS	1951744.75	97.0
Tb	159	3	He	6877658.72	93.6
Ho	165	1	NO GAS	18375843.11	97.9
Ho	165	3	He	6692171.83	92.4
Lu	175	1	NO GAS	20284527.15	101.3
Lu	175	3	He	4098382.19	92.9

ICPMS206-B Analytical Data

Sample Name B22010973-001ADIL
File Name 131_ARF.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:28:36
Sample Type AllRef
Total Dilution 5.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-8.217	ug/l	1349.79
Be	9	45	1	NO GAS	0.005	ug/l	2.00
B	11	45	1	NO GAS	59.500	ug/l	2461.69
Na	23	45	3	He	40234.385	ug/l	630272.14
Mg	24	45	3	He	12173.083	ug/l	98393.07
Al	27	45	1	NO GAS	6.185	ug/l	3871.58
Si	28	45	2	H2	9349.686	ug/l	23765.77
K	39	72	3	He	3227.617	ug/l	29624.70
Ca	40	72	2	H2	11886.972	ug/l	443893.91
Ti	47	72	1	NO GAS	0.972	ug/l	208.23
V	51	72	1	NO GAS	1.904	ug/l	-17931.41
V	51	72	3	He	-0.198	ug/l	244.45
Cr	52	72	1	NO GAS	-1.210	ug/l	11900.75
Cr	52	72	3	He	0.156	ug/l	172.99
Cr	53	72	1	NO GAS	-153.707	ug/l	93926.88
Mn	55	72	1	NO GAS	23.413	ug/l	90854.04
Mn	55	72	3	He	25.277	ug/l	3998.21
Fe	56	72	2	H2	20.030	ug/l	4555.07
Fe	56	72	3	He	22.804	ug/l	7214.67
Co	59	72	1	NO GAS	0.047	ug/l	216.24
Ni	60	72	1	NO GAS	0.363	ug/l	279.45
Ni	60	72	3	He	0.200	ug/l	68.89
Ni	62	72	1	NO GAS	-0.015	ug/l	385.91
Cu	63	72	1	NO GAS	0.853	ug/l	2026.39
Cu	63	72	3	He	0.393	ug/l	404.59
Cu	65	72	1	NO GAS	0.403	ug/l	600.56
Zn	66	72	1	NO GAS	7.605	ug/l	4930.54
Zn	66	72	3	He	8.823	ug/l	832.25
As	75	72	1	NO GAS	0.135	ug/l	3659.40
As	75	72	3	He	0.154	ug/l	14.67
Se	78	72	2	H2	0.015	ug/l	3.33
Br	79	72	1	NO GAS	10.894	ug/l	84678.37
Br	79	72	2	H2	14.001	ug/l	11750.97
Se	82	72	1	NO GAS	4.707	ug/l	437.83
Kr	84	72	1	NO GAS		ug/l	11354.80
Sr	88	72	1	NO GAS	85.265	ug/l	640503.31
Sr	88	72	3	He	92.321	ug/l	26405.66

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.815	ug/l	27139.19
Mo	95	72	3	He	18.709	ug/l	8803.54
Mo	98	72	1	NO GAS	16.676	ug/l	46053.98
Ag	107	72	1	NO GAS	-0.373	ug/l	119.31
Ag	109	72	1	NO GAS	-0.358	ug/l	108.65
Cd	111	159	1	NO GAS	0.023	ug/l	41.19
Cd	111	159	3	He	0.010	ug/l	6.00
Cd	114	159	1	NO GAS	0.124	ug/l	135.25
Cd	114	159	3	He	0.063	ug/l	19.80
Sn	118	159	1	NO GAS	-11.946	ug/l	3213.99
Sn	118	159	3	He	-12.332	ug/l	525.57
Sb	121	159	1	NO GAS	0.043	ug/l	773.36
Sb	121	159	3	He	0.060	ug/l	111.11
Sb	123	159	1	NO GAS	0.044	ug/l	611.13
Sb	123	159	3	He	0.049	ug/l	73.33
Ba	135	159	1	NO GAS	2.498	ug/l	2704.90
Ba	137	159	1	NO GAS	2.530	ug/l	4754.66
La	139	175	1	NO GAS	0.008	ug/l	206.88
La	139	175	3	He	0.009	ug/l	43.38
Ce	140	175	1	NO GAS	0.007	ug/l	176.85
Ce	140	175	3	He	0.010	ug/l	60.06
Hg	201	175	1	NO GAS	0.007	ug/l	27.66
Hg	202	175	1	NO GAS	0.036	ug/l	150.64
Hg	202	175	3	He	0.020	ug/l	59.66
Tl	203	175	3	He	0.309	ug/l	1179.15
Tl	205	175	1	NO GAS	0.228	ug/l	4808.58
Tl	205	175	3	He	0.303	ug/l	2885.71
[Pb]	206	175	1	NO GAS	0.041	ug/l	255.56
[Pb]	207	175	1	NO GAS	0.049	ug/l	252.23
Pb	208	175	1	NO GAS	0.049	ug/l	1133.44
Th	232	175	3	He	0.012	ug/l	1399.13
U	238	175	1	NO GAS	0.009	ug/l	371.27

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1836645.00	88.2
Sc	45	2	H2	72967.74	80.4
Sc	45	3	He	46836.96	85.3
Ge	72	1	NO GAS	886771.66	99.0
Ge	72	2	H2	117187.70	90.5
Ge	72	3	He	77613.61	92.1
Tb	159	1	NO GAS	19657616.09	97.7
Tb	159	3	He	6979374.86	95.0
Ho	165	1	NO GAS	18673644.86	99.5
Ho	165	3	He	6794317.05	93.8
Lu	175	1	NO GAS	20444453.94	102.1
Lu	175	3	He	4135640.91	93.8

ICPMS206-B Analytical Data

Sample Name B22010973-001AMS
File Name 132MS.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:34:19
Sample Type MS
Total Dilution 1.0300
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1596.753	ug/l	1044536.69
Be	9	45	1	NO GAS	42.875	ug/l	11025.27
B	11	45	1	NO GAS	101.146	ug/l	19034.71
Na	23	45	3	He	92379.375	ug/l	7675989.40
Mg	24	45	3	He	61642.642	ug/l	2671102.55
Al	27	45	1	NO GAS	47.940	ug/l	132527.15
Si	28	45	2	H2	10009.517	ug/l	131484.04
K	39	72	3	He	49342.280	ug/l	2116633.86
Ca	40	72	2	H2	58716.791	ug/l	10836658.79
Ti	47	72	1	NO GAS	51.072	ug/l	42111.61
V	51	72	1	NO GAS	47.144	ug/l	599452.76
V	51	72	3	He	50.221	ug/l	62992.54
Cr	52	72	1	NO GAS	45.506	ug/l	552018.86
Cr	52	72	3	He	50.315	ug/l	83350.38
Cr	53	72	1	NO GAS	21.283	ug/l	141565.05
Mn	55	72	1	NO GAS	68.439	ug/l	1237630.16
Mn	55	72	3	He	75.191	ug/l	60725.89
Fe	56	72	2	H2	4625.670	ug/l	4891424.48
Fe	56	72	3	He	5069.116	ug/l	7631981.38
Co	59	72	1	NO GAS	45.636	ug/l	714146.19
Ni	60	72	1	NO GAS	47.186	ug/l	160539.90
Ni	60	72	3	He	51.731	ug/l	52955.40
Ni	62	72	1	NO GAS	46.522	ug/l	24915.95
Cu	63	72	1	NO GAS	47.787	ug/l	413526.75
Cu	63	72	3	He	50.698	ug/l	155476.83
Cu	65	72	1	NO GAS	47.057	ug/l	202070.40
Zn	66	72	1	NO GAS	49.471	ug/l	141464.85
Zn	66	72	3	He	54.279	ug/l	24593.71
As	75	72	1	NO GAS	50.044	ug/l	158080.46
As	75	72	3	He	53.887	ug/l	15865.35
Se	78	72	2	H2	55.749	ug/l	5406.47
Br	79	72	1	NO GAS	9.448	ug/l	126224.24
Br	79	72	2	H2	10.567	ug/l	18633.75
Se	82	72	1	NO GAS	53.623	ug/l	14155.19
Kr	84	72	1	NO GAS		ug/l	36608.16
Sr	88	72	1	NO GAS	134.819	ug/l	4768807.56
Sr	88	72	3	He	141.035	ug/l	204912.49

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	66.897	ug/l	507299.97
Mo	95	72	3	He	72.072	ug/l	172788.50
Mo	98	72	1	NO GAS	67.204	ug/l	871405.69
Ag	107	72	1	NO GAS	20.560	ug/l	443299.71
Ag	109	72	1	NO GAS	20.732	ug/l	439986.06
Cd	111	159	1	NO GAS	46.908	ug/l	256195.86
Cd	111	159	3	He	48.170	ug/l	63788.95
Cd	114	159	1	NO GAS	46.800	ug/l	592886.94
Cd	114	159	3	He	47.809	ug/l	164991.26
Sn	118	159	1	NO GAS	46.691	ug/l	785807.25
Sn	118	159	3	He	47.342	ug/l	121363.51
Sb	121	159	1	NO GAS	49.228	ug/l	1130611.92
Sb	121	159	3	He	48.777	ug/l	158738.06
Sb	123	159	1	NO GAS	48.760	ug/l	888903.93
Sb	123	159	3	He	49.965	ug/l	132698.38
Ba	135	159	1	NO GAS	50.329	ug/l	246285.49
Ba	137	159	1	NO GAS	51.033	ug/l	433193.44
La	139	175	1	NO GAS	0.006	ug/l	520.54
La	139	175	3	He	0.004	ug/l	80.08
Ce	140	175	1	NO GAS	46.994	ug/l	3724431.36
Ce	140	175	3	He	47.954	ug/l	1063016.35
Hg	201	175	1	NO GAS	0.957	ug/l	3806.72
Hg	202	175	1	NO GAS	0.990	ug/l	9083.91
Hg	202	175	3	He	1.032	ug/l	6345.06
Tl	203	175	3	He	48.179	ug/l	615489.15
Tl	205	175	1	NO GAS	45.790	ug/l	2875535.72
Tl	205	175	3	He	49.361	ug/l	1546158.91
[Pb]	206	175	1	NO GAS	47.223	ug/l	999230.70
[Pb]	207	175	1	NO GAS	46.762	ug/l	857930.27
Pb	208	175	1	NO GAS	47.597	ug/l	3996175.27
Th	232	175	3	He	53.030	ug/l	2423793.58
U	238	175	1	NO GAS	48.638	ug/l	4701073.75

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1899157.52	91.2
Sc	45	2	H2	80078.54	88.2
Sc	45	3	He	51765.97	94.3
Ge	72	1	NO GAS	860389.42	96.0
Ge	72	2	H2	119432.26	92.2
Ge	72	3	He	81767.05	97.0
Tb	159	1	NO GAS	18415696.92	91.5
Tb	159	3	He	6935993.30	94.4
Ho	165	1	NO GAS	17569489.08	93.6
Ho	165	3	He	6714220.13	92.7
Lu	175	1	NO GAS	19586361.09	97.9
Lu	175	3	He	4135483.46	93.7

ICPMS206-B Analytical Data

Sample Name B22010973-001AMSD
File Name 133MSD.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:39:58
Sample Type MSD
Total Dilution 1.0300
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1968.250	ug/l	1278338.72
Be	9	45	1	NO GAS	44.813	ug/l	13407.12
B	11	45	1	NO GAS	103.276	ug/l	22630.26
Na	23	45	3	He	91451.543	ug/l	8639541.19
Mg	24	45	3	He	61855.765	ug/l	3049169.14
Al	27	45	1	NO GAS	48.512	ug/l	156139.38
Si	28	45	2	H2	9917.396	ug/l	164396.60
K	39	72	3	He	51060.499	ug/l	2364167.55
Ca	40	72	2	H2	64503.855	ug/l	13754164.25
Ti	47	72	1	NO GAS	52.019	ug/l	46595.80
V	51	72	1	NO GAS	47.619	ug/l	658078.56
V	51	72	3	He	49.166	ug/l	66573.67
Cr	52	72	1	NO GAS	46.283	ug/l	609621.16
Cr	52	72	3	He	48.938	ug/l	87498.65
Cr	53	72	1	NO GAS	14.183	ug/l	146441.67
Mn	55	72	1	NO GAS	71.251	ug/l	1399750.25
Mn	55	72	3	He	76.047	ug/l	66281.11
Fe	56	72	2	H2	4838.177	ug/l	5913049.19
Fe	56	72	3	He	5175.376	ug/l	8411248.14
Co	59	72	1	NO GAS	46.002	ug/l	782131.66
Ni	60	72	1	NO GAS	46.103	ug/l	170449.63
Ni	60	72	3	He	50.705	ug/l	56014.25
Ni	62	72	1	NO GAS	46.732	ug/l	27201.77
Cu	63	72	1	NO GAS	47.420	ug/l	445845.04
Cu	63	72	3	He	49.894	ug/l	165132.60
Cu	65	72	1	NO GAS	46.620	ug/l	217508.84
Zn	66	72	1	NO GAS	47.872	ug/l	148768.42
Zn	66	72	3	He	50.710	ug/l	24805.07
As	75	72	1	NO GAS	48.967	ug/l	168065.05
As	75	72	3	He	52.155	ug/l	16570.22
Se	78	72	2	H2	53.689	ug/l	6019.56
Br	79	72	1	NO GAS	9.583	ug/l	138019.28
Br	79	72	2	H2	10.829	ug/l	21791.41
Se	82	72	1	NO GAS	50.011	ug/l	14356.44
Kr	84	72	1	NO GAS		ug/l	38161.79
Sr	88	72	1	NO GAS	135.534	ug/l	5208696.28
Sr	88	72	3	He	140.586	ug/l	220471.29

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	64.980	ug/l	535208.45
Mo	95	72	3	He	69.329	ug/l	179386.46
Mo	98	72	1	NO GAS	63.210	ug/l	890314.38
Ag	107	72	1	NO GAS	19.740	ug/l	462409.74
Ag	109	72	1	NO GAS	19.015	ug/l	438557.22
Cd	111	159	1	NO GAS	46.686	ug/l	264514.27
Cd	111	159	3	He	48.149	ug/l	65283.73
Cd	114	159	1	NO GAS	46.776	ug/l	614906.55
Cd	114	159	3	He	48.023	ug/l	169734.11
Sn	118	159	1	NO GAS	46.065	ug/l	805079.86
Sn	118	159	3	He	46.927	ug/l	123226.30
Sb	121	159	1	NO GAS	47.228	ug/l	1125469.03
Sb	121	159	3	He	49.520	ug/l	165002.12
Sb	123	159	1	NO GAS	46.599	ug/l	881555.40
Sb	123	159	3	He	49.901	ug/l	135681.91
Ba	135	159	1	NO GAS	49.209	ug/l	249857.95
Ba	137	159	1	NO GAS	48.862	ug/l	430369.13
La	139	175	1	NO GAS	0.007	ug/l	603.97
La	139	175	3	He	0.003	ug/l	60.06
Ce	140	175	1	NO GAS	48.047	ug/l	3781561.22
Ce	140	175	3	He	47.848	ug/l	1082496.59
Hg	201	175	1	NO GAS	0.960	ug/l	3790.72
Hg	202	175	1	NO GAS	0.970	ug/l	8837.81
Hg	202	175	3	He	1.001	ug/l	6282.38
Tl	203	175	3	He	46.842	ug/l	610623.72
Tl	205	175	1	NO GAS	46.799	ug/l	2917397.08
Tl	205	175	3	He	48.094	ug/l	1536691.26
[Pb]	206	175	1	NO GAS	45.536	ug/l	956551.83
[Pb]	207	175	1	NO GAS	44.901	ug/l	818123.90
Pb	208	175	1	NO GAS	46.064	ug/l	3841586.51
Th	232	175	3	He	51.354	ug/l	2396433.40
U	238	175	1	NO GAS	46.974	ug/l	4509958.19

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2214738.44	106.4
Sc	45	2	H2	101072.66	111.3
Sc	45	3	He	58882.96	107.2
Ge	72	1	NO GAS	934803.70	104.4
Ge	72	2	H2	138023.97	106.6
Ge	72	3	He	88256.69	104.7
Tb	159	1	NO GAS	19108969.34	95.0
Tb	159	3	He	7107750.21	96.7
Ho	165	1	NO GAS	17454031.54	93.0
Ho	165	3	He	6809421.89	94.0
Lu	175	1	NO GAS	19452177.95	97.2
Lu	175	3	He	4222291.99	95.7

ICPMS206-B Analytical Data

Sample Name Rinse
File Name 134BLKV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:45:36
Sample Type BlkVrfy
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.605	ug/l	3532.33
Be	9	45	1	NO GAS	0.023	ug/l	9.67
B	11	45	1	NO GAS	0.389	ug/l	413.93
Na	23	45	3	He	187.664	ug/l	27813.52
Mg	24	45	3	He	2.508	ug/l	202.93
Al	27	45	1	NO GAS	0.548	ug/l	2397.97
Si	28	45	2	H2	-68.824	ug/l	75.32
K	39	72	3	He	11.311	ug/l	3467.04
Ca	40	72	2	H2	3.515	ug/l	1341.07
Ti	47	72	1	NO GAS	0.085	ug/l	116.61
V	51	72	1	NO GAS	0.762	ug/l	-14165.05
V	51	72	3	He	-0.039	ug/l	275.56
Cr	52	72	1	NO GAS	-0.038	ug/l	15306.69
Cr	52	72	3	He	-0.003	ug/l	133.07
Cr	53	72	1	NO GAS	-28.679	ug/l	101766.15
Mn	55	72	1	NO GAS	0.023	ug/l	1573.63
Mn	55	72	3	He	0.020	ug/l	27.33
Fe	56	72	2	H2	0.678	ug/l	1151.15
Fe	56	72	3	He	0.670	ug/l	1680.93
Co	59	72	1	NO GAS	0.012	ug/l	272.80
Ni	60	72	1	NO GAS	0.027	ug/l	123.09
Ni	60	72	3	He	0.011	ug/l	45.56
Ni	62	72	1	NO GAS	-0.126	ug/l	349.31
Cu	63	72	1	NO GAS	0.015	ug/l	641.89
Cu	63	72	3	He	0.015	ug/l	241.62
Cu	65	72	1	NO GAS	0.013	ug/l	311.94
Zn	66	72	1	NO GAS	0.004	ug/l	359.16
Zn	66	72	3	He	0.044	ug/l	82.22
As	75	72	1	NO GAS	0.011	ug/l	3706.04
As	75	72	3	He	0.013	ug/l	11.00
Se	78	72	2	H2	0.011	ug/l	4.67
Br	79	72	1	NO GAS	-2.359	ug/l	58276.63
Br	79	72	2	H2	-1.585	ug/l	9181.11
Se	82	72	1	NO GAS	0.534	ug/l	338.68
Kr	84	72	1	NO GAS		ug/l	8658.52
Sr	88	72	1	NO GAS	0.019	ug/l	1161.09
Sr	88	72	3	He	0.020	ug/l	264.45

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.039	ug/l	432.23
Mo	95	72	3	He	0.048	ug/l	166.67
Mo	98	72	1	NO GAS	0.040	ug/l	742.12
Ag	107	72	1	NO GAS	0.005	ug/l	2045.73
Ag	109	72	1	NO GAS	0.004	ug/l	1906.41
Cd	111	159	1	NO GAS	-0.004	ug/l	-9.63
Cd	111	159	3	He	0.009	ug/l	16.67
Cd	114	159	1	NO GAS	0.010	ug/l	-68.10
Cd	114	159	3	He	0.019	ug/l	44.03
Sn	118	159	1	NO GAS	-2.321	ug/l	4208.92
Sn	118	159	3	He	-2.409	ug/l	714.46
Sb	121	159	1	NO GAS	0.003	ug/l	612.24
Sb	121	159	3	He	0.010	ug/l	111.11
Sb	123	159	1	NO GAS	0.008	ug/l	566.68
Sb	123	159	3	He	0.016	ug/l	96.67
Ba	135	159	1	NO GAS	0.038	ug/l	222.89
Ba	137	159	1	NO GAS	0.046	ug/l	452.45
La	139	175	1	NO GAS	0.002	ug/l	260.27
La	139	175	3	He	0.002	ug/l	53.39
Ce	140	175	1	NO GAS	0.003	ug/l	320.33
Ce	140	175	3	He	0.003	ug/l	83.42
Hg	201	175	1	NO GAS	0.005	ug/l	42.99
Hg	202	175	1	NO GAS	0.005	ug/l	126.64
Hg	202	175	3	He	0.005	ug/l	66.99
Tl	203	175	3	He	0.258	ug/l	4014.42
Tl	205	175	1	NO GAS	0.220	ug/l	16409.36
Tl	205	175	3	He	0.263	ug/l	10056.70
[Pb]	206	175	1	NO GAS	0.015	ug/l	382.23
[Pb]	207	175	1	NO GAS	0.015	ug/l	341.12
Pb	208	175	1	NO GAS	0.014	ug/l	1428.93
Th	232	175	3	He	0.047	ug/l	3721.07
U	238	175	1	NO GAS	0.010	ug/l	1194.82

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2284109.59	109.7
Sc	45	2	H2	94967.64	104.6
Sc	45	3	He	58074.82	105.7
Ge	72	1	NO GAS	956637.85	106.8
Ge	72	2	H2	136024.16	105.1
Ge	72	3	He	87621.34	103.9
Tb	159	1	NO GAS	19075420.27	94.8
Tb	159	3	He	7435003.65	101.2
Ho	165	1	NO GAS	18380819.45	97.9
Ho	165	3	He	7144288.57	98.7
Lu	175	1	NO GAS	20178762.22	100.8
Lu	175	3	He	4420310.16	100.2

ICPMS206-B Analytical Data

Sample Name B22010973-001B
File Name 135SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:51:23
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	0.828	ug/l	3109.66
Be	9	45	1	NO GAS	0.013	ug/l	6.00
B	11	45	1	NO GAS	66.761	ug/l	14375.76
Na	23	45	3	He	44160.144	ug/l	4056586.92
Mg	24	45	3	He	13204.562	ug/l	631711.28
Al	27	45	1	NO GAS	7.839	ug/l	25107.43
Si	28	45	2	H2	10158.958	ug/l	150949.20
K	39	72	3	He	3665.394	ug/l	170050.01
Ca	40	72	2	H2	13292.196	ug/l	2822481.59
Ti	47	72	1	NO GAS	1.493	ug/l	1379.39
V	51	72	1	NO GAS	0.564	ug/l	-15788.88
V	51	72	3	He	0.094	ug/l	443.35
Cr	52	72	1	NO GAS	0.577	ug/l	22760.31
Cr	52	72	3	He	0.321	ug/l	698.64
Cr	53	72	1	NO GAS	18.614	ug/l	147671.77
Mn	55	72	1	NO GAS	33.476	ug/l	660385.64
Mn	55	72	3	He	36.335	ug/l	31245.45
Fe	56	72	2	H2	107.560	ug/l	131267.29
Fe	56	72	3	He	119.420	ug/l	191980.41
Co	59	72	1	NO GAS	0.077	ug/l	1380.67
Ni	60	72	1	NO GAS	0.499	ug/l	1866.42
Ni	60	72	3	He	0.355	ug/l	418.90
Ni	62	72	1	NO GAS	0.445	ug/l	655.39
Cu	63	72	1	NO GAS	0.765	ug/l	7683.58
Cu	63	72	3	He	0.245	ug/l	983.50
Cu	65	72	1	NO GAS	0.302	ug/l	1651.76
Zn	66	72	1	NO GAS	2.917	ug/l	9402.49
Zn	66	72	3	He	3.093	ug/l	1546.75
As	75	72	1	NO GAS	0.579	ug/l	5632.24
As	75	72	3	He	0.181	ug/l	62.99
Se	78	72	2	H2	0.105	ug/l	15.00
Br	79	72	1	NO GAS	0.041	ug/l	72695.10
Br	79	72	2	H2	1.844	ug/l	12436.78
Se	82	72	1	NO GAS	0.960	ug/l	455.13
Kr	84	72	1	NO GAS		ug/l	27598.33
Sr	88	72	1	NO GAS	89.264	ug/l	3441416.01
Sr	88	72	3	He	93.363	ug/l	144488.81

