284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Cover Page

Order ID : Q2074

Project ID : South River WM Replacement

Client : CDM Smith

Lab Sample Number	Client Sample Number
Q2074-01	TP-12
Q2074-02	TP-7
Q2074-03	TP-15
Q2074-04	TP-20
Q2074-05	TP-38
Q2074-06	TP-19
Q2074-07	TP-40
Q2074-08	TP-18

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 5/24/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q2074**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **PATEL VAISHALI** **Date:** **05/24/2025**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	Q2074	**OrderDate:**	5/16/2025 3:13:00 PM
Client:	CDM Smith	**Project:**	South River WM Replacement
Contact:	Marcie Ann Encinas	**Location:**	L31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2074-01	**TP-12**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-02	**TP-7**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-03	**TP-15**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-04	**TP-20**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-05	**TP-38**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-06	**TP-19**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-07	**TP-40**	**SOIL**			**05/15/25**			**05/16/25**
			Metals ICP-TAL	6010D		05/20/25	05/21/25	
			Mercury	7471B		05/19/25	05/20/25	
Q2074-08	**TP-18**	**SOIL**			**05/16/25**			**05/16/25**
			Mercury	7471B		05/19/25	05/20/25	
			Metals ICP-TAL	6010D		05/20/25	05/21/25	

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q2074 **Order ID:** Q2074

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : TP-12								
Q2074-01	TP-12	SOIL	Aluminum	4290		0.85	5.05	mg/Kg
Q2074-01	TP-12	SOIL	Arsenic	2.11		0.19	1.01	mg/Kg
Q2074-01	TP-12	SOIL	Barium	34.1		0.74	5.05	mg/Kg
Q2074-01	TP-12	SOIL	Beryllium	0.46		0.025	0.30	mg/Kg
Q2074-01	TP-12	SOIL	Cadmium	0.25	J	0.024	0.30	mg/Kg
Q2074-01	TP-12	SOIL	Calcium	77.5	J	11.2	101	mg/Kg
Q2074-01	TP-12	SOIL	Chromium	9.76		0.047	0.51	mg/Kg
Q2074-01	TP-12	SOIL	Cobalt	2.92		0.10	1.52	mg/Kg
Q2074-01	TP-12	SOIL	Copper	6.97		0.22	1.01	mg/Kg
Q2074-01	TP-12	SOIL	Iron	9360		4.03	5.05	mg/Kg
Q2074-01	TP-12	SOIL	Lead	10.0		0.13	0.61	mg/Kg
Q2074-01	TP-12	SOIL	Magnesium	647		12.1	101	mg/Kg
Q2074-01	TP-12	SOIL	Manganese	26.4		0.14	1.01	mg/Kg
Q2074-01	TP-12	SOIL	Mercury	0.014	J	0.0080	0.015	mg/Kg
Q2074-01	TP-12	SOIL	Nickel	5.28		0.13	2.02	mg/Kg
Q2074-01	TP-12	SOIL	Potassium	187		28.0	101	mg/Kg
Q2074-01	TP-12	SOIL	Sodium	107		18.0	101	mg/Kg
Q2074-01	TP-12	SOIL	Thallium	0.41	J	0.23	2.02	mg/Kg
Q2074-01	TP-12	SOIL	Vanadium	16.6		0.25	2.02	mg/Kg
Q2074-01	TP-12	SOIL	Zinc	17.4		0.23	2.02	mg/Kg
Client ID : TP-7								
Q2074-02	TP-7	SOIL	Aluminum	6120		0.85	5.08	mg/Kg
Q2074-02	TP-7	SOIL	Arsenic	2.20		0.19	1.02	mg/Kg
Q2074-02	TP-7	SOIL	Barium	16.5		0.74	5.08	mg/Kg
Q2074-02	TP-7	SOIL	Beryllium	0.45		0.025	0.31	mg/Kg
Q2074-02	TP-7	SOIL	Cadmium	0.35		0.024	0.31	mg/Kg
Q2074-02	TP-7	SOIL	Calcium	190		11.3	102	mg/Kg
Q2074-02	TP-7	SOIL	Chromium	8.71		0.048	0.51	mg/Kg
Q2074-02	TP-7	SOIL	Cobalt	4.61		0.10	1.52	mg/Kg
Q2074-02	TP-7	SOIL	Copper	3.87		0.22	1.02	mg/Kg
Q2074-02	TP-7	SOIL	Iron	12100		4.05	5.08	mg/Kg
Q2074-02	TP-7	SOIL	Lead	3.49		0.13	0.61	mg/Kg
Q2074-02	TP-7	SOIL	Magnesium	226		12.2	102	mg/Kg
Q2074-02	TP-7	SOIL	Manganese	38.7		0.14	1.02	mg/Kg
Q2074-02	TP-7	SOIL	Mercury	0.011	J	0.0090	0.015	mg/Kg
Q2074-02	TP-7	SOIL	Nickel	4.00		0.13	2.03	mg/Kg
Q2074-02	TP-7	SOIL	Potassium	144		28.1	102	mg/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q2074 **Order ID:** Q2074

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2074-02	TP-7	SOIL	Sodium	274		18.1	102	mg/Kg
Q2074-02	TP-7	SOIL	Thallium	0.70	J	0.23	2.03	mg/Kg
Q2074-02	TP-7	SOIL	Vanadium	11.4		0.25	2.03	mg/Kg
Q2074-02	TP-7	SOIL	Zinc	10.4		0.23	2.03	mg/Kg
Client ID : TP-15								
Q2074-03	TP-15	SOIL	Aluminum	5090		0.88	5.25	mg/Kg
Q2074-03	TP-15	SOIL	Arsenic	2.18		0.20	1.05	mg/Kg
Q2074-03	TP-15	SOIL	Barium	26.4		0.77	5.25	mg/Kg
Q2074-03	TP-15	SOIL	Beryllium	0.29	J	0.026	0.32	mg/Kg
Q2074-03	TP-15	SOIL	Cadmium	0.21	J	0.025	0.32	mg/Kg
Q2074-03	TP-15	SOIL	Calcium	314		11.7	105	mg/Kg
Q2074-03	TP-15	SOIL	Chromium	8.23		0.049	0.53	mg/Kg
Q2074-03	TP-15	SOIL	Cobalt	1.91		0.11	1.57	mg/Kg
Q2074-03	TP-15	SOIL	Copper	6.10		0.23	1.05	mg/Kg
Q2074-03	TP-15	SOIL	Iron	6820		4.19	5.25	mg/Kg
Q2074-03	TP-15	SOIL	Lead	18.0		0.14	0.63	mg/Kg
Q2074-03	TP-15	SOIL	Magnesium	326		12.6	105	mg/Kg
Q2074-03	TP-15	SOIL	Manganese	28.7		0.15	1.05	mg/Kg
Q2074-03	TP-15	SOIL	Mercury	0.057		0.0080	0.014	mg/Kg
Q2074-03	TP-15	SOIL	Nickel	4.10		0.14	2.10	mg/Kg
Q2074-03	TP-15	SOIL	Potassium	127		29.1	105	mg/Kg
Q2074-03	TP-15	SOIL	Sodium	300		18.7	105	mg/Kg
Q2074-03	TP-15	SOIL	Thallium	0.28	J	0.24	2.10	mg/Kg
Q2074-03	TP-15	SOIL	Vanadium	13.4		0.26	2.10	mg/Kg
Q2074-03	TP-15	SOIL	Zinc	31.9		0.24	2.10	mg/Kg
Client ID : TP-20								
Q2074-04	TP-20	SOIL	Aluminum	6620		0.89	5.30	mg/Kg
Q2074-04	TP-20	SOIL	Arsenic	2.51		0.20	1.06	mg/Kg
Q2074-04	TP-20	SOIL	Barium	21.3		0.77	5.30	mg/Kg
Q2074-04	TP-20	SOIL	Beryllium	0.25	J	0.026	0.32	mg/Kg
Q2074-04	TP-20	SOIL	Cadmium	0.096	J	0.025	0.32	mg/Kg
Q2074-04	TP-20	SOIL	Calcium	244		11.8	106	mg/Kg
Q2074-04	TP-20	SOIL	Chromium	9.72		0.050	0.53	mg/Kg
Q2074-04	TP-20	SOIL	Cobalt	2.38		0.11	1.59	mg/Kg
Q2074-04	TP-20	SOIL	Copper	3.83		0.23	1.06	mg/Kg
Q2074-04	TP-20	SOIL	Iron	7000		4.23	5.30	mg/Kg
Q2074-04	TP-20	SOIL	Lead	6.24		0.14	0.64	mg/Kg
Q2074-04	TP-20	SOIL	Magnesium	592		12.7	106	mg/Kg
Q2074-04	TP-20	SOIL	Manganese	21.1		0.15	1.06	mg/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q2074 **Order ID:** Q2074

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2074-04	TP-20	SOIL	Mercury	0.033		0.0080	0.014	mg/Kg
Q2074-04	TP-20	SOIL	Nickel	4.21		0.14	2.12	mg/Kg
Q2074-04	TP-20	SOIL	Potassium	184		29.3	106	mg/Kg
Q2074-04	TP-20	SOIL	Sodium	532		18.9	106	mg/Kg
Q2074-04	TP-20	SOIL	Vanadium	18.5		0.27	2.12	mg/Kg
Q2074-04	TP-20	SOIL	Zinc	9.82		0.24	2.12	mg/Kg
Client ID : TP-38								
Q2074-05	TP-38	SOIL	Aluminum	663		0.94	5.58	mg/Kg
Q2074-05	TP-38	SOIL	Arsenic	1.77		0.21	1.12	mg/Kg
Q2074-05	TP-38	SOIL	Barium	16.4		0.81	5.58	mg/Kg
Q2074-05	TP-38	SOIL	Beryllium	0.12	J	0.028	0.34	mg/Kg
Q2074-05	TP-38	SOIL	Calcium	42.3	J	12.4	112	mg/Kg
Q2074-05	TP-38	SOIL	Chromium	2.72		0.052	0.56	mg/Kg
Q2074-05	TP-38	SOIL	Cobalt	0.48	J	0.11	1.67	mg/Kg
Q2074-05	TP-38	SOIL	Copper	4.60		0.25	1.12	mg/Kg
Q2074-05	TP-38	SOIL	Iron	5030		4.45	5.58	mg/Kg
Q2074-05	TP-38	SOIL	Lead	1.44		0.14	0.67	mg/Kg
Q2074-05	TP-38	SOIL	Magnesium	28.9	J	13.4	112	mg/Kg
Q2074-05	TP-38	SOIL	Manganese	6.24		0.16	1.12	mg/Kg
Q2074-05	TP-38	SOIL	Nickel	0.43	J	0.14	2.23	mg/Kg
Q2074-05	TP-38	SOIL	Potassium	35.2	J	30.9	112	mg/Kg
Q2074-05	TP-38	SOIL	Sodium	35.7	J	19.8	112	mg/Kg
Q2074-05	TP-38	SOIL	Vanadium	6.23		0.28	2.23	mg/Kg
Q2074-05	TP-38	SOIL	Zinc	2.74		0.26	2.23	mg/Kg
Client ID : TP-19								
Q2074-06	TP-19	SOIL	Aluminum	2270		0.82	4.89	mg/Kg
Q2074-06	TP-19	SOIL	Arsenic	4.36		0.19	0.98	mg/Kg
Q2074-06	TP-19	SOIL	Barium	7.17		0.71	4.89	mg/Kg
Q2074-06	TP-19	SOIL	Beryllium	0.53		0.024	0.29	mg/Kg
Q2074-06	TP-19	SOIL	Cadmium	0.46		0.023	0.29	mg/Kg
Q2074-06	TP-19	SOIL	Calcium	160		10.9	97.8	mg/Kg
Q2074-06	TP-19	SOIL	Chromium	13.5		0.046	0.49	mg/Kg
Q2074-06	TP-19	SOIL	Cobalt	1.95		0.098	1.47	mg/Kg
Q2074-06	TP-19	SOIL	Copper	9.89		0.22	0.98	mg/Kg
Q2074-06	TP-19	SOIL	Iron	25100		3.90	4.89	mg/Kg
Q2074-06	TP-19	SOIL	Lead	10.5		0.13	0.59	mg/Kg
Q2074-06	TP-19	SOIL	Magnesium	102		11.7	97.8	mg/Kg
Q2074-06	TP-19	SOIL	Manganese	43.6		0.14	0.98	mg/Kg
Q2074-06	TP-19	SOIL	Mercury	0.051		0.0090	0.015	mg/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q2074 **Order ID:** Q2074

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2074-06	TP-19	SOIL	Nickel	2.42		0.13	1.96	mg/Kg
Q2074-06	TP-19	SOIL	Potassium	143		27.1	97.8	mg/Kg
Q2074-06	TP-19	SOIL	Sodium	54.2	J	17.4	97.8	mg/Kg
Q2074-06	TP-19	SOIL	Thallium	1.96		0.23	1.96	mg/Kg
Q2074-06	TP-19	SOIL	Vanadium	20.4		0.25	1.96	mg/Kg
Q2074-06	TP-19	SOIL	Zinc	35.3		0.23	1.96	mg/Kg
Client ID : TP-40								
Q2074-07	TP-40	SOIL	Aluminum	2050		0.88	5.21	mg/Kg
Q2074-07	TP-40	SOIL	Arsenic	2.26		0.20	1.04	mg/Kg
Q2074-07	TP-40	SOIL	Barium	15.9		0.76	5.21	mg/Kg
Q2074-07	TP-40	SOIL	Beryllium	0.18	J	0.026	0.31	mg/Kg
Q2074-07	TP-40	SOIL	Cadmium	0.065	J	0.025	0.31	mg/Kg
Q2074-07	TP-40	SOIL	Calcium	636		11.6	104	mg/Kg
Q2074-07	TP-40	SOIL	Chromium	7.76		0.049	0.52	mg/Kg
Q2074-07	TP-40	SOIL	Cobalt	0.65	J	0.10	1.56	mg/Kg
Q2074-07	TP-40	SOIL	Copper	9.10		0.23	1.04	mg/Kg
Q2074-07	TP-40	SOIL	Iron	7070		4.16	5.21	mg/Kg
Q2074-07	TP-40	SOIL	Lead	13.3		0.14	0.63	mg/Kg
Q2074-07	TP-40	SOIL	Magnesium	136		12.5	104	mg/Kg
Q2074-07	TP-40	SOIL	Manganese	11.9		0.15	1.04	mg/Kg
Q2074-07	TP-40	SOIL	Mercury	0.027		0.0070	0.013	mg/Kg
Q2074-07	TP-40	SOIL	Nickel	1.09	J	0.14	2.09	mg/Kg
Q2074-07	TP-40	SOIL	Potassium	180		28.9	104	mg/Kg
Q2074-07	TP-40	SOIL	Sodium	514		18.6	104	mg/Kg
Q2074-07	TP-40	SOIL	Thallium	0.36	J	0.24	2.09	mg/Kg
Q2074-07	TP-40	SOIL	Vanadium	13.8		0.26	2.09	mg/Kg
Q2074-07	TP-40	SOIL	Zinc	22.0		0.24	2.09	mg/Kg
Client ID : TP-18								
Q2074-08	TP-18	SOIL	Aluminum	4710		1.03	6.13	mg/Kg
Q2074-08	TP-18	SOIL	Arsenic	6.54		0.23	1.23	mg/Kg
Q2074-08	TP-18	SOIL	Barium	18.5		0.90	6.13	mg/Kg
Q2074-08	TP-18	SOIL	Beryllium	0.70		0.031	0.37	mg/Kg
Q2074-08	TP-18	SOIL	Cadmium	0.26	J	0.029	0.37	mg/Kg
Q2074-08	TP-18	SOIL	Calcium	447		13.6	123	mg/Kg
Q2074-08	TP-18	SOIL	Chromium	18.2		0.058	0.61	mg/Kg
Q2074-08	TP-18	SOIL	Cobalt	2.74		0.12	1.84	mg/Kg
Q2074-08	TP-18	SOIL	Copper	14.2		0.27	1.23	mg/Kg
Q2074-08	TP-18	SOIL	Iron	36100		4.90	6.13	mg/Kg
Q2074-08	TP-18	SOIL	Lead	31.8		0.16	0.74	mg/Kg

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q2074 **Order ID:** Q2074

Client: CDM Smith **Project ID:** South River WM Replacement

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q2074-08	TP-18	SOIL	Magnesium	112	J	14.7	123	mg/Kg
Q2074-08	TP-18	SOIL	Manganese	24.7		0.17	1.23	mg/Kg
Q2074-08	TP-18	SOIL	Mercury	0.030		0.0090	0.017	mg/Kg
Q2074-08	TP-18	SOIL	Nickel	3.24		0.16	2.45	mg/Kg
Q2074-08	TP-18	SOIL	Potassium	218		34.0	123	mg/Kg
Q2074-08	TP-18	SOIL	Sodium	141		21.8	123	mg/Kg
Q2074-08	TP-18	SOIL	Thallium	2.76		0.28	2.45	mg/Kg
Q2074-08	TP-18	SOIL	Vanadium	32.9		0.31	2.45	mg/Kg
Q2074-08	TP-18	SOIL	Zinc	24.3		0.28	2.45	mg/Kg