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	16.966	ug/l	140290.36
Mo	95	72	3	He	18.199	ug/l	46479.16
Mo	98	72	1	NO GAS	16.644	ug/l	235346.25
Ag	107	72	1	NO GAS	-0.064	ug/l	378.60
Ag	109	72	1	NO GAS	-0.061	ug/l	351.27
Cd	111	159	1	NO GAS	-0.006	ug/l	-20.95
Cd	111	159	3	He	0.007	ug/l	13.33
Cd	114	159	1	NO GAS	0.016	ug/l	14.77
Cd	114	159	3	He	0.012	ug/l	19.34
Sn	118	159	1	NO GAS	-1.950	ug/l	10878.85
Sn	118	159	3	He	-1.999	ug/l	1727.89
Sb	121	159	1	NO GAS	0.053	ug/l	1882.35
Sb	121	159	3	He	0.065	ug/l	293.34
Sb	123	159	1	NO GAS	0.047	ug/l	1372.29
Sb	123	159	3	He	0.058	ug/l	211.11
Ba	135	159	1	NO GAS	2.229	ug/l	11984.16
Ba	137	159	1	NO GAS	2.224	ug/l	20752.50
La	139	175	1	NO GAS	0.002	ug/l	283.63
La	139	175	3	He	0.002	ug/l	53.39
Ce	140	175	1	NO GAS	0.012	ug/l	1117.86
Ce	140	175	3	He	0.012	ug/l	300.31
Hg	201	175	1	NO GAS	0.010	ug/l	65.99
Hg	202	175	1	NO GAS	0.040	ug/l	474.91
Hg	202	175	3	He	0.030	ug/l	230.96
Tl	203	175	3	He	0.120	ug/l	2014.41
Tl	205	175	1	NO GAS	0.076	ug/l	6881.65
Tl	205	175	3	He	0.121	ug/l	4995.85
[Pb]	206	175	1	NO GAS	0.554	ug/l	12653.17
[Pb]	207	175	1	NO GAS	0.540	ug/l	10699.45
Pb	208	175	1	NO GAS	0.546	ug/l	49505.30
Th	232	175	3	He	0.126	ug/l	7457.74
U	238	175	1	NO GAS	0.008	ug/l	1044.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2097292.14	100.7
Sc	45	2	H2	88037.34	96.9
Sc	45	3	He	55482.14	101.0
Ge	72	1	NO GAS	910412.99	101.6
Ge	72	2	H2	133621.16	103.2
Ge	72	3	He	84517.05	100.3
Tb	159	1	NO GAS	19625241.01	97.5
Tb	159	3	He	7103834.58	96.7
Ho	165	1	NO GAS	18672184.65	99.5
Ho	165	3	He	7062396.99	97.5
Lu	175	1	NO GAS	20403645.64	101.9
Lu	175	3	He	4287941.23	97.2

ICPMS206-B Analytical Data

Sample Name B22010974-001A
File Name 136SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 07:57:08
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	1.536	ug/l	3536.33
Be	9	45	1	NO GAS	0.001	ug/l	2.67
B	11	45	1	NO GAS	40.112	ug/l	9986.91
Na	23	45	3	He	33067.595	ug/l	3486207.73
Mg	24	45	3	He	9155.148	ug/l	502265.54
Al	27	45	1	NO GAS	5.574	ug/l	20556.82
Si	28	45	2	H2	28856.464	ug/l	548313.42
K	39	72	3	He	3895.737	ug/l	202766.18
Ca	40	72	2	H2	10871.227	ug/l	2744582.30
Ti	47	72	1	NO GAS	1.691	ug/l	1735.91
V	51	72	1	NO GAS	16.819	ug/l	243722.18
V	51	72	3	He	16.381	ug/l	24817.17
Cr	52	72	1	NO GAS	1.634	ug/l	40485.27
Cr	52	72	3	He	2.346	ug/l	4794.58
Cr	53	72	1	NO GAS	-97.885	ug/l	29900.22
Mn	55	72	1	NO GAS	0.053	ug/l	2362.18
Mn	55	72	3	He	0.099	ug/l	106.34
Fe	56	72	2	H2	1.306	ug/l	2254.06
Fe	56	72	3	He	1.219	ug/l	2810.54
Co	59	72	1	NO GAS	0.024	ug/l	535.62
Ni	60	72	1	NO GAS	0.536	ug/l	2235.74
Ni	60	72	3	He	0.457	ug/l	595.57
Ni	62	72	1	NO GAS	0.413	ug/l	715.27
Cu	63	72	1	NO GAS	1.264	ug/l	13851.66
Cu	63	72	3	He	0.927	ug/l	3604.67
Cu	65	72	1	NO GAS	0.909	ug/l	5009.10
Zn	66	72	1	NO GAS	8.810	ug/l	31024.91
Zn	66	72	3	He	10.095	ug/l	5519.84
As	75	72	1	NO GAS	0.357	ug/l	5457.85
As	75	72	3	He	0.184	ug/l	71.65
Se	78	72	2	H2	0.179	ug/l	27.66
Br	79	72	1	NO GAS	4.604	ug/l	115256.83
Br	79	72	2	H2	5.217	ug/l	18786.97
Se	82	72	1	NO GAS	1.337	ug/l	619.50
Kr	84	72	1	NO GAS		ug/l	24996.08
Sr	88	72	1	NO GAS	68.148	ug/l	2932713.24
Sr	88	72	3	He	71.905	ug/l	125058.22

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.157	ug/l	1543.42
Mo	95	72	3	He	0.168	ug/l	524.46
Mo	98	72	1	NO GAS	0.150	ug/l	2530.22
Ag	107	72	1	NO GAS	-0.076	ug/l	113.98
Ag	109	72	1	NO GAS	-0.072	ug/l	108.65
Cd	111	159	1	NO GAS	-0.003	ug/l	-9.44
Cd	111	159	3	He	0.000	ug/l	4.00
Cd	114	159	1	NO GAS	0.021	ug/l	77.31
Cd	114	159	3	He	0.005	ug/l	-9.85
Sn	118	159	1	NO GAS	-1.846	ug/l	12643.32
Sn	118	159	3	He	-1.828	ug/l	2265.73
Sb	121	159	1	NO GAS	0.264	ug/l	7166.10
Sb	121	159	3	He	0.301	ug/l	1153.38
Sb	123	159	1	NO GAS	0.271	ug/l	5854.43
Sb	123	159	3	He	0.290	ug/l	900.03
Ba	135	159	1	NO GAS	4.467	ug/l	23964.06
Ba	137	159	1	NO GAS	4.237	ug/l	39587.62
La	139	175	1	NO GAS	0.001	ug/l	123.46
La	139	175	3	He	0.002	ug/l	43.38
Ce	140	175	1	NO GAS	0.002	ug/l	220.23
Ce	140	175	3	He	0.001	ug/l	40.04
Hg	201	175	1	NO GAS	0.003	ug/l	33.99
Hg	202	175	1	NO GAS	0.007	ug/l	143.30
Hg	202	175	3	He	0.008	ug/l	91.65
Tl	203	175	3	He	0.163	ug/l	2721.05
Tl	205	175	1	NO GAS	0.125	ug/l	9934.47
Tl	205	175	3	He	0.157	ug/l	6526.79
[Pb]	206	175	1	NO GAS	0.012	ug/l	343.34
[Pb]	207	175	1	NO GAS	0.012	ug/l	295.56
Pb	208	175	1	NO GAS	0.013	ug/l	1405.59
Th	232	175	3	He	-0.015	ug/l	642.56
U	238	175	1	NO GAS	0.021	ug/l	2321.39

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2460335.72	118.2
Sc	45	2	H2	113049.58	124.5
Sc	45	3	He	63633.76	115.9
Ge	72	1	NO GAS	1030757.91	115.1
Ge	72	2	H2	158520.46	122.4
Ge	72	3	He	94964.37	112.7
Tb	159	1	NO GAS	19958929.27	99.2
Tb	159	3	He	7436711.24	101.2
Ho	165	1	NO GAS	18604661.72	99.1
Ho	165	3	He	7165670.52	99.0
Lu	175	1	NO GAS	20567407.73	102.8
Lu	175	3	He	4494150.81	101.9

ICPMS206-B Analytical Data

Sample Name B22010974-001B
File Name 137SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:02:52
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.000	ug/l	4087.68
Be	9	45	1	NO GAS	0.002	ug/l	2.33
B	11	45	1	NO GAS	40.115	ug/l	8357.70
Na	23	45	3	He	36302.966	ug/l	2995109.29
Mg	24	45	3	He	9708.108	ug/l	417049.71
Al	27	45	1	NO GAS	26.100	ug/l	78335.56
Si	28	45	2	H2	28390.470	ug/l	372706.78
K	39	72	3	He	4068.477	ug/l	177127.40
Ca	40	72	2	H2	9744.534	ug/l	1851826.84
Ti	47	72	1	NO GAS	3.605	ug/l	3232.20
V	51	72	1	NO GAS	15.334	ug/l	193179.99
V	51	72	3	He	16.336	ug/l	20703.90
Cr	52	72	1	NO GAS	2.647	ug/l	48730.34
Cr	52	72	3	He	2.658	ug/l	4531.66
Cr	53	72	1	NO GAS	34.040	ug/l	161326.87
Mn	55	72	1	NO GAS	0.622	ug/l	13145.83
Mn	55	72	3	He	0.550	ug/l	453.38
Fe	56	72	2	H2	28.529	ug/l	31357.43
Fe	56	72	3	He	31.550	ug/l	48076.46
Co	59	72	1	NO GAS	0.067	ug/l	1181.05
Ni	60	72	1	NO GAS	0.651	ug/l	2402.11
Ni	60	72	3	He	0.542	ug/l	584.46
Ni	62	72	1	NO GAS	0.548	ug/l	705.29
Cu	63	72	1	NO GAS	1.560	ug/l	14948.38
Cu	63	72	3	He	1.114	ug/l	3589.67
Cu	65	72	1	NO GAS	1.126	ug/l	5424.48
Zn	66	72	1	NO GAS	28.831	ug/l	88745.10
Zn	66	72	3	He	30.961	ug/l	14065.98
As	75	72	1	NO GAS	0.249	ug/l	4457.52
As	75	72	3	He	0.238	ug/l	75.99
Se	78	72	2	H2	0.210	ug/l	24.00
Br	79	72	1	NO GAS	0.041	ug/l	71646.05
Br	79	72	2	H2	0.495	ug/l	9933.40
Se	82	72	1	NO GAS	1.470	ug/l	586.23
Kr	84	72	1	NO GAS		ug/l	24103.15
Sr	88	72	1	NO GAS	74.342	ug/l	2824330.58
Sr	88	72	3	He	79.103	ug/l	115114.71

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.221	ug/l	1886.79
Mo	95	72	3	He	0.209	ug/l	537.79
Mo	98	72	1	NO GAS	0.230	ug/l	3355.32
Ag	107	72	1	NO GAS	-0.060	ug/l	468.58
Ag	109	72	1	NO GAS	-0.058	ug/l	427.26
Cd	111	159	1	NO GAS	0.000	ug/l	13.00
Cd	111	159	3	He	0.002	ug/l	6.67
Cd	114	159	1	NO GAS	0.017	ug/l	19.53
Cd	114	159	3	He	0.004	ug/l	-11.17
Sn	118	159	1	NO GAS	-0.905	ug/l	30171.87
Sn	118	159	3	He	-0.924	ug/l	4635.18
Sb	121	159	1	NO GAS	0.319	ug/l	8878.07
Sb	121	159	3	He	0.334	ug/l	1260.06
Sb	123	159	1	NO GAS	0.322	ug/l	7110.51
Sb	123	159	3	He	0.332	ug/l	1012.26
Ba	135	159	1	NO GAS	5.224	ug/l	29052.49
Ba	137	159	1	NO GAS	5.203	ug/l	50189.73
La	139	175	1	NO GAS	0.009	ug/l	887.60
La	139	175	3	He	0.011	ug/l	223.57
Ce	140	175	1	NO GAS	0.018	ug/l	1658.46
Ce	140	175	3	He	0.022	ug/l	540.56
Hg	201	175	1	NO GAS	0.007	ug/l	52.32
Hg	202	175	1	NO GAS	0.017	ug/l	257.95
Hg	202	175	3	He	0.011	ug/l	111.65
Tl	203	175	3	He	0.043	ug/l	972.51
Tl	205	175	1	NO GAS	0.029	ug/l	3811.63
Tl	205	175	3	He	0.044	ug/l	2461.06
[Pb]	206	175	1	NO GAS	0.045	ug/l	1120.05
[Pb]	207	175	1	NO GAS	0.044	ug/l	963.37
Pb	208	175	1	NO GAS	0.045	ug/l	4455.86
Th	232	175	3	He	0.055	ug/l	4094.43
U	238	175	1	NO GAS	0.023	ug/l	2647.05

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1998354.36	96.0
Sc	45	2	H2	78029.31	85.9
Sc	45	3	He	49812.13	90.7
Ge	72	1	NO GAS	897711.16	100.2
Ge	72	2	H2	119558.56	92.3
Ge	72	3	He	79484.09	94.3
Tb	159	1	NO GAS	20301565.43	100.9
Tb	159	3	He	7353855.83	100.1
Ho	165	1	NO GAS	19347270.55	103.1
Ho	165	3	He	6895195.48	95.2
Lu	175	1	NO GAS	21071619.42	105.3
Lu	175	3	He	4342125.88	98.4

ICPMS206-B Analytical Data

Sample Name B22010975-001A
File Name 138SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:08:35
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.513	ug/l	1548.43
Be	9	45	1	NO GAS	-0.004	ug/l	1.00
B	11	45	1	NO GAS	53.446	ug/l	13679.35
Na	23	45	3	He	37118.100	ug/l	3848936.05
Mg	24	45	3	He	11145.397	ug/l	601948.73
Al	27	45	1	NO GAS	3.359	ug/l	13097.29
Si	28	45	2	H2	28759.346	ug/l	529285.45
K	39	72	3	He	2081.284	ug/l	112223.56
Ca	40	72	2	H2	11354.053	ug/l	2827744.84
Ti	47	72	1	NO GAS	1.892	ug/l	1972.49
V	51	72	1	NO GAS	17.108	ug/l	252234.77
V	51	72	3	He	16.165	ug/l	25029.63
Cr	52	72	1	NO GAS	1.549	ug/l	40054.72
Cr	52	72	3	He	2.314	ug/l	4831.16
Cr	53	72	1	NO GAS	-99.232	ug/l	28830.49
Mn	55	72	1	NO GAS	0.239	ug/l	6564.96
Mn	55	72	3	He	0.282	ug/l	288.70
Fe	56	72	2	H2	3.786	ug/l	5766.56
Fe	56	72	3	He	3.965	ug/l	7924.76
Co	59	72	1	NO GAS	0.028	ug/l	608.81
Ni	60	72	1	NO GAS	0.637	ug/l	2701.57
Ni	60	72	3	He	0.508	ug/l	672.24
Ni	62	72	1	NO GAS	0.441	ug/l	741.88
Cu	63	72	1	NO GAS	3.603	ug/l	39088.25
Cu	63	72	3	He	3.321	ug/l	12645.55
Cu	65	72	1	NO GAS	3.203	ug/l	17277.47
Zn	66	72	1	NO GAS	56.458	ug/l	199752.80
Zn	66	72	3	He	60.361	ug/l	33429.96
As	75	72	1	NO GAS	0.509	ug/l	6132.60
As	75	72	3	He	0.189	ug/l	75.32
Se	78	72	2	H2	0.244	ug/l	35.99
Br	79	72	1	NO GAS	9.103	ug/l	151120.46
Br	79	72	2	H2	9.790	ug/l	23856.54
Se	82	72	1	NO GAS	1.604	ug/l	724.64
Kr	84	72	1	NO GAS		ug/l	28658.11
Sr	88	72	1	NO GAS	80.349	ug/l	3517416.14
Sr	88	72	3	He	81.816	ug/l	145401.74

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.337	ug/l	3268.13
Mo	95	72	3	He	0.382	ug/l	1163.38
Mo	98	72	1	NO GAS	0.347	ug/l	5742.79
Ag	107	72	1	NO GAS	-0.071	ug/l	237.29
Ag	109	72	1	NO GAS	-0.068	ug/l	217.30
Cd	111	159	1	NO GAS	0.003	ug/l	37.21
Cd	111	159	3	He	0.003	ug/l	8.67
Cd	114	159	1	NO GAS	0.019	ug/l	59.82
Cd	114	159	3	He	0.009	ug/l	8.18
Sn	118	159	1	NO GAS	-2.319	ug/l	4821.20
Sn	118	159	3	He	-2.421	ug/l	708.91
Sb	121	159	1	NO GAS	2.599	ug/l	71570.18
Sb	121	159	3	He	2.775	ug/l	10441.25
Sb	123	159	1	NO GAS	2.563	ug/l	56039.40
Sb	123	159	3	He	2.744	ug/l	8415.59
Ba	135	159	1	NO GAS	6.429	ug/l	37443.29
Ba	137	159	1	NO GAS	6.483	ug/l	65501.55
La	139	175	1	NO GAS	0.001	ug/l	190.20
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.002	ug/l	250.26
Ce	140	175	3	He	0.002	ug/l	53.39
Hg	201	175	1	NO GAS	0.003	ug/l	38.99
Hg	202	175	1	NO GAS	0.047	ug/l	586.56
Hg	202	175	3	He	0.034	ug/l	274.95
Tl	203	175	3	He	0.093	ug/l	1776.42
Tl	205	175	1	NO GAS	0.062	ug/l	6402.54
Tl	205	175	3	He	0.092	ug/l	4344.44
[Pb]	206	175	1	NO GAS	0.103	ug/l	2632.47
[Pb]	207	175	1	NO GAS	0.101	ug/l	2242.41
Pb	208	175	1	NO GAS	0.102	ug/l	10277.00
Th	232	175	3	He	-0.018	ug/l	467.25
U	238	175	1	NO GAS	0.015	ug/l	1939.41

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2480039.54	119.1
Sc	45	2	H2	109458.74	120.5
Sc	45	3	He	62627.71	114.0
Ge	72	1	NO GAS	1033876.00	115.4
Ge	72	2	H2	156447.84	120.8
Ge	72	3	He	97037.85	115.1
Tb	159	1	NO GAS	21268512.97	105.7
Tb	159	3	He	7735226.67	105.3
Ho	165	1	NO GAS	20053030.24	106.8
Ho	165	3	He	7637756.45	105.5
Lu	175	1	NO GAS	22255228.61	111.2
Lu	175	3	He	4609208.37	104.5

ICPMS206-B Analytical Data

Sample Name B22010975-001B
File Name 139SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:14:19
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.895	ug/l	2060.39
Be	9	45	1	NO GAS	0.000	ug/l	2.00
B	11	45	1	NO GAS	50.006	ug/l	10705.84
Na	23	45	3	He	39835.094	ug/l	3352482.00
Mg	24	45	3	He	11449.005	ug/l	501829.78
Al	27	45	1	NO GAS	23.093	ug/l	71905.36
Si	28	45	2	H2	29006.181	ug/l	376481.65
K	39	72	3	He	1884.290	ug/l	84896.74
Ca	40	72	2	H2	10108.386	ug/l	1972296.35
Ti	47	72	1	NO GAS	4.317	ug/l	3956.26
V	51	72	1	NO GAS	13.863	ug/l	177594.07
V	51	72	3	He	16.834	ug/l	21691.75
Cr	52	72	1	NO GAS	2.949	ug/l	53929.13
Cr	52	72	3	He	2.853	ug/l	4927.68
Cr	53	72	1	NO GAS	51.930	ug/l	184362.21
Mn	55	72	1	NO GAS	1.317	ug/l	27331.44
Mn	55	72	3	He	1.276	ug/l	1058.14
Fe	56	72	2	H2	47.292	ug/l	53159.06
Fe	56	72	3	He	54.608	ug/l	84221.07
Co	59	72	1	NO GAS	0.055	ug/l	1004.72
Ni	60	72	1	NO GAS	0.811	ug/l	3057.60
Ni	60	72	3	He	0.700	ug/l	758.91
Ni	62	72	1	NO GAS	0.671	ug/l	795.12
Cu	63	72	1	NO GAS	2.294	ug/l	22345.08
Cu	63	72	3	He	1.833	ug/l	5889.86
Cu	65	72	1	NO GAS	1.792	ug/l	8717.22
Zn	66	72	1	NO GAS	61.290	ug/l	193184.63
Zn	66	72	3	He	65.554	ug/l	30223.91
As	75	72	1	NO GAS	-0.361	ug/l	2492.20
As	75	72	3	He	0.121	ug/l	42.32
Se	78	72	2	H2	0.212	ug/l	24.99
Br	79	72	1	NO GAS	3.516	ug/l	97006.80
Br	79	72	2	H2	3.534	ug/l	12976.15
Se	82	72	1	NO GAS	1.206	ug/l	532.31
Kr	84	72	1	NO GAS		ug/l	27538.27
Sr	88	72	1	NO GAS	86.632	ug/l	3379727.19
Sr	88	72	3	He	87.111	ug/l	128926.18