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-12	SDG No.:	Q2074
Lab Sample ID:	Q2074-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	83.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4290		1	0.85	5.05	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-36-0	Antimony	0.22	UN	1	0.22	2.53	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-38-2	Arsenic	2.11	*	1	0.19	1.01	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-39-3	Barium	34.1		1	0.74	5.05	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-41-7	Beryllium	0.46		1	0.025	0.30	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-43-9	Cadmium	0.25	J	1	0.024	0.30	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-70-2	Calcium	77.5	J	1	11.2	101	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-47-3	Chromium	9.76	*	1	0.047	0.51	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-48-4	Cobalt	2.92		1	0.10	1.52	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-50-8	Copper	6.97		1	0.22	1.01	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7439-89-6	Iron	9360	*	1	4.03	5.05	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7439-92-1	Lead	10.0		1	0.13	0.61	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7439-95-4	Magnesium	647		1	12.1	101	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7439-96-5	Manganese	26.4		1	0.14	1.01	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7439-97-6	Mercury	0.014	J	1	0.0080	0.015	mg/Kg	05/19/25 13:50	05/20/25 14:17	7471B	
7440-02-0	Nickel	5.28		1	0.13	2.02	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-09-7	Potassium	187	N	1	28.0	101	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7782-49-2	Selenium	0.26	U	1	0.26	1.01	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-22-4	Silver	0.12	U	1	0.12	0.51	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-23-5	Sodium	107		1	18.0	101	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-28-0	Thallium	0.41	J	1	0.23	2.02	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-62-2	Vanadium	16.6	*	1	0.25	2.02	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050
7440-66-6	Zinc	17.4		1	0.23	2.02	mg/Kg	05/20/25 12:15	05/21/25 19:36	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-7	SDG No.:	Q2074
Lab Sample ID:	Q2074-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	88.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	6120		1	0.85	5.08	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-36-0	Antimony	0.22	UN	1	0.22	2.54	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-38-2	Arsenic	2.20	*	1	0.19	1.02	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-39-3	Barium	16.5		1	0.74	5.08	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-41-7	Beryllium	0.45		1	0.025	0.31	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-43-9	Cadmium	0.35		1	0.024	0.31	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-70-2	Calcium	190		1	11.3	102	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-47-3	Chromium	8.71	*	1	0.048	0.51	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-48-4	Cobalt	4.61		1	0.10	1.52	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-50-8	Copper	3.87		1	0.22	1.02	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7439-89-6	Iron	12100	*	1	4.05	5.08	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7439-92-1	Lead	3.49		1	0.13	0.61	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7439-95-4	Magnesium	226		1	12.2	102	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7439-96-5	Manganese	38.7		1	0.14	1.02	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7439-97-6	Mercury	0.011	J	1	0.0090	0.015	mg/Kg	05/19/25 13:50	05/20/25 14:20	7471B	
7440-02-0	Nickel	4.00		1	0.13	2.03	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-09-7	Potassium	144	N	1	28.1	102	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7782-49-2	Selenium	0.26	U	1	0.26	1.02	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-22-4	Silver	0.12	U	1	0.12	0.51	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-23-5	Sodium	274		1	18.1	102	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-28-0	Thallium	0.70	J	1	0.23	2.03	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-62-2	Vanadium	11.4	*	1	0.25	2.03	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050
7440-66-6	Zinc	10.4		1	0.23	2.03	mg/Kg	05/20/25 12:15	05/21/25 19:41	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-15	SDG No.:	Q2074
Lab Sample ID:	Q2074-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	87

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5090		1	0.88	5.25	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.62	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-38-2	Arsenic	2.18	*	1	0.20	1.05	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-39-3	Barium	26.4		1	0.77	5.25	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-41-7	Beryllium	0.29	J	1	0.026	0.32	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-43-9	Cadmium	0.21	J	1	0.025	0.32	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-70-2	Calcium	314		1	11.7	105	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-47-3	Chromium	8.23	*	1	0.049	0.53	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-48-4	Cobalt	1.91		1	0.11	1.57	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-50-8	Copper	6.10		1	0.23	1.05	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7439-89-6	Iron	6820	*	1	4.19	5.25	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7439-92-1	Lead	18.0		1	0.14	0.63	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7439-95-4	Magnesium	326		1	12.6	105	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7439-96-5	Manganese	28.7		1	0.15	1.05	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7439-97-6	Mercury	0.057		1	0.0080	0.014	mg/Kg	05/19/25 13:50	05/20/25 14:22	7471B	
7440-02-0	Nickel	4.10		1	0.14	2.10	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-09-7	Potassium	127	N	1	29.1	105	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7782-49-2	Selenium	0.27	U	1	0.27	1.05	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-22-4	Silver	0.13	U	1	0.13	0.53	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-23-5	Sodium	300		1	18.7	105	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-28-0	Thallium	0.28	J	1	0.24	2.10	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-62-2	Vanadium	13.4	*	1	0.26	2.10	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050
7440-66-6	Zinc	31.9		1	0.24	2.10	mg/Kg	05/20/25 12:15	05/21/25 19:45	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-20	SDG No.:	Q2074
Lab Sample ID:	Q2074-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	84.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	6620		1	0.89	5.30	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.65	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-38-2	Arsenic	2.51	*	1	0.20	1.06	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-39-3	Barium	21.3		1	0.77	5.30	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-41-7	Beryllium	0.25	J	1	0.026	0.32	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-43-9	Cadmium	0.096	J	1	0.025	0.32	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-70-2	Calcium	244		1	11.8	106	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-47-3	Chromium	9.72	*	1	0.050	0.53	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-48-4	Cobalt	2.38		1	0.11	1.59	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-50-8	Copper	3.83		1	0.23	1.06	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7439-89-6	Iron	7000	*	1	4.23	5.30	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7439-92-1	Lead	6.24		1	0.14	0.64	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7439-95-4	Magnesium	592		1	12.7	106	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7439-96-5	Manganese	21.1		1	0.15	1.06	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7439-97-6	Mercury	0.033		1	0.0080	0.014	mg/Kg	05/19/25 13:50	05/20/25 14:24	7471B	
7440-02-0	Nickel	4.21		1	0.14	2.12	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-09-7	Potassium	184	N	1	29.3	106	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7782-49-2	Selenium	0.28	U	1	0.28	1.06	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-22-4	Silver	0.13	U	1	0.13	0.53	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-23-5	Sodium	532		1	18.9	106	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-28-0	Thallium	0.24	U	1	0.24	2.12	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-62-2	Vanadium	18.5	*	1	0.27	2.12	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050
7440-66-6	Zinc	9.82		1	0.24	2.12	mg/Kg	05/20/25 12:15	05/21/25 19:49	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-38	SDG No.:	Q2074
Lab Sample ID:	Q2074-05	Matrix:	SOIL
Level (low/med):	low	% Solid:	81.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	663		1	0.94	5.58	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-36-0	Antimony	0.25	UN	1	0.25	2.79	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-38-2	Arsenic	1.77	*	1	0.21	1.12	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-39-3	Barium	16.4		1	0.81	5.58	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-41-7	Beryllium	0.12	J	1	0.028	0.34	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-43-9	Cadmium	0.027	U	1	0.027	0.34	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-70-2	Calcium	42.3	J	1	12.4	112	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-47-3	Chromium	2.72	*	1	0.052	0.56	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-48-4	Cobalt	0.48	J	1	0.11	1.67	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-50-8	Copper	4.60		1	0.25	1.12	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7439-89-6	Iron	5030	*	1	4.45	5.58	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7439-92-1	Lead	1.44		1	0.14	0.67	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7439-95-4	Magnesium	28.9	J	1	13.4	112	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7439-96-5	Manganese	6.24		1	0.16	1.12	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7439-97-6	Mercury	0.0090	U	1	0.0090	0.017	mg/Kg	05/19/25 13:50	05/20/25 14:27	7471B	
7440-02-0	Nickel	0.43	J	1	0.14	2.23	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-09-7	Potassium	35.2	JN	1	30.9	112	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7782-49-2	Selenium	0.29	U	1	0.29	1.12	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-22-4	Silver	0.13	U	1	0.13	0.56	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-23-5	Sodium	35.7	J	1	19.8	112	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-28-0	Thallium	0.26	U	1	0.26	2.23	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-62-2	Vanadium	6.23	*	1	0.28	2.23	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050
7440-66-6	Zinc	2.74		1	0.26	2.23	mg/Kg	05/20/25 12:15	05/21/25 19:53	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-19	SDG No.:	Q2074
Lab Sample ID:	Q2074-06	Matrix:	SOIL
Level (low/med):	low	% Solid:	85.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2270		1	0.82	4.89	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-36-0	Antimony	0.22	UN	1	0.22	2.45	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-38-2	Arsenic	4.36	*	1	0.19	0.98	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-39-3	Barium	7.17		1	0.71	4.89	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-41-7	Beryllium	0.53		1	0.024	0.29	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-43-9	Cadmium	0.46		1	0.023	0.29	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-70-2	Calcium	160		1	10.9	97.8	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-47-3	Chromium	13.5	*	1	0.046	0.49	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-48-4	Cobalt	1.95		1	0.098	1.47	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-50-8	Copper	9.89		1	0.22	0.98	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7439-89-6	Iron	25100	*	1	3.90	4.89	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7439-92-1	Lead	10.5		1	0.13	0.59	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7439-95-4	Magnesium	102		1	11.7	97.8	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7439-96-5	Manganese	43.6		1	0.14	0.98	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7439-97-6	Mercury	0.051		1	0.0090	0.015	mg/Kg	05/19/25 13:50	05/20/25 14:33	7471B	
7440-02-0	Nickel	2.42		1	0.13	1.96	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-09-7	Potassium	143	N	1	27.1	97.8	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7782-49-2	Selenium	0.25	U	1	0.25	0.98	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-22-4	Silver	0.12	U	1	0.12	0.49	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-23-5	Sodium	54.2	J	1	17.4	97.8	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-28-0	Thallium	1.96		1	0.23	1.96	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-62-2	Vanadium	20.4	*	1	0.25	1.96	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050
7440-66-6	Zinc	35.3		1	0.23	1.96	mg/Kg	05/20/25 12:15	05/21/25 20:06	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/15/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-40	SDG No.:	Q2074
Lab Sample ID:	Q2074-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2050		1	0.88	5.21	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-36-0	Antimony	0.23	UN	1	0.23	2.61	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-38-2	Arsenic	2.26	*	1	0.20	1.04	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-39-3	Barium	15.9		1	0.76	5.21	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-41-7	Beryllium	0.18	J	1	0.026	0.31	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-43-9	Cadmium	0.065	J	1	0.025	0.31	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-70-2	Calcium	636		1	11.6	104	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-47-3	Chromium	7.76	*	1	0.049	0.52	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-48-4	Cobalt	0.65	J	1	0.10	1.56	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-50-8	Copper	9.10		1	0.23	1.04	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7439-89-6	Iron	7070	*	1	4.16	5.21	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7439-92-1	Lead	13.3		1	0.14	0.63	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7439-95-4	Magnesium	136		1	12.5	104	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7439-96-5	Manganese	11.9		1	0.15	1.04	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7439-97-6	Mercury	0.027		1	0.0070	0.013	mg/Kg	05/19/25 13:50	05/20/25 14:36	7471B	
7440-02-0	Nickel	1.09	J	1	0.14	2.09	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-09-7	Potassium	180	N	1	28.9	104	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7782-49-2	Selenium	0.27	U	1	0.27	1.04	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-22-4	Silver	0.13	U	1	0.13	0.52	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-23-5	Sodium	514		1	18.6	104	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-28-0	Thallium	0.36	J	1	0.24	2.09	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-62-2	Vanadium	13.8	*	1	0.26	2.09	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050
7440-66-6	Zinc	22.0		1	0.24	2.09	mg/Kg	05/20/25 12:15	05/21/25 20:10	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	CDM Smith	Date Collected:	05/16/25
Project:	South River WM Replacement	Date Received:	05/16/25
Client Sample ID:	TP-18	SDG No.:	Q2074
Lab Sample ID:	Q2074-08	Matrix:	SOIL
Level (low/med):	low	% Solid:	78

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4710		1	1.03	6.13	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-36-0	Antimony	0.27	UN	1	0.27	3.07	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-38-2	Arsenic	6.54	*	1	0.23	1.23	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-39-3	Barium	18.5		1	0.90	6.13	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-41-7	Beryllium	0.70		1	0.031	0.37	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-43-9	Cadmium	0.26	J	1	0.029	0.37	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-70-2	Calcium	447		1	13.6	123	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-47-3	Chromium	18.2	*	1	0.058	0.61	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-48-4	Cobalt	2.74		1	0.12	1.84	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-50-8	Copper	14.2		1	0.27	1.23	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7439-89-6	Iron	36100	*	1	4.90	6.13	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7439-92-1	Lead	31.8		1	0.16	0.74	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7439-95-4	Magnesium	112	J	1	14.7	123	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7439-96-5	Manganese	24.7		1	0.17	1.23	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7439-97-6	Mercury	0.030		1	0.0090	0.017	mg/Kg	05/19/25 13:50	05/20/25 14:38	7471B	
7440-02-0	Nickel	3.24		1	0.16	2.45	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-09-7	Potassium	218	N	1	34.0	123	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7782-49-2	Selenium	0.32	U	1	0.32	1.23	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-22-4	Silver	0.15	U	1	0.15	0.61	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-23-5	Sodium	141		1	21.8	123	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-28-0	Thallium	2.76		1	0.28	2.45	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-62-2	Vanadium	32.9	*	1	0.31	2.45	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050
7440-66-6	Zinc	24.3		1	0.28	2.45	mg/Kg	05/20/25 12:15	05/21/25 20:14	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV12	Mercury	3.99	4.0	100	90 - 110	CV	05/20/2025	12:58	LB135837

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV45	Mercury	4.90	5.0	98	90 - 110	CV	05/20/2025	13:03	LB135837
CCV46	Mercury	4.73	5.0	95	90 - 110	CV	05/20/2025	13:33	LB135837
CCV47	Mercury	4.80	5.0	96	90 - 110	CV	05/20/2025	14:01	LB135837
CCV48	Mercury	4.90	5.0	98	90 - 110	CV	05/20/2025	14:29	LB135837
CCV49	Mercury	5.16	5.0	103	90 - 110	CV	05/20/2025	14:52	LB135837
CCV50	Mercury	5.14	5.0	103	90 - 110	CV	05/20/2025	15:05	LB135837

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2410	2500	96	90 - 110	P	05/21/2025	13:19	LB135868
	Antimony	1010	1000	101	90 - 110	P	05/21/2025	13:19	LB135868
	Arsenic	1020	1000	102	90 - 110	P	05/21/2025	13:19	LB135868
	Barium	535	520	103	90 - 110	P	05/21/2025	13:19	LB135868
	Beryllium	478	510	94	90 - 110	P	05/21/2025	13:19	LB135868
	Cadmium	510	510	100	90 - 110	P	05/21/2025	13:19	LB135868
	Calcium	9470	10000	95	90 - 110	P	05/21/2025	13:19	LB135868
	Chromium	514	520	99	90 - 110	P	05/21/2025	13:19	LB135868
	Cobalt	498	520	96	90 - 110	P	05/21/2025	13:19	LB135868
	Copper	514	510	101	90 - 110	P	05/21/2025	13:19	LB135868
	Iron	10400	10000	104	90 - 110	P	05/21/2025	13:19	LB135868
	Lead	989	1000	99	90 - 110	P	05/21/2025	13:19	LB135868
	Magnesium	5600	6000	93	90 - 110	P	05/21/2025	13:19	LB135868
	Manganese	486	520	93	90 - 110	P	05/21/2025	13:19	LB135868
	Nickel	501	530	94	90 - 110	P	05/21/2025	13:19	LB135868
	Potassium	10700	9900	108	90 - 110	P	05/21/2025	13:19	LB135868
	Selenium	1050	1000	105	90 - 110	P	05/21/2025	13:19	LB135868
	Silver	264	250	106	90 - 110	P	05/21/2025	13:19	LB135868
	Sodium	10100	10000	101	90 - 110	P	05/21/2025	13:19	LB135868
	Thallium	1030	1000	103	90 - 110	P	05/21/2025	13:19	LB135868
	Vanadium	473	500	95	90 - 110	P	05/21/2025	13:19	LB135868
	Zinc	1010	1000	101	90 - 110	P	05/21/2025	13:19	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	111	100	111	80 - 120	P	05/21/2025	13:29	LB135868
	Antimony	50.1	50.0	100	80 - 120	P	05/21/2025	13:29	LB135868
	Arsenic	17.0	20.0	85	80 - 120	P	05/21/2025	13:29	LB135868
	Barium	90.6	100	91	80 - 120	P	05/21/2025	13:29	LB135868
	Beryllium	6.01	6.0	100	80 - 120	P	05/21/2025	13:29	LB135868
	Cadmium	6.06	6.0	101	80 - 120	P	05/21/2025	13:29	LB135868
	Calcium	2020	2000	101	80 - 120	P	05/21/2025	13:29	LB135868
	Chromium	10.3	10.0	103	80 - 120	P	05/21/2025	13:29	LB135868
	Cobalt	29.7	30.0	99	80 - 120	P	05/21/2025	13:29	LB135868
	Copper	21.8	20.0	109	80 - 120	P	05/21/2025	13:29	LB135868
	Iron	105	100	105	80 - 120	P	05/21/2025	13:29	LB135868
	Lead	11.0	12.0	92	80 - 120	P	05/21/2025	13:29	LB135868
	Magnesium	2060	2000	103	80 - 120	P	05/21/2025	13:29	LB135868
	Manganese	22.2	20.0	111	80 - 120	P	05/21/2025	13:29	LB135868
	Nickel	39.6	40.0	99	80 - 120	P	05/21/2025	13:29	LB135868
	Potassium	1920	2000	96	80 - 120	P	05/21/2025	13:29	LB135868
	Selenium	19.5	20.0	98	80 - 120	P	05/21/2025	13:29	LB135868
	Silver	11.0	10.0	110	80 - 120	P	05/21/2025	13:29	LB135868
	Sodium	1900	2000	95	80 - 120	P	05/21/2025	13:29	LB135868
	Thallium	40.7	40.0	102	80 - 120	P	05/21/2025	13:29	LB135868
	Vanadium	40.1	40.0	100	80 - 120	P	05/21/2025	13:29	LB135868
	Zinc	43.2	40.0	108	80 - 120	P	05/21/2025	13:29	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9680	10000	97	90 - 110	P	05/21/2025	14:09	LB135868
	Antimony	4890	5000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Arsenic	4850	5000	97	90 - 110	P	05/21/2025	14:09	LB135868
	Barium	9920	10000	99	90 - 110	P	05/21/2025	14:09	LB135868
	Beryllium	234	250	94	90 - 110	P	05/21/2025	14:09	LB135868
	Cadmium	2430	2500	97	90 - 110	P	05/21/2025	14:09	LB135868
	Calcium	24400	25000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Chromium	984	1000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Cobalt	2430	2500	97	90 - 110	P	05/21/2025	14:09	LB135868
	Copper	1230	1250	98	90 - 110	P	05/21/2025	14:09	LB135868
	Iron	5060	5000	101	90 - 110	P	05/21/2025	14:09	LB135868
	Lead	4900	5000	98	90 - 110	P	05/21/2025	14:09	LB135868
	Magnesium	24200	25000	97	90 - 110	P	05/21/2025	14:09	LB135868
	Manganese	2450	2500	98	90 - 110	P	05/21/2025	14:09	LB135868
	Nickel	2440	2500	98	90 - 110	P	05/21/2025	14:09	LB135868
	Potassium	25100	25000	100	90 - 110	P	05/21/2025	14:09	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	14:09	LB135868
	Silver	1220	1250	98	90 - 110	P	05/21/2025	14:09	LB135868
	Sodium	25300	25000	101	90 - 110	P	05/21/2025	14:09	LB135868
	Thallium	4970	5000	99	90 - 110	P	05/21/2025	14:09	LB135868
	Vanadium	2450	2500	98	90 - 110	P	05/21/2025	14:09	LB135868
	Zinc	2470	2500	99	90 - 110	P	05/21/2025	14:09	LB135868
CCV02	Aluminum	9670	10000	97	90 - 110	P	05/21/2025	15:00	LB135868
	Antimony	4830	5000	96	90 - 110	P	05/21/2025	15:00	LB135868
	Arsenic	4860	5000	97	90 - 110	P	05/21/2025	15:00	LB135868
	Barium	9490	10000	95	90 - 110	P	05/21/2025	15:00	LB135868
	Beryllium	242	250	97	90 - 110	P	05/21/2025	15:00	LB135868
	Cadmium	2460	2500	98	90 - 110	P	05/21/2025	15:00	LB135868
	Calcium	24400	25000	98	90 - 110	P	05/21/2025	15:00	LB135868
	Chromium	995	1000	100	90 - 110	P	05/21/2025	15:00	LB135868
	Cobalt	2440	2500	98	90 - 110	P	05/21/2025	15:00	LB135868
	Copper	1220	1250	98	90 - 110	P	05/21/2025	15:00	LB135868
	Iron	4930	5000	99	90 - 110	P	05/21/2025	15:00	LB135868
	Lead	4910	5000	98	90 - 110	P	05/21/2025	15:00	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	24500	25000	98	90 - 110	P	05/21/2025	15:00	LB135868
	Manganese	2410	2500	96	90 - 110	P	05/21/2025	15:00	LB135868
	Nickel	2450	2500	98	90 - 110	P	05/21/2025	15:00	LB135868
	Potassium	24200	25000	97	90 - 110	P	05/21/2025	15:00	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	15:00	LB135868
	Silver	1220	1250	98	90 - 110	P	05/21/2025	15:00	LB135868
	Sodium	24000	25000	96	90 - 110	P	05/21/2025	15:00	LB135868
	Thallium	4820	5000	96	90 - 110	P	05/21/2025	15:00	LB135868
	Vanadium	2430	2500	97	90 - 110	P	05/21/2025	15:00	LB135868
	Zinc	2440	2500	98	90 - 110	P	05/21/2025	15:00	LB135868
CCV03	Aluminum	9720	10000	97	90 - 110	P	05/21/2025	16:02	LB135868
	Antimony	4810	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Arsenic	4780	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Barium	9430	10000	94	90 - 110	P	05/21/2025	16:02	LB135868
	Beryllium	244	250	98	90 - 110	P	05/21/2025	16:02	LB135868
	Cadmium	2390	2500	96	90 - 110	P	05/21/2025	16:02	LB135868
	Calcium	24100	25000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Chromium	983	1000	98	90 - 110	P	05/21/2025	16:02	LB135868
	Cobalt	2390	2500	96	90 - 110	P	05/21/2025	16:02	LB135868
	Copper	1210	1250	97	90 - 110	P	05/21/2025	16:02	LB135868
	Iron	4860	5000	97	90 - 110	P	05/21/2025	16:02	LB135868
	Lead	4810	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Magnesium	24000	25000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Manganese	2390	2500	96	90 - 110	P	05/21/2025	16:02	LB135868
	Nickel	2400	2500	96	90 - 110	P	05/21/2025	16:02	LB135868
	Potassium	23900	25000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Selenium	4790	5000	96	90 - 110	P	05/21/2025	16:02	LB135868
	Silver	1220	1250	98	90 - 110	P	05/21/2025	16:02	LB135868
	Sodium	23600	25000	94	90 - 110	P	05/21/2025	16:02	LB135868
	Thallium	4670	5000	93	90 - 110	P	05/21/2025	16:02	LB135868
	Vanadium	2420	2500	97	90 - 110	P	05/21/2025	16:02	LB135868
	Zinc	2460	2500	98	90 - 110	P	05/21/2025	16:02	LB135868
CCV04	Aluminum	9550	10000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Antimony	4750	5000	95	90 - 110	P	05/21/2025	17:27	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4680	5000	94	90 - 110	P	05/21/2025	17:27	LB135868
	Barium	9490	10000	95	90 - 110	P	05/21/2025	17:27	LB135868
	Beryllium	244	250	98	90 - 110	P	05/21/2025	17:27	LB135868
	Cadmium	2370	2500	95	90 - 110	P	05/21/2025	17:27	LB135868
	Calcium	24000	25000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Chromium	961	1000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Cobalt	2370	2500	95	90 - 110	P	05/21/2025	17:27	LB135868
	Copper	1190	1250	96	90 - 110	P	05/21/2025	17:27	LB135868
	Iron	4790	5000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Lead	4790	5000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Magnesium	23900	25000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Manganese	2420	2500	97	90 - 110	P	05/21/2025	17:27	LB135868
	Nickel	2380	2500	95	90 - 110	P	05/21/2025	17:27	LB135868
	Potassium	23400	25000	94	90 - 110	P	05/21/2025	17:27	LB135868
	Selenium	4700	5000	94	90 - 110	P	05/21/2025	17:27	LB135868
	Silver	1200	1250	96	90 - 110	P	05/21/2025	17:27	LB135868
	Sodium	23500	25000	94	90 - 110	P	05/21/2025	17:27	LB135868
	Thallium	4790	5000	96	90 - 110	P	05/21/2025	17:27	LB135868
	Vanadium	2410	2500	96	90 - 110	P	05/21/2025	17:27	LB135868
	Zinc	2440	2500	97	90 - 110	P	05/21/2025	17:27	LB135868
CCV05	Aluminum	9490	10000	95	90 - 110	P	05/21/2025	18:16	LB135868
	Antimony	4730	5000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Arsenic	4730	5000	95	90 - 110	P	05/21/2025	18:16	LB135868
	Barium	9440	10000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Beryllium	244	250	98	90 - 110	P	05/21/2025	18:16	LB135868
	Cadmium	2410	2500	96	90 - 110	P	05/21/2025	18:16	LB135868
	Calcium	24100	25000	96	90 - 110	P	05/21/2025	18:16	LB135868
	Chromium	984	1000	98	90 - 110	P	05/21/2025	18:16	LB135868
	Cobalt	2400	2500	96	90 - 110	P	05/21/2025	18:16	LB135868
	Copper	1200	1250	96	90 - 110	P	05/21/2025	18:16	LB135868
	Iron	4870	5000	97	90 - 110	P	05/21/2025	18:16	LB135868
	Lead	4830	5000	97	90 - 110	P	05/21/2025	18:16	LB135868
	Magnesium	24300	25000	97	90 - 110	P	05/21/2025	18:16	LB135868
	Manganese	2400	2500	96	90 - 110	P	05/21/2025	18:16	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2410	2500	96	90 - 110	P	05/21/2025	18:16	LB135868
	Potassium	23500	25000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Selenium	4720	5000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Silver	1210	1250	96	90 - 110	P	05/21/2025	18:16	LB135868
	Sodium	23400	25000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Thallium	4710	5000	94	90 - 110	P	05/21/2025	18:16	LB135868
	Vanadium	2400	2500	96	90 - 110	P	05/21/2025	18:16	LB135868
	Zinc	2430	2500	97	90 - 110	P	05/21/2025	18:16	LB135868
CCV06	Aluminum	9730	10000	97	90 - 110	P	05/21/2025	19:08	LB135868
	Antimony	4880	5000	98	90 - 110	P	05/21/2025	19:08	LB135868
	Arsenic	4940	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Barium	9570	10000	96	90 - 110	P	05/21/2025	19:08	LB135868
	Beryllium	252	250	101	90 - 110	P	05/21/2025	19:08	LB135868
	Cadmium	2500	2500	100	90 - 110	P	05/21/2025	19:08	LB135868
	Calcium	24600	25000	98	90 - 110	P	05/21/2025	19:08	LB135868
	Chromium	1010	1000	101	90 - 110	P	05/21/2025	19:08	LB135868
	Cobalt	2480	2500	99	90 - 110	P	05/21/2025	19:08	LB135868
	Copper	1240	1250	99	90 - 110	P	05/21/2025	19:08	LB135868
	Iron	4970	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Lead	4990	5000	100	90 - 110	P	05/21/2025	19:08	LB135868
	Magnesium	24800	25000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Manganese	2430	2500	97	90 - 110	P	05/21/2025	19:08	LB135868
	Nickel	2490	2500	100	90 - 110	P	05/21/2025	19:08	LB135868
	Potassium	24000	25000	96	90 - 110	P	05/21/2025	19:08	LB135868
	Selenium	4940	5000	99	90 - 110	P	05/21/2025	19:08	LB135868
	Silver	1240	1250	100	90 - 110	P	05/21/2025	19:08	LB135868
	Sodium	23600	25000	95	90 - 110	P	05/21/2025	19:08	LB135868
	Thallium	4910	5000	98	90 - 110	P	05/21/2025	19:08	LB135868
	Vanadium	2450	2500	98	90 - 110	P	05/21/2025	19:08	LB135868
	Zinc	2490	2500	100	90 - 110	P	05/21/2025	19:08	LB135868
CCV07	Aluminum	9730	10000	97	90 - 110	P	05/21/2025	19:57	LB135868
	Antimony	4920	5000	98	90 - 110	P	05/21/2025	19:57	LB135868
	Arsenic	4940	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
	Barium	9580	10000	96	90 - 110	P	05/21/2025	19:57	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Beryllium	253	250	101	90 - 110	P	05/21/2025	19:57	LB135868
	Cadmium	2480	2500	99	90 - 110	P	05/21/2025	19:57	LB135868
	Calcium	24400	25000	98	90 - 110	P	05/21/2025	19:57	LB135868
	Chromium	1000	1000	100	90 - 110	P	05/21/2025	19:57	LB135868
	Cobalt	2460	2500	98	90 - 110	P	05/21/2025	19:57	LB135868
	Copper	1240	1250	99	90 - 110	P	05/21/2025	19:57	LB135868
	Iron	4920	5000	98	90 - 110	P	05/21/2025	19:57	LB135868
	Lead	4950	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
	Magnesium	24600	25000	98	90 - 110	P	05/21/2025	19:57	LB135868
	Manganese	2440	2500	98	90 - 110	P	05/21/2025	19:57	LB135868
	Nickel	2470	2500	99	90 - 110	P	05/21/2025	19:57	LB135868
	Potassium	23800	25000	95	90 - 110	P	05/21/2025	19:57	LB135868
	Selenium	4970	5000	99	90 - 110	P	05/21/2025	19:57	LB135868
	Silver	1240	1250	99	90 - 110	P	05/21/2025	19:57	LB135868
	Sodium	23600	25000	94	90 - 110	P	05/21/2025	19:57	LB135868
	Thallium	4860	5000	97	90 - 110	P	05/21/2025	19:57	LB135868
	Vanadium	2440	2500	98	90 - 110	P	05/21/2025	19:57	LB135868
	Zinc	2490	2500	100	90 - 110	P	05/21/2025	19:57	LB135868
CCV08	Aluminum	9510	10000	95	90 - 110	P	05/21/2025	20:43	LB135868
	Antimony	4770	5000	95	90 - 110	P	05/21/2025	20:43	LB135868
	Arsenic	4800	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Barium	9410	10000	94	90 - 110	P	05/21/2025	20:43	LB135868
	Beryllium	251	250	100	90 - 110	P	05/21/2025	20:43	LB135868
	Cadmium	2410	2500	96	90 - 110	P	05/21/2025	20:43	LB135868
	Calcium	23800	25000	95	90 - 110	P	05/21/2025	20:43	LB135868
	Chromium	974	1000	97	90 - 110	P	05/21/2025	20:43	LB135868
	Cobalt	2390	2500	96	90 - 110	P	05/21/2025	20:43	LB135868
	Copper	1210	1250	97	90 - 110	P	05/21/2025	20:43	LB135868
	Iron	4720	5000	94	90 - 110	P	05/21/2025	20:43	LB135868
	Lead	4820	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Magnesium	24100	25000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Manganese	2390	2500	96	90 - 110	P	05/21/2025	20:43	LB135868
	Nickel	2410	2500	96	90 - 110	P	05/21/2025	20:43	LB135868
	Potassium	22800	25000	91	90 - 110	P	05/21/2025	20:43	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Selenium	4820	5000	96	90 - 110	P	05/21/2025	20:43	LB135868
	Silver	1210	1250	97	90 - 110	P	05/21/2025	20:43	LB135868
	Sodium	22600	25000	90	90 - 110	P	05/21/2025	20:43	LB135868
	Thallium	4730	5000	95	90 - 110	P	05/21/2025	20:43	LB135868
	Vanadium	2380	2500	95	90 - 110	P	05/21/2025	20:43	LB135868
	Zinc	2430	2500	97	90 - 110	P	05/21/2025	20:43	LB135868