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.429	ug/l	3679.33
Mo	95	72	3	He	0.421	ug/l	1064.49
Mo	98	72	1	NO GAS	0.421	ug/l	6182.69
Ag	107	72	1	NO GAS	-0.038	ug/l	983.84
Ag	109	72	1	NO GAS	-0.036	ug/l	953.84
Cd	111	159	1	NO GAS	-0.009	ug/l	-46.66
Cd	111	159	3	He	-0.001	ug/l	2.67
Cd	114	159	1	NO GAS	0.010	ug/l	-82.22
Cd	114	159	3	He	0.011	ug/l	13.58
Sn	118	159	1	NO GAS	-1.806	ug/l	15260.45
Sn	118	159	3	He	-1.913	ug/l	2064.59
Sb	121	159	1	NO GAS	1.351	ug/l	39329.12
Sb	121	159	3	He	1.468	ug/l	5410.94
Sb	123	159	1	NO GAS	1.361	ug/l	31439.64
Sb	123	159	3	He	1.473	ug/l	4417.31
Ba	135	159	1	NO GAS	6.846	ug/l	41815.77
Ba	137	159	1	NO GAS	7.012	ug/l	74323.37
La	139	175	1	NO GAS	0.013	ug/l	1354.78
La	139	175	3	He	0.013	ug/l	280.29
Ce	140	175	1	NO GAS	0.025	ug/l	2469.40
Ce	140	175	3	He	0.029	ug/l	750.79
Hg	201	175	1	NO GAS	0.005	ug/l	46.99
Hg	202	175	1	NO GAS	0.037	ug/l	487.25
Hg	202	175	3	He	0.026	ug/l	220.29
Tl	203	175	3	He	0.028	ug/l	816.53
Tl	205	175	1	NO GAS	0.015	ug/l	3047.01
Tl	205	175	3	He	0.025	ug/l	1924.41
[Pb]	206	175	1	NO GAS	0.274	ug/l	7011.70
[Pb]	207	175	1	NO GAS	0.248	ug/l	5499.93
Pb	208	175	1	NO GAS	0.257	ug/l	26101.18
Th	232	175	3	He	0.039	ug/l	3482.40
U	238	175	1	NO GAS	0.017	ug/l	2126.73

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2069640.53	99.4
Sc	45	2	H2	77215.91	85.0
Sc	45	3	He	50826.07	92.5
Ge	72	1	NO GAS	921294.93	102.8
Ge	72	2	H2	122639.70	94.7
Ge	72	3	He	80809.06	95.9
Tb	159	1	NO GAS	22314528.74	110.9
Tb	159	3	He	7526994.75	102.5
Ho	165	1	NO GAS	20463434.38	109.0
Ho	165	3	He	7452323.10	102.9
Lu	175	1	NO GAS	22713587.79	113.5
Lu	175	3	He	4584783.74	103.9

ICPMS206-B Analytical Data

Sample Name B22010976-001A
File Name 140SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:20:05
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-2.282	ug/l	934.51
Be	9	45	1	NO GAS	0.014	ug/l	6.67
B	11	45	1	NO GAS	39.106	ug/l	9263.31
Na	23	45	3	He	39611.719	ug/l	3914817.79
Mg	24	45	3	He	16976.147	ug/l	874004.93
Al	27	45	1	NO GAS	0.666	ug/l	2861.37
Si	28	45	2	H2	24299.606	ug/l	408342.25
K	39	72	3	He	1228.739	ug/l	65709.26
Ca	40	72	2	H2	16712.463	ug/l	3974639.71
Ti	47	72	1	NO GAS	1.660	ug/l	1689.26
V	51	72	1	NO GAS	1.746	ug/l	1330.43
V	51	72	3	He	-0.046	ug/l	286.67
Cr	52	72	1	NO GAS	-0.536	ug/l	9310.87
Cr	52	72	3	He	0.001	ug/l	149.71
Cr	53	72	1	NO GAS	-102.731	ug/l	24041.51
Mn	55	72	1	NO GAS	352.540	ug/l	7674753.40
Mn	55	72	3	He	367.653	ug/l	352720.38
Fe	56	72	2	H2	98.033	ug/l	133985.81
Fe	56	72	3	He	105.843	ug/l	189954.16
Co	59	72	1	NO GAS	0.168	ug/l	3240.58
Ni	60	72	1	NO GAS	0.326	ug/l	1357.38
Ni	60	72	3	He	0.179	ug/l	254.45
Ni	62	72	1	NO GAS	0.263	ug/l	608.81
Cu	63	72	1	NO GAS	0.622	ug/l	7001.42
Cu	63	72	3	He	0.123	ug/l	653.88
Cu	65	72	1	NO GAS	0.189	ug/l	1243.80
Zn	66	72	1	NO GAS	7.090	ug/l	24734.72
Zn	66	72	3	He	7.801	ug/l	4255.01
As	75	72	1	NO GAS	0.660	ug/l	6531.48
As	75	72	3	He	0.183	ug/l	70.99
Se	78	72	2	H2	-0.007	ug/l	3.00
Br	79	72	1	NO GAS	8.931	ug/l	145815.37
Br	79	72	2	H2	9.070	ug/l	21971.22
Se	82	72	1	NO GAS	1.818	ug/l	772.55
Kr	84	72	1	NO GAS		ug/l	48178.00
Sr	88	72	1	NO GAS	151.767	ug/l	6465838.28
Sr	88	72	3	He	156.516	ug/l	270141.59

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	6.435	ug/l	58868.49
Mo	95	72	3	He	7.082	ug/l	20206.98
Mo	98	72	1	NO GAS	6.532	ug/l	102165.79
Ag	107	72	1	NO GAS	-0.077	ug/l	67.32
Ag	109	72	1	NO GAS	-0.074	ug/l	62.66
Cd	111	159	1	NO GAS	-0.002	ug/l	1.68
Cd	111	159	3	He	0.003	ug/l	7.33
Cd	114	159	1	NO GAS	0.016	ug/l	10.36
Cd	114	159	3	He	0.010	ug/l	12.35
Sn	118	159	1	NO GAS	-2.469	ug/l	1979.55
Sn	118	159	3	He	-2.571	ug/l	283.34
Sb	121	159	1	NO GAS	-0.002	ug/l	537.79
Sb	121	159	3	He	0.005	ug/l	94.45
Sb	123	159	1	NO GAS	-0.003	ug/l	404.45
Sb	123	159	3	He	0.007	ug/l	72.22
Ba	135	159	1	NO GAS	2.315	ug/l	13499.07
Ba	137	159	1	NO GAS	2.350	ug/l	23780.79
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	26.69
Ce	140	175	1	NO GAS	0.003	ug/l	323.67
Ce	140	175	3	He	0.003	ug/l	80.08
Hg	201	175	1	NO GAS	0.002	ug/l	32.66
Hg	202	175	1	NO GAS	0.087	ug/l	987.17
Hg	202	175	3	He	0.066	ug/l	492.58
Tl	203	175	3	He	0.058	ug/l	1232.48
Tl	205	175	1	NO GAS	0.038	ug/l	4516.27
Tl	205	175	3	He	0.055	ug/l	2959.05
[Pb]	206	175	1	NO GAS	0.008	ug/l	266.67
[Pb]	207	175	1	NO GAS	0.005	ug/l	165.56
Pb	208	175	1	NO GAS	0.007	ug/l	925.58
Th	232	175	3	He	-0.018	ug/l	478.58
U	238	175	1	NO GAS	0.006	ug/l	805.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2271559.62	109.1
Sc	45	2	H2	99911.99	110.0
Sc	45	3	He	59686.64	108.7
Ge	72	1	NO GAS	1006171.47	112.3
Ge	72	2	H2	149473.41	115.4
Ge	72	3	He	94326.30	111.9
Tb	159	1	NO GAS	21273719.63	105.7
Tb	159	3	He	7557456.67	102.9
Ho	165	1	NO GAS	19574588.48	104.3
Ho	165	3	He	7372169.67	101.8
Lu	175	1	NO GAS	21625503.70	108.0
Lu	175	3	He	4529402.84	102.7

ICPMS206-B Analytical Data

Sample Name B22010976-001B
File Name 141SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:25:49
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.533	ug/l	1552.43
Be	9	45	1	NO GAS	0.016	ug/l	6.33
B	11	45	1	NO GAS	39.485	ug/l	8224.33
Na	23	45	3	He	40901.884	ug/l	3379584.57
Mg	24	45	3	He	18320.700	ug/l	788501.51
Al	27	45	1	NO GAS	2.329	ug/l	7482.78
Si	28	45	2	H2	24637.852	ug/l	303137.55
K	39	72	3	He	1226.553	ug/l	55576.97
Ca	40	72	2	H2	16032.203	ug/l	3004256.10
Ti	47	72	1	NO GAS	2.193	ug/l	1984.15
V	51	72	1	NO GAS	-0.158	ug/l	-25893.84
V	51	72	3	He	0.282	ug/l	655.57
Cr	52	72	1	NO GAS	0.424	ug/l	20545.38
Cr	52	72	3	He	0.126	ug/l	336.01
Cr	53	72	1	NO GAS	50.431	ug/l	178573.27
Mn	55	72	1	NO GAS	362.846	ug/l	7063471.10
Mn	55	72	3	He	381.983	ug/l	310516.38
Fe	56	72	2	H2	127.222	ug/l	136927.11
Fe	56	72	3	He	143.221	ug/l	217587.42
Co	59	72	1	NO GAS	0.189	ug/l	3240.57
Ni	60	72	1	NO GAS	0.414	ug/l	1533.71
Ni	60	72	3	He	0.242	ug/l	280.00
Ni	62	72	1	NO GAS	0.347	ug/l	592.18
Cu	63	72	1	NO GAS	0.873	ug/l	8595.19
Cu	63	72	3	He	0.314	ug/l	1142.81
Cu	65	72	1	NO GAS	0.414	ug/l	2150.39
Zn	66	72	1	NO GAS	3.948	ug/l	12461.64
Zn	66	72	3	He	4.142	ug/l	1939.01
As	75	72	1	NO GAS	0.490	ug/l	5268.20
As	75	72	3	He	0.175	ug/l	57.66
Se	78	72	2	H2	0.033	ug/l	6.33
Br	79	72	1	NO GAS	1.574	ug/l	81939.44
Br	79	72	2	H2	2.502	ug/l	11551.27
Se	82	72	1	NO GAS	1.053	ug/l	476.42
Kr	84	72	1	NO GAS		ug/l	45162.55
Sr	88	72	1	NO GAS	167.463	ug/l	6380502.55
Sr	88	72	3	He	171.703	ug/l	251083.69

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	7.846	ug/l	64168.21
Mo	95	72	3	He	8.587	ug/l	20754.33
Mo	98	72	1	NO GAS	7.923	ug/l	110803.90
Ag	107	72	1	NO GAS	-0.071	ug/l	205.30
Ag	109	72	1	NO GAS	-0.067	ug/l	207.30
Cd	111	159	1	NO GAS	-0.001	ug/l	9.36
Cd	111	159	3	He	0.001	ug/l	4.67
Cd	114	159	1	NO GAS	0.012	ug/l	-45.83
Cd	114	159	3	He	0.008	ug/l	4.84
Sn	118	159	1	NO GAS	-2.164	ug/l	7952.93
Sn	118	159	3	He	-2.262	ug/l	1104.49
Sb	121	159	1	NO GAS	0.012	ug/l	958.93
Sb	121	159	3	He	0.020	ug/l	147.78
Sb	123	159	1	NO GAS	0.019	ug/l	910.03
Sb	123	159	3	He	0.033	ug/l	146.67
Ba	135	159	1	NO GAS	2.284	ug/l	13648.96
Ba	137	159	1	NO GAS	2.256	ug/l	23404.41
La	139	175	1	NO GAS	0.001	ug/l	176.85
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.004	ug/l	443.80
Ce	140	175	3	He	0.004	ug/l	110.11
Hg	201	175	1	NO GAS	0.007	ug/l	58.66
Hg	202	175	1	NO GAS	0.114	ug/l	1325.13
Hg	202	175	3	He	0.080	ug/l	590.89
Tl	203	175	3	He	0.013	ug/l	595.90
Tl	205	175	1	NO GAS	0.001	ug/l	2009.04
Tl	205	175	3	He	0.009	ug/l	1326.47
[Pb]	206	175	1	NO GAS	0.063	ug/l	1651.22
[Pb]	207	175	1	NO GAS	0.057	ug/l	1313.40
Pb	208	175	1	NO GAS	0.061	ug/l	6348.36
Th	232	175	3	He	0.023	ug/l	2615.72
U	238	175	1	NO GAS	0.006	ug/l	884.86

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1998977.73	96.0
Sc	45	2	H2	73206.83	80.6
Sc	45	3	He	49941.17	90.9
Ge	72	1	NO GAS	899781.22	100.4
Ge	72	2	H2	117763.30	91.0
Ge	72	3	He	79924.62	94.8
Tb	159	1	NO GAS	21808817.84	108.4
Tb	159	3	He	7434540.43	101.2
Ho	165	1	NO GAS	20338472.55	108.3
Ho	165	3	He	7238182.51	100.0
Lu	175	1	NO GAS	22612703.78	113.0
Lu	175	3	He	4527978.86	102.6

ICPMS206-B Analytical Data

Sample Name CCV
File Name 142_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:31:32
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	316.723	ug/l	247338.68
Be	9	45	1	NO GAS	40.967	ug/l	11430.10
B	11	45	1	NO GAS	40.962	ug/l	8540.41
Na	23	45	3	He	11640.702	ug/l	989132.37
Mg	24	45	3	He	11081.733	ug/l	487727.41
Al	27	45	1	NO GAS	42.599	ug/l	127966.93
Si	28	45	2	H2	184.714	ug/l	3391.01
K	39	72	3	He	10415.526	ug/l	461924.80
Ca	40	72	2	H2	11244.084	ug/l	2194798.70
Ti	47	72	1	NO GAS	41.874	ug/l	38850.28
V	51	72	1	NO GAS	40.926	ug/l	582405.54
V	51	72	3	He	49.364	ug/l	63713.68
Cr	52	72	1	NO GAS	41.959	ug/l	573869.43
Cr	52	72	3	He	49.878	ug/l	85004.42
Cr	53	72	1	NO GAS	34.439	ug/l	169465.85
Mn	55	72	1	NO GAS	43.376	ug/l	882167.06
Mn	55	72	3	He	48.291	ug/l	40130.14
Fe	56	72	2	H2	1146.197	ug/l	1282687.07
Fe	56	72	3	He	1277.106	ug/l	1979257.85
Co	59	72	1	NO GAS	43.225	ug/l	761542.79
Ni	60	72	1	NO GAS	45.879	ug/l	175614.89
Ni	60	72	3	He	50.906	ug/l	53613.82
Ni	62	72	1	NO GAS	46.103	ug/l	27781.30
Cu	63	72	1	NO GAS	46.343	ug/l	451324.50
Cu	63	72	3	He	52.220	ug/l	164752.61
Cu	65	72	1	NO GAS	47.029	ug/l	227108.90
Zn	66	72	1	NO GAS	45.422	ug/l	146096.18
Zn	66	72	3	He	49.994	ug/l	23308.49
As	75	72	1	NO GAS	46.172	ug/l	164236.62
As	75	72	3	He	51.674	ug/l	15651.53
Se	78	72	2	H2	53.145	ug/l	5458.81
Br	79	72	1	NO GAS	0.882	ug/l	80902.64
Br	79	72	2	H2	2.052	ug/l	11634.39
Se	82	72	1	NO GAS	49.244	ug/l	14619.39
Kr	84	72	1	NO GAS		ug/l	20758.73
Sr	88	72	1	NO GAS	50.895	ug/l	2024948.05
Sr	88	72	3	He	53.873	ug/l	80672.96

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	49.594	ug/l	423118.54
Mo	95	72	3	He	54.500	ug/l	134444.51
Mo	98	72	1	NO GAS	49.300	ug/l	719185.29
Ag	107	72	1	NO GAS	20.501	ug/l	497410.93
Ag	109	72	1	NO GAS	20.314	ug/l	485197.95
Cd	111	159	1	NO GAS	44.254	ug/l	292759.90
Cd	111	159	3	He	49.331	ug/l	69591.21
Cd	114	159	1	NO GAS	45.566	ug/l	698896.59
Cd	114	159	3	He	48.705	ug/l	179044.76
Sn	118	159	1	NO GAS	43.546	ug/l	889381.81
Sn	118	159	3	He	46.678	ug/l	127370.80
Sb	121	159	1	NO GAS	43.369	ug/l	1204874.14
Sb	121	159	3	He	47.892	ug/l	166025.12
Sb	123	159	1	NO GAS	43.508	ug/l	961682.64
Sb	123	159	3	He	48.433	ug/l	137036.76
Ba	135	159	1	NO GAS	45.846	ug/l	271845.56
Ba	137	159	1	NO GAS	46.008	ug/l	473213.18
La	139	175	1	NO GAS	46.070	ug/l	4354630.42
La	139	175	3	He	47.779	ug/l	892743.59
Ce	140	175	1	NO GAS	47.616	ug/l	4463518.93
Ce	140	175	3	He	48.088	ug/l	1138974.33
Hg	201	175	1	NO GAS	0.914	ug/l	4290.09
Hg	202	175	1	NO GAS	0.934	ug/l	10116.35
Hg	202	175	3	He	1.043	ug/l	6848.52
Tl	203	175	3	He	51.764	ug/l	706799.14
Tl	205	175	1	NO GAS	47.394	ug/l	3510611.16
Tl	205	175	3	He	51.902	ug/l	1736900.42
[Pb]	206	175	1	NO GAS	46.115	ug/l	1152434.04
[Pb]	207	175	1	NO GAS	46.050	ug/l	997114.84
Pb	208	175	1	NO GAS	46.487	ug/l	4607082.02
Th	232	175	3	He	53.143	ug/l	2595974.15
U	238	175	1	NO GAS	46.209	ug/l	5266075.32

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2017560.84	96.9
Sc	45	2	H2	78392.30	86.3
Sc	45	3	He	51022.72	92.9
Ge	72	1	NO GAS	944092.67	105.4
Ge	72	2	H2	122758.83	94.8
Ge	72	3	He	81679.46	96.9
Tb	159	1	NO GAS	21916106.37	108.9
Tb	159	3	He	7176021.55	97.7
Ho	165	1	NO GAS	20433119.90	108.9
Ho	165	3	He	7049151.82	97.3
Lu	175	1	NO GAS	22558525.02	112.7
Lu	175	3	He	4300035.66	97.5

ICPMS206-B Analytical Data

Sample Name CCB
File Name 143_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:37:14
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.122	ug/l	1787.74
Be	9	45	1	NO GAS	0.003	ug/l	2.67
B	11	45	1	NO GAS	-0.262	ug/l	233.96
Na	23	45	3	He	8.883	ug/l	8890.10
Mg	24	45	3	He	1.016	ug/l	106.45
Al	27	45	1	NO GAS	0.008	ug/l	537.79
Si	28	45	2	H2	-69.965	ug/l	45.99
K	39	72	3	He	-4.509	ug/l	2480.20
Ca	40	72	2	H2	1.245	ug/l	741.32
Ti	47	72	1	NO GAS	0.034	ug/l	66.63
V	51	72	1	NO GAS	0.023	ug/l	-22789.55
V	51	72	3	He	-0.019	ug/l	277.78
Cr	52	72	1	NO GAS	-0.139	ug/l	13059.20
Cr	52	72	3	He	-0.012	ug/l	106.45
Cr	53	72	1	NO GAS	-11.257	ug/l	112491.58
Mn	55	72	1	NO GAS	0.003	ug/l	1104.52
Mn	55	72	3	He	0.008	ug/l	15.33
Fe	56	72	2	H2	0.092	ug/l	371.49
Fe	56	72	3	He	0.090	ug/l	654.69
Co	59	72	1	NO GAS	0.001	ug/l	73.19
Ni	60	72	1	NO GAS	0.010	ug/l	53.23
Ni	60	72	3	He	-0.018	ug/l	12.22
Ni	62	72	1	NO GAS	-0.112	ug/l	322.70
Cu	63	72	1	NO GAS	0.076	ug/l	1151.82
Cu	63	72	3	He	0.166	ug/l	685.21
Cu	65	72	1	NO GAS	0.064	ug/l	518.57
Zn	66	72	1	NO GAS	-0.009	ug/l	292.52
Zn	66	72	3	He	-0.023	ug/l	44.45
As	75	72	1	NO GAS	-0.284	ug/l	2627.61
As	75	72	3	He	0.000	ug/l	6.00
Se	78	72	2	H2	0.040	ug/l	7.00
Br	79	72	1	NO GAS	0.364	ug/l	72156.65
Br	79	72	2	H2	0.692	ug/l	10043.24
Se	82	72	1	NO GAS	0.564	ug/l	330.69
Kr	84	72	1	NO GAS		ug/l	7030.94
Sr	88	72	1	NO GAS	0.007	ug/l	625.44
Sr	88	72	3	He	0.003	ug/l	216.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.015	ug/l	208.89
Mo	95	72	3	He	0.020	ug/l	85.56
Mo	98	72	1	NO GAS	0.010	ug/l	284.18
Ag	107	72	1	NO GAS	0.002	ug/l	1855.08
Ag	109	72	1	NO GAS	0.005	ug/l	1808.41
Cd	111	159	1	NO GAS	0.004	ug/l	41.53
Cd	111	159	3	He	0.002	ug/l	6.00
Cd	114	159	1	NO GAS	0.001	ug/l	-199.97
Cd	114	159	3	He	0.000	ug/l	-26.09
Sn	118	159	1	NO GAS	0.003	ug/l	46478.69
Sn	118	159	3	He	-0.094	ug/l	6693.67
Sb	121	159	1	NO GAS	0.033	ug/l	1426.74
Sb	121	159	3	He	0.026	ug/l	164.45
Sb	123	159	1	NO GAS	0.036	ug/l	1188.94
Sb	123	159	3	He	0.036	ug/l	151.11
Ba	135	159	1	NO GAS	0.003	ug/l	39.92
Ba	137	159	1	NO GAS	0.005	ug/l	93.15
La	139	175	1	NO GAS	0.001	ug/l	180.19
La	139	175	3	He	0.001	ug/l	33.37
Ce	140	175	1	NO GAS	0.002	ug/l	223.56
Ce	140	175	3	He	0.003	ug/l	76.74
Hg	201	175	1	NO GAS	0.003	ug/l	35.33
Hg	202	175	1	NO GAS	0.005	ug/l	131.97
Hg	202	175	3	He	0.002	ug/l	48.66
Tl	203	175	3	He	0.042	ug/l	951.84
Tl	205	175	1	NO GAS	0.034	ug/l	4169.50
Tl	205	175	3	He	0.043	ug/l	2386.39
[Pb]	206	175	1	NO GAS	0.002	ug/l	112.22
[Pb]	207	175	1	NO GAS	0.001	ug/l	90.00
Pb	208	175	1	NO GAS	0.002	ug/l	418.90
Th	232	175	3	He	0.033	ug/l	2953.05
U	238	175	1	NO GAS	0.005	ug/l	688.88

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1932353.57	92.8
Sc	45	2	H2	75968.82	83.7
Sc	45	3	He	48403.61	88.1
Ge	72	1	NO GAS	877692.21	98.0
Ge	72	2	H2	118763.93	91.7
Ge	72	3	He	79954.68	94.9
Tb	159	1	NO GAS	20250645.35	100.6
Tb	159	3	He	7214048.59	98.2
Ho	165	1	NO GAS	19415110.89	103.4
Ho	165	3	He	7157306.12	98.8
Lu	175	1	NO GAS	21284827.41	106.3
Lu	175	3	He	4262501.42	96.6

ICPMS206-B Analytical Data

Sample Name B22010977-001A
File Name 144SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:43:02
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.968	ug/l	1163.81
Be	9	45	1	NO GAS	0.006	ug/l	4.00
B	11	45	1	NO GAS	76.326	ug/l	17122.33
Na	23	45	3	He	57020.152	ug/l	5439338.98
Mg	24	45	3	He	32130.350	ug/l	1597354.15
Al	27	45	1	NO GAS	2.784	ug/l	9683.91
Si	28	45	2	H2	24047.386	ug/l	390542.00
K	39	72	3	He	2694.312	ug/l	137379.43
Ca	40	72	2	H2	27246.299	ug/l	6350507.41
Ti	47	72	1	NO GAS	1.552	ug/l	1481.02
V	51	72	1	NO GAS	9.490	ug/l	116321.36
V	51	72	3	He	7.898	ug/l	11814.22
Cr	52	72	1	NO GAS	-0.190	ug/l	13325.58
Cr	52	72	3	He	0.329	ug/l	778.48
Cr	53	72	1	NO GAS	-98.210	ug/l	27339.79
Mn	55	72	1	NO GAS	215.801	ug/l	4395628.44
Mn	55	72	3	He	214.835	ug/l	201752.37
Fe	56	72	2	H2	3.700	ug/l	5273.26
Fe	56	72	3	He	3.890	ug/l	7406.34
Co	59	72	1	NO GAS	0.362	ug/l	6438.52
Ni	60	72	1	NO GAS	2.399	ug/l	9210.99
Ni	60	72	3	He	2.291	ug/l	2760.24
Ni	62	72	1	NO GAS	2.245	ug/l	1746.64
Cu	63	72	1	NO GAS	1.016	ug/l	10385.18
Cu	63	72	3	He	0.284	ug/l	1213.47
Cu	65	72	1	NO GAS	0.389	ug/l	2127.72
Zn	66	72	1	NO GAS	2.999	ug/l	9984.06
Zn	66	72	3	He	3.131	ug/l	1708.99
As	75	72	1	NO GAS	0.981	ug/l	7225.95
As	75	72	3	He	0.657	ug/l	231.62
Se	78	72	2	H2	0.134	ug/l	20.00
Br	79	72	1	NO GAS	46.064	ug/l	392059.17
Br	79	72	2	H2	44.426	ug/l	60193.46
Se	82	72	1	NO GAS	2.232	ug/l	844.40
Kr	84	72	1	NO GAS		ug/l	60497.08
Sr	88	72	1	NO GAS	240.148	ug/l	9570977.46
Sr	88	72	3	He	238.728	ug/l	403133.97

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	10.695	ug/l	91454.20
Mo	95	72	3	He	11.175	ug/l	31188.58
Mo	98	72	1	NO GAS	10.585	ug/l	154794.78
Ag	107	72	1	NO GAS	-0.077	ug/l	71.99
Ag	109	72	1	NO GAS	-0.074	ug/l	65.32
Cd	111	159	1	NO GAS	-0.005	ug/l	-14.12
Cd	111	159	3	He	0.005	ug/l	10.67
Cd	114	159	1	NO GAS	0.016	ug/l	16.90
Cd	114	159	3	He	0.015	ug/l	27.68
Sn	118	159	1	NO GAS	-2.424	ug/l	2731.50
Sn	118	159	3	He	-2.522	ug/l	406.68
Sb	121	159	1	NO GAS	0.343	ug/l	9615.16
Sb	121	159	3	He	0.401	ug/l	1493.42
Sb	123	159	1	NO GAS	0.348	ug/l	7718.58
Sb	123	159	3	He	0.390	ug/l	1175.61
Ba	135	159	1	NO GAS	4.175	ug/l	23440.85
Ba	137	159	1	NO GAS	4.028	ug/l	39237.53
La	139	175	1	NO GAS	0.001	ug/l	186.86
La	139	175	3	He	0.002	ug/l	46.71
Ce	140	175	1	NO GAS	0.002	ug/l	273.62
Ce	140	175	3	He	0.003	ug/l	86.75
Hg	201	175	1	NO GAS	0.003	ug/l	35.99
Hg	202	175	1	NO GAS	0.055	ug/l	644.55
Hg	202	175	3	He	0.046	ug/l	346.94
Tl	203	175	3	He	0.044	ug/l	1020.50
Tl	205	175	1	NO GAS	0.033	ug/l	4146.15
Tl	205	175	3	He	0.042	ug/l	2459.05
[Pb]	206	175	1	NO GAS	0.005	ug/l	186.67
[Pb]	207	175	1	NO GAS	0.005	ug/l	158.89
Pb	208	175	1	NO GAS	0.005	ug/l	733.35
Th	232	175	3	He	-0.008	ug/l	1002.50
U	238	175	1	NO GAS	0.070	ug/l	7796.83

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2190173.10	105.2
Sc	45	2	H2	96599.10	106.4
Sc	45	3	He	57646.79	105.0
Ge	72	1	NO GAS	941185.73	105.1
Ge	72	2	H2	146416.04	113.1
Ge	72	3	He	92324.52	109.5
Tb	159	1	NO GAS	20499265.63	101.9
Tb	159	3	He	7334585.06	99.8
Ho	165	1	NO GAS	19485138.20	103.8
Ho	165	3	He	7320796.47	101.1
Lu	175	1	NO GAS	21285291.63	106.3
Lu	175	3	He	4451328.72	100.9

ICPMS206-B Analytical Data

Sample Name B22010977-001B
File Name 145SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:48:48
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.373	ug/l	1582.43
Be	9	45	1	NO GAS	0.004	ug/l	2.67
B	11	45	1	NO GAS	79.872	ug/l	15174.97
Na	23	45	3	He	58888.330	ug/l	4669818.72
Mg	24	45	3	He	32481.726	ug/l	1342856.55
Al	27	45	1	NO GAS	6.696	ug/l	19025.05
Si	28	45	2	H2	23468.928	ug/l	278072.19
K	39	72	3	He	2640.462	ug/l	109172.58
Ca	40	72	2	H2	24735.658	ug/l	4435013.39
Ti	47	72	1	NO GAS	1.896	ug/l	1682.60
V	51	72	1	NO GAS	6.627	ug/l	69828.45
V	51	72	3	He	8.397	ug/l	10162.00
Cr	52	72	1	NO GAS	0.695	ug/l	23583.20
Cr	52	72	3	He	0.519	ug/l	928.20
Cr	53	72	1	NO GAS	32.769	ug/l	157325.37
Mn	55	72	1	NO GAS	199.789	ug/l	3806626.74
Mn	55	72	3	He	223.394	ug/l	170049.44
Fe	56	72	2	H2	9.484	ug/l	9993.06
Fe	56	72	3	He	10.585	ug/l	15507.86
Co	59	72	1	NO GAS	0.365	ug/l	6109.06
Ni	60	72	1	NO GAS	2.554	ug/l	9181.05
Ni	60	72	3	He	2.444	ug/l	2384.63
Ni	62	72	1	NO GAS	1.800	ug/l	1407.28
Cu	63	72	1	NO GAS	0.966	ug/l	9298.11
Cu	63	72	3	He	0.250	ug/l	884.18
Cu	65	72	1	NO GAS	0.371	ug/l	1926.40
Zn	66	72	1	NO GAS	4.652	ug/l	14321.83
Zn	66	72	3	He	5.017	ug/l	2190.16
As	75	72	1	NO GAS	0.734	ug/l	6084.92
As	75	72	3	He	0.689	ug/l	196.63
Se	78	72	2	H2	0.195	ug/l	21.33
Br	79	72	1	NO GAS	4.538	ug/l	99378.49
Br	79	72	2	H2	5.936	ug/l	13938.35
Se	82	72	1	NO GAS	0.098	ug/l	208.93
Kr	84	72	1	NO GAS		ug/l	57439.18
Sr	88	72	1	NO GAS	234.605	ug/l	8756315.30
Sr	88	72	3	He	257.933	ug/l	353067.62

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.761	ug/l	94201.76
Mo	95	72	3	He	13.106	ug/l	29647.91
Mo	98	72	1	NO GAS	11.709	ug/l	160602.85
Ag	107	72	1	NO GAS	-0.068	ug/l	277.28
Ag	109	72	1	NO GAS	-0.064	ug/l	281.95
Cd	111	159	1	NO GAS	0.003	ug/l	32.71
Cd	111	159	3	He	0.010	ug/l	17.33
Cd	114	159	1	NO GAS	0.025	ug/l	152.97
Cd	114	159	3	He	0.013	ug/l	21.45
Sn	118	159	1	NO GAS	-2.094	ug/l	8555.35
Sn	118	159	3	He	-2.192	ug/l	1230.06
Sb	121	159	1	NO GAS	0.368	ug/l	10013.16
Sb	121	159	3	He	0.407	ug/l	1455.64
Sb	123	159	1	NO GAS	0.370	ug/l	7989.82
Sb	123	159	3	He	0.386	ug/l	1122.27
Ba	135	159	1	NO GAS	4.023	ug/l	22028.43
Ba	137	159	1	NO GAS	4.263	ug/l	40441.39
La	139	175	1	NO GAS	0.003	ug/l	367.05
La	139	175	3	He	0.006	ug/l	116.79
Ce	140	175	1	NO GAS	0.009	ug/l	880.93
Ce	140	175	3	He	0.007	ug/l	183.52
Hg	201	175	1	NO GAS	0.010	ug/l	64.32
Hg	202	175	1	NO GAS	0.083	ug/l	911.18
Hg	202	175	3	He	0.059	ug/l	416.92
Tl	203	175	3	He	0.017	ug/l	599.23
Tl	205	175	1	NO GAS	0.008	ug/l	2343.53
Tl	205	175	3	He	0.014	ug/l	1395.13
[Pb]	206	175	1	NO GAS	0.012	ug/l	338.90
[Pb]	207	175	1	NO GAS	0.012	ug/l	305.56
Pb	208	175	1	NO GAS	0.012	ug/l	1362.26
Th	232	175	3	He	0.077	ug/l	4979.85
U	238	175	1	NO GAS	0.078	ug/l	8420.72

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1867909.24	89.7
Sc	45	2	H2	70450.09	77.6
Sc	45	3	He	47929.71	87.3
Ge	72	1	NO GAS	892562.48	99.6
Ge	72	2	H2	112710.07	87.1
Ge	72	3	He	74836.84	88.8
Tb	159	1	NO GAS	20136181.93	100.1
Tb	159	3	He	7061610.84	96.1
Ho	165	1	NO GAS	19350126.53	103.1
Ho	165	3	He	6915627.26	95.5
Lu	175	1	NO GAS	21112510.31	105.5
Lu	175	3	He	4216036.20	95.6

ICPMS206-B Analytical Data

Sample Name B22010978-001A
File Name 146SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 08:54:34
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.160	ug/l	4113.01
Be	9	45	1	NO GAS	0.003	ug/l	3.00
B	11	45	1	NO GAS	90.260	ug/l	19818.61
Na	23	45	3	He	103133.304	ug/l	9603280.90
Mg	24	45	3	He	26729.064	ug/l	1299018.90
Al	27	45	1	NO GAS	1.240	ug/l	4550.64
Si	28	45	2	H2	30163.972	ug/l	481656.55
K	39	72	3	He	6812.540	ug/l	330173.26
Ca	40	72	2	H2	23556.407	ug/l	5298455.73
Ti	47	72	1	NO GAS	1.805	ug/l	1699.26
V	51	72	1	NO GAS	14.468	ug/l	188450.93
V	51	72	3	He	13.585	ug/l	19343.35
Cr	52	72	1	NO GAS	0.997	ug/l	28824.14
Cr	52	72	3	He	1.500	ug/l	2921.15
Cr	53	72	1	NO GAS	-99.375	ug/l	25815.96
Mn	55	72	1	NO GAS	0.315	ug/l	7446.94
Mn	55	72	3	He	0.366	ug/l	340.70
Fe	56	72	2	H2	0.822	ug/l	1386.05
Fe	56	72	3	He	0.690	ug/l	1740.91
Co	59	72	1	NO GAS	0.057	ug/l	1057.94
Ni	60	72	1	NO GAS	1.306	ug/l	4977.59
Ni	60	72	3	He	1.085	ug/l	1277.84
Ni	62	72	1	NO GAS	1.103	ug/l	1057.95
Cu	63	72	1	NO GAS	1.953	ug/l	19317.96
Cu	63	72	3	He	0.706	ug/l	2616.68
Cu	65	72	1	NO GAS	0.805	ug/l	4098.37
Zn	66	72	1	NO GAS	2.104	ug/l	7036.66
Zn	66	72	3	He	2.307	ug/l	1230.05
As	75	72	1	NO GAS	4.051	ug/l	17729.10
As	75	72	3	He	3.839	ug/l	1272.79
Se	78	72	2	H2	0.707	ug/l	87.32
Br	79	72	1	NO GAS	38.481	ug/l	336452.13
Br	79	72	2	H2	38.400	ug/l	51745.11
Se	82	72	1	NO GAS	3.058	ug/l	1078.64
Kr	84	72	1	NO GAS		ug/l	74051.51
Sr	88	72	1	NO GAS	290.662	ug/l	11468578.76
Sr	88	72	3	He	296.816	ug/l	483079.69

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	11.383	ug/l	96376.02
Mo	95	72	3	He	12.162	ug/l	32714.77
Mo	98	72	1	NO GAS	11.399	ug/l	165002.13
Ag	107	72	1	NO GAS	-0.076	ug/l	93.31
Ag	109	72	1	NO GAS	-0.072	ug/l	107.98
Cd	111	159	1	NO GAS	0.001	ug/l	22.25
Cd	111	159	3	He	0.003	ug/l	8.00
Cd	114	159	1	NO GAS	0.018	ug/l	36.40
Cd	114	159	3	He	0.012	ug/l	17.16
Sn	118	159	1	NO GAS	-2.222	ug/l	6332.08
Sn	118	159	3	He	-2.310	ug/l	968.92
Sb	121	159	1	NO GAS	0.302	ug/l	8431.16
Sb	121	159	3	He	0.353	ug/l	1327.84
Sb	123	159	1	NO GAS	0.306	ug/l	6758.13
Sb	123	159	3	He	0.321	ug/l	981.15
Ba	135	159	1	NO GAS	26.560	ug/l	147204.45
Ba	137	159	1	NO GAS	25.849	ug/l	248598.61
La	139	175	1	NO GAS	0.001	ug/l	130.13
La	139	175	3	He	0.001	ug/l	36.70
Ce	140	175	1	NO GAS	0.001	ug/l	163.50
Ce	140	175	3	He	0.002	ug/l	56.72
Hg	201	175	1	NO GAS	0.086	ug/l	398.26
Hg	202	175	1	NO GAS	1.529	ug/l	15394.40
Hg	202	175	3	He	1.184	ug/l	7946.84
Tl	203	175	3	He	0.034	ug/l	869.19
Tl	205	175	1	NO GAS	0.019	ug/l	3094.78
Tl	205	175	3	He	0.027	ug/l	1899.08
[Pb]	206	175	1	NO GAS	0.011	ug/l	333.34
[Pb]	207	175	1	NO GAS	0.010	ug/l	266.67
Pb	208	175	1	NO GAS	0.011	ug/l	1278.92
Th	232	175	3	He	0.016	ug/l	2151.07
U	238	175	1	NO GAS	0.360	ug/l	38456.24

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2149323.31	103.2
Sc	45	2	H2	94968.77	104.6
Sc	45	3	He	56355.98	102.6
Ge	72	1	NO GAS	931744.25	104.0
Ge	72	2	H2	141324.00	109.2
Ge	72	3	He	88976.80	105.6
Tb	159	1	NO GAS	20258095.09	100.7
Tb	159	3	He	7365352.23	100.3
Ho	165	1	NO GAS	18887984.61	100.6
Ho	165	3	He	7208516.86	99.5
Lu	175	1	NO GAS	20930854.91	104.6
Lu	175	3	He	4387198.30	99.5

ICPMS206-B Analytical Data

Sample Name B22010978-001B
File Name 147SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:00:19
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	2.100	ug/l	4139.68
Be	9	45	1	NO GAS	0.004	ug/l	3.00
B	11	45	1	NO GAS	92.543	ug/l	18632.88
Na	23	45	3	He	112262.439	ug/l	8980380.21
Mg	24	45	3	He	29486.635	ug/l	1231079.94
Al	27	45	1	NO GAS	5.302	ug/l	16129.87
Si	28	45	2	H2	29101.736	ug/l	373038.67
K	39	72	3	He	6614.911	ug/l	284569.73
Ca	40	72	2	H2	22379.016	ug/l	4273638.53
Ti	47	72	1	NO GAS	2.392	ug/l	2104.11
V	51	72	1	NO GAS	12.491	ug/l	150391.58
V	51	72	3	He	13.671	ug/l	17269.99
Cr	52	72	1	NO GAS	1.903	ug/l	38374.19
Cr	52	72	3	He	1.688	ug/l	2901.19
Cr	53	72	1	NO GAS	47.084	ug/l	170649.75
Mn	55	72	1	NO GAS	1.228	ug/l	24346.10
Mn	55	72	3	He	1.179	ug/l	956.12
Fe	56	72	2	H2	6.066	ug/l	6909.70
Fe	56	72	3	He	6.507	ug/l	10261.45
Co	59	72	1	NO GAS	0.075	ug/l	1294.17
Ni	60	72	1	NO GAS	1.515	ug/l	5436.81
Ni	60	72	3	He	1.324	ug/l	1377.85
Ni	62	72	1	NO GAS	1.061	ug/l	971.44
Cu	63	72	1	NO GAS	2.360	ug/l	21883.89
Cu	63	72	3	He	0.975	ug/l	3143.00
Cu	65	72	1	NO GAS	1.066	ug/l	5031.76
Zn	66	72	1	NO GAS	1.542	ug/l	4943.98
Zn	66	72	3	He	1.396	ug/l	681.13
As	75	72	1	NO GAS	3.343	ug/l	14407.66
As	75	72	3	He	3.468	ug/l	1020.83
Se	78	72	2	H2	0.703	ug/l	73.65
Br	79	72	1	NO GAS	5.389	ug/l	104390.40
Br	79	72	2	H2	6.215	ug/l	15100.33
Se	82	72	1	NO GAS	1.458	ug/l	575.56
Kr	84	72	1	NO GAS		ug/l	69438.10
Sr	88	72	1	NO GAS	302.269	ug/l	11228106.06
Sr	88	72	3	He	305.153	ug/l	440679.68

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	12.607	ug/l	100465.39
Mo	95	72	3	He	13.364	ug/l	31893.25
Mo	98	72	1	NO GAS	12.606	ug/l	171791.77
Ag	107	72	1	NO GAS	-0.062	ug/l	402.59
Ag	109	72	1	NO GAS	-0.059	ug/l	385.26
Cd	111	159	1	NO GAS	-0.012	ug/l	-59.50
Cd	111	159	3	He	0.003	ug/l	7.33
Cd	114	159	1	NO GAS	0.007	ug/l	-115.68
Cd	114	159	3	He	0.011	ug/l	14.55
Sn	118	159	1	NO GAS	-1.863	ug/l	12806.52
Sn	118	159	3	He	-1.951	ug/l	1831.24
Sb	121	159	1	NO GAS	0.328	ug/l	9101.52
Sb	121	159	3	He	0.322	ug/l	1161.16
Sb	123	159	1	NO GAS	0.328	ug/l	7219.45
Sb	123	159	3	He	0.367	ug/l	1064.49
Ba	135	159	1	NO GAS	26.172	ug/l	145103.09
Ba	137	159	1	NO GAS	26.172	ug/l	251641.81
La	139	175	1	NO GAS	0.004	ug/l	397.08
La	139	175	3	He	0.003	ug/l	70.07
Ce	140	175	1	NO GAS	0.007	ug/l	647.35
Ce	140	175	3	He	0.007	ug/l	183.52
Hg	201	175	1	NO GAS	0.107	ug/l	492.58
Hg	202	175	1	NO GAS	1.890	ug/l	19235.65
Hg	202	175	3	He	1.394	ug/l	9099.25
Tl	203	175	3	He	0.009	ug/l	501.24
Tl	205	175	1	NO GAS	-0.001	ug/l	1755.67
Tl	205	175	3	He	0.001	ug/l	1002.51
[Pb]	206	175	1	NO GAS	0.032	ug/l	818.92
[Pb]	207	175	1	NO GAS	0.030	ug/l	667.80
Pb	208	175	1	NO GAS	0.031	ug/l	3131.27
Th	232	175	3	He	0.039	ug/l	3223.72
U	238	175	1	NO GAS	0.375	ug/l	40554.04

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	1971890.14	94.7
Sc	45	2	H2	76273.09	84.0
Sc	45	3	He	48399.37	88.1
Ge	72	1	NO GAS	877399.54	97.9
Ge	72	2	H2	120022.74	92.7
Ge	72	3	He	78968.78	93.7
Tb	159	1	NO GAS	20256111.23	100.7
Tb	159	3	He	7025119.66	95.6
Ho	165	1	NO GAS	19233778.10	102.5
Ho	165	3	He	6909926.56	95.4
Lu	175	1	NO GAS	21183812.23	105.8
Lu	175	3	He	4268654.91	96.8

ICPMS206-B Analytical Data

Sample Name B22010979-001A
File Name 148SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:06:02
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.353	ug/l	1587.09
Be	9	45	1	NO GAS	0.009	ug/l	5.33
B	11	45	1	NO GAS	39.791	ug/l	9800.83
Na	23	45	3	He	39905.210	ug/l	4165230.56
Mg	24	45	3	He	16926.031	ug/l	920364.68
Al	27	45	1	NO GAS	58.399	ug/l	206835.10
Si	28	45	2	H2	34940.827	ug/l	642428.42
K	39	72	3	He	4180.602	ug/l	221001.71
Ca	40	72	2	H2	16510.084	ug/l	4116324.00
Ti	47	72	1	NO GAS	4.184	ug/l	4164.13
V	51	72	1	NO GAS	9.297	ug/l	120169.15
V	51	72	3	He	8.278	ug/l	12924.99
Cr	52	72	1	NO GAS	0.555	ug/l	24609.26
Cr	52	72	3	He	1.078	ug/l	2318.92
Cr	53	72	1	NO GAS	-99.741	ug/l	27226.14
Mn	55	72	1	NO GAS	19.619	ug/l	424496.30
Mn	55	72	3	He	20.132	ug/l	19774.46
Fe	56	72	2	H2	22.577	ug/l	32559.43
Fe	56	72	3	He	22.865	ug/l	42472.65
Co	59	72	1	NO GAS	0.204	ug/l	3879.46
Ni	60	72	1	NO GAS	1.398	ug/l	5693.15
Ni	60	72	3	He	1.358	ug/l	1727.88
Ni	62	72	1	NO GAS	1.323	ug/l	1270.87
Cu	63	72	1	NO GAS	1.611	ug/l	17146.66
Cu	63	72	3	He	1.180	ug/l	4601.71
Cu	65	72	1	NO GAS	1.238	ug/l	6602.00
Zn	66	72	1	NO GAS	3.024	ug/l	10662.28
Zn	66	72	3	He	2.956	ug/l	1690.10
As	75	72	1	NO GAS	0.131	ug/l	4516.16
As	75	72	3	He	0.137	ug/l	56.32
Se	78	72	2	H2	0.333	ug/l	47.66
Br	79	72	1	NO GAS	6.278	ug/l	125143.58
Br	79	72	2	H2	6.731	ug/l	20299.00
Se	82	72	1	NO GAS	0.965	ug/l	499.72
Kr	84	72	1	NO GAS		ug/l	53206.85
Sr	88	72	1	NO GAS	187.131	ug/l	7901080.59
Sr	88	72	3	He	195.630	ug/l	345451.00