CCV09	Aluminum	9620	10000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Antimony	4780	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Arsenic	4790	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Barium	9430	10000	94	90 - 110	P	05/21/2025	21:29	LB135868
	Beryllium	258	250	103	90 - 110	P	05/21/2025	21:29	LB135868
	Cadmium	2440	2500	98	90 - 110	P	05/21/2025	21:29	LB135868
	Calcium	24400	25000	98	90 - 110	P	05/21/2025	21:29	LB135868
	Chromium	993	1000	99	90 - 110	P	05/21/2025	21:29	LB135868
	Cobalt	2420	2500	97	90 - 110	P	05/21/2025	21:29	LB135868
	Copper	1200	1250	96	90 - 110	P	05/21/2025	21:29	LB135868
	Iron	4750	5000	95	90 - 110	P	05/21/2025	21:29	LB135868
	Lead	4890	5000	98	90 - 110	P	05/21/2025	21:29	LB135868
	Magnesium	24800	25000	99	90 - 110	P	05/21/2025	21:29	LB135868
	Manganese	2440	2500	98	90 - 110	P	05/21/2025	21:29	LB135868
	Nickel	2430	2500	97	90 - 110	P	05/21/2025	21:29	LB135868
	Potassium	22800	25000	91	90 - 110	P	05/21/2025	21:29	LB135868
	Selenium	4790	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Silver	1220	1250	98	90 - 110	P	05/21/2025	21:29	LB135868
	Sodium	22400	25000	90	90 - 110	P	05/21/2025	21:29	LB135868
	Thallium	4830	5000	96	90 - 110	P	05/21/2025	21:29	LB135868
	Vanadium	2430	2500	97	90 - 110	P	05/21/2025	21:29	LB135868
	Zinc	2450	2500	98	90 - 110	P	05/21/2025	21:29	LB135868
CCV10	Aluminum	9690	10000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Antimony	4860	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Arsenic	4860	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Barium	9420	10000	94	90 - 110	P	05/21/2025	21:50	LB135868
	Beryllium	259	250	104	90 - 110	P	05/21/2025	21:50	LB135868
	Cadmium	2430	2500	97	90 - 110	P	05/21/2025	21:50	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Calcium	24200	25000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Chromium	987	1000	99	90 - 110	P	05/21/2025	21:50	LB135868
	Cobalt	2430	2500	97	90 - 110	P	05/21/2025	21:50	LB135868
	Copper	1230	1250	98	90 - 110	P	05/21/2025	21:50	LB135868
	Iron	4730	5000	95	90 - 110	P	05/21/2025	21:50	LB135868
	Lead	4870	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Magnesium	24500	25000	98	90 - 110	P	05/21/2025	21:50	LB135868
	Manganese	2420	2500	97	90 - 110	P	05/21/2025	21:50	LB135868
	Nickel	2430	2500	97	90 - 110	P	05/21/2025	21:50	LB135868
	Potassium	22800	25000	91	90 - 110	P	05/21/2025	21:50	LB135868
	Selenium	4860	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Silver	1230	1250	99	90 - 110	P	05/21/2025	21:50	LB135868
	Sodium	22500	25000	90	90 - 110	P	05/21/2025	21:50	LB135868
	Thallium	4830	5000	97	90 - 110	P	05/21/2025	21:50	LB135868
	Vanadium	2420	2500	97	90 - 110	P	05/21/2025	21:50	LB135868
	Zinc	2470	2500	99	90 - 110	P	05/21/2025	21:50	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2480	2500	99	90 - 110	P	05/22/2025	15:00	LB135892
	Antimony	1010	1000	101	90 - 110	P	05/22/2025	15:00	LB135892
	Arsenic	1040	1000	104	90 - 110	P	05/22/2025	15:00	LB135892
	Barium	521	520	100	90 - 110	P	05/22/2025	15:00	LB135892
	Beryllium	477	510	93	90 - 110	P	05/22/2025	15:00	LB135892
	Cadmium	516	510	101	90 - 110	P	05/22/2025	15:00	LB135892
	Calcium	10000	10000	100	90 - 110	P	05/22/2025	15:00	LB135892
	Chromium	532	520	102	90 - 110	P	05/22/2025	15:00	LB135892
	Cobalt	520	520	100	90 - 110	P	05/22/2025	15:00	LB135892
	Copper	540	510	106	90 - 110	P	05/22/2025	15:00	LB135892
	Iron	10900	10000	109	90 - 110	P	05/22/2025	15:00	LB135892
	Lead	1000	1000	100	90 - 110	P	05/22/2025	15:00	LB135892
	Magnesium	5830	6000	97	90 - 110	P	05/22/2025	15:00	LB135892
	Manganese	515	520	99	90 - 110	P	05/22/2025	15:00	LB135892
	Nickel	522	530	98	90 - 110	P	05/22/2025	15:00	LB135892
	Potassium	10300	9900	104	90 - 110	P	05/22/2025	15:00	LB135892
	Selenium	1070	1000	107	90 - 110	P	05/22/2025	15:00	LB135892
	Silver	268	250	107	90 - 110	P	05/22/2025	15:00	LB135892
	Sodium	10500	10000	105	90 - 110	P	05/22/2025	15:00	LB135892
	Thallium	1070	1000	107	90 - 110	P	05/22/2025	15:00	LB135892
	Vanadium	498	500	100	90 - 110	P	05/22/2025	15:00	LB135892
	Zinc	1060	1000	106	90 - 110	P	05/22/2025	15:00	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	115	100	115	80 - 120	P	05/22/2025	15:16	LB135892
	Antimony	53.5	50.0	107	80 - 120	P	05/22/2025	15:16	LB135892
	Arsenic	17.6	20.0	88	80 - 120	P	05/22/2025	15:16	LB135892
	Barium	105	100	106	80 - 120	P	05/22/2025	15:16	LB135892
	Beryllium	5.98	6.0	100	80 - 120	P	05/22/2025	15:16	LB135892
	Cadmium	6.24	6.0	104	80 - 120	P	05/22/2025	15:16	LB135892
	Calcium	2100	2000	105	80 - 120	P	05/22/2025	15:16	LB135892
	Chromium	9.86	10.0	99	80 - 120	P	05/22/2025	15:16	LB135892
	Cobalt	30.5	30.0	102	80 - 120	P	05/22/2025	15:16	LB135892
	Copper	23.9	20.0	120	80 - 120	P	05/22/2025	15:16	LB135892
	Iron	113	100	113	80 - 120	P	05/22/2025	15:16	LB135892
	Lead	11.1	12.0	93	80 - 120	P	05/22/2025	15:16	LB135892
	Magnesium	2170	2000	109	80 - 120	P	05/22/2025	15:16	LB135892
	Manganese	21.7	20.0	108	80 - 120	P	05/22/2025	15:16	LB135892
	Nickel	40.8	40.0	102	80 - 120	P	05/22/2025	15:16	LB135892
	Potassium	2080	2000	104	80 - 120	P	05/22/2025	15:16	LB135892
	Selenium	18.4	20.0	92	80 - 120	P	05/22/2025	15:16	LB135892
	Silver	9.74	10.0	97	80 - 120	P	05/22/2025	15:16	LB135892
	Sodium	2120	2000	106	80 - 120	P	05/22/2025	15:16	LB135892
	Thallium	40.8	40.0	102	80 - 120	P	05/22/2025	15:16	LB135892
	Vanadium	42.5	40.0	106	80 - 120	P	05/22/2025	15:16	LB135892
	Zinc	45.4	40.0	114	80 - 120	P	05/22/2025	15:16	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9520	10000	95	90 - 110	P	05/22/2025	15:51	LB135892
	Antimony	4890	5000	98	90 - 110	P	05/22/2025	15:51	LB135892
	Arsenic	4830	5000	97	90 - 110	P	05/22/2025	15:51	LB135892
	Barium	10000	10000	100	90 - 110	P	05/22/2025	15:51	LB135892
	Beryllium	227	250	91	90 - 110	P	05/22/2025	15:51	LB135892
	Cadmium	2370	2500	95	90 - 110	P	05/22/2025	15:51	LB135892
	Calcium	24000	25000	96	90 - 110	P	05/22/2025	15:51	LB135892
	Chromium	962	1000	96	90 - 110	P	05/22/2025	15:51	LB135892
	Cobalt	2380	2500	95	90 - 110	P	05/22/2025	15:51	LB135892
	Copper	1220	1250	98	90 - 110	P	05/22/2025	15:51	LB135892
	Iron	5070	5000	102	90 - 110	P	05/22/2025	15:51	LB135892
	Lead	4780	5000	96	90 - 110	P	05/22/2025	15:51	LB135892
	Magnesium	23500	25000	94	90 - 110	P	05/22/2025	15:51	LB135892
	Manganese	2380	2500	95	90 - 110	P	05/22/2025	15:51	LB135892
	Nickel	2380	2500	95	90 - 110	P	05/22/2025	15:51	LB135892
	Potassium	24900	25000	100	90 - 110	P	05/22/2025	15:51	LB135892
	Selenium	4870	5000	97	90 - 110	P	05/22/2025	15:51	LB135892
	Silver	1210	1250	97	90 - 110	P	05/22/2025	15:51	LB135892
	Sodium	25300	25000	101	90 - 110	P	05/22/2025	15:51	LB135892
	Thallium	4880	5000	98	90 - 110	P	05/22/2025	15:51	LB135892
	Vanadium	2430	2500	97	90 - 110	P	05/22/2025	15:51	LB135892
	Zinc	2430	2500	97	90 - 110	P	05/22/2025	15:51	LB135892
CCV02	Aluminum	9600	10000	96	90 - 110	P	05/22/2025	16:38	LB135892
	Antimony	4840	5000	97	90 - 110	P	05/22/2025	16:38	LB135892
	Arsenic	4820	5000	96	90 - 110	P	05/22/2025	16:38	LB135892
	Barium	9370	10000	94	90 - 110	P	05/22/2025	16:38	LB135892
	Beryllium	248	250	99	90 - 110	P	05/22/2025	16:38	LB135892
	Cadmium	2370	2500	95	90 - 110	P	05/22/2025	16:38	LB135892
	Calcium	23700	25000	95	90 - 110	P	05/22/2025	16:38	LB135892
	Chromium	961	1000	96	90 - 110	P	05/22/2025	16:38	LB135892
	Cobalt	2360	2500	94	90 - 110	P	05/22/2025	16:38	LB135892
	Copper	1220	1250	97	90 - 110	P	05/22/2025	16:38	LB135892
	Iron	4680	5000	94	90 - 110	P	05/22/2025	16:38	LB135892
	Lead	4770	5000	95	90 - 110	P	05/22/2025	16:38	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Magnesium	23700	25000	95	90 - 110	P	05/22/2025	16:38	LB135892
	Manganese	2390	2500	96	90 - 110	P	05/22/2025	16:38	LB135892
	Nickel	2370	2500	95	90 - 110	P	05/22/2025	16:38	LB135892
	Potassium	23500	25000	94	90 - 110	P	05/22/2025	16:38	LB135892
	Selenium	4850	5000	97	90 - 110	P	05/22/2025	16:38	LB135892
	Silver	1200	1250	96	90 - 110	P	05/22/2025	16:38	LB135892
	Sodium	23300	25000	93	90 - 110	P	05/22/2025	16:38	LB135892
	Thallium	4850	5000	97	90 - 110	P	05/22/2025	16:38	LB135892
	Vanadium	2380	2500	95	90 - 110	P	05/22/2025	16:38	LB135892
	Zinc	2430	2500	97	90 - 110	P	05/22/2025	16:38	LB135892
CCV03	Aluminum	9210	10000	92	90 - 110	P	05/22/2025	17:28	LB135892
	Antimony	4660	5000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Arsenic	4670	5000	94	90 - 110	P	05/22/2025	17:28	LB135892
	Barium	9340	10000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Beryllium	235	250	94	90 - 110	P	05/22/2025	17:28	LB135892
	Cadmium	2340	2500	94	90 - 110	P	05/22/2025	17:28	LB135892
	Calcium	23300	25000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Chromium	955	1000	96	90 - 110	P	05/22/2025	17:28	LB135892
	Cobalt	2330	2500	93	90 - 110	P	05/22/2025	17:28	LB135892
	Copper	1180	1250	94	90 - 110	P	05/22/2025	17:28	LB135892
	Iron	4760	5000	95	90 - 110	P	05/22/2025	17:28	LB135892
	Lead	4680	5000	94	90 - 110	P	05/22/2025	17:28	LB135892
	Magnesium	23300	25000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Manganese	2340	2500	94	90 - 110	P	05/22/2025	17:28	LB135892
	Nickel	2330	2500	93	90 - 110	P	05/22/2025	17:28	LB135892
	Potassium	23200	25000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Selenium	4680	5000	94	90 - 110	P	05/22/2025	17:28	LB135892
	Silver	1170	1250	94	90 - 110	P	05/22/2025	17:28	LB135892
	Sodium	23300	25000	93	90 - 110	P	05/22/2025	17:28	LB135892
	Thallium	4710	5000	94	90 - 110	P	05/22/2025	17:28	LB135892
	Vanadium	2330	2500	93	90 - 110	P	05/22/2025	17:28	LB135892
	Zinc	2350	2500	94	90 - 110	P	05/22/2025	17:28	LB135892
CCV04	Aluminum	9970	10000	100	90 - 110	P	05/22/2025	19:08	LB135892
	Antimony	4920	5000	98	90 - 110	P	05/22/2025	19:08	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Arsenic	4980	5000	100	90 - 110	P	05/22/2025	19:08	LB135892
	Barium	10100	10000	102	90 - 110	P	05/22/2025	19:08	LB135892
	Beryllium	258	250	103	90 - 110	P	05/22/2025	19:08	LB135892
	Cadmium	2420	2500	97	90 - 110	P	05/22/2025	19:08	LB135892
	Calcium	25200	25000	101	90 - 110	P	05/22/2025	19:08	LB135892
	Chromium	996	1000	100	90 - 110	P	05/22/2025	19:08	LB135892
	Cobalt	2440	2500	97	90 - 110	P	05/22/2025	19:08	LB135892
	Copper	1250	1250	100	90 - 110	P	05/22/2025	19:08	LB135892
	Iron	4880	5000	98	90 - 110	P	05/22/2025	19:08	LB135892
	Lead	4830	5000	97	90 - 110	P	05/22/2025	19:08	LB135892
	Magnesium	24800	25000	99	90 - 110	P	05/22/2025	19:08	LB135892
	Manganese	2450	2500	98	90 - 110	P	05/22/2025	19:08	LB135892
	Nickel	2440	2500	98	90 - 110	P	05/22/2025	19:08	LB135892
	Potassium	24000	25000	96	90 - 110	P	05/22/2025	19:08	LB135892
	Selenium	4980	5000	100	90 - 110	P	05/22/2025	19:08	LB135892
	Silver	1250	1250	100	90 - 110	P	05/22/2025	19:08	LB135892
	Sodium	24500	25000	98	90 - 110	P	05/22/2025	19:08	LB135892
	Thallium	4730	5000	95	90 - 110	P	05/22/2025	19:08	LB135892
	Vanadium	2490	2500	100	90 - 110	P	05/22/2025	19:08	LB135892
	Zinc	2520	2500	101	90 - 110	P	05/22/2025	19:08	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.19	0.2	93	70 - 130	CV	05/20/2025	13:07	LB135837
CRI01	Aluminum	112	100	112	65 - 135	P	05/21/2025	13:43	LB135868
	Antimony	51.3	50.0	102	65 - 135	P	05/21/2025	13:43	LB135868
	Arsenic	17.9	20.0	89	65 - 135	P	05/21/2025	13:43	LB135868
	Barium	90.3	100	90	65 - 135	P	05/21/2025	13:43	LB135868
	Beryllium	5.78	6.0	96	65 - 135	P	05/21/2025	13:43	LB135868
	Cadmium	6.27	6.0	104	65 - 135	P	05/21/2025	13:43	LB135868
	Calcium	2000	2000	100	65 - 135	P	05/21/2025	13:43	LB135868
	Chromium	10.6	10.0	106	65 - 135	P	05/21/2025	13:43	LB135868
	Cobalt	30.1	30.0	100	65 - 135	P	05/21/2025	13:43	LB135868
	Copper	22.4	20.0	112	65 - 135	P	05/21/2025	13:43	LB135868
	Iron	106	100	106	65 - 135	P	05/21/2025	13:43	LB135868
	Lead	11.1	12.0	92	65 - 135	P	05/21/2025	13:43	LB135868
	Magnesium	2060	2000	103	65 - 135	P	05/21/2025	13:43	LB135868
	Manganese	21.7	20.0	108	65 - 135	P	05/21/2025	13:43	LB135868
	Nickel	40.1	40.0	100	65 - 135	P	05/21/2025	13:43	LB135868
	Potassium	1970	2000	99	65 - 135	P	05/21/2025	13:43	LB135868
	Selenium	18.3	20.0	92	65 - 135	P	05/21/2025	13:43	LB135868
	Silver	10.2	10.0	102	65 - 135	P	05/21/2025	13:43	LB135868
	Sodium	1940	2000	97	65 - 135	P	05/21/2025	13:43	LB135868
	Thallium	39.5	40.0	99	65 - 135	P	05/21/2025	13:43	LB135868
	Vanadium	41.3	40.0	103	65 - 135	P	05/21/2025	13:43	LB135868
	Zinc	43.4	40.0	109	65 - 135	P	05/21/2025	13:43	LB135868
CRI01	Aluminum	113	100	113	65 - 135	P	05/22/2025	15:30	LB135892
	Antimony	53.4	50.0	107	65 - 135	P	05/22/2025	15:30	LB135892
	Arsenic	19.7	20.0	98	65 - 135	P	05/22/2025	15:30	LB135892
	Barium	109	100	109	65 - 135	P	05/22/2025	15:30	LB135892
	Beryllium	6.25	6.0	104	65 - 135	P	05/22/2025	15:30	LB135892
	Cadmium	6.20	6.0	103	65 - 135	P	05/22/2025	15:30	LB135892
	Calcium	2170	2000	109	65 - 135	P	05/22/2025	15:30	LB135892
	Chromium	10.5	10.0	105	65 - 135	P	05/22/2025	15:30	LB135892
	Cobalt	31.3	30.0	104	65 - 135	P	05/22/2025	15:30	LB135892
	Copper	23.5	20.0	118	65 - 135	P	05/22/2025	15:30	LB135892
	Iron	114	100	114	65 - 135	P	05/22/2025	15:30	LB135892
	Lead	12.1	12.0	101	65 - 135	P	05/22/2025	15:30	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Magnesium	2280	2000	114	65 - 135	P	05/22/2025	15:30	LB135892
	Manganese	22.1	20.0	110	65 - 135	P	05/22/2025	15:30	LB135892
	Nickel	41.4	40.0	104	65 - 135	P	05/22/2025	15:30	LB135892
	Potassium	2080	2000	104	65 - 135	P	05/22/2025	15:30	LB135892
	Selenium	15.4	20.0	77	65 - 135	P	05/22/2025	15:30	LB135892
	Silver	10.1	10.0	101	65 - 135	P	05/22/2025	15:30	LB135892
	Sodium	2090	2000	104	65 - 135	P	05/22/2025	15:30	LB135892
	Thallium	41.1	40.0	103	65 - 135	P	05/22/2025	15:30	LB135892
	Vanadium	43.9	40.0	110	65 - 135	P	05/22/2025	15:30	LB135892
	Zinc	46.0	40.0	115	65 - 135	P	05/22/2025	15:30	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB12	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	13:00	LB135837