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.514	ug/l	4748.51
Mo	95	72	3	He	0.528	ug/l	1583.42
Mo	98	72	1	NO GAS	0.524	ug/l	8285.00
Ag	107	72	1	NO GAS	-0.069	ug/l	267.95
Ag	109	72	1	NO GAS	-0.066	ug/l	259.95
Cd	111	159	1	NO GAS	0.005	ug/l	42.46
Cd	111	159	3	He	0.003	ug/l	8.00
Cd	114	159	1	NO GAS	0.018	ug/l	45.73
Cd	114	159	3	He	0.013	ug/l	22.38
Sn	118	159	1	NO GAS	-2.417	ug/l	2801.39
Sn	118	159	3	He	-2.519	ug/l	430.01
Sb	121	159	1	NO GAS	0.069	ug/l	2352.42
Sb	121	159	3	He	0.075	ug/l	353.34
Sb	123	159	1	NO GAS	0.066	ug/l	1783.45
Sb	123	159	3	He	0.081	ug/l	293.34
Ba	135	159	1	NO GAS	6.115	ug/l	33608.93
Ba	137	159	1	NO GAS	6.268	ug/l	59747.29
La	139	175	1	NO GAS	0.055	ug/l	4738.92
La	139	175	3	He	0.056	ug/l	1117.86
Ce	140	175	1	NO GAS	0.119	ug/l	10198.46
Ce	140	175	3	He	0.106	ug/l	2689.65
Hg	201	175	1	NO GAS	-0.001	ug/l	19.67
Hg	202	175	1	NO GAS	0.001	ug/l	88.98
Hg	202	175	3	He	0.002	ug/l	48.99
Tl	203	175	3	He	0.016	ug/l	637.22
Tl	205	175	1	NO GAS	0.011	ug/l	2476.89
Tl	205	175	3	He	0.017	ug/l	1637.77
[Pb]	206	175	1	NO GAS	0.042	ug/l	1008.93
[Pb]	207	175	1	NO GAS	0.037	ug/l	778.92
Pb	208	175	1	NO GAS	0.039	ug/l	3805.78
Th	232	175	3	He	-0.019	ug/l	411.26
U	238	175	1	NO GAS	0.014	ug/l	1641.77

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2363551.40	113.5
Sc	45	2	H2	109414.06	120.5
Sc	45	3	He	63049.17	114.8
Ge	72	1	NO GAS	997322.24	111.3
Ge	72	2	H2	156597.28	120.9
Ge	72	3	He	96526.32	114.5
Tb	159	1	NO GAS	20070476.44	99.7
Tb	159	3	He	7601288.11	103.5
Ho	165	1	NO GAS	19082899.10	101.7
Ho	165	3	He	7383149.19	102.0
Lu	175	1	NO GAS	20389191.60	101.9
Lu	175	3	He	4574200.08	103.7

ICPMS206-B Analytical Data

Sample Name B22010979-001B
File Name 149SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:11:45
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.175	ug/l	1800.41
Be	9	45	1	NO GAS	-0.001	ug/l	1.67
B	11	45	1	NO GAS	41.746	ug/l	8855.17
Na	23	45	3	He	42095.798	ug/l	3543579.81
Mg	24	45	3	He	17413.817	ug/l	764021.17
Al	27	45	1	NO GAS	23.965	ug/l	73475.35
Si	28	45	2	H2	35292.867	ug/l	464647.84
K	39	72	3	He	3995.530	ug/l	175139.06
Ca	40	72	2	H2	15296.114	ug/l	2994668.16
Ti	47	72	1	NO GAS	3.514	ug/l	3235.40
V	51	72	1	NO GAS	6.722	ug/l	73594.09
V	51	72	3	He	8.106	ug/l	10494.44
Cr	52	72	1	NO GAS	1.381	ug/l	33540.14
Cr	52	72	3	He	1.181	ug/l	2092.67
Cr	53	72	1	NO GAS	54.943	ug/l	187807.16
Mn	55	72	1	NO GAS	9.029	ug/l	181234.14
Mn	55	72	3	He	9.943	ug/l	8096.75
Fe	56	72	2	H2	15.636	ug/l	17797.29
Fe	56	72	3	He	17.125	ug/l	26487.68
Co	59	72	1	NO GAS	0.080	ug/l	1443.87
Ni	60	72	1	NO GAS	1.321	ug/l	4977.58
Ni	60	72	3	He	1.187	ug/l	1253.39
Ni	62	72	1	NO GAS	1.128	ug/l	1061.27
Cu	63	72	1	NO GAS	1.298	ug/l	12866.38
Cu	63	72	3	He	0.773	ug/l	2560.35
Cu	65	72	1	NO GAS	0.855	ug/l	4293.70
Zn	66	72	1	NO GAS	3.371	ug/l	10954.99
Zn	66	72	3	He	3.482	ug/l	1640.10
As	75	72	1	NO GAS	0.023	ug/l	3807.26
As	75	72	3	He	0.147	ug/l	49.66
Se	78	72	2	H2	0.274	ug/l	31.33
Br	79	72	1	NO GAS	1.104	ug/l	80822.12
Br	79	72	2	H2	1.468	ug/l	11105.11
Se	82	72	1	NO GAS	1.601	ug/l	646.12
Kr	84	72	1	NO GAS		ug/l	49376.16
Sr	88	72	1	NO GAS	187.119	ug/l	7307771.73
Sr	88	72	3	He	194.074	ug/l	283905.09

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	1.810	ug/l	15243.84
Mo	95	72	3	He	1.997	ug/l	4858.54
Mo	98	72	1	NO GAS	1.837	ug/l	26450.46
Ag	107	72	1	NO GAS	-0.070	ug/l	235.96
Ag	109	72	1	NO GAS	-0.066	ug/l	247.95
Cd	111	159	1	NO GAS	-0.003	ug/l	-7.09
Cd	111	159	3	He	0.006	ug/l	11.33
Cd	114	159	1	NO GAS	0.016	ug/l	19.93
Cd	114	159	3	He	0.013	ug/l	22.86
Sn	118	159	1	NO GAS	-2.117	ug/l	8538.77
Sn	118	159	3	He	-2.220	ug/l	1202.27
Sb	121	159	1	NO GAS	0.075	ug/l	2606.90
Sb	121	159	3	He	0.094	ug/l	406.67
Sb	123	159	1	NO GAS	0.078	ug/l	2136.82
Sb	123	159	3	He	0.098	ug/l	332.23
Ba	135	159	1	NO GAS	4.762	ug/l	27386.06
Ba	137	159	1	NO GAS	4.623	ug/l	46125.48
La	139	175	1	NO GAS	0.008	ug/l	767.47
La	139	175	3	He	0.007	ug/l	146.82
Ce	140	175	1	NO GAS	0.015	ug/l	1444.90
Ce	140	175	3	He	0.016	ug/l	390.41
Hg	201	175	1	NO GAS	0.003	ug/l	37.32
Hg	202	175	1	NO GAS	0.009	ug/l	180.97
Hg	202	175	3	He	0.009	ug/l	94.65
Tl	203	175	3	He	-0.002	ug/l	361.94
Tl	205	175	1	NO GAS	-0.005	ug/l	1474.53
Tl	205	175	3	He	-0.005	ug/l	828.53
[Pb]	206	175	1	NO GAS	0.021	ug/l	574.46
[Pb]	207	175	1	NO GAS	0.023	ug/l	535.57
Pb	208	175	1	NO GAS	0.022	ug/l	2372.31
Th	232	175	3	He	0.020	ug/l	2359.73
U	238	175	1	NO GAS	0.012	ug/l	1478.12

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2038787.30	97.9
Sc	45	2	H2	78375.93	86.3
Sc	45	3	He	50906.14	92.7
Ge	72	1	NO GAS	922326.28	103.0
Ge	72	2	H2	122902.04	94.9
Ge	72	3	He	79965.61	94.9
Tb	159	1	NO GAS	20997072.58	104.3
Tb	159	3	He	7330605.40	99.8
Ho	165	1	NO GAS	20004743.00	106.6
Ho	165	3	He	7093581.35	98.0
Lu	175	1	NO GAS	21538224.55	107.6
Lu	175	3	He	4389779.21	99.5

ICPMS206-B Analytical Data

Sample Name B22010980-001A
File Name 150SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:17:28
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.510	ug/l	1472.44
Be	9	45	1	NO GAS	0.001	ug/l	2.67
B	11	45	1	NO GAS	72.828	ug/l	18664.93
Na	23	45	3	He	94472.564	ug/l	10159030.41
Mg	24	45	3	He	36939.437	ug/l	2071223.21
Al	27	45	1	NO GAS	3.276	ug/l	12888.27
Si	28	45	2	H2	30139.599	ug/l	563239.23
K	39	72	3	He	3086.086	ug/l	167034.10
Ca	40	72	2	H2	40828.366	ug/l	10269802.29
Ti	47	72	1	NO GAS	1.911	ug/l	1909.18
V	51	72	1	NO GAS	15.788	ug/l	221098.26
V	51	72	3	He	14.507	ug/l	22793.15
Cr	52	72	1	NO GAS	0.115	ug/l	18303.70
Cr	52	72	3	He	0.599	ug/l	1380.67
Cr	53	72	1	NO GAS	-97.621	ug/l	29455.41
Mn	55	72	1	NO GAS	5.412	ug/l	117200.31
Mn	55	72	3	He	5.663	ug/l	5673.52
Fe	56	72	2	H2	12.159	ug/l	17895.72
Fe	56	72	3	He	12.641	ug/l	24207.04
Co	59	72	1	NO GAS	0.121	ug/l	2312.26
Ni	60	72	1	NO GAS	0.963	ug/l	3906.10
Ni	60	72	3	He	0.530	ug/l	708.91
Ni	62	72	1	NO GAS	0.471	ug/l	728.58
Cu	63	72	1	NO GAS	2.233	ug/l	23418.29
Cu	63	72	3	He	0.988	ug/l	3958.68
Cu	65	72	1	NO GAS	1.194	ug/l	6337.29
Zn	66	72	1	NO GAS	2.364	ug/l	8363.91
Zn	66	72	3	He	2.460	ug/l	1444.52
As	75	72	1	NO GAS	2.342	ug/l	12588.62
As	75	72	3	He	2.028	ug/l	746.20
Se	78	72	2	H2	0.474	ug/l	66.65
Br	79	72	1	NO GAS	67.083	ug/l	565332.37
Br	79	72	2	H2	66.788	ug/l	91353.30
Se	82	72	1	NO GAS	3.216	ug/l	1191.78
Kr	84	72	1	NO GAS		ug/l	80561.41
Sr	88	72	1	NO GAS	300.717	ug/l	12616912.96
Sr	88	72	3	He	304.799	ug/l	547943.56

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	3.798	ug/l	34259.05
Mo	95	72	3	He	3.974	ug/l	11833.24
Mo	98	72	1	NO GAS	3.749	ug/l	57828.17
Ag	107	72	1	NO GAS	-0.069	ug/l	265.95
Ag	109	72	1	NO GAS	-0.067	ug/l	227.29
Cd	111	159	1	NO GAS	0.003	ug/l	33.26
Cd	111	159	3	He	0.006	ug/l	12.67
Cd	114	159	1	NO GAS	0.020	ug/l	64.12
Cd	114	159	3	He	0.013	ug/l	21.28
Sn	118	159	1	NO GAS	-2.454	ug/l	2179.17
Sn	118	159	3	He	-2.541	ug/l	372.23
Sb	121	159	1	NO GAS	0.054	ug/l	2011.26
Sb	121	159	3	He	0.058	ug/l	293.34
Sb	123	159	1	NO GAS	0.055	ug/l	1603.43
Sb	123	159	3	He	0.068	ug/l	257.78
Ba	135	159	1	NO GAS	9.943	ug/l	55913.43
Ba	137	159	1	NO GAS	9.896	ug/l	96543.13
La	139	175	1	NO GAS	0.000	ug/l	93.43
La	139	175	3	He	0.001	ug/l	33.37
Ce	140	175	1	NO GAS	0.001	ug/l	160.17
Ce	140	175	3	He	0.001	ug/l	46.71
Hg	201	175	1	NO GAS	0.162	ug/l	722.54
Hg	202	175	1	NO GAS	2.999	ug/l	29889.28
Hg	202	175	3	He	2.283	ug/l	16298.46
Tl	203	175	3	He	0.019	ug/l	691.21
Tl	205	175	1	NO GAS	0.001	ug/l	1843.47
Tl	205	175	3	He	0.003	ug/l	1161.82
[Pb]	206	175	1	NO GAS	0.005	ug/l	181.12
[Pb]	207	175	1	NO GAS	0.004	ug/l	142.22
Pb	208	175	1	NO GAS	0.005	ug/l	691.12
Th	232	175	3	He	-0.020	ug/l	393.26
U	238	175	1	NO GAS	0.193	ug/l	20579.78

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2497794.47	120.0
Sc	45	2	H2	111197.36	122.4
Sc	45	3	He	65039.38	118.4
Ge	72	1	NO GAS	991053.59	110.6
Ge	72	2	H2	158095.19	122.1
Ge	72	3	He	98292.90	116.6
Tb	159	1	NO GAS	20543957.61	102.1
Tb	159	3	He	7684030.90	104.6
Ho	165	1	NO GAS	19071160.28	101.6
Ho	165	3	He	7602081.29	105.0
Lu	175	1	NO GAS	20813106.12	104.0
Lu	175	3	He	4676132.48	106.0

ICPMS206-B Analytical Data

Sample Name B22010980-001B
File Name 151SMPL.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:23:10
Sample Type Sample
Total Dilution 1.0000
Comment ICPMS-6020-W-T
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-0.958	ug/l	1793.74
Be	9	45	1	NO GAS	0.018	ug/l	7.33
B	11	45	1	NO GAS	90.858	ug/l	18512.14
Na	23	45	3	He	97614.968	ug/l	9196378.82
Mg	24	45	3	He	38554.810	ug/l	1894652.32
Al	27	45	1	NO GAS	37.695	ug/l	113824.87
Si	28	45	2	H2	29486.224	ug/l	437862.54
K	39	72	3	He	3082.712	ug/l	144763.86
Ca	40	72	2	H2	38911.559	ug/l	8118705.60
Ti	47	72	1	NO GAS	4.986	ug/l	4418.48
V	51	72	1	NO GAS	13.714	ug/l	169905.24
V	51	72	3	He	15.437	ug/l	21027.56
Cr	52	72	1	NO GAS	1.949	ug/l	39450.23
Cr	52	72	3	He	1.488	ug/l	2778.08
Cr	53	72	1	NO GAS	67.510	ug/l	193823.47
Mn	55	72	1	NO GAS	6.994	ug/l	136427.57
Mn	55	72	3	He	7.486	ug/l	6503.24
Fe	56	72	2	H2	187.745	ug/l	224176.77
Fe	56	72	3	He	205.099	ug/l	332376.38
Co	59	72	1	NO GAS	0.172	ug/l	2924.50
Ni	60	72	1	NO GAS	1.424	ug/l	5077.59
Ni	60	72	3	He	0.663	ug/l	762.25
Ni	62	72	1	NO GAS	0.715	ug/l	778.49
Cu	63	72	1	NO GAS	3.894	ug/l	36440.38
Cu	63	72	3	He	2.473	ug/l	8320.06
Cu	65	72	1	NO GAS	2.727	ug/l	12741.15
Zn	66	72	1	NO GAS	53.411	ug/l	146100.70
Zn	66	72	3	He	3.977	ug/l	1989.04
As	75	72	1	NO GAS	1.725	ug/l	9342.68
As	75	72	3	He	2.094	ug/l	668.55
Se	78	72	2	H2	0.392	ug/l	45.99
Br	79	72	1	NO GAS	11.247	ug/l	144196.20
Br	79	72	2	H2	11.009	ug/l	21115.19
Se	82	72	1	NO GAS	1.349	ug/l	543.63
Kr	84	72	1	NO GAS		ug/l	75512.22
Sr	88	72	1	NO GAS	314.205	ug/l	11882329.08
Sr	88	72	3	He	328.366	ug/l	512280.65

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	4.412	ug/l	35866.89
Mo	95	72	3	He	4.929	ug/l	12731.65
Mo	98	72	1	NO GAS	4.456	ug/l	61981.44
Ag	107	72	1	NO GAS	-0.049	ug/l	696.55
Ag	109	72	1	NO GAS	-0.048	ug/l	633.23
Cd	111	159	1	NO GAS	0.001	ug/l	15.66
Cd	111	159	3	He	0.001	ug/l	5.33
Cd	114	159	1	NO GAS	0.007	ug/l	-114.94
Cd	114	159	3	He	0.012	ug/l	19.88
Sn	118	159	1	NO GAS	-1.917	ug/l	10895.76
Sn	118	159	3	He	-2.151	ug/l	1386.74
Sb	121	159	1	NO GAS	0.077	ug/l	2420.20
Sb	121	159	3	He	0.081	ug/l	363.34
Sb	123	159	1	NO GAS	0.087	ug/l	2126.83
Sb	123	159	3	He	0.101	ug/l	340.00
Ba	135	159	1	NO GAS	10.447	ug/l	54474.56
Ba	137	159	1	NO GAS	10.345	ug/l	93821.93
La	139	175	1	NO GAS	0.020	ug/l	1711.86
La	139	175	3	He	0.021	ug/l	400.42
Ce	140	175	1	NO GAS	0.050	ug/l	4178.20
Ce	140	175	3	He	0.055	ug/l	1328.09
Hg	201	175	1	NO GAS	0.216	ug/l	901.85
Hg	202	175	1	NO GAS	3.823	ug/l	35933.11
Hg	202	175	3	He	2.553	ug/l	16995.77
Tl	203	175	3	He	0.013	ug/l	569.23
Tl	205	175	1	NO GAS	-0.006	ug/l	1258.95
Tl	205	175	3	He	-0.002	ug/l	912.52
[Pb]	206	175	1	NO GAS	0.054	ug/l	1224.51
[Pb]	207	175	1	NO GAS	0.050	ug/l	988.93
Pb	208	175	1	NO GAS	0.052	ug/l	4619.24
Th	232	175	3	He	0.014	ug/l	2046.41
U	238	175	1	NO GAS	0.205	ug/l	20703.25

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2049283.84	98.4
Sc	45	2	H2	88305.32	97.2
Sc	45	3	He	56986.72	103.8
Ge	72	1	NO GAS	894246.95	99.8
Ge	72	2	H2	130760.13	101.0
Ge	72	3	He	85300.51	101.2
Tb	159	1	NO GAS	19159434.38	95.2
Tb	159	3	He	7343468.63	100.0
Ho	165	1	NO GAS	18342721.35	97.7
Ho	165	3	He	7105510.84	98.1
Lu	175	1	NO GAS	19762342.90	98.7
Lu	175	3	He	4363576.13	98.9

ICPMS206-B Analytical Data

Sample Name CCV
File Name 152_CCV.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:28:53
Sample Type CCV
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	449.634	ug/l	341574.97
Be	9	45	1	NO GAS	46.423	ug/l	15533.42
B	11	45	1	NO GAS	47.707	ug/l	11862.36
Na	23	45	3	He	13178.430	ug/l	1402622.17
Mg	24	45	3	He	12286.470	ug/l	677937.94
Al	27	45	1	NO GAS	48.060	ug/l	172877.48
Si	28	45	2	H2	261.677	ug/l	6313.92
K	39	72	3	He	11463.002	ug/l	603557.21
Ca	40	72	2	H2	12828.296	ug/l	3152643.16
Ti	47	72	1	NO GAS	47.639	ug/l	47412.49
V	51	72	1	NO GAS	49.529	ug/l	762207.80
V	51	72	3	He	49.678	ug/l	76154.25
Cr	52	72	1	NO GAS	47.584	ug/l	695376.71
Cr	52	72	3	He	50.705	ug/l	102658.89
Cr	53	72	1	NO GAS	51.308	ug/l	201154.12
Mn	55	72	1	NO GAS	47.477	ug/l	1037054.04
Mn	55	72	3	He	50.154	ug/l	49510.98
Fe	56	72	2	H2	1310.371	ug/l	1845954.28
Fe	56	72	3	He	1302.677	ug/l	2397437.63
Co	59	72	1	NO GAS	47.750	ug/l	902287.81
Ni	60	72	1	NO GAS	49.088	ug/l	201594.31
Ni	60	72	3	He	51.733	ug/l	64711.26
Ni	62	72	1	NO GAS	48.884	ug/l	31577.17
Cu	63	72	1	NO GAS	49.897	ug/l	521230.87
Cu	63	72	3	He	51.060	ug/l	191361.38
Cu	65	72	1	NO GAS	49.383	ug/l	255960.11
Zn	66	72	1	NO GAS	48.214	ug/l	166457.04
Zn	66	72	3	He	50.454	ug/l	27947.72
As	75	72	1	NO GAS	47.678	ug/l	181824.89
As	75	72	3	He	50.835	ug/l	18291.65
Se	78	72	2	H2	53.081	ug/l	6859.72
Br	79	72	1	NO GAS	1.307	ug/l	89860.34
Br	79	72	2	H2	1.828	ug/l	14371.17
Se	82	72	1	NO GAS	49.462	ug/l	15768.38
Kr	84	72	1	NO GAS		ug/l	20565.35
Sr	88	72	1	NO GAS	49.262	ug/l	2103785.50
Sr	88	72	3	He	50.768	ug/l	90311.79