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB45	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	13:05	LB135837
CCB46	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	13:35	LB135837
CCB47	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	14:03	LB135837
CCB48	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	14:31	LB135837
CCB49	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	14:54	LB135837
CCB50	Mercury	0.20	+/-0.20	U	0.20	CV	05/20/2025	15:08	LB135837

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	05/21/2025	13:36	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	13:36	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	13:36	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	13:36	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	13:36	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	13:36	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	13:36	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	13:36	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	13:36	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	13:36	LB135868
	Iron	26.9	+/-100	J	100	P	05/21/2025	13:36	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	13:36	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	13:36	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	13:36	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	13:36	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	13:36	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	13:36	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	13:36	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	13:36	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	13:36	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	13:36	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	13:36	LB135868

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	15.5	+/-100	J	100	P	05/21/2025	14:13	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	14:13	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	14:13	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	14:13	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	14:13	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	14:13	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	14:13	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	14:13	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	14:13	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	14:13	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	14:13	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	14:13	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	14:13	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	14:13	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	14:13	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	14:13	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	14:13	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	14:13	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	14:13	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	14:13	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	14:13	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	14:13	LB135868
CCB02	Aluminum	100	+/-100	U	100	P	05/21/2025	15:04	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	15:04	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	15:04	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	15:04	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	15:04	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	15:04	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	15:04	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	15:04	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	15:04	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	15:04	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	15:04	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	15:04	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	15:04	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	15:04	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	15:04	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	15:04	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	15:04	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	15:04	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	15:04	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	15:04	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	15:04	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	15:04	LB135868
CCB03	Aluminum	100	+/-100	U	100	P	05/21/2025	16:25	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	16:25	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	16:25	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	16:25	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	16:25	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	16:25	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	16:25	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	16:25	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	16:25	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	16:25	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	16:25	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	16:25	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	16:25	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	16:25	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	16:25	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	16:25	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	16:25	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	16:25	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	16:25	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	16:25	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	16:25	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	16:25	LB135868
CCB04	Aluminum	13.8	+/-100	J	100	P	05/21/2025	17:32	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	17:32	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	17:32	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	17:32	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	17:32	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	17:32	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	17:32	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	17:32	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	17:32	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	17:32	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	17:32	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	17:32	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	17:32	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	17:32	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	17:32	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	17:32	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	17:32	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	17:32	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	17:32	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	17:32	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	17:32	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	17:32	LB135868
CCB05	Aluminum	100	+/-100	U	100	P	05/21/2025	18:20	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	18:20	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	18:20	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	18:20	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	18:20	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	18:20	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	18:20	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	18:20	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	18:20	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	18:20	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	18:20	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	18:20	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	18:20	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	18:20	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	18:20	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	18:20	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	18:20	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	18:20	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	18:20	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	18:20	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	18:20	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	18:20	LB135868
CCB06	Aluminum	100	+/-100	U	100	P	05/21/2025	19:16	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	19:16	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	19:16	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	19:16	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	19:16	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	19:16	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	19:16	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	19:16	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	19:16	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	19:16	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	19:16	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	19:16	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	19:16	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	19:16	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	19:16	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	19:16	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	19:16	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	19:16	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	19:16	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	19:16	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	19:16	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	19:16	LB135868
CCB07	Aluminum	100	+/-100	U	100	P	05/21/2025	20:02	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	20:02	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	20:02	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	20:02	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	20:02	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	20:02	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	20:02	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	20:02	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	20:02	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	20:02	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	20:02	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	20:02	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	20:02	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	20:02	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	20:02	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	20:02	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	20:02	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	20:02	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	20:02	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	20:02	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	20:02	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	20:02	LB135868
CCB08	Aluminum	100	+/-100	U	100	P	05/21/2025	20:48	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	20:48	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	20:48	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	20:48	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	20:48	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	20:48	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	20:48	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	20:48	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	20:48	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	20:48	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	20:48	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	20:48	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	20:48	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	20:48	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	20:48	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	20:48	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	20:48	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	20:48	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	20:48	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	20:48	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	20:48	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	20:48	LB135868
CCB09	Aluminum	100	+/-100	U	100	P	05/21/2025	21:34	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	21:34	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	21:34	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	21:34	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	21:34	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	21:34	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	21:34	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	21:34	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	21:34	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	21:34	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	21:34	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	21:34	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	21:34	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	21:34	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	21:34	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	21:34	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	21:34	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	21:34	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	21:34	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB09	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	21:34	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	21:34	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	21:34	LB135868
CCB10	Aluminum	100	+/-100	U	100	P	05/21/2025	21:54	LB135868
	Antimony	50.0	+/-50.0	U	50.0	P	05/21/2025	21:54	LB135868
	Arsenic	20.0	+/-20.0	U	20.0	P	05/21/2025	21:54	LB135868
	Barium	100	+/-100	U	100	P	05/21/2025	21:54	LB135868
	Beryllium	6.00	+/-6.00	U	6.00	P	05/21/2025	21:54	LB135868
	Cadmium	6.00	+/-6.00	U	6.00	P	05/21/2025	21:54	LB135868
	Calcium	2000	+/-2000	U	2000	P	05/21/2025	21:54	LB135868
	Chromium	10.0	+/-10.0	U	10.0	P	05/21/2025	21:54	LB135868
	Cobalt	30.0	+/-30.0	U	30.0	P	05/21/2025	21:54	LB135868
	Copper	20.0	+/-20.0	U	20.0	P	05/21/2025	21:54	LB135868
	Iron	100	+/-100	U	100	P	05/21/2025	21:54	LB135868
	Lead	12.0	+/-12.0	U	12.0	P	05/21/2025	21:54	LB135868
	Magnesium	2000	+/-2000	U	2000	P	05/21/2025	21:54	LB135868
	Manganese	20.0	+/-20.0	U	20.0	P	05/21/2025	21:54	LB135868
	Nickel	40.0	+/-40.0	U	40.0	P	05/21/2025	21:54	LB135868
	Potassium	2000	+/-2000	U	2000	P	05/21/2025	21:54	LB135868
	Selenium	20.0	+/-20.0	U	20.0	P	05/21/2025	21:54	LB135868
	Silver	10.0	+/-10.0	U	10.0	P	05/21/2025	21:54	LB135868
	Sodium	2000	+/-2000	U	2000	P	05/21/2025	21:54	LB135868
	Thallium	40.0	+/-40.0	U	40.0	P	05/21/2025	21:54	LB135868
	Vanadium	40.0	+/-40.0	U	40.0	P	05/21/2025	21:54	LB135868
	Zinc	40.0	+/-40.0	U	40.0	P	05/21/2025	21:54	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Antimony	50.0	+/-50.0	U	50.0	P	05/22/2025	15:20	LB135892
	Arsenic	20.0	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Barium	100	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Beryllium	6.00	+/-6.00	U	6.00	P	05/22/2025	15:20	LB135892
	Cadmium	6.00	+/-6.00	U	6.00	P	05/22/2025	15:20	LB135892
	Calcium	2000	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Chromium	10.0	+/-10.0	U	10.0	P	05/22/2025	15:20	LB135892
	Cobalt	30.0	+/-30.0	U	30.0	P	05/22/2025	15:20	LB135892
	Copper	20.0	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Iron	100	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Lead	12.0	+/-12.0	U	12.0	P	05/22/2025	15:20	LB135892
	Magnesium	2000	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Manganese	20.0	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Nickel	40.0	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Potassium	2000	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Selenium	20.0	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Silver	10.0	+/-10.0	U	10.0	P	05/22/2025	15:20	LB135892
	Sodium	2000	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Thallium	40.0	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Vanadium	40.0	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Zinc	40.0	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Antimony	50.0	+/-50.0	U	50.0	P	05/22/2025	15:55	LB135892
	Arsenic	20.0	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Barium	100	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Beryllium	6.00	+/-6.00	U	6.00	P	05/22/2025	15:55	LB135892
	Cadmium	6.00	+/-6.00	U	6.00	P	05/22/2025	15:55	LB135892
	Calcium	2000	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Chromium	10.0	+/-10.0	U	10.0	P	05/22/2025	15:55	LB135892
	Cobalt	30.0	+/-30.0	U	30.0	P	05/22/2025	15:55	LB135892
	Copper	20.0	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Iron	100	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Lead	12.0	+/-12.0	U	12.0	P	05/22/2025	15:55	LB135892
	Magnesium	2000	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Manganese	20.0	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Nickel	40.0	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Potassium	2000	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Selenium	20.0	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Silver	10.0	+/-10.0	U	10.0	P	05/22/2025	15:55	LB135892
	Sodium	2000	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Thallium	40.0	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Vanadium	40.0	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Zinc	40.0	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
CCB02	Aluminum	100	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Antimony	50.0	+/-50.0	U	50.0	P	05/22/2025	16:43	LB135892
	Arsenic	20.0	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Barium	100	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Beryllium	6.00	+/-6.00	U	6.00	P	05/22/2025	16:43	LB135892
	Cadmium	6.00	+/-6.00	U	6.00	P	05/22/2025	16:43	LB135892
	Calcium	2000	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Chromium	10.0	+/-10.0	U	10.0	P	05/22/2025	16:43	LB135892
	Cobalt	30.0	+/-30.0	U	30.0	P	05/22/2025	16:43	LB135892
	Copper	20.0	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Iron	100	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Lead	12.0	+/-12.0	U	12.0	P	05/22/2025	16:43	LB135892
	Magnesium	2000	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Manganese	20.0	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Nickel	40.0	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Potassium	2000	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Selenium	20.0	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	10.0	P	05/22/2025	16:43	LB135892
	Sodium	2000	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Thallium	40.0	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Vanadium	40.0	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Zinc	40.0	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
CCB03	Aluminum	100	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Antimony	50.0	+/-50.0	U	50.0	P	05/22/2025	17:32	LB135892
	Arsenic	20.0	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Barium	100	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Beryllium	6.00	+/-6.00	U	6.00	P	05/22/2025	17:32	LB135892
	Cadmium	6.00	+/-6.00	U	6.00	P	05/22/2025	17:32	LB135892
	Calcium	2000	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Chromium	10.0	+/-10.0	U	10.0	P	05/22/2025	17:32	LB135892
	Cobalt	30.0	+/-30.0	U	30.0	P	05/22/2025	17:32	LB135892
	Copper	20.0	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Iron	100	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Lead	12.0	+/-12.0	U	12.0	P	05/22/2025	17:32	LB135892
	Magnesium	2000	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Manganese	20.0	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Nickel	40.0	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Potassium	2000	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Selenium	20.0	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Silver	10.0	+/-10.0	U	10.0	P	05/22/2025	17:32	LB135892
	Sodium	2000	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Thallium	40.0	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Vanadium	40.0	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Zinc	40.0	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
CCB04	Aluminum	100	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Antimony	50.0	+/-50.0	U	50.0	P	05/22/2025	19:12	LB135892
	Arsenic	20.0	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Barium	100	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Beryllium	6.00	+/-6.00	U	6.00	P	05/22/2025	19:12	LB135892
	Cadmium	6.00	+/-6.00	U	6.00	P	05/22/2025	19:12	LB135892
	Calcium	2000	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Chromium	10.0	+/-10.0	U	10.0	P	05/22/2025	19:12	LB135892
	Cobalt	30.0	+/-30.0	U	30.0	P	05/22/2025	19:12	LB135892
	Copper	20.0	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Iron	100	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Lead	12.0	+/-12.0	U	12.0	P	05/22/2025	19:12	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Manganese	20.0	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Nickel	40.0	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Potassium	2000	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Selenium	20.0	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Silver	10.0	+/-10.0	U	10.0	P	05/22/2025	19:12	LB135892
	Sodium	2000	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Thallium	40.0	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Vanadium	40.0	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Zinc	40.0	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB168090BL		**SOLID**		**Batch Number:**	**PB168090**		**Prep Date:**	**05/19/2025**	
	Mercury	0.013	<0.013	U	0.013	CV	05/20/2025	13:56	LB135837

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB168087BL		**SOLID**		**Batch Number:**	**PB168087**		**Prep Date:**	**05/20/2025**	
	Aluminum	0.94	<5.00	J	5.00	P	05/21/2025	17:10	LB135868
	Antimony	2.50	<2.50	U	2.50	P	05/21/2025	17:10	LB135868
	Arsenic	1.00	<1.00	U	1.00	P	05/21/2025	17:10	LB135868
	Barium	5.00	<5.00	U	5.00	P	05/21/2025	17:10	LB135868
	Beryllium	0.30	<0.30	U	0.30	P	05/21/2025	17:10	LB135868
	Cadmium	0.30	<0.30	U	0.30	P	05/21/2025	17:10	LB135868
	Calcium	100	<100	U	100	P	05/21/2025	17:10	LB135868
	Chromium	0.50	<0.50	U	0.50	P	05/21/2025	17:10	LB135868
	Cobalt	1.50	<1.50	U	1.50	P	05/21/2025	17:10	LB135868
	Copper	1.00	<1.00	U	1.00	P	05/21/2025	17:10	LB135868
	Iron	5.00	<5.00	U	5.00	P	05/21/2025	17:10	LB135868
	Lead	0.60	<0.60	U	0.60	P	05/21/2025	17:10	LB135868
	Magnesium	100	<100	U	100	P	05/21/2025	17:10	LB135868
	Manganese	1.00	<1.00	U	1.00	P	05/21/2025	17:10	LB135868
	Nickel	2.00	<2.00	U	2.00	P	05/21/2025	17:10	LB135868
	Potassium	100	<100	U	100	P	05/21/2025	17:10	LB135868
	Selenium	1.00	<1.00	U	1.00	P	05/21/2025	17:10	LB135868
	Silver	0.50	<0.50	U	0.50	P	05/21/2025	17:10	LB135868
	Sodium	100	<100	U	100	P	05/21/2025	17:10	LB135868
	Thallium	2.00	<2.00	U	2.00	P	05/21/2025	17:10	LB135868
	Vanadium	2.00	<2.00	U	2.00	P	05/21/2025	17:10	LB135868
	Zinc	2.00	<2.00	U	2.00	P	05/21/2025	17:10	LB135868

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	245000	255000	96	216000	294000	05/21/2025	13:52	LB135868
	Antimony	0.020			-50	50	05/21/2025	13:52	LB135868
	Arsenic	4.10			-20	20	05/21/2025	13:52	LB135868
	Barium	1.83	6.0	30	-94	106	05/21/2025	13:52	LB135868
	Beryllium	0.65			-6	6	05/21/2025	13:52	LB135868
	Cadmium	2.19	1.0	219	-5	7	05/21/2025	13:52	LB135868
	Calcium	228000	245000	93	208000	282000	05/21/2025	13:52	LB135868
	Chromium	55.3	52.0	106	42	62	05/21/2025	13:52	LB135868
	Cobalt	1.60			-30	30	05/21/2025	13:52	LB135868
	Copper	3.11	2.0	156	-18	22	05/21/2025	13:52	LB135868
	Iron	91300	101000	90	85600	116500	05/21/2025	13:52	LB135868
	Lead	4.38			-12	12	05/21/2025	13:52	LB135868
	Magnesium	247000	255000	97	216000	294000	05/21/2025	13:52	LB135868
	Manganese	6.34	7.0	91	-13	27	05/21/2025	13:52	LB135868
	Nickel	2.07	2.0	104	-38	42	05/21/2025	13:52	LB135868
	Potassium	-53.4			0	0	05/21/2025	13:52	LB135868
	Selenium	-13.8			-20	20	05/21/2025	13:52	LB135868
	Silver	-0.79			-10	10	05/21/2025	13:52	LB135868
	Sodium	4.13			0	0	05/21/2025	13:52	LB135868
	Thallium	5.93			-40	40	05/21/2025	13:52	LB135868
	Vanadium	2.52			-40	40	05/21/2025	13:52	LB135868
	Zinc	4.13			-40	40	05/21/2025	13:52	LB135868
ICSAB01	Aluminum	239000	247000	97	209000	285000	05/21/2025	13:56	LB135868
	Antimony	593	618	96	525	711	05/21/2025	13:56	LB135868
	Arsenic	108	104	104	88.4	120	05/21/2025	13:56	LB135868
	Barium	447	537	83	437	637	05/21/2025	13:56	LB135868
	Beryllium	469	495	95	420	570	05/21/2025	13:56	LB135868
	Cadmium	960	972	99	826	1120	05/21/2025	13:56	LB135868
	Calcium	224000	235000	95	199000	271000	05/21/2025	13:56	LB135868
	Chromium	526	542	97	460	624	05/21/2025	13:56	LB135868
	Cobalt	473	476	99	404	548	05/21/2025	13:56	LB135868
	Copper	471	511	92	434	588	05/21/2025	13:56	LB135868
	Iron	91200	99300	92	84400	114500	05/21/2025	13:56	LB135868
	Lead	48.7	49.0	99	37	61	05/21/2025	13:56	LB135868
	Magnesium	239000	248000	96	210000	286000	05/21/2025	13:56	LB135868
	Manganese	456	507	90	430	584	05/21/2025	13:56	LB135868
	Nickel	931	954	98	810	1100	05/21/2025	13:56	LB135868
	Potassium	-57.5			0	0	05/21/2025	13:56	LB135868
	Selenium	33.9	46.0	74	26	66	05/21/2025	13:56	LB135868
	Silver	215	201	107	170	232	05/21/2025	13:56	LB135868
	Sodium	-38.7			0	0	05/21/2025	13:56	LB135868
	Thallium	103	108	95	68	148	05/21/2025	13:56	LB135868

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Vanadium	447	491	91	417	565	05/21/2025	13:56	LB135868
	Zinc	967	952	102	809	1095	05/21/2025	13:56	LB135868
ICSA01	Aluminum	267000	255000	105	216000	294000	05/22/2025	15:34	LB135892
	Antimony	-3.61			-50	50	05/22/2025	15:34	LB135892
	Arsenic	1.77			-20	20	05/22/2025	15:34	LB135892
	Barium	7.57	6.0	126	-94	106	05/22/2025	15:34	LB135892
	Beryllium	0.62			-6	6	05/22/2025	15:34	LB135892
	Cadmium	-0.11	1.0	11	-5	7	05/22/2025	15:34	LB135892
	Calcium	257000	245000	105	208000	282000	05/22/2025	15:34	LB135892
	Chromium	59.5	52.0	114	42	62	05/22/2025	15:34	LB135892
	Cobalt	1.57			-30	30	05/22/2025	15:34	LB135892
	Copper	1.51	2.0	76	-18	22	05/22/2025	15:34	LB135892
	Iron	107000	101000	106	85600	116500	05/22/2025	15:34	LB135892
	Lead	5.66			-12	12	05/22/2025	15:34	LB135892
	Magnesium	274000	255000	108	216000	294000	05/22/2025	15:34	LB135892
	Manganese	14.6	7.0	209	-13	27	05/22/2025	15:34	LB135892
	Nickel	2.35	2.0	118	-38	42	05/22/2025	15:34	LB135892
	Potassium	-12.1			0	0	05/22/2025	15:34	LB135892
	Selenium	4.71			-20	20	05/22/2025	15:34	LB135892
	Silver	-1.36			-10	10	05/22/2025	15:34	LB135892
	Sodium	14.1			0	0	05/22/2025	15:34	LB135892
	Thallium	9.78			-40	40	05/22/2025	15:34	LB135892
	Vanadium	3.74			-40	40	05/22/2025	15:34	LB135892
	Zinc	3.58			-40	40	05/22/2025	15:34	LB135892
ICSAB01	Aluminum	239000	247000	97	209000	285000	05/22/2025	15:39	LB135892
	Antimony	594	618	96	525	711	05/22/2025	15:39	LB135892
	Arsenic	107	104	103	88.4	120	05/22/2025	15:39	LB135892
	Barium	505	537	94	437	637	05/22/2025	15:39	LB135892
	Beryllium	477	495	96	420	570	05/22/2025	15:39	LB135892
	Cadmium	965	972	99	826	1120	05/22/2025	15:39	LB135892
	Calcium	232000	235000	99	199000	271000	05/22/2025	15:39	LB135892
	Chromium	554	542	102	460	624	05/22/2025	15:39	LB135892
	Cobalt	489	476	103	404	548	05/22/2025	15:39	LB135892
	Copper	489	511	96	434	588	05/22/2025	15:39	LB135892
	Iron	101000	99300	102	84400	114500	05/22/2025	15:39	LB135892
	Lead	51.7	49.0	106	37	61	05/22/2025	15:39	LB135892
	Magnesium	247000	248000	100	210000	286000	05/22/2025	15:39	LB135892
	Manganese	498	507	98	430	584	05/22/2025	15:39	LB135892
	Nickel	969	954	102	810	1100	05/22/2025	15:39	LB135892
	Potassium	14.2			0	0	05/22/2025	15:39	LB135892
	Selenium	56.0	46.0	122	26	66	05/22/2025	15:39	LB135892
	Silver	222	201	110	170	232	05/22/2025	15:39	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSAB01	Sodium	-3.31			0	0	05/22/2025	15:39	LB135892
	Thallium	112	108	104	68	148	05/22/2025	15:39	LB135892
	Vanadium	483	491	98	417	565	05/22/2025	15:39	LB135892
	Zinc	1030	952	108	809	1095	05/22/2025	15:39	LB135892

METAL
QC
DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

metals
- 5a -
MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q2074

contract: CAMP02 **lab code:** CHEM **case no.:** Q2074 **sas no.:** Q2074

matrix: Solid **sample id:** Q2074-08 **client id:** TP-18MS

Percent Solids for Sample: 78 **Spiked ID:** Q2074-08MS **Percent Solids for Spike Sample:** 78

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.30		0.030		0.33	83		CV

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q2074

contract: CAMP02 **lab code:** CHEM **case no.:** Q2074 **sas no.:** Q2074

matrix: Solid **sample id:** Q2074-08 **client id:** TP-18MSD

Percent Solids for Sample: 78 **Spiked ID:** Q2074-08MSD **Percent Solids for Spike Sample:** 78

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 120	0.34		0.030		0.33	94		CV

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

metals
- 5a -
MATRIX SPIKE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q2074

contract: CAMP02 **lab code:** CHEM **case no.:** Q2074 **sas no.:** Q2074

matrix: Solid **sample id:** Q2080-01 **client id:** PL-HRH-COMP-01MS

Percent Solids for Sample: 86.5 **Spiked ID:** Q2080-01MS **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11400		9940		110	1374		P
Antimony	mg/Kg	75 - 125	15.4		2.51	U	42.8	36	N	P
Arsenic	mg/Kg	75 - 125	40.6		5.09		42.8	83		P
Barium	mg/Kg	75 - 125	94.4		86.8		10.7	71		P
Beryllium	mg/Kg	75 - 125	9.99		0.78		10.7	86		P
Cadmium	mg/Kg	75 - 125	10.2		0.097	J	10.7	95		P
Calcium	mg/Kg	75 - 125	987		906		53.5	151		P
Chromium	mg/Kg	75 - 125	37.1		18.4		21.4	87		P
Cobalt	mg/Kg	75 - 125	20.9		10.1		10.7	102		P
Copper	mg/Kg	75 - 125	23.8		9.77		16.1	87		P
Iron	mg/Kg	75 - 125	21000		22500		160	-974		P
Lead	mg/Kg	75 - 125	74.3		23.7		53.5	95		P
Magnesium	mg/Kg	75 - 125	4060		3360		110	639		P
Manganese	mg/Kg	75 - 125	620		615		10.7	51		P
Nickel	mg/Kg	75 - 125	46.3		18.9		26.8	102		P
Potassium	mg/Kg	75 - 125	1450		858		540	109		P
Selenium	mg/Kg	75 - 125	84.7		2.06		110	75		P
Silver	mg/Kg	75 - 125	3.49		0.14	J	4.0	84		P
Sodium	mg/Kg	75 - 125	253		98.7	J	160	97		P
Thallium	mg/Kg	75 - 125	97.3		1.68	J	110	87		P
Vanadium	mg/Kg	75 - 125	38.3		24.9		16.1	83		P
Zinc	mg/Kg	75 - 125	68.6		53.0		10.7	146		P

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: CDM Smith **level:** low **sdg no.:** Q2074

contract: CAMP02 **lab code:** CHEM **case no.:** Q2074 **sas no.:** Q2074

matrix: Solid **sample id:** Q2080-01 **client id:** PL-HRH-COMP-01MSD

Percent Solids for Sample: 86.5 **Spiked ID:** Q2080-01MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11300		9940		98.4	1413		P
Antimony	mg/Kg	75 - 125	14.5		2.51	U	39.4	37	N	P
Arsenic	mg/Kg	75 - 125	37.1		5.09		39.4	81		P
Barium	mg/Kg	75 - 125	96.8		86.8		9.8	102		P
Beryllium	mg/Kg	75 - 125	8.28		0.78		9.8	77		P
Cadmium	mg/Kg	75 - 125	9.13		0.097	J	9.8	92		P
Calcium	mg/Kg	75 - 125	957		906		49.2	104		P
Chromium	mg/Kg	75 - 125	35.6		18.4		19.7	87		P
Cobalt	mg/Kg	75 - 125	20.8		10.1		9.8	109		P
Copper	mg/Kg	75 - 125	22.2		9.77		14.8	84		P
Iron	mg/Kg	75 - 125	23300		22500		150	538		P
Lead	mg/Kg	75 - 125	69.7		23.7		49.2	94		P
Magnesium	mg/Kg	75 - 125	4070		3360		98.4	727		P
Manganese	mg/Kg	75 - 125	564		615		9.8	-519		P
Nickel	mg/Kg	75 - 125	45.6		18.9		24.6	109		P
Potassium	mg/Kg	75 - 125	1560		858		490	144	N	P
Selenium	mg/Kg	75 - 125	77.6		2.06		98.4	77		P
Silver	mg/Kg	75 - 125	3.56		0.14	J	3.7	92		P
Sodium	mg/Kg	75 - 125	261		98.7	J	150	108		P
Thallium	mg/Kg	75 - 125	91.3		1.68	J	98.4	91		P
Vanadium	mg/Kg	75 - 125	36.5		24.9		14.8	78		P
Zinc	mg/Kg	75 - 125	69.2		53.0		9.8	165		P

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Matrix: Solid **Level:** LOW **Client ID:** PL-HRH-COMP-01A

Sample ID: Q2080-01 **Spiked ID:** Q2080-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	2.51	U	2.51	U	40.2	0	N	P
Potassium	mg/Kg	75 - 125	857		858		500	0	N	P

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Matrix: Solid **Sample ID:** Q2074-08 **Client ID:** TP-18DUP

Percent Solids for Sample: 78 **Duplicate ID** Q2074-08DUP **Percent Solids for Spike Sample:** 78

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.030		0.024		22		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Matrix: Solid **Sample ID:** Q2074-08MS **Client ID:** TP-18MSD

Percent Solids for Sample: 78 **Duplicate ID** Q2074-08MSD **Percent Solids for Spike Sample:** 78

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.30		0.34		11		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Matrix: Solid **Sample ID:** Q2080-01 **Client ID:** PL-HRH-COMP-01DUP

Percent Solids for Sample: 86.5 **Duplicate ID** Q2080-01DUP **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	9940		9540		4		P
Antimony	mg/Kg	20	2.51	U	2.74	U			P
Arsenic	mg/Kg	20	5.09		2.98		52	*	P
Barium	mg/Kg	20	86.8		84.4		3		P
Beryllium	mg/Kg	20	0.78		0.63		20		P
Cadmium	mg/Kg	20	0.097	J	0.33	U	200.0		P
Calcium	mg/Kg	20	906		875		3		P
Chromium	mg/Kg	20	18.4		12.9		35	*	P
Cobalt	mg/Kg	20	10.1		9.33		7		P
Copper	mg/Kg	20	9.77		8.49		14		P
Iron	mg/Kg	20	22500		13800		48	*	P
Lead	mg/Kg	20	23.7		21.4		10		P
Magnesium	mg/Kg	20	3360		3430		2		P
Manganese	mg/Kg	20	615		579		6		P
Nickel	mg/Kg	20	18.9		17.7		7		P
Potassium	mg/Kg	20	858		876		2		P
Selenium	mg/Kg	20	2.06		1.08	J	62		P
Silver	mg/Kg	20	0.14	J	0.16	J	14		P
Sodium	mg/Kg	20	98.7	J	93.9	J	5		P
Thallium	mg/Kg	20	1.68	J	0.77	J	74		P
Vanadium	mg/Kg	20	24.9		16.5		41	*	P
Zinc	mg/Kg	20	53.0		53.0		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: CDM Smith **Level:** LOW **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Matrix: Solid **Sample ID:** Q2080-01MS **Client ID:** PL-HRH-COMP-01MSD

Percent Solids for Sample: 86.5 **Duplicate ID** Q2080-01MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	11400		11300		1		P
Antimony	mg/Kg	20	15.4		14.5		6		P
Arsenic	mg/Kg	20	40.6		37.1		9		P
Barium	mg/Kg	20	94.4		96.8		3		P
Beryllium	mg/Kg	20	9.99		8.28		19		P
Cadmium	mg/Kg	20	10.2		9.13		11		P
Calcium	mg/Kg	20	987		957		3		P
Chromium	mg/Kg	20	37.1		35.6		4		P
Cobalt	mg/Kg	20	20.9		20.8		0		P
Copper	mg/Kg	20	23.8		22.2		7		P
Iron	mg/Kg	20	21000		23300		10		P
Lead	mg/Kg	20	74.3		69.7		6		P
Magnesium	mg/Kg	20	4060		4070		0		P
Manganese	mg/Kg	20	620		564		9		P
Nickel	mg/Kg	20	46.3		45.6		2		P
Potassium	mg/Kg	20	1450		1560		7		P
Selenium	mg/Kg	20	84.7		77.6		9		P
Silver	mg/Kg	20	3.49		3.56		2		P
Sodium	mg/Kg	20	253		261		3		P
Thallium	mg/Kg	20	97.3		91.3		6		P
Vanadium	mg/Kg	20	38.3		36.5		5		P
Zinc	mg/Kg	20	68.6		69.2		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168087BS							
Aluminum	mg/Kg	100	90.2		90	80 - 120	P
Antimony	mg/Kg	40.0	38.5		96	80 - 120	P
Arsenic	mg/Kg	40.0	38.6		96	80 - 120	P
Barium	mg/Kg	10.0	8.52		85	80 - 120	P
Beryllium	mg/Kg	10.0	9.28		93	80 - 120	P
Cadmium	mg/Kg	10.0	9.65		96	80 - 120	P
Calcium	mg/Kg	50.0	45.1	J	90	80 - 120	P
Chromium	mg/Kg	20.0	19.0		95	80 - 120	P
Cobalt	mg/Kg	10.0	9.30		93	80 - 120	P
Copper	mg/Kg	15.0	14.6		97	80 - 120	P
Iron	mg/Kg	150	140		93	80 - 120	P
Lead	mg/Kg	50.0	46.6		93	80 - 120	P
Magnesium	mg/Kg	100	90.0	J	90	80 - 120	P
Manganese	mg/Kg	10.0	9.14		91	80 - 120	P
Nickel	mg/Kg	25.0	23.5		94	80 - 120	P
Potassium	mg/Kg	500	439		88	80 - 120	P
Selenium	mg/Kg	100	97.9		98	80 - 120	P
Silver	mg/Kg	3.8	3.54		93	80 - 120	P
Sodium	mg/Kg	150	137		91	80 - 120	P
Thallium	mg/Kg	100	94.2		94	80 - 120	P
Vanadium	mg/Kg	15.0	13.7		91	80 - 120	P
Zinc	mg/Kg	10.0	9.45		94	80 - 120	P

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LABORATORY CONTROL SAMPLE SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168090BS							
Mercury	mg/Kg	0.26	0.26		100	80 - 120	CV

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

TP-18L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135837 **Lab Sample ID :** Q2074-08L **SDG No.:** Q2074

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.030		0.083	U	100.0		CV

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

PL-HRH-COMP-01L

Lab Name: Chemtech Consulting Group **Contract:** CAMP02

Lab Code: CHEM **Lb No.:** lb135892 **Lab Sample ID :** Q2080-01L **SDG No.:** Q2074

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	9940		10700		8		P
Antimony	2.51	U	12.6	U			P
Arsenic	5.09		4.51	J	11		P
Barium	86.8		92.6		7		P
Beryllium	0.78		0.91	J	18		P
Cadmium	0.097	J	1.51	U	100.0		P
Calcium	906		1010		12		P
Chromium	18.4		20.0		9		P
Cobalt	10.1		9.78		3		P
Copper	9.77		11.6		19		P
Iron	22500		23800		6		P
Lead	23.7		23.5		1		P
Magnesium	3360		3730		11		P
Manganese	615		682		11		P
Nickel	18.9		18.7		1		P
Potassium	858		840		2		P
Selenium	2.06		2.19	J	6		P
Silver	0.14	J	2.51	U	100.0		P
Sodium	98.7	J	503	U	100.0		P
Thallium	1.68	J	1.60	J	5		P
Vanadium	24.9		27.7		11		P
Zinc	53.0		58.6		10		P

METAL PREPARATION & INSTRUMENT DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Case No.:** Q2074 **SAS No.:** Q2074

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q2074 **SAS No.:** Q2074

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168087**						
PB168087BL	PB168087BL	MB	SOLID	05/20/2025	2.00	100.0	100.00
PB168087BS	PB168087BS	LCS	SOLID	05/20/2025	2.00	100.0	100.00
Q2074-01	TP-12	SAM	SOLID	05/20/2025	2.37	100.0	83.50
Q2074-02	TP-7	SAM	SOLID	05/20/2025	2.22	100.0	88.70
Q2074-03	TP-15	SAM	SOLID	05/20/2025	2.19	100.0	87.00
Q2074-04	TP-20	SAM	SOLID	05/20/2025	2.24	100.0	84.30
Q2074-05	TP-38	SAM	SOLID	05/20/2025	2.19	100.0	81.90
Q2074-06	TP-19	SAM	SOLID	05/20/2025	2.38	100.0	85.90
Q2074-07	TP-40	SAM	SOLID	05/20/2025	2.15	100.0	89.20
Q2074-08	TP-18	SAM	SOLID	05/20/2025	2.09	100.0	78.00
Q2080-01DUP	PL-HRH-COMP-01DUP	DUP	SOLID	05/20/2025	2.11	100.0	86.50
Q2080-01MS	PL-HRH-COMP-01MS	MS	SOLID	05/20/2025	2.16	100.0	86.50
Q2080-01MSD	PL-HRH-COMP-01MSD	MSD	SOLID	05/20/2025	2.35	100.0	86.50

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: CDM Smith **SDG No.:** Q2074

Contract: CAMP02 **Lab Code:** CHEM **Method:**

Case No.: Q2074 **SAS No.:** Q2074

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168090**						
PB168090BL	PB168090BL	MB	SOLID	05/19/2025	0.54	35.0	100.00
PB168090BS	PB168090BS	LCS	SOLID	05/19/2025	0.54	35.0	100.00
Q2074-01	TP-12	SAM	SOLID	05/19/2025	0.56	35.0	83.50
Q2074-02	TP-7	SAM	SOLID	05/19/2025	0.51	35.0	88.70
Q2074-03	TP-15	SAM	SOLID	05/19/2025	0.57	35.0	87.00
Q2074-04	TP-20	SAM	SOLID	05/19/2025	0.60	35.0	84.30
Q2074-05	TP-38	SAM	SOLID	05/19/2025	0.51	35.0	81.90
Q2074-06	TP-19	SAM	SOLID	05/19/2025	0.53	35.0	85.90
Q2074-07	TP-40	SAM	SOLID	05/19/2025	0.60	35.0	89.20
Q2074-08	TP-18	SAM	SOLID	05/19/2025	0.54	35.0	78.00
Q2074-08DUP	TP-18DUP	DUP	SOLID	05/19/2025	0.56	35.0	78.00
Q2074-08MS	TP-18MS	MS	SOLID	05/19/2025	0.54	35.0	78.00
Q2074-08MSD	TP-18MSD	MSD	SOLID	05/19/2025	0.55	35.0	78.00

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q2074 **Sas no.:** Q2074 **Sdg no.:** Q2074

Instrument id number: **Method:** **Run number:** LB135837

Start date: 05/20/2025 **End date:** 05/20/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1243	HG
S0.2	S0.2	1	1245	HG
S2.5	S2.5	1	1248	HG
S5	S5	1	1250	HG
S7.5	S7.5	1	1252	HG
S10	S10	1	1255	HG
ICV12	ICV12	1	1258	HG
ICB12	ICB12	1	1300	HG
CCV45	CCV45	1	1303	HG
CCB45	CCB45	1	1305	HG
CRA	CRA	1	1307	HG
CCV46	CCV46	1	1333	HG
CCB46	CCB46	1	1335	HG
PB168090BL	PB168090BL	1	1356	HG
PB168090BS	PB168090BS	1	1358	HG
CCV47	CCV47	1	1401	HG
CCB47	CCB47	1	1403	HG
Q2074-01	TP-12	1	1417	HG
Q2074-02	TP-7	1	1420	HG
Q2074-03	TP-15	1	1422	HG
Q2074-04	TP-20	1	1424	HG
Q2074-05	TP-38	1	1427	HG
CCV48	CCV48	1	1429	HG
CCB48	CCB48	1	1431	HG
Q2074-06	TP-19	1	1433	HG
Q2074-07	TP-40	1	1436	HG
Q2074-08	TP-18	1	1438	HG
Q2074-08DUP	TP-18DUP	1	1440	HG
Q2074-08MS	TP-18MS	1	1442	HG
Q2074-08MSD	TP-18MSD	1	1445	HG
CCV49	CCV49	1	1452	HG
CCB49	CCB49	1	1454	HG
Q2074-08L	TP-18L	5	1501	HG
CCV50	CCV50	1	1505	HG
CCB50	CCB50	1	1508	HG

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q2074 **Sas no.:** Q2074 **Sdg no.:** Q2074

Instrument id number: **Method:** **Run number:** LB135868

Start date: 05/21/2025 **End date:** 05/21/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1205	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1209	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1213	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1217	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1222	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1226	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1319	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1329	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1336	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1343	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1352	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1356	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1409	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1413	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1504	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1602	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1625	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB168087BL	PB168087BL	1	1710	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB168087BS	PB168087BS	1	1715	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1727	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1732	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1816	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1820	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1908	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1916	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-01	TP-12	1	1936	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-02	TP-7	1	1941	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-03	TP-15	1	1945	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-04	TP-20	1	1949	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-05	TP-38	1	1953	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1957	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	2002	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-06	TP-19	1	2006	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-07	TP-40	1	2010	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2074-08	TP-18	1	2014	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	2043	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	2048	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV09	CCV09	1	2129	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB09	CCB09	1	2134	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV10	CCV10	1	2150	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q2074 **Sas no.:** Q2074 **Sdg no.:** Q2074