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	48.799	ug/l	446717.93
Mo	95	72	3	He	50.818	ug/l	148910.87
Mo	98	72	1	NO GAS	48.626	ug/l	761213.35
Ag	107	72	1	NO GAS	19.863	ug/l	516932.53
Ag	109	72	1	NO GAS	19.620	ug/l	502705.30
Cd	111	159	1	NO GAS	48.592	ug/l	309304.71
Cd	111	159	3	He	49.772	ug/l	74977.40
Cd	114	159	1	NO GAS	48.715	ug/l	719200.48
Cd	114	159	3	He	48.910	ug/l	192030.62
Sn	118	159	1	NO GAS	46.631	ug/l	913323.39
Sn	118	159	3	He	47.990	ug/l	139640.13
Sb	121	159	1	NO GAS	46.182	ug/l	1236207.77
Sb	121	159	3	He	48.722	ug/l	180374.98
Sb	123	159	1	NO GAS	45.656	ug/l	970129.20
Sb	123	159	3	He	48.528	ug/l	146598.18
Ba	135	159	1	NO GAS	47.963	ug/l	273518.50
Ba	137	159	1	NO GAS	47.675	ug/l	471660.79
La	139	175	1	NO GAS	49.256	ug/l	4477306.68
La	139	175	3	He	47.760	ug/l	952242.23
Ce	140	175	1	NO GAS	47.981	ug/l	4327300.48
Ce	140	175	3	He	47.596	ug/l	1203329.31
Hg	201	175	1	NO GAS	0.972	ug/l	4396.76
Hg	202	175	1	NO GAS	0.932	ug/l	9728.83
Hg	202	175	3	He	0.994	ug/l	6966.87
Tl	203	175	3	He	49.118	ug/l	715618.45
Tl	205	175	1	NO GAS	47.067	ug/l	3363683.14
Tl	205	175	3	He	50.188	ug/l	1792700.38
[Pb]	206	175	1	NO GAS	46.549	ug/l	1120802.36
[Pb]	207	175	1	NO GAS	45.979	ug/l	960047.99
Pb	208	175	1	NO GAS	46.668	ug/l	4459136.41
Th	232	175	3	He	50.417	ug/l	2627961.76
U	238	175	1	NO GAS	46.379	ug/l	5100248.03

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2399877.57	115.3
Sc	45	2	H2	112321.34	123.7
Sc	45	3	He	63977.00	116.5
Ge	72	1	NO GAS	1008489.50	112.6
Ge	72	2	H2	154445.08	119.3
Ge	72	3	He	97031.34	115.1
Tb	159	1	NO GAS	20838404.34	103.6
Tb	159	3	He	7661174.76	104.3
Ho	165	1	NO GAS	19700610.54	105.0
Ho	165	3	He	7286169.19	100.6
Lu	175	1	NO GAS	21629691.64	108.1
Lu	175	3	He	4579338.45	103.8

ICPMS206-B Analytical Data

Sample Name CCB
File Name 153_CCB.d
Data Path Name D:\Data\220118ADoD.b
Acq Time 2022-01-19 09:36:39
Sample Type CCB
Total Dilution 1.0000
Comment ICPMS-6020-W-D
ISTD Ref FileName 100CALB.d
Operator SRH/AEM/JPV/CAR
Method EPA 6020/6020B

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Li	7	165	1	NO GAS	-1.346	ug/l	1628.42
Be	9	45	1	NO GAS	0.005	ug/l	4.00
B	11	45	1	NO GAS	-0.092	ug/l	329.27
Na	23	45	3	He	17.547	ug/l	12184.34
Mg	24	45	3	He	3.667	ug/l	276.12
Al	27	45	1	NO GAS	0.056	ug/l	830.03
Si	28	45	2	H2	-28.931	ug/l	822.53
K	39	72	3	He	6.194	ug/l	3407.03
Ca	40	72	2	H2	4.921	ug/l	1885.85
Ti	47	72	1	NO GAS	0.019	ug/l	61.64
V	51	72	1	NO GAS	0.977	ug/l	-10829.01
V	51	72	3	He	0.017	ug/l	373.34
Cr	52	72	1	NO GAS	0.005	ug/l	16941.69
Cr	52	72	3	He	0.012	ug/l	169.67
Cr	53	72	1	NO GAS	-4.113	ug/l	136511.01
Mn	55	72	1	NO GAS	0.018	ug/l	1573.63
Mn	55	72	3	He	0.006	ug/l	15.67
Fe	56	72	2	H2	0.212	ug/l	659.69
Fe	56	72	3	He	0.252	ug/l	1041.19
Co	59	72	1	NO GAS	0.003	ug/l	129.74
Ni	60	72	1	NO GAS	0.014	ug/l	76.51
Ni	60	72	3	He	-0.010	ug/l	23.33
Ni	62	72	1	NO GAS	-0.114	ug/l	365.95
Cu	63	72	1	NO GAS	0.077	ug/l	1325.80
Cu	63	72	3	He	0.200	ug/l	914.51
Cu	65	72	1	NO GAS	0.071	ug/l	629.89
Zn	66	72	1	NO GAS	0.030	ug/l	465.51
Zn	66	72	3	He	0.002	ug/l	64.44
As	75	72	1	NO GAS	0.503	ug/l	5915.99
As	75	72	3	He	0.002	ug/l	7.67
Se	78	72	2	H2	0.005	ug/l	4.67
Br	79	72	1	NO GAS	0.254	ug/l	81537.14
Br	79	72	2	H2	0.171	ug/l	12586.62
Se	82	72	1	NO GAS	0.875	ug/l	474.43
Kr	84	72	1	NO GAS		ug/l	8771.65
Sr	88	72	1	NO GAS	0.042	ug/l	2222.44
Sr	88	72	3	He	0.054	ug/l	336.67

ICPMS206-B Analytical Data

Name	Mass	ISTD	Tune Step	Tune Mode	Conc.	Units	CPS
Mo	95	72	1	NO GAS	0.010	ug/l	191.12
Mo	95	72	3	He	0.007	ug/l	62.22
Mo	98	72	1	NO GAS	0.006	ug/l	269.66
Ag	107	72	1	NO GAS	-0.003	ug/l	1985.74
Ag	109	72	1	NO GAS	0.003	ug/l	2000.40
Cd	111	159	1	NO GAS	-0.005	ug/l	-15.37
Cd	111	159	3	He	0.005	ug/l	11.33
Cd	114	159	1	NO GAS	-0.011	ug/l	-380.09
Cd	114	159	3	He	-0.001	ug/l	-29.98
Sn	118	159	1	NO GAS	0.037	ug/l	48763.69
Sn	118	159	3	He	0.016	ug/l	7356.18
Sb	121	159	1	NO GAS	0.017	ug/l	1064.49
Sb	121	159	3	He	0.024	ug/l	163.33
Sb	123	159	1	NO GAS	0.017	ug/l	821.14
Sb	123	159	3	He	0.019	ug/l	108.89
Ba	135	159	1	NO GAS	0.017	ug/l	123.09
Ba	137	159	1	NO GAS	0.010	ug/l	146.38
La	139	175	1	NO GAS	0.004	ug/l	407.09
La	139	175	3	He	0.002	ug/l	56.72
Ce	140	175	1	NO GAS	0.005	ug/l	497.19
Ce	140	175	3	He	0.005	ug/l	140.14
Hg	201	175	1	NO GAS	0.001	ug/l	29.00
Hg	202	175	1	NO GAS	0.003	ug/l	109.31
Hg	202	175	3	He	0.003	ug/l	58.66
Tl	203	175	3	He	0.017	ug/l	635.23
Tl	205	175	1	NO GAS	0.015	ug/l	2819.18
Tl	205	175	3	He	0.017	ug/l	1594.44
[Pb]	206	175	1	NO GAS	0.004	ug/l	170.00
[Pb]	207	175	1	NO GAS	0.003	ug/l	118.89
Pb	208	175	1	NO GAS	0.004	ug/l	683.35
Th	232	175	3	He	0.018	ug/l	2306.40
U	238	175	1	NO GAS	0.006	ug/l	809.53

Name	Mass	Tune Step	Tune Mode	CPS	ISTD Recovery %
Sc	45	1	NO GAS	2379932.18	114.3
Sc	45	2	H2	109882.07	121.0
Sc	45	3	He	61535.44	112.0
Ge	72	1	NO GAS	1001671.02	111.8
Ge	72	2	H2	155956.81	120.5
Ge	72	3	He	92543.96	109.8
Tb	159	1	NO GAS	20988626.85	104.3
Tb	159	3	He	7595274.54	103.4
Ho	165	1	NO GAS	19499381.61	103.9
Ho	165	3	He	7368572.27	101.8
Lu	175	1	NO GAS	21168585.75	105.8
Lu	175	3	He	4485558.26	101.7

Energy Laboratories Inc

Standard LOG

Standard ID: ME211207 2008TS
Standard Name: 200.8 Tune Solution
Date Prepared: 12/7/2021
Date Expires: 12/7/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: R2-MEB691898
Balance ID:
Comments: Opened 12/7/2021; Expired 12/7/2022

Type: Primary
BY: Stacy R. Hendricks
Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	13795	125	mL	12/7/

Final Volume: 125 mL

Stock Source

Base Units

Amount Added

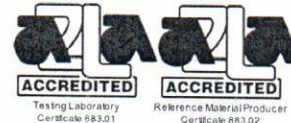
Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 2008TS
 Lot Number: R2-MEB691898
 Matrix: 3% (v/v) HNO3
 Value / Analyte(s): 10 µg/mL ea:
 Beryllium, Cobalt,
 Indium, Magnesium,
 Lead

ID #: 13795
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 4/8/2024
 Rec'd: 4/29/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Beryllium, Be	10.01 ± 0.06 µg/mL	Cobalt, Co	10.01 ± 0.04 µg/mL
Indium, In	10.01 ± 0.04 µg/mL	Lead, Pb	10.01 ± 0.04 µg/mL
Magnesium, Mg	10.01 ± 0.05 µg/mL		

Density: 1.014 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Be	ICP Assay	3105a	090514
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mg	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum((w_i)^2 (u_{\text{char } i}^2))]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 08, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 08, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220112A 1000 PPB STANDARD
Standard Name: 1000 PPB Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments: Made fresh daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.25	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME211208 MSCAL MSCAL 2B
ME211118 MSCAL EL-MSCAL-5A
ME211229A AU 2n Au 2nd source Stock

Base Units

ug/mL
ug/mL
ug/mL

Amount Added

0.5 mL
0.5 mL
0.01 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i})^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{Its} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-5A
 Lot Number: P2-MEB687200
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s):
 5 000 µg/mL ea:
 Calcium, Potassium, Magnesium,
 Sodium,
 500 µg/mL ea:
 Phosphorus, Iron,
 250 µg/mL ea:
 Lithium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{ \sum((w_i)^2 (u_{char i}^2)) \}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 100 PPB STANDARD
 Standard Name: 100 ppb Standard
 Date Prepared: 1/12/2022
 Date Expires: 11/18/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments: Made Fresh Daily

Type: Secondary
 BY: Cindy Rohrer
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
 50 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
ME211221 MSCAL MSCAL 3C	ug/mL	0.05 mL
ME211118 MSCAL EL-MSCAL-5A	ug/mL	0.25 mL
ME220105 HgPrim Primary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211208 MSCAL MSCAL 2B	ug/mL	0.05 mL
ME211229A AU 2n Au 2nd source Stock	ug/mL	0.01 mL
ME220110 Ce, La Ce, La Primary	ug/mL	0.05 mL

<u>Analytes</u>	<u>CAS</u>	Conc:	<u>mg/L</u>
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Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,

1-6-2025

ID #: 13473
 Opened: _____
 Multi Analyte Custom Grade Solution
 Expires: 1/6/2025
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Titanium,
 Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° \pm 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSCAL-5A

Lot Number: P2-MEB687200

Matrix: 3% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
500 µg/mL ea:	Phosphorus,	Iron,	
250 µg/mL ea:	Lithium		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i})^2 / (\sum(1/(u_{char i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{ \sum((w_i)^2 (u_{char i})^2) \}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:

Type: Primary
BY: Amanda E. McDani
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

Hg

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+%
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021



5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
- For any inquiries, please contact **SCP SCIENCE**. / Pour toute question, veuillez contacter **SCP SCIENCE**.

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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CORPORATE :

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www.scpscience.com | sales@scpscience.com

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:
Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 50 PPB STANDARD_CCV
 Standard Name: 50 ppb Standard/CCV
 Date Prepared: 1/12/2022
 Date Expires: 11/18/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments: Made Fresh Daily

Type: Secondary
 BY: Cindy Rohrer
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
100 mL

Stock Source

ME211221 MSCAL MSCAL 3C
 ME211118 MSCAL EL-MSCAL-5A
 ME220105 HgPrim Primary Hg Stock 2 PPM
 ME211208 MSCAL MSCAL 2B
 ME211229A AU 2n Au 2nd source Stock
 ME220110 Ce, La Ce, La Primary

Base Units

ug/mL
 ug/mL
 ug/mL
 ug/mL
 ug/mL
 ug/mL

Amount Added

0.05 mL
 0.25 mL
 0.05 mL
 0.05 mL
 0.01 mL
 0.05 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,

1-6-2025

ID #: 13473
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 1/6/2025
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Titanium,
 Antimony

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211118 MSCAL-5A
Standard Name: EL-MSCAL-5A
Date Prepared: 11/18/2021
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB687200
Balance ID:
Comments: Opened 11/18/2021; Expires 11/18/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13175	500	mL	11/18/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: EL-MSCAL-5A

Lot Number: P2-MEB687200

Matrix: 3% (v/v) HNO₃

Value / Analyte(s):

5 000 µg/mL ea:	Calcium,	Potassium,	Magnesium,
	Sodium,		
500 µg/mL ea:	Phosphorus,	Iron,	
250 µg/mL ea:	Lithium		

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 20 µg/mL	Iron, Fe	499.9 ± 2.1 µg/mL
Lithium, Li	250.0 ± 1.1 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Phosphorus, P	499.8 ± 2.5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Sodium, Na	5 000 ± 18 µg/mL		

Density: 1.076 g/mL (measured at 20 ± 4 °C)

Assay Information:

ID #: 13175
 Opened: _____
 Multi Analyte Custom Grade Solution
Expires: 12/2/2023
 Rec'd: 10/12/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = \{ \sum((w_i)^2 (u_{char i}^2)) \}^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 02, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **December 02, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107**SCP SCIENCE**

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis**Hg****1.0 DESCRIPTION:**

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+%
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP: Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA: Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice: Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH: Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité: Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC: Pour étalonnage d'instruments tels que: IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99+%

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
 For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum ((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:
Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 10 PPB STANDARD
Standard Name: 10 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 100 PP 100 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 1 PPB STANDARD
Standard Name: 1 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 10 PPB 10 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.5 PPB STANDARD
Standard Name: 0.5 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 10 PPB 10 ppb Standard

Base Units
ug/mL

Amount Added
2.5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.1 PPB STANDARD
Standard Name: 0.1 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220112 1 PPB 1 ppb Standard

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.05 PPB STANDARD
Standard Name: 0.5 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 0.5 PP 0.5 ppb Standard

Base Units
ug/mL

Amount Added
5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 0.025 PPB STANDARD
Standard Name: 0.025 ppb Standard
Date Prepared: 1/12/2022
Date Expires: 11/18/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments: Made Fresh Daily

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	48.335	mL	6/1/2100

Final Volume:
50 mL

Stock Source
ME220112 0.5 PP 0.5 ppb Standard

Base Units
ug/mL

Amount Added
2.5 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME211206 ICV STANDARD
 Standard Name: ICV for ICPMS Standards
 Date Prepared: 12/6/2021
 Date Expires: 4/30/2022
 Department:
 Vendor:
 Lot Number:
 Balance ID:
 Comments: Made fresh daily

Type: Secondary
 BY: Stacy R. Hendricks
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Hydrochloric Acid Instra Analyzed 000	14028	1	mL	3/29/
Nitric Acid Instra Analyzed 000028856	14572	2	mL	6/28/
Milli-Q H2O	391		mL	6/1/2

Final Volume: 100 mL

<u>Stock Source</u>	Base Units	Amount Added
ME210211 U Seco U 2' QCS	ug/mL	0.05 mL
ME211206 Th QC Th QCS Stock	ug/mL	0.05 mL
ME210901 Hg Sec Secondary Hg Stock 2 PPM	ug/mL	0.05 mL
ME211124 EL-MSI EL-MSICV-2	ug/mL	0.05 mL
ME210817 ICV-1A EL-MSICV-1A	ug/mL	0.05 mL
ME210903 Ce, La Ce, La Secondary solution	ug/mL	0.05 mL

Analvtes **CAS** Conc: **mg/L**

Energy Laboratories Inc

Spike LOG

Standard ID: ME210211 U SECOND SOURCE
Standard Name: U 2' QCS
Date Prepared: 2/11/2021
Date Expires: 4/30/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Alyssa A. Olson
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid Instra Analyzed 0000264786	13061	0.25	mL	5/12/2025
Milli-Q H2O	391	22.25	mL	6/1/2100

Final Volume:
25 mL

Stock Source

ME200624A U Stock

Base Units

ug/mL

Amount Added

2.5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME200624A
Standard Name: U Stock
Date Prepared: 6/24/2020
Date Expires: 4/30/2022
Department: ME
Vendor: SCP Science
Lot Number: S200422002
Balance ID:

Type: Primary
BY: Ron Hunt
Status: Empty/Disposed

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
PlasmaCal Standard Uranium	12767	500	mL	4/30/

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

A Uranium

7440-61-1

1000

U

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Uranium 1000 µg/ml**
 Catalogue Number: 140-051-920/-921/-925
 Starting Material: Uranyl Nitrate 99.99%
 Lot Number: **S200422002**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **April 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
983 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3164 Lot: **080521**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.020 g/ml @ 21.7 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 12767
 Opened: _____
 PlasmaCAL Standard Uranium
Expires: 4/30/2022
 Rec'd: 6/15/2020
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

% abundance of stable isotopes : ²³⁸U : 99.79% ; ²³⁵U : 0.21%
 Note : The uranyl nitrate comes from a depleted source of uranium.

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	0.0073	Ga	<0.0010	Ni	0.0038	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	*	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0031
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	0.0020
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0340	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	N/A
Ce	<0.0010	La	*	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	<1.0000	Y	0.0049
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	*	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<1.0000		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: April 28, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en presumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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GERMANY
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Marktobendorf
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Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Spike LOG

Standard ID: ME211206 TH QCS STOCK
Standard Name: Th QCS Stock
Date Prepared: 12/6/2021
Date Expires: 10/25/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000028856	14572	0.25	mL	6/28/
Milli-Q H2O	391	22.25	mL	6/1/2

Final Volume: 25 mL

Stock Source
ME 211025 Th Sec Th Secondary Stock

Base Units
ug/mL

Amount Added
2.5 mL

Analvtes

CAS

Conc: **ug/mL**

Energy Laboratories Inc

Standard LOG

Standard ID: ME 211025 TH SECONDARY STOCK
Standard Name: Th Secondary Stock
Date Prepared: 10/25/2021
Date Expires: 10/25/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-TH706436
Balance ID:
Comments: Opened 10/25/2021; Expires 10/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Thorium Single Analyte Custom Grade Sol	14318	125	mL	10/25/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

 P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGTH1
 Lot Number: S2-TH706436
 Matrix: 5% (v/v) HNO₃
 Value / Analyte(s): 1 000 µg/mL ea:
 Thorium
 Starting Material: TH(NO₃)₄·4H₂O
 Starting Material Lot#: 2250
 Starting Material Purity: 99.9905%

ID #: 14318
 Opened:
 Thorium Single Analyte Custom Grade Solution
Expires: 7/4/2025
 Rec'd: 9/24/2021
 Eneray Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 4 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 3 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928

Assay Method #2 **1001 ± 6 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/(u_{char i}^2)))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u^2_{char a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.000448	M Eu <	0.000224	O Na	0.064077	M Se <	0.005827	M Zn	0.003183
O Al	0.010962	M Fe	0.012392	M Nb <	0.003138	i Si <		M Zr <	0.010310
M As <	0.038776	M Ga <	0.004931	M Nd	0.004697	M Sm	0.000871		
M Au <	0.000224	M Gd	0.000300	M Ni <	0.006724	M Sn <	0.028242		
M B <	0.021293	M Ge <	0.008965	M Os <	0.000224	M Sr	0.002582		
M Ba	0.001317	M Hf <	0.000224	i P <		M Ta <	0.001344		
M Be <	0.000224	M Hg <	0.000448	M Pb	0.003287	M Tb <	0.001793		
M Bi <	0.001793	M Ho <	0.001344	M Pd <	0.000448	M Te <	0.010086		
O Ca	0.051969	M In	0.000134	M Pr	0.001202	s Th <			
M Cd <	0.001344	M Ir <	0.000224	M Pt <	0.000224	M Ti <	0.004258		
M Ce	0.015420	O K	0.028928	M Rb <	0.005155	M Tl <	0.000224		
M Co <	0.001344	M La	0.003577	M Re <	0.000224	M Tm <	0.000224		
M Cr <	0.015465	M Li <	0.000448	M Rh <	0.000224	M U	0.006564		
M Cs <	0.013896	M Lu <	0.000224	M Ru <	0.000224	M V <	0.001793		
M Cu	0.001472	O Mg	0.027914	i S <		M W <	0.000224		
M Dy	0.000197	M Mn	0.001814	M Sb <	0.004931	M Y	0.000860		
M Er <	0.002241	M Mo <	0.000896	M Sc <	0.000672	M Yb <	0.000224		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 232.04 +4 8 Th(OH) 3+ and Th(OH)22+

Chemical Compatibility -Soluble in HCl, and HNO3. Avoid H3PO4, H2SO4 and HF although solubilities may not be a problem depending upon pH and matrix (For example: ThF4 is soluble in acids). Avoid neutral to basic media. Th4+ is stable with most metals and inorganic anions forming an insoluble carbonate, oxide, fluoride, oxalate, sulfate and phosphate in neutral to slightly acidic media.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Th Containing Samples (Preparation and Solution) -Metal (Soluble in Aqua Regia); Oxide (The heated oxide is not soluble in acids except hot conc. H2SO4); Ores (Na2O2 fusion at 480 ± 20EC for 7 minutes, cool and treat sintered mass with 50 mL cold water and stand until disintegrated. The mass is transferred to a beaker and acidified with HCl with 25 mL excess HCl added. Any residue is collected on a Whatman No. 42 filter, dried and ignited to 1000 EC in Pt0 crucible and the ash treated with H2SO4 / HF and fumed. If residue remains, then treat it by peroxide fusion as above.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 232 amu	1 ppt	N/A	
ICP-OES 274.716 nm	0.08 / 0.008 µg/mL	1	Ti, Ta, Fe, V
ICP-OES 283.231 nm	0.07 / 0.007 µg/mL	1	U, Mo, Ti, Fe, Cr
ICP-OES 283.730 nm	0.07 / 0.007 µg/mL	1	U, Zr

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 04, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 04, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Spike LOG

Standard ID: ME210901 HG SECOND SOURCE
Standard Name: Secondary Hg Stock 2 PPM
Date Prepared: 9/1/2021
Date Expires: 7/26/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments:

Type: Secondary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	0.1	mL	4/11/
Hydrochloric Acid Instra Analyzed 000	14028	0.05	mL	3/29/

Final Volume: 50 mL

Stock Source
ME210726 Hg Secondary Source

Base Units
ug/mL

Amount Added
0.1 mL

Analvtes

CAS

Conc: **ug/mL**

Energy Laboratories Inc

Spike LOG

Standard ID: ME210726
Standard Name: Hg Secondary Source
Date Prepared: 7/26/2021
Date Expires: 7/26/2022
Department: _____
Vendor: _____
Lot Number: _____
Balance ID: _____
Comments: _____

Type: _____
BY: Jordan A. Gjerde
Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Mercury Single Analyte Custom Grade	13979	120	mL	7/26/

Final Volume: _____ mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: _____ ug/mL