Instrument id number: **Method:** **Run number:** LB135868

Start date: 05/21/2025 **End date:** 05/21/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCB10	CCB10	1	2154	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

metals
- 14 -
ANALYSIS RUN LOG

Client: CDM Smith **Contract:** CAMP02

Lab code: CHEM **Case no.:** Q2074 **Sas no.:** Q2074 **Sdg no.:** Q2074

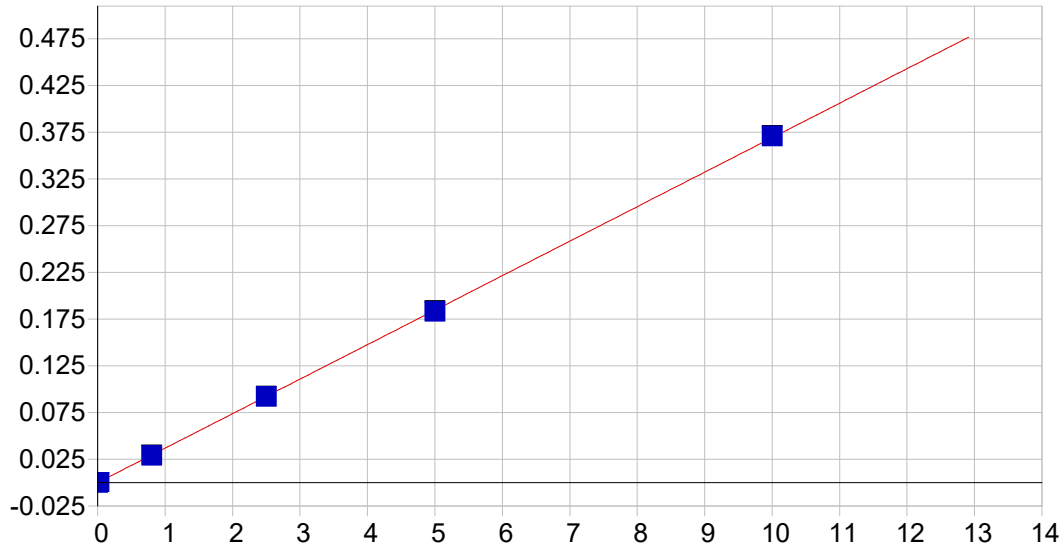
Instrument id number: **Method:** **Run number:** LB135892

Start date: 05/22/2025 **End date:** 05/22/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1420	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1425	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1429	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S3	S3	1	1433	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1437	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1442	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1516	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1520	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1530	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1534	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1539	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1551	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1555	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2080-01DUP	PL-HRH-COMP-01DUP	1	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2080-01L	PL-HRH-COMP-01L	5	1609	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2080-01MS	PL-HRH-COMP-01MS	1	1613	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2080-01MSD	PL-HRH-COMP-01MSD	1	1617	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q2080-01A	PL-HRH-COMP-01A	1	1621	K,Sb
CCV02	CCV02	1	1638	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1643	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1728	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1732	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1908	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1912	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

METAL
RAW DATA

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



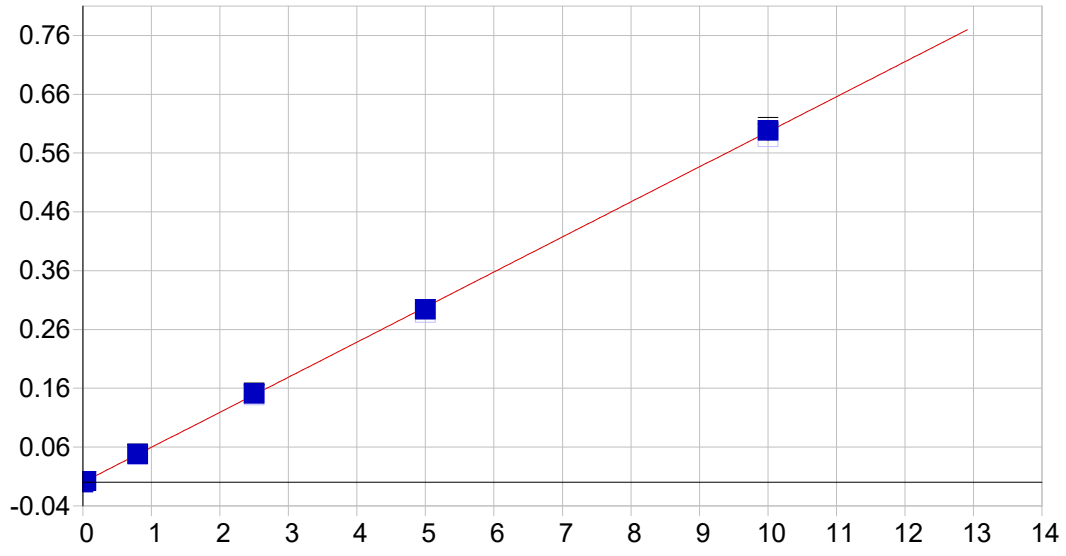
As 189.042 {479}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000029	Re-Slope:	1.000000
A1 (Gain):	0.036924	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.003990		
Predicted MQL:	0.013299		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00003	.000	1
S1	.02000	.01887	-.001	-5.63	.00066	.000	1
S3	2.5000	2.4977	-.002	-.092	.09210	.000	1
S4	5.0000	4.9643	-.036	-.714	.18308	.001	1
S5	10.000	10.048	.048	.480	.37059	.001	1
S2	.80000	.79114	-.009	-1.11	.02915	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



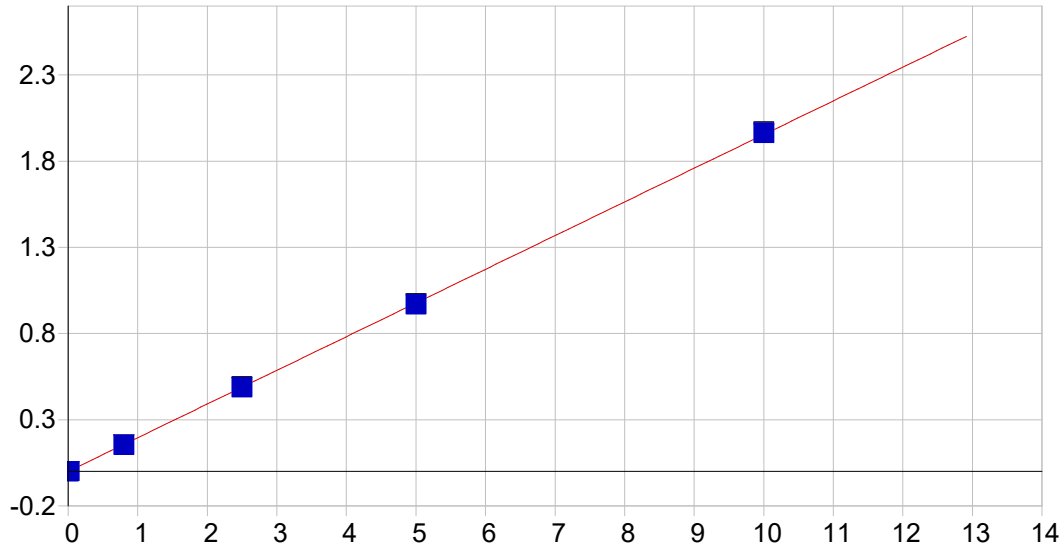
Tl 190.856 {477}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000042	Re-Slope:	1.000000
A1 (Gain):	0.059616	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.002347		
Predicted MQL:	0.007823		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00004	.000	1
S1	.04000	.04035	.000	.865	.00229	.000	1
S3	2.5000	2.5329	.033	1.32	.14830	.001	1
S4	5.0000	4.9305	-.070	-1.39	.28848	.000	1
S5	10.000	10.033	.033	.331	.58719	.006	1
S2	.80000	.80323	.003	.404	.04705	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



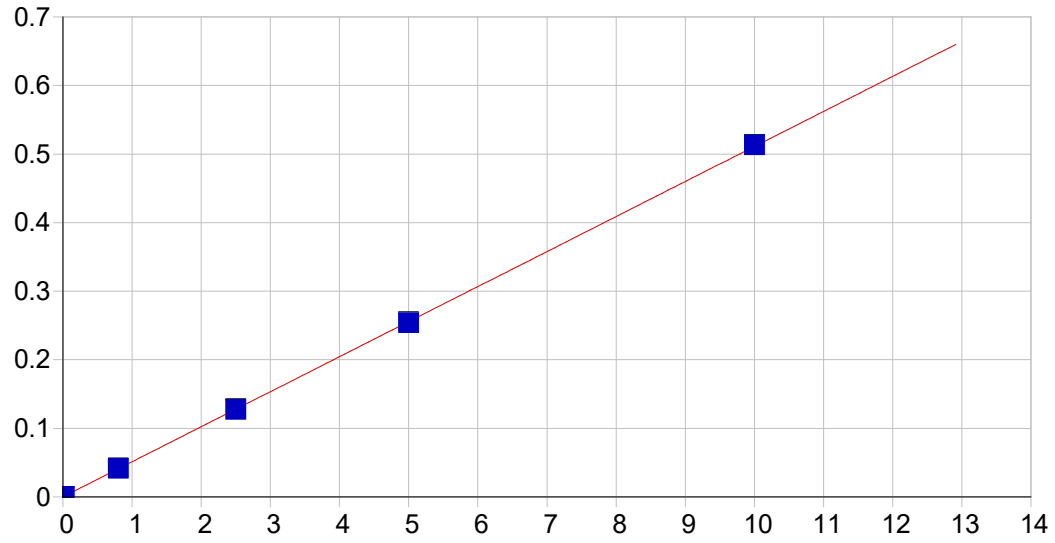
Pb 220.353 {453}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000142	Re-Slope:	1.000000
A1 (Gain):	0.195443	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.001822		
Predicted MQL:	0.006075		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00014	.000	1
S1	.01200	.01110	-.001	-7.50	.00227	.000	1
S3	2.5000	2.4958	-.004	-.168	.48743	.003	1
S4	5.0000	4.9633	-.037	-.733	.96918	.004	1
S5	10.000	10.052	.052	.524	1.9628	.006	1
S2	.80000	.78933	-.011	-1.33	.15425	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



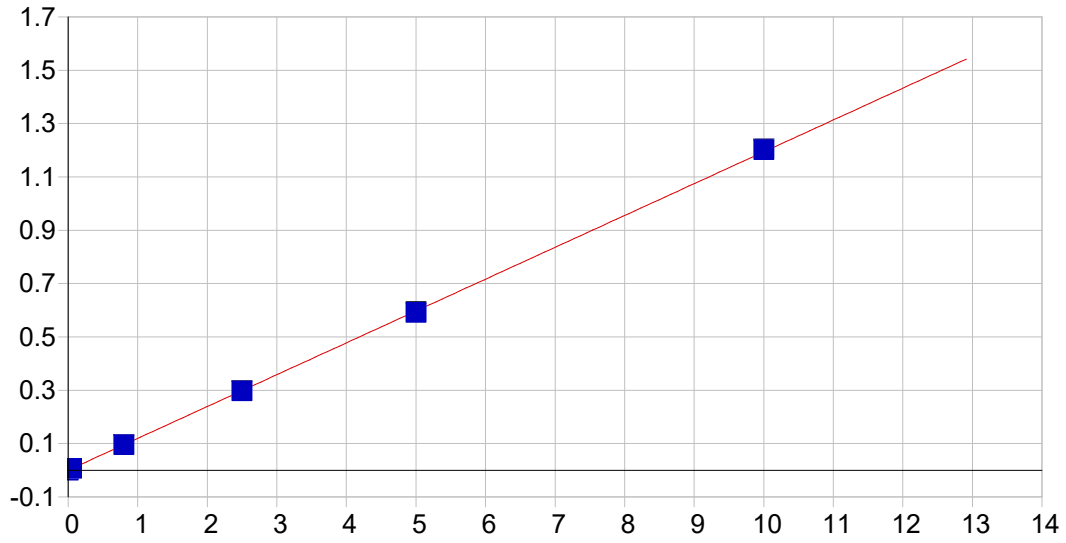
Se 196.090 {472}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000210	Re-Slope:	1.000000
A1 (Gain):	0.051083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.004163		
Predicted MQL:	0.013875		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.02000	.01768	-.002	-11.6	.00111	.000	1
S3	2.5000	2.4918	-.008	-.330	.12745	.001	1
S4	5.0000	4.9630	-.037	-.740	.25364	.001	1
S5	10.000	10.042	.042	.417	.51299	.001	1
S2	.80000	.80587	.006	.734	.04136	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



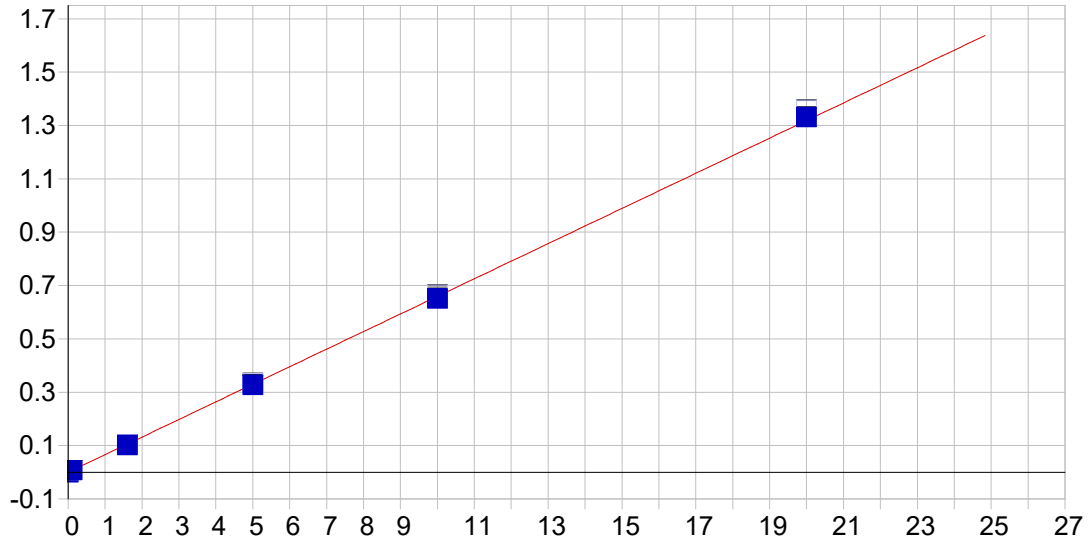
Sb 206.833 {463}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000167	Re-Slope:	1.000000
A1 (Gain):	0.119391	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.002432		
Predicted MQL:	0.008108		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00017	.000	1
S1	.05000	.05293	.003	5.85	.00650	.000	1
S3	2.5000	2.4852	-.015	-.591	.29769	.001	1
S4	5.0000	4.9481	-.052	-1.04	.59254	.003	1
S5	10.000	10.069	.069	.693	1.2056	.001	1
S2	.80000	.79448	-.006	-.690	.09528	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



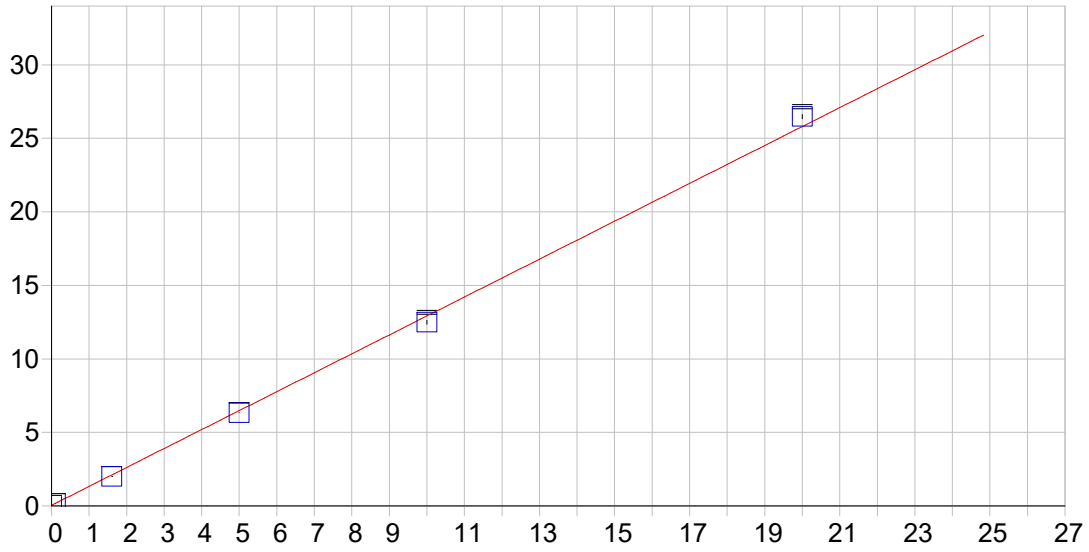
Al 396.152 { 85}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000070	Re-Slope:	1.000000
A1 (Gain):	0.065927	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000071		
Predicted MDL:	0.007019		
Predicted MQL:	0.023397		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00007	.000	1
S1	.10000	.11446	.014	14.5	.00813	.000	1
S3	5.0000	4.9613	-.039	-.775	.33355	.001	1
S4	10.000	9.8765	-.124	-1.24	.66399	.002	1
S5	20.000	20.200	.200	1.00	1.3574	.001	1
S2	1.6000	1.5469	-.053	-3.32	.10410	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