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGHG1
 Lot Number: R2-HG696409
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s): 1 000 µg/mL ea:
 Mercury
 Starting Material: Hg metal
 Starting Material Lot#: 1959
 Starting Material Purity: 99.9994%

ID #: 13979
 Opened:
 Mercury Single Analyte Custom Grade Solution
Expires: 9/15/2024
 Rec'd: 6/23/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

- Assay Method #1** **1004 ± 8 µg/mL**
 ICP Assay NIST SRM 3133 Lot Number: 160921
- Assay Method #2** **1003 ± 3 µg/mL**
 EDTA NIST SRM 928 Lot Number: 928
- Assay Method #3** **1001 ± 3 µg/mL**
 Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum((w_i)^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag	0.001159	M	Eu	<	0.000201	O	Na	0.000435	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al	0.000090	O	Fe	0.000113	M	Nb	<	0.000201	O	Si	0.000525	M	Zr	<	0.000201	
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201		
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007		
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201		
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201		
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201		
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216		
O	Ca	0.000746	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201			
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402		
M	Ce	<	0.000201	O	K	0.002007	M	Rb	<	0.000201	O	Tl	<	0.016508			
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201		
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058		
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201		
M	Cu	<	0.000402	O	Mg	0.000096	O	S	<	0.053950	M	W	<	0.000604			
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201		
M	Er	<	0.000201	M	Mo	0.000971	M	Sc	<	0.000201	M	Yb	<	0.000201			

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO₃. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO₃ / LDPE container, stable in 10% HNO₃ packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO₃ packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO₃ / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO₃); Oxide (Soluble in HNO₃); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th, Rh, Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 15, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 15, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211124 EL-MSICV-2
Standard Name: EL-MSICV-2
Date Prepared: 11/24/2021
Date Expires: 11/24/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	14023	500	mL	11/24

Final Volume: mL

Stock Source

Base Units

Amount Added

Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSICV-2
 Lot Number: R2-MEB696849
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s):
 1 000 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin, Titanium,
 Molybdenum, Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.6 µg/mL	Molybdenum, Mo	100.0 ± 0.5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	99.9 ± 0.4 µg/mL
Titanium, Ti	99.9 ± 0.6 µg/mL		

Density: 1.019 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	070330
Sn	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va, 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 14, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 14, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME210817 ICV-1A
Standard Name: EL-MSICV-1A
Date Prepared: 8/17/2021
Date Expires: 8/17/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: R2-MEB688457
Balance ID:
Comments: Opened 8/17/2021; Expires 8/17/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Multi Analyte Custom Grade Solution	13475	500	mL	8/17/

Final Volume: 500 mL

Stock Source

Base Units

Amount Added

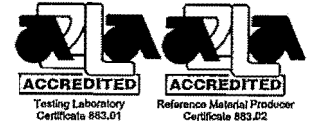
Analvtes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution		
Catalog Number:	EL-MSICV-1A		
Lot Number:	R2-MEB688457		
Matrix:	5% (v/v) HNO ₃		
Value / Analyte(s):	5 000 µg/mL ea:	Calcium,	Potassium,
		Sodium,	Magnesium,
	1 000 µg/mL ea:	Phosphorus,	
	500 µg/mL ea:	Manganese,	Iron,
	100 µg/mL ea:	Arsenic,	Boron,
		Cobalt,	Chromium,
		Lithium,	Nickel,
		Selenium,	Strontium,
		Vanadium,	Zinc,
	50 µg/mL ea:	Silver,	Cadmium,
			Beryllium

ID #: 13475

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 1/10/2024

Rec'd: 1/15/2021

 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	500.3 ± 1.8 µg/mL	Arsenic, As	100.0 ± 0.8 µg/mL
Barium, Ba	99.9 ± 0.4 µg/mL	Beryllium, Be	49.96 ± 0.33 µg/mL
Boron, B	100.0 ± 0.6 µg/mL	Cadmium, Cd	50.10 ± 0.22 µg/mL
Calcium, Ca	5 001 ± 20 µg/mL	Chromium, Cr	100.0 ± 0.6 µg/mL
Cobalt, Co	100.0 ± 0.5 µg/mL	Copper, Cu	100.1 ± 0.4 µg/mL
Iron, Fe	499.7 ± 2.1 µg/mL	Lead, Pb	100.1 ± 0.4 µg/mL
Lithium, Li	100.0 ± 0.4 µg/mL	Magnesium, Mg	5 000 ± 21 µg/mL
Manganese, Mn	499.8 ± 1.9 µg/mL	Nickel, Ni	100.1 ± 0.4 µg/mL
Phosphorus, P	1 000 ± 5 µg/mL	Potassium, K	5 000 ± 18 µg/mL
Selenium, Se	100.1 ± 0.8 µg/mL	Silver, Ag	50.02 ± 0.22 µg/mL
Sodium, Na	5 000 ± 18 µg/mL	Strontium, Sr	100.1 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.7 µg/mL	Vanadium, V	99.9 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.4 µg/mL		

Density: 1.098 g/mL (measured at 20 ± 4 °C)

Assay Information:

1.098 g/mL
 20 ± 4 °C

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	3153a	990906
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/(u_{\text{char } i}^2)))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i}^2))^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_n) (u_{\text{char } n})$$

X_n = mean of Assay Method n with

$u_{\text{char } n}$ = the standard uncertainty of characterization Method n

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } n}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } n}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed outer bag.

- While stored in the sealed outer bag, transpiration of this CRM/RM is negligible. After opening the sealed outer bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed outer bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va, 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; Inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 10, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 10, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed outer Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME210903 CE, LA SECONDARY
Standard Name: Ce, La Secondary solution
Date Prepared: 9/3/2021
Date Expires: 5/25/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments: Second Source Stock Solution

Type: Secondary
BY: Parker A. Pearsall
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid Instra Analyzed 000020579	10902	0.5	mL	7/1/2
Milli-Q H2O	391	39.5	mL	6/1/2

Final Volume: 50 mL

Stock Source

ME210903 La Sec La Secondary Stock
ME210525 Ce 2nd Ce Secondary Stock

Base Units

ug/mL
ug/mL

Amount Added

5 mL
5 mL

Analvtes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME210903 LA SECOND SOURCE
Standard Name: La Secondary Stock
Date Prepared: 9/3/2021
Date Expires: 9/3/2022
Department: ME
Vendor: SCP Science
Lot Number: S201029004
Balance ID:
Comments: Opened 9/3/2021; Expires 9/3/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Lanthanum PlasmaCal Standard	14019	125	mL	9/3/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

La

1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Lanthanum 1000 µg/ml**
 Catalogue Number: 140-051-570/-571/-575
 Starting Material: Lanthanum(III) Oxide 99.99+%
 Lot Number: **S201029004**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **November 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1005 µg/ml +/- 4 µg/ml**
985 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3127a Lot: **151030**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 14019
 Opened: _____
 Lanthanum PlasmaCal Standard
Expires: 11/30/2022
 Rec'd: 7/6/2021
 Energv Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 REFERENCE VALUES:
 Density: **1.020 g/ml @ 23.4 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0049	Fe	<0.0102	Nd	<0.1595	Sn	<0.0307
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0525	Gd	<0.0685	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.2535	Hf	<0.0339	Pb	<0.2460	Te	<0.4025
Ba	<0.0025	Hg	*	Pd	<0.1410	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.0274	Ti	<0.0013
Bi	<0.0780	In	<0.0105	Pt	<0.0533	Tl	<0.5600
Ca	0.0164	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	N/A	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0006	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0045	Sb	<0.0197	Yb	<0.0057
Cu	<0.0040	Mn	<0.0018	Sc	<0.0055	Zn	<0.0045
Dy	<0.0043	Mo	<0.0229	Se	<0.0249	Zr	<0.0061
Er	<0.0070	Na	<0.0038	Si	<0.0455		
Eu	<0.0086	Nb	<0.0112	Sm	<0.1105		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: November 04, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (FAAS) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleurs réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présupmant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou au CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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SILIC 642, 91965
Villebon sur Yvette, France
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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME210525 CE 2ND SOURCE
Standard Name: Ce Secondary Stock
Date Prepared: 5/25/2021
Date Expires: 5/25/2022
Department: ME
Vendor: SCP Science
Lot Number: S210208003
Balance ID:
Comments: opened 5/25/2021, expires 5/25/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Empty/Disposed

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Cerium	13642	125	mL	5/25/2022

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

Ce

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Cerium 1000 µg/ml*
 Catalogue Number: 140-051-580/-581/-585
 Starting Material: Cerium(III) Nitrate Hexahydrate 99.99+%
 Lot Number: **S210208003**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **February 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **1003 µg/ml +/- 4 µg/ml**
982 µg/g +/- 4 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3110 Lot: **090504**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.021 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

ID #: 13642
 Opened: _____
 ICP/ICPMS Standard Cerium
Expires: 2/28/2023
 Rec'd: 3/16/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	0.0102	Sn	<0.0010
Al	0.0148	Ga	0.0526	Ni	0.0064	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	0.0235	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	0.0375	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	N/A	La	<0.10	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0121	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0010	Si	<0.10		
Eu	0.0035	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Yaling Sui, Chemist
 Certification Date: February 22, 2021

Yaling Sui

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact SCP SCIENCE. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
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Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME210901 ICSA
Standard Name: ICSA
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor:
Lot Number:
Balance ID:
Comments: Made fresh every Monday, Wednesday, and Friday

Type: Secondary
BY: Cindy Rohrer
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	1	mL	4/11/
Milli-Q H2O	391	46.5	mL	6/1/2
Hydrochloric Acid Instra Analyzed 000	14028	0.5	mL	3/29/

Final Volume: 50 mL

Stock Source
ME210901 6020IC 6020ICS-8A

Base Units
ug/mL

Amount Added
2 mL

Analvtes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME210901 6020ICS-8A
Standard Name: 6020ICS-8A
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB684490
Balance ID:
Comments: Opened on 9/01/2021; Expires on 9/01/2022.

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13794	500	mL	9/1/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **mg/L**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 6020ICS-8A
 Lot Number: R2-MEB693957
 Matrix: 1% (v/v) HNO3
 Value / Analyte(s):
 18 000 µg/mL ea:
 Chloride,
 3 000 µg/mL ea:
 Calcium,
 2 500 µg/mL ea:
 Iron,
 2 000 µg/mL ea:
 Carbon,
 1 000 µg/mL ea:
 Aluminum,
 Sulfur,
 Magnesium,
 20 µg/mL ea:
 Molybdenum,

Sodium,

 Phosphorus,
 Potassium,

Titanium

ID #: 13794

Opened:

Multi Analyte Custom Grade Solution

Expires: 6/18/2024

Rec'd: 4/29/2021

 Eneray Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	1 001 ± 4 µg/mL	Calcium, Ca	3 003 ± 12 µg/mL
Carbon, C	2 002 ± 5 µg/mL	Chloride, Cl	18 020.0 ± 90.0 µg/mL
Iron, Fe	2 502 ± 10 µg/mL	Magnesium, Mg	1 001 ± 4 µg/mL
Molybdenum, Mo	20.02 ± 0.09 µg/mL	Phosphorus, P	1 001 ± 6 µg/mL
Potassium, K	1 001 ± 4 µg/mL	Sodium, Na	2 502 ± 9 µg/mL
Sulfur, S	1 001 ± 4 µg/mL	Titanium, Ti	20.02 ± 0.12 µg/mL

Density: 1.050 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
C	Acidimetric	84L	84L
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
S	Acidimetric	84L	84L
S	ICP Assay	traceable to 3154	M2-S657208
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000110	M	Eu	<	0.000067	s	Na	<		M	Se	<	0.003300	M	Zn	<	0.007900	
s	Al	<		s	Fe	<			M	Nb	<	0.000140	O	Si	<	0.011000	M	Zr	<	0.000770
O	As	<	0.021000	M	Ga	<	0.026000	M	Nd	<	0.000034	M	Sm	<	0.000034					
M	Au	<	0.000067	M	Gd	<	0.000067	O	Ni	<	0.002900	M	Sn	<	0.000210					
M	B	<	0.001200	M	Ge	<	0.002600	M	Os	<	0.000034	M	Sr	<	0.031000					
M	Ba	<	0.001400	M	Hf	<	0.000034	s	P	<		M	Ta	<	0.000340					
O	Be	<	0.000210	M	Hg	<	0.000140	M	Pb	<	0.000510	M	Tb	<	0.000034					
M	Bi	<	0.000210	M	Ho	<	0.000034	M	Pd	<	0.000110	M	Te	<	0.000670					
s	Ca	<		M	In	<	0.000067	M	Pr	<	0.000034	M	Th	<	0.000034					
O	Cd	<	0.002700	M	Ir	<	0.000034	M	Pt	<	0.000034	s	Ti	<						
M	Ce	<	0.000140	s	K	<			M	Rb	<	0.056000	M	Tl	<	0.000210				
M	Co	<	0.014000	M	La	<	0.000410	M	Re	<	0.000034	M	Tm	<	0.000034					
M	Cr	<	0.022000	O	Li	<	0.002500	M	Rh	<	0.000067	M	U	<	0.000034					
M	Cs	<	0.000970	M	Lu	<	0.000034	M	Ru	<	0.000340	M	V	<	0.000410					
M	Cu	<	0.009900	s	Mg	<			s	S	<		M	W	<	0.001800				
M	Dy	<	0.000034	M	Mn	<	0.005300	M	Sb	<	0.000640	M	Y	<	0.000034					
M	Er	<	0.000034	s	Mo	<			M	Sc	<	0.000540	M	Yb	<	0.000034				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA. Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 18, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 18, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME210901 ICSAB
Standard Name: ICSAB
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor:
Lot Number:
Balance ID:

Type: Secondary
BY: Cindy Rohrer
Status: Open

Comments: Made fresh every Monday, Wednesday, and Friday

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Nitric Acid, 69.0-70.0%,0000282671	14178	1	mL	4/11/
Milli-Q H2O	391	46.45	mL	6/1/2
Hydrochloric Acid Instra Analyzed 000	14028	0.5	mL	3/29/

Final Volume: 50 mL

Stock Source

ME210901 6020IC 6020ICS-8A
ME 210901 6020IC 6020ICS-9B

Base Units

ug/mL
ug/mL

Amount Added

2 mL
0.05 mL

Analvtes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Standard LOG

Standard ID: ME 210901 6020ICS-9B
Standard Name: 6020ICS-9B
Date Prepared: 9/1/2021
Date Expires: 9/1/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: P2-MEB678862
Balance ID:
Comments: Opened 9/1/2021; Expires 9/1/2022

Type: Primary
BY: Alyssa A. espinoza
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13478	125	mL	9/1/2022

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **mg/L**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 6020ICS-9B
 Lot Number: P2-MEB678862
 Matrix: 3% (v/v) HNO₃
 Value / Analyte(s): 20 µg/mL ea:
 Cobalt, Chromium, Copper,
 Manganese, Nickel, Vanadium,
 10 µg/mL ea:
 Zinc, Arsenic, Cadmium,
 Selenium,
 5 µg/mL ea:
 Silver

ID #: 13478
 Opened: _____
 Multi Analyte Custom Grade Solution
 Expires: 5/17/2023
 Rec'd: 1/15/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	10.01 ± 0.05 µg/mL	Cadmium, Cd	10.01 ± 0.04 µg/mL
Chromium, Cr	20.02 ± 0.12 µg/mL	Cobalt, Co	20.01 ± 0.10 µg/mL
Copper, Cu	20.02 ± 0.08 µg/mL	Manganese, Mn	20.02 ± 0.09 µg/mL
Nickel, Ni	20.02 ± 0.09 µg/mL	Selenium, Se	10.01 ± 0.06 µg/mL
Silver, Ag	5.005 ± 0.022 µg/mL	Vanadium, V	20.02 ± 0.08 µg/mL
Zinc, Zn	10.01 ± 0.04 µg/mL		

Density: 1.015 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	EDTA	928	928
Co	ICP Assay	traceable to 3113	M2-CO661665
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Mn	EDTA	928	928
Mn	ICP Assay	Traceable to 3132	N2-MN665236
Mn	Calculated		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i) (X_i)$$

X_i = mean of Assay Method I with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; Info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 17, 2019

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 17, 2023**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

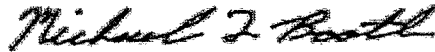
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220112 SS1
 Standard Name: SS1 ICPMS Spiking Solution
 Date Prepared: 1/12/2022
 Date Expires: 12/8/2022
 Department: ME
 Vendor: Inorganic Ventures
 Lot Number:
 Balance ID:
 Comments:

Type: Secondary
 BY: Stacy R. Hendricks
 Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid, 69.0-70.0%,0000277202	13781	0.8	mL	1/14/2026
Hydrochloric Acid, 36.5-38.0% 000027567	13784	2	mL	12/15/2025
Milli-Q H2O	391	28.8	mL	6/1/2100

Final Volume:
 40 mL

Stock Source

ME220105 HgPrim Primary Hg Stock 2 PPM
 ME211208 MSCAL MSCAL 2B
 ME211221 MSCAL MSCAL 3C
 ME220110 Ce, La Ce, La Primary

Base Units

ug/mL
 ug/mL
 ug/mL
 ug/mL

Amount Added

2 mL
 2 mL
 2 mL
 2 mL

Analytes

CAS

Conc: **mg/L**

Energy Laboratories Inc

Spike LOG

Standard ID: ME220105 HGPRIMARY
Standard Name: Primary Hg Stock 2 PPM
Date Prepared: 1/5/2022
Date Expires: 12/29/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number:
Balance ID:
Type: Secondary
BY: Amanda E. McDani
Status: Open
Comments: Made with different HG stock than QCS

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Hydrochloric Acid E1421	14721	0.25	mL	1/4/2027

Final Volume:
25 mL

Stock Source

ME220110HG HG Stock
ME211229A AU 2N Au 2nd source Stock

Base Units

ug/mL
ug/mL

Amount Added

0.05 mL
0.05 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Standard LOG

Standard ID: ME220110HG
Standard Name: HG Stock
Date Prepared: 1/10/2022
Date Expires: 1/10/2023
Department: ME
Vendor: SCP Science
Lot Number: S210729017
Balance ID:
Comments:

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Mercury	14711	125	mL	1/10/2023

Final Volume:
125 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14711

Opened: _____

ICP/ICPMS Standard Mercury

Expires: 7/31/2023

Rec'd: 12/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

SCP SCIENCE

Providing Innovative Solutions to Analytical Chemists

rtificate of Analysis

Hg

1.0 DESCRIPTION:

PlasmaCAL ICP/ICPMS Standard - Mercury 1000 µg/ml
 Catalogue Number: 140-051-800/-801/-805
 Starting Material: Mercury(II) oxide 99.99+%
 Lot Number: **S210729017**
 Matrix: 10% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **July 2023** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **999 µg/ml +/- 5 µg/ml**
952 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3133 Lot: **160921**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:

Density: **1.050 g/ml @ 23.6 °C**
 Actual Matrix: **10.0% (v/v) HNO₃**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	0.0322	Nd	<0.0010	Sn	<0.0010
Al	0.0042	Ga	<0.0010	Ni	0.0039	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	N/A	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	0.0117
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	0.0112	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0060	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	0.0092	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 12, 2021

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP: Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA: Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice: Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH: Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité: Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC: Pour étalonnage d'instruments tels que: IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Fax: +33 (0) 1 60 92 05 67

GERMANY
Alte Marktberdorfer Straße 14, 87616
Marktberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211229A AU 2ND SOURCE
Standard Name: Au 2nd source Stock
Date Prepared: 12/29/2021
Date Expires: 12/29/2022
Department: ME
Vendor: SCP Science
Lot Number: S211129013
Balance ID:
Comments: opened 12/29/2021; expires 12/29/2022

Type: Primary
BY: Amanda E. McDani
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
ICP/ICPMS Standard Gold	14710	500	mL	12/29/2022

Final Volume:
500 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

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 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
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 For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

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Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

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9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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Alte Marktoberdorfer Straße 14, 87616
Marktoberdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

Energy Laboratories Inc

Standard LOG

Standard ID: ME211208 MSCAL2B
Standard Name: MSCAL 2B
Date Prepared: 12/8/2021
Date Expires: 12/8/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB704403
Balance ID:
Comments: Opened 12/08/2021; Expires 12/08/2022

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13793		mL	12/8/2022

Final Volume:
mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: EL-MSCAL-2B
Lot Number: S2-MEB704403
Matrix: 5% (v/v) HNO3
Value / Analyte(s):
100 µg/mL ea:
Aluminum, Arsenic,
Boron, Barium,
Beryllium, Cadmium,
Cobalt, Chromium,
Copper, Iron,
Manganese, Nickel,
Lead, Selenium,
Strontium, Thorium,
Thallium, Uranium,
Vanadium, Zinc,
40 µg/mL ea:
Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ID #: 13793

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 4/21/2025

Rec'd: 4/29/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	100.0 ± 0.4 µg/mL	Arsenic, As	100.0 ± 0.9 µg/mL
Barium, Ba	100.0 ± 0.5 µg/mL	Beryllium, Be	100.0 ± 0.7 µg/mL
Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	100.0 ± 0.5 µg/mL
Chromium, Cr	100.0 ± 0.8 µg/mL	Cobalt, Co	100.0 ± 0.6 µg/mL
Copper, Cu	100.0 ± 0.5 µg/mL	Iron, Fe	100.1 ± 0.4 µg/mL
Lead, Pb	100.0 ± 0.6 µg/mL	Manganese, Mn	100.0 ± 0.5 µg/mL
Nickel, Ni	100.0 ± 0.6 µg/mL	Selenium, Se	100.0 ± 0.7 µg/mL
Silver, Ag	39.99 ± 0.18 µg/mL	Strontium, Sr	100.0 ± 0.4 µg/mL
Thallium, Tl	100.0 ± 0.6 µg/mL	Thorium, Th	100.0 ± 0.5 µg/mL
Uranium, U	100.0 ± 0.5 µg/mL	Vanadium, V	100.0 ± 0.5 µg/mL
Zinc, Zn	100.0 ± 0.5 µg/mL		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	110830
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
U	ICP Assay	3164	080521
U	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = (\sum (w_i^2 (u_{char i}^2)))^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope

Uranium 238U

Uranium 235U

Atom %

99.8 ± 0.1

0.24 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{Its}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 21, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 21, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME211221 MSCAL 3C
Standard Name: MSCAL 3C
Date Prepared: 12/21/2021
Date Expires: 12/21/2022
Department: ME
Vendor: Inorganic Ventures
Lot Number: S2-MEB700780
Balance ID:
Comments: Opened 12/21/21; expires 12/21/22

Type: Primary
BY: Stacy R. Hendricks
Status: Open

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Multi Analyte Custom Grade Solution	13473	250	mL	12/21/2022

Final Volume:
250 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **ug/mL**

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).


2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: EL-MSCAL-3C
 Lot Number: S2-MEB700780
 Matrix: 3% (v/v) HNO₃
 tr. HF
 Value / Analyte(s): 400 µg/mL ea:
 Silicon,
 100 µg/mL ea:
 Tin,
 Molybdenum,
 Titanium,
 Antimony

1-6-2025

ID #: 13473

Opened: _____

Multi Analyte Custom Grade Solution

Expires: 1/6/2025

Rec'd: 1/15/2021

Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.8 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL
Silicon, Si	399.9 ± 3.0 µg/mL	Tin, Sn	100.0 ± 0.6 µg/mL
Titanium, Ti	100.0 ± 0.7 µg/mL		

Density: 1.018 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum(1/u_{\text{char } i})^2)$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = (\sum(w_i)^2 (u_{\text{char } i})^2)^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) / (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° \pm 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800 669 6799; 540 585 3030, Fax: 540 585 3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 06, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 06, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Energy Laboratories Inc

Standard LOG

Standard ID: ME220110 CE, LA PRIMARY
Standard Name: Ce, La Primary Type: Secondary
Date Prepared: 1/10/2022 BY: Amanda E. McDani
Date Expires: 1/6/2023
Department: ME Status: Open
Vendor: Inorganic Ventures
Lot Number: M2-CE657768/M2-
Balance ID:
Comments: Used to make standards and spiking solutions; No primary La available

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Nitric Acid 69.0- 70.0% D0521	14626	0.5	mL	12/14/2026
Milli-Q H2O	391	39.5	mL	6/1/2100

Final Volume:
50 mL

Stock Source

ME220106-CE Ce Primary Stock

Base Units

ug/mL

Amount Added

5 mL

Analytes

CAS

Conc: ug/mL

Energy Laboratories Inc

Spike LOG

Standard ID: ME220112 206 INTERNAL STANDARD
 Standard Name: Internal Standards 2 mg/L
 Date Prepared: 1/12/2022
 Date Expires: 2/8/2022
 Department: ME
 Vendor:
 Lot Number:
 Balance ID:
 Comments:

Type: Secondary
 BY: Cindy Rohrer
 Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Expires
Hydrochloric Acid E1421	14721	10	mL	1/4/2027
Nitric Acid 69.0- 70.0% D0521	14626	20	mL	12/14/2026
ICP/ICPMS Standard Germanium	13639	2	mL	4/20/2022
Holmium Single Analyte Custom Grade S	13443	2	mL	2/12/2022
Terbium Single Analyte Atomic Absorption	13445	2	mL	2/12/2022
Lutetium Single Analyte Atomic Absorptio	13444	2	mL	3/1/2024
PlasmaCal Standard Scandium	13520	2	mL	8/31/2022
ICP/ICPMS Standard Gold	14710	0.2	mL	12/29/2022

Final Volume:
 1000 mL

Stock Source

Base Units

Amount Added

Analytes

CAS

Conc: **mg/L**

Ge

1.0 DESCRIPTION: *PlasmaCAL ICP/ICPMS Standard - Germanium 1000 µg/ml*
 Catalogue Number: 140-050-320/-321/-325
 Starting Material: Ammonium Hexafluorogermanate(IV) 99.99+%
 Lot Number: **S201204009**
 Matrix: H₂O / tr. F⁻

Expiration Date (End of month): **December 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:

Certified Concentration: **1002 µg/ml +/- 3 µg/ml**
1002 µg/g +/- 3 µg/g

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3120a Lot: **151115**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by coverage factor (k) of 2 to provide a 95% confidence interval.

ID #: 13639

Opened: _____

ICP/ICPMS Standard Germanium

Expires: 12/31/2022

Rec'd: 3/16/2021

Energiv Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 REFERENCE VALUES:

Density: **1.000 g/ml @ 22.7 °C**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0010	Fe	<0.0018	Nd	<0.0010	Sn	<0.0010
Al	<0.0010	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	0.0097	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	<0.0010	Ge	N/A	P	<0.0026	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	<0.0010	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	<0.0010	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	<0.0024	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	<0.0010	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	<0.0010	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.0010	Zr	<0.0010
Er	<0.0010	Na	<0.0025	Si	*		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist
 Certification Date: December 16, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présumant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est appropriée à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 meghom/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 meghom/cm doublement déionisé, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034 : SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

CORPORATE HEADQUARTERS
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GERMANY
Alte Marktobderdorfer Straße 14, 87616
Marktobderdorf
Phone: +49 (0) 8342-89560-61
Fax: +49 (0) 8342-89560-69

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
 Catalog Number: CGHO1
 Lot Number: R2-HO691014
 Matrix: 5% (v/v) HNO3
 Value / Analyte(s): 1 000 µg/mL ea:
 Holmium
 Starting Material: Holmium Oxide
 Starting Material Lot#: 1890
 Starting Material Purity: 99.9947%

ID #: 13443
 Opened: _____
 Holmium Single Analyte Custom Grade Solution
Expires: 4/1/2024
 Rec'd: 1/7/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 3 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	996 ± 6 µg/mL ICP Assay NIST SRM 3123a Lot Number: 090408
Assay Method #2	998 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1000 ± 3 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum(1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) / (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES ($\mu\text{g/mL}$)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 μm .

M Ag <	0.010000	M Eu	0.000377	M Na <	0.036000	M Se <	0.004400	M Zn <	0.071000
M Al <	0.020000	M Fe	0.002965	M Nb <	0.001200	i Si <		M Zr <	0.000400
M As <	0.011000	M Ga <	0.001600	M Nd	0.000183	M Sm	0.000700		
M Au <	0.006400	M Gd	0.000404	M Ni <	0.004800	M Sn <	0.002400		
M B <	0.091000	M Ge <	0.004000	M Os <	0.000400	M Sr <	0.002400		
M Ba <	0.002400	M Hf <	0.003200	i P <		i Ta <			
M Be <	0.003200	M Hg <	0.005600	M Pb <	0.057000	M Tb	0.000431		
M Bi <	0.005600	s Ho <		M Pd <	0.004400	M Te <	0.008000		
M Ca <	0.028000	M In <	0.001600	M Pr	0.000204	M Th <	0.001200		
M Cd <	0.000800	M Ir <	0.001600	M Pt <	0.000400	M Ti <	0.000800		
M Ce <	0.004800	O K	0.002965	M Rb <	0.002400	M Tl <	0.001600		
M Co <	0.001600	M La	0.000350	M Re <	0.000400	M Tm	0.000323		
M Cr <	0.005600	O Li <	0.001200	M Rh <	0.001600	M U <	0.000400		
M Cs	0.000485	M Lu	0.037737	M Ru <	0.000400	M V <	0.029000		
M Cu <	0.005600	O Mg <	0.003300	n S <		M W <	0.011000		
M Dy	0.009434	M Mn <	0.001200	M Sb <	0.002000	M Y	0.003504		
M Er	0.001671	M Mo <	0.011000	M Sc <	0.001200	M Yb	0.006199		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 164.93 +3 6 to 9 or 10 for some compounds $\text{Ho}(\text{OH})_x(\text{H}_2\text{O})_{y+3-x}$

Chemical Compatibility - Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Ho Containing Samples (Preparation and Solution) - Meta I (Soluble in acids); Oxide (Dissolved by heating in H₂O / HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 165 amu	1 ppt	n/a	149 Sm 16O
ICP-OES 339.898 nm	0.02 / 0.002 µg/mL	1	Ce, Re
ICP-OES 345.600 nm	0.006 / 0.0001 µg/mL	1	U, Ti

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 01, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Atomic Absorption Solution
Catalog Number: AATB1
Lot Number: R2-TB695079AA
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Terbium

ID #: 13445
Opened:
Terbium Single Analyte Atomic Absorption So
Expires: 8/19/2024
Rec'd: 1/7/2021
Enerav Laboratories Inc 1120 So. 27th Street
Billings MT 59107

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 10 µg/mL
Density: 1.026 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3157a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 158.93 +3 6 to 9 or 10 for some compounds $Tb(OH)_x(H_2O)_y+3-x$

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2 - 5% HNO₃ / LDPE container.

Tb Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolve by heating in H₂O/ HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

<u>Technique/Line</u>	<u>Estimated D.L.</u>	<u>Order</u>	<u>Interferences (underlined indicates severe)</u>
ICP-MS 159 amu	1 ppt	N/A	
ICP-OES 350.917 nm	0.02 / 0.002 µg/mL	1	V, Th, Ce, Zr
ICP-OES 367.635 nm	0.06 / 0.006 µg/mL	1	Ta, Ce, Co, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 19, 2020

- The certification is valid within the measurement uncertainty specified provided the CRMWRM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRMWRM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 19, 2024**

- The date after which this CRMWRM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRMWRM can be supported by long term stability studies conducted on properly stored and handled CRMWRMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRMWRM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRMWRM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS


Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Atomic Absorption Solution
Catalog Number: AALU1
Lot Number: R2-LU689867RAA
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Lutetium

ID #: 13444

Opened: _____

Lutetium Single Analyte Custom Grade Solution

Expires: 3/1/2024

Rec'd: 1/7/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

Certified Value: 1000 ± 10 µg/mL
Density: 1.011 g/mL (measured at 20 ± 4 °C)

4.0 TRACEABILITY TO NIST

The concentration of this solution standard has been verified by Inductively Coupled Plasma Spectroscopy (ICP) and is traceable to NIST SRM 3130a.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**7.1 Storage and Handling Recommendations**

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 174.97 +3 6 to 9 or 10 for some compounds $\text{Lu}(\text{OH})_x(\text{H}_2\text{O})_{y+3-x}$

Chemical Compatibility -Soluble in HCl, H₂SO₄ and HNO₃. Avoid HF, H₃PO₄ and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.

Lu Containing Samples (Preparation and Solution) -Metal (Soluble in acids); Oxide (Dissolved by heating in H₂O/ HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H₂O / HCl or HNO₃).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 175 amu	1 ppt	n/a	159 Tb16O
ICP-OES 261.542 nm	0.001 / 0.0003 µg/mL	1	Th, Mo, V, W
ICP-OES 291.139 nm	0.006 / 0.0006 µg/mL	1	Cr, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 01, 2020

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 01, 2024**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Manager, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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1.0 DESCRIPTION: **PlasmaCAL ICP/ICPMS Standard - Scandium 1000 µg/ml**
 Catalogue Number: 140-051-210/-211/-215
 Starting Material: Scandium(III) Oxide 99.99+%
 Lot Number: **S200813011**
 Matrix: 4% HNO₃ (See Section 3 for actual matrix)
 Expiration Date (End of month): **August 2022** (or 15 months after bottle is opened, whichever comes first)

2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:
 Certified Concentration: **999 µg/ml +/- 5 µg/ml**
978 µg/g +/- 5 µg/g
 Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)
 Traceability: NIST Standard Reference Material 3148a Lot: **100701**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:
 Density: **1.022 g/ml @ 22.5 °C**
 Actual Matrix: **4.0% (v/v) HNO₃**

ID #: 13520
 Opened: _____
 PlasmaCal Standard Scandium
Expires: 8/31/2022
 Rec'd: 1/26/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Trace Metal Impurities as tested by ICP-AES:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	<0.0244	Fe	<0.0102	Nd	<0.0319	Sn	<0.1535
Al	<0.0280	Ga	<0.0260	Ni	<0.0139	Sr	<0.0004
As	<0.0105	Gd	<0.0137	Os	*	Ta	<0.0635
Au	<0.0085	Ge	<0.0548	P	<0.0104	Tb	<0.0146
B	<0.0507	Hf	<0.0339	Pb	<0.0492	Te	<0.4025
Ba	<0.0005	Hg	*	Pd	<0.0282	Th	<0.0471
Be	<0.0022	Ho	<0.0065	Pr	<0.1370	Ti	<0.0013
Bi	<0.0156	In	<0.0105	Pt	<0.2665	Tl	<0.5600
Ca	0.0742	Ir	<0.0243	Rb	*	Tm	<0.0105
Cd	<0.0048	K	<0.0128	Re	<0.0076	U	<0.2490
Ce	<0.0393	La	<0.0173	Rh	<0.0163	V	<0.0049
Co	<0.0224	Li	<0.0028	Ru	<0.0304	W	<0.0443
Cr	<0.0063	Lu	<0.0021	S	<0.0515	Y	<0.0033
Cs	*	Mg	<0.0009	Sb	<0.0197	Yb	<0.0057
Cu	<0.0200	Mn	<0.0089	Sc	N/A	Zn	<0.0045
Dy	<0.0214	Mo	<0.0229	Se	<0.1245	Zr	0.1015
Er	<0.0349	Na	<0.0191	Si	<0.0091		
Eu	<0.0017	Nb	<0.0112	Sm	<0.1105		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:
 Certification Approval: Daniel Boisvert, Chemist
 Certification Date: August 20, 2020

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.*
 - AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).*
 - Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.*
 - pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH : Pour étalonnage de pH mètres et autres applications de chimie humide.*
 - Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité : Comme étalon pour les mesures de conductivité électrolytiques.*
 - IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.*
- For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

Stability / Stabilité: This Standard is guaranteed to be stable and accurate to within the specified uncertainty of measurement up to the unopened expiry date, if sealed, or up to the opened expiry date (when indicated), whichever comes first, provided the solution is kept tightly capped and stored under the indicated storage conditions. Purchasers will be notified of any significant changes resulting in re-certification or withdrawal of the product prior to the expiration date. / *La stabilité et l'exactitude de cet étalon sont garanties d'être à l'intérieur de l'incertitude de mesure, jusqu'à la date d'expiration de la bouteille non-ouverte, si scellée, ou jusqu'à la date d'expiration de la bouteille ouverte (si indiquée), en présupant que le contenant est maintenu fermé et gardé dans les conditions d'entreposage indiquées. Les acheteurs seront avisés dans le cas où il y aura des changements significatifs nécessitant une re-certification ou un rappel du produit avant la date d'expiration.*

7.0 HAZARDOUS INFORMATION / INFORMATION SUR LES RISQUES POTENTIELS:

Please refer to the associated Safety Data Sheet (SDS) for information regarding this product (available at www.SCPSCIENCE.com). / *SVP vous référer à la Fiche Signalétique applicable pour de l'information sur ce produit (Disponible à www.SCPSCIENCE.com).*

8.0 HOMOGENEITY / HOMOGÉNÉITÉ:

This solution has been blended according to an in-house procedure and its homogeneity is guaranteed to be fit for purpose when a sample size sufficient for the intended method of analysis is used. / *Cette solution a été préparée selon une procédure maison et nous assurons que sa homogénéité est approprié à l'emploi lorsqu'un échantillon suffisant pour la méthode d'analyse prévue est utilisé.*

9.0 TRACEABILITY / TRAÇABILITÉ:

This CRM (Certified Reference Material) is traceable to the NIST SRM (Standard Reference Material) indicated in section 2 through an unbroken chain of comparisons. In addition, balances used are regularly calibrated using weights which are traceable to NIST (National Institute of Standards and Technology) or NRC (National Research Council of Canada) standards. All conductivity meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable Thermometer and standards. All pH meters used to analyze this standard have been regularly calibrated using a NIST or NRC traceable thermometer and pH/MV simulator. / *Ce matériel de référence certifié est traçable au Matériel de Référence Standardisé de NIST indiqué à la section 2 par une chaîne de comparaison ininterrompue. De plus, les balances utilisées sont étalonnées régulièrement en utilisant des poids qui sont traçables au NIST (National Institute of Standards and Technology) ou au CRNC (Conseil National de Recherches Canada). Tout conductimètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et étalons traçables au NIST ou CNRC. Tout pH mètre utilisé afin d'analyser cet étalon a été sujet à un étalonnage périodique utilisant des thermomètres et un simulateur pH/MV traçables au NIST ou au CNRC.*

10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

ISO 17025 Accreditation / Accréditation ISO 17025: SCP SCIENCE (Corporate Headquarters) operates an ISO 17025 accredited laboratory. Please consult our web site for a copy of the most recent revision of our certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est accréditée ISO 17025. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

ISO 17034 Accreditation / Accréditation ISO 17034: SCP SCIENCE (Corporate Headquarters) is an ISO 17034 accredited Reference Material Producer. Please consult our website for a copy of our most recent certificate and scope of accreditation. / *SCP SCIENCE (Siège social) est un Fabricant de Matériaux de Référence Accrédité ISO 17034. Veuillez consulter notre site web afin d'obtenir la plus récente version de notre certificat d'accréditation ainsi que la portée de notre accréditation.*

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ID #: 14710

Opened:

ICP/ICPMS Standard Gold

Expires: 12/31/2023

Rec'd: 12/29/2021

Eneray Laboratories Inc 1120 So. 27th Street

Billings MT 59107

SCP SCIENC

Providing Innovative Solutions to Analytical

Certificate of Analysis**Au****1.0 DESCRIPTION:****PlasmaCAL ICP/ICPMS Standard - Gold 1000 µg/ml**

Catalogue Number: 140-052-790/-791/-795

Starting Material: Gold Metal 99.99%+

Lot Number: **S211129013**

Matrix: 10% HCl (See Section 3 for actual matrix)

Expiration Date (End of month): **December 2023** (or 15 months after bottle is opened, whichever comes first)**2.0 CERTIFIED VALUES AND ASSOCIATED UNCERTAINTY:**Certified Concentration: **1001 µg/ml +/- 4 µg/ml****982 µg/g +/- 4 µg/g**

Method of analysis: Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES)

Traceability: NIST Standard Reference Material 3121 Lot: **991806**

Note: The uncertainty of the certified value has been calculated from applicable uncertainty contributors (u_i) including uncertainty established during characterization of the material (u_{char}), the between bottle variation (u_{bb}), short-term stability (u_{sts}) and long-term stability (u_{lts}) according to the model $u_c = \sqrt{(u_{char}^2 + u_{bb}^2 + u_{sts}^2 + u_{lts}^2)}$. This combined uncertainty has been further multiplied by a coverage factor (k) of 2 to provide a 95% confidence interval.

3.0 REFERENCE VALUES:Density: **1.019 g/ml @ 22.4 °C**Actual Matrix: **10.0% (v/v) HCl**

Trace Metal Impurities as tested by ICP-MS:

Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)	Element	Conc. (ppm)
Ag	0.3851	Fe	<0.0090	Nd	<0.0010	Sn	<0.0010
Al	0.0062	Ga	<0.0010	Ni	<0.0010	Sr	<0.0025
As	<0.0010	Gd	<0.0010	Os	<0.0010	Ta	<0.0010
Au	N/A	Ge	<0.0010	P	<0.0132	Tb	<0.0010
B	<0.0015	Hf	<0.0010	Pb	<0.0010	Te	<0.0010
Ba	<0.0010	Hg	*	Pd	0.0434	Th	<0.0010
Be	<0.0010	Ho	<0.0010	Pr	<0.0010	Ti	<0.0012
Bi	<0.0010	In	<0.0010	Pt	0.0048	Tl	<0.0011
Ca	<0.0135	Ir	<0.0010	Rb	<0.0010	Tm	<0.0010
Cd	<0.0010	K	0.0362	Re	<0.0010	U	<0.0010
Ce	<0.0010	La	<0.0010	Rh	<0.0010	V	<0.0010
Co	<0.0010	Li	<0.0010	Ru	<0.0010	W	<0.0020
Cr	<0.0010	Lu	<0.0010	S	*	Y	<0.0010
Cs	0.0029	Mg	<0.0010	Sb	<0.0010	Yb	<0.0010
Cu	0.0023	Mn	<0.0010	Sc	<0.0010	Zn	<0.0010
Dy	<0.0010	Mo	<0.0010	Se	<0.01	Zr	<0.0010
Er	<0.0010	Na	0.0070	Si	<0.1		
Eu	<0.0010	Nb	<0.0010	Sm	<0.0010		

*: Not tested

4.0 APPROVAL AND DATE OF CERTIFICATION:

Certification Approval: Daniel Boisvert, Chemist

Certification Date: December 10, 2021

Daniel Boisvert

5.0 INTENDED USE / UTILISATION PRÉVUE:

- ICP Standards: For the calibration of, including but not limited to: ICP-AES, ICP-MS, FAAS, GFAA, XRF and DCP. / *Étalons ICP* : Pour l'étalonnage d'instruments de mesure tels que: ICP-AES, ICP-MS, FAAS, GFAA, XRF et DCP.
- AA Standards: For the calibration of Flame (FAAS) and Graphite Furnace (GFAA) Atomic Absorption Spectrometers. / *Étalons AA* : Pour l'étalonnage de spectromètres d'absorption atomique flamme (GFAA) et four au graphite (GFAA).
- Matrix Modifiers: For the optimization of analytical conditions to provide better Graphite Furnace Atomic Absorption (GFAA) instrument response and improved detection limits. / *Modificateur de matrice* : Pour l'optimisation des conditions analytiques afin de fournir des meilleures réponses instrumentales et limites de détection pour SAA four au graphite.
- pH Standards: For the calibrating pH meters or for other wet chemistry applications. / *Étalons pH* : Pour étalonnage de pH mètres et autres applications de chimie humide.
- Conductivity Standards: For electrolytic conductivity measurement as a calibration standard. / *Étalons de conductivité* : Comme étalon pour les mesures de conductivité électrolytiques.
- IC Standards: for calibration of, but not limited to IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS or other wet chemistry applications. / *Étalons IC* : Pour étalonnage d'instruments tels que : IC, HPLC, TLC, ISE, IR, NMR, MS, UV/VIS et autres applications de chimie humide.
For any inquiries, please contact **SCP SCIENCE**. / *Pour toute question, veuillez contacter SCP SCIENCE.*

6.0 INSTRUCTIONS FOR USE / INSTRUCTIONS D'UTILISATION:

Handling and Storage / Manutention et entreposage: Keep product tightly capped when not in use. The solution should be opened for a minimum amount of time necessary to dispense the amount required. Do not pipet or use directly from container. Do not return unused portions back to container. Store under normal laboratory conditions. Avoid exposure to excessive sources of heat and humidity or direct sunlight. / *Garder les contenants bien fermés lorsque non utilisés. Le contenant devrait être ouvert seulement pour le temps requis afin de prélever la quantité nécessaire. Ne pas pipetter ou utiliser directement du contenant. Ne pas retourner les portions non-utilisées dans le contenant. Conserver dans des conditions normales de laboratoire. Éviter l'exposition à des sources de chaleur et d'humidité excessives ou à l'exposition solaire directe.*

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10.0 PREPARATION / PRÉPARATION:

For the preparation of these solutions, 18 megohm/cm double deionized water, high-purity acids and glassware calibrated to ASTM Class A specifications are used. / *Une eau de 18 megohm/cm doublement déionisée, de l'acide de haute pureté, ainsi que de la verrerie étalonnée afin de satisfaire les spécifications Classe A de ASTM ont été utilisés pour la préparation de cet étalon.*

11.0 QUALITY SYSTEM CERTIFICATIONS / CERTIFICATIONS DE SYSTÈME QUALITÉ:

ISO 9001 Certification / Certification ISO 9001: This standard was produced in a facility which operates under a registered ISO 9001 Quality Management System. Please consult our web site for a copy of the most recent revision of our certificate of registration. / *Cet étalon a été fabriqué dans un laboratoire qui utilise un Système de Gestion de la Qualité enregistré à la norme ISO 9001. Veuillez consulter notre site web pour obtenir la version la plus récente de notre certificat d'enregistrement.*

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