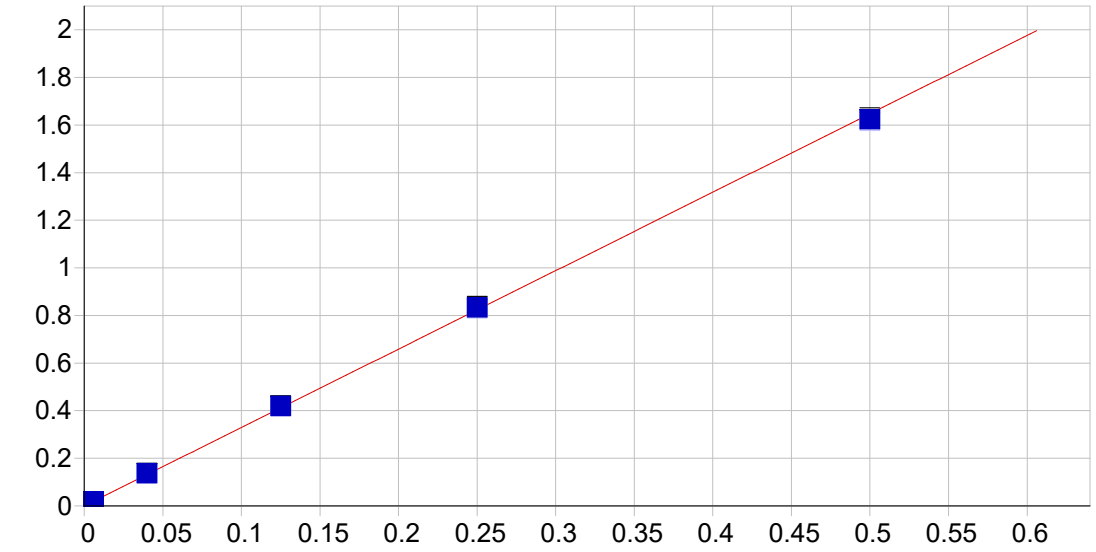
Ba 493.409 { 68}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.040307	Re-Slope:	1.000000
A1 (Gain):	1.288175	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999571	Status:	OK.
Std Error of Est:	0.002800		
Predicted MDL:	0.001229		
Predicted MQL:	0.004095		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.04032	.002	1
S1	.10000	.09555	-.004	-4.45	.16340	.002	1
S3	5.0000	4.8940	-.106	-2.12	6.3446	.009	1
S4	10.000	9.6639	-.336	-3.36	12.489	.126	1
S5	20.000	20.526	.526	2.63	26.481	.139	1
S2	1.6000	1.5206	-.079	-4.97	1.9990	.003	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



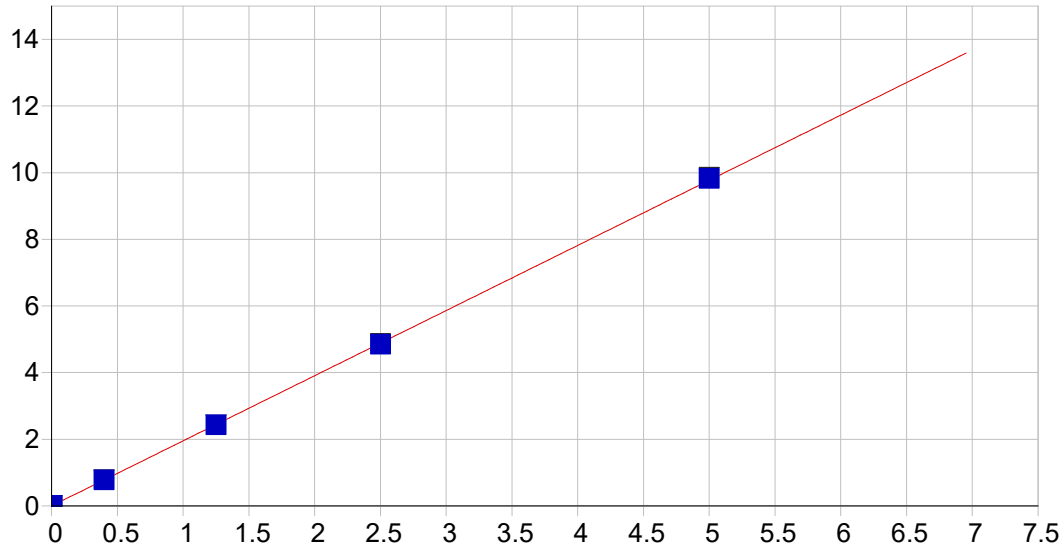
Be 234.861 {144}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000058	Re-Slope:	1.000000
A1 (Gain):	3.294762	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000153		
Predicted MDL:	0.000052		
Predicted MQL:	0.000172		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.00600	.00623	.000	3.76	.02042	.000	1
S3	.12500	.12733	.002	1.86	.41773	.001	1
S4	.25000	.25305	.003	1.22	.83011	.006	1
S5	.50000	.49294	-.007	-1.41	1.6168	.006	1
S2	.04000	.04145	.001	3.63	.13604	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



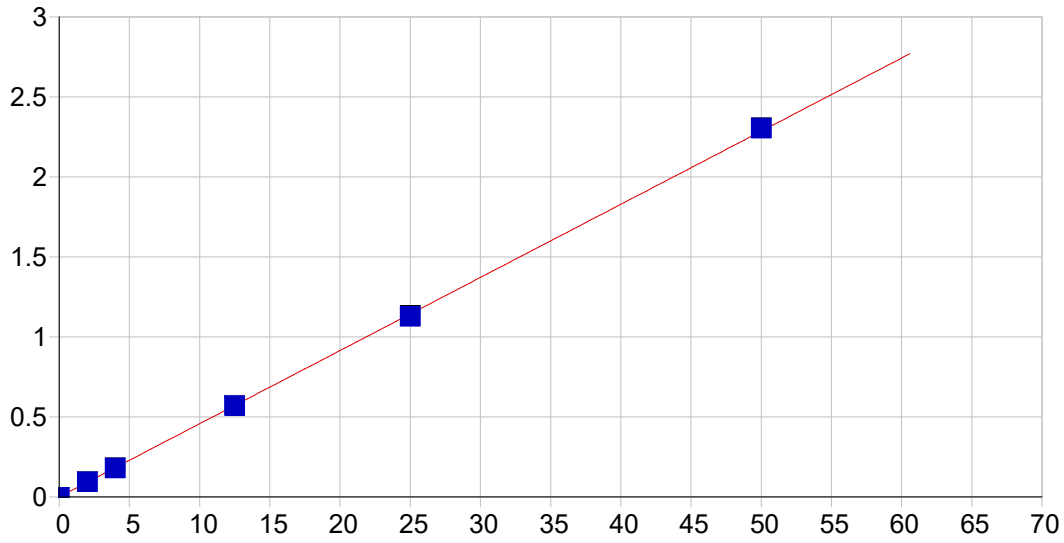
Cd 226.502 {449}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000114	Re-Slope:	1.000000
A1 (Gain):	1.954385	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000117		
Predicted MDL:	0.000114		
Predicted MQL:	0.000379		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00011	.000	1
S1	.00600	.00629	.000	4.79	.01245	.000	1
S3	1.2500	1.2447	-.005	-.420	2.4347	.007	1
S4	2.5000	2.4789	-.021	-.843	4.8487	.018	1
S5	5.0000	5.0288	.029	.576	9.8360	.023	1
S2	.40000	.39723	-.003	-.692	.77707	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



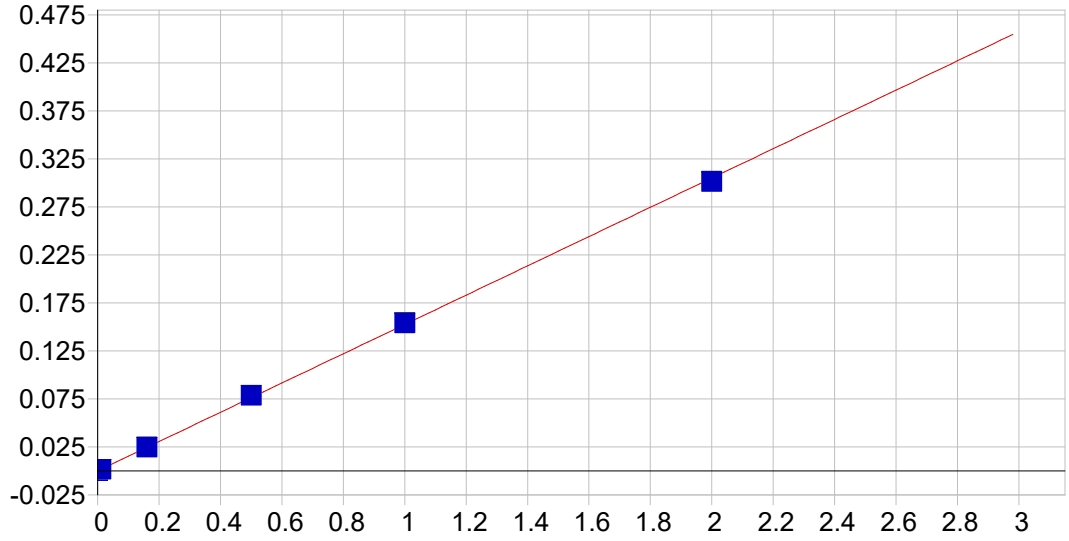
Ca 373.690 { 90}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000596	Re-Slope:	1.000000
A1 (Gain):	0.045701	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000260		
Predicted MDL:	0.008870		
Predicted MQL:	0.029566		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00060	.000	1
S2	4.0000	3.9229	-.077	-1.93	.17988	.001	1
S3	12.500	12.461	-.039	-.312	.57008	.001	1
S4	25.000	24.664	-.336	-1.34	1.1278	.006	1
S5	50.000	50.397	.397	.794	2.3038	.003	1
S1	2.0000	2.0553	.055	2.76	.09452	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



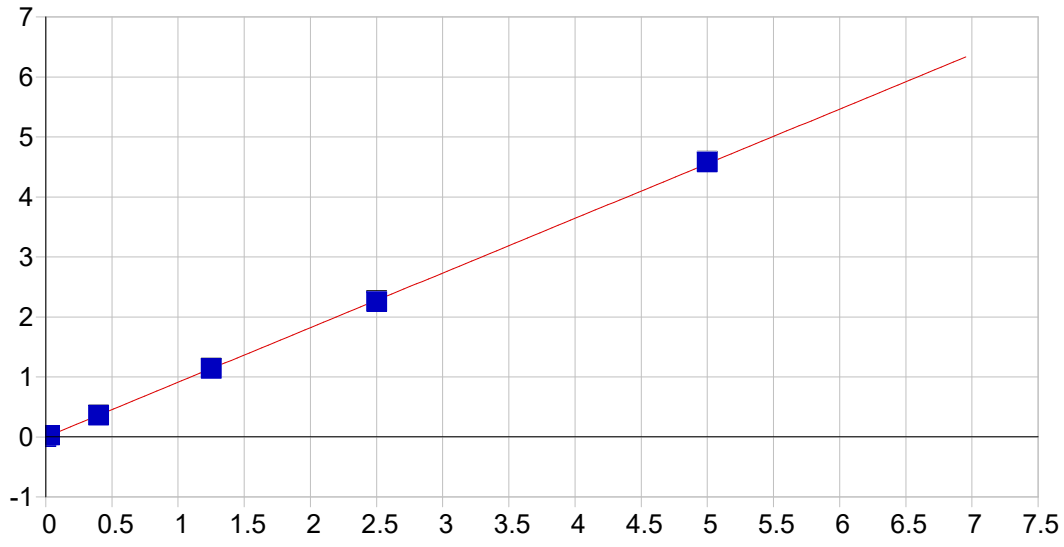
Cr 267.716 {126}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.152562	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999878	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.000491		
Predicted MQL:	0.001638		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.01000	.00998	-.000	-.205	.00154	.000	1
S3	.50000	.51551	.016	3.10	.07868	.000	1
S4	1.0000	1.0092	.009	.919	.15402	.000	1
S5	2.0000	1.9744	-.026	-1.28	.30132	.000	1
S2	.16000	.16092	.001	.574	.02457	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



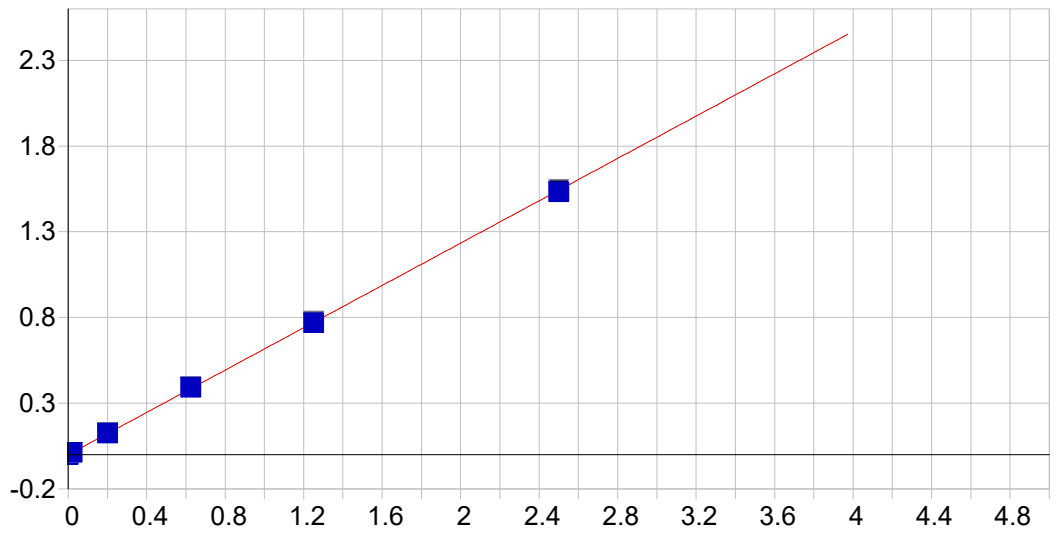
Co 228.616 {448}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000164	Re-Slope:	1.000000
A1 (Gain):	0.910586	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999975	Status:	OK.
Std Error of Est:	0.000131		
Predicted MDL:	0.000281		
Predicted MQL:	0.000938		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00016	.000	1
S1	.03000	.03030	.000	.989	.02731	.000	1
S3	1.2500	1.2497	-.000	-.023	1.1397	.005	1
S4	2.5000	2.4763	-.024	-.949	2.2586	.010	1
S5	5.0000	5.0289	.029	.579	4.5868	.010	1
S2	.40000	.39478	-.005	-1.31	.35993	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



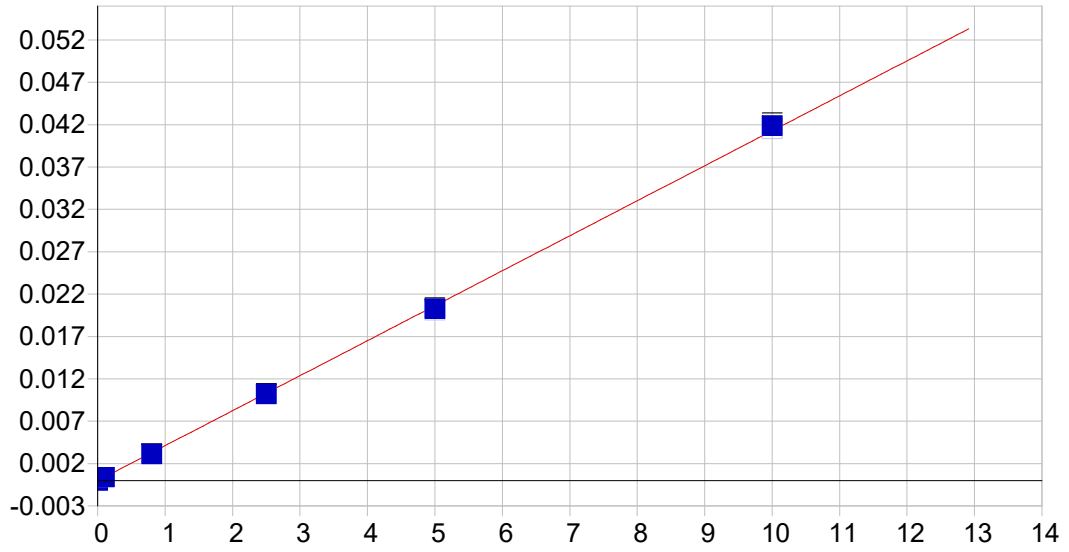
Cu 224.700 {450}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000946	Re-Slope:	1.000000
A1 (Gain):	0.617397	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.000528		
Predicted MQL:	0.001761		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00095	.000	1
S1	.02000	.02229	.002	11.5	.01294	.000	1
S3	.62500	.63686	.012	1.90	.39506	.001	1
S4	1.2500	1.2464	-.004	-.288	.77421	.003	1
S5	2.5000	2.4848	-.015	-.607	1.5444	.003	1
S2	.20000	.20462	.005	2.31	.12629	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



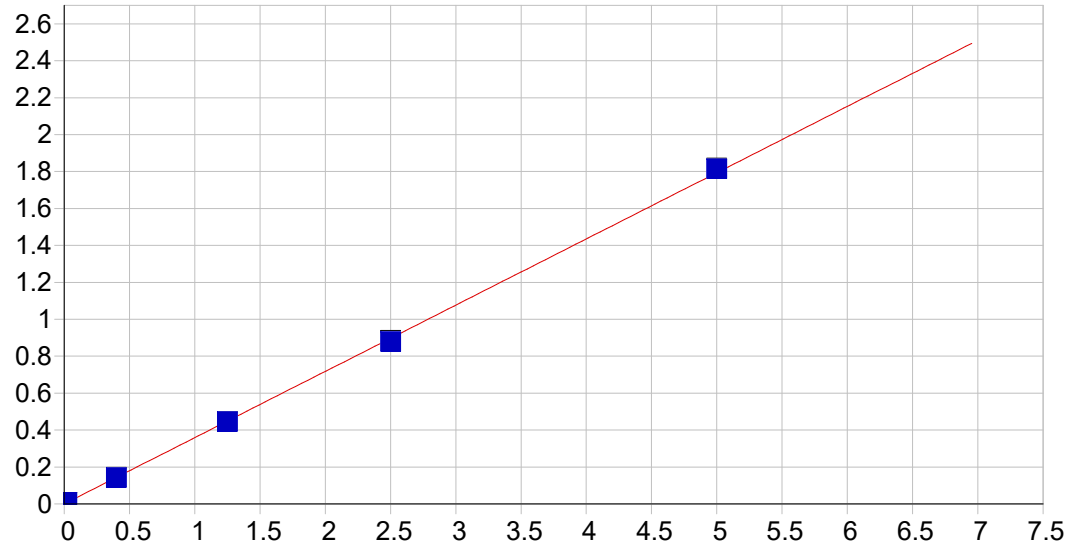
Fe 240.488 {140}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000021	Re-Slope:	1.000000
A1 (Gain):	0.004130	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999848	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.006028		
Predicted MQL:	0.020094		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.10000	.10233	.002	2.33	.00040	.000	1
S3	2.5000	2.4814	-.019	-.744	.01014	.000	1
S4	5.0000	4.9104	-.090	-1.79	.02008	.000	1
S5	10.000	10.142	.142	1.42	.04151	.000	1
S2	.80000	.76338	-.037	-4.58	.00310	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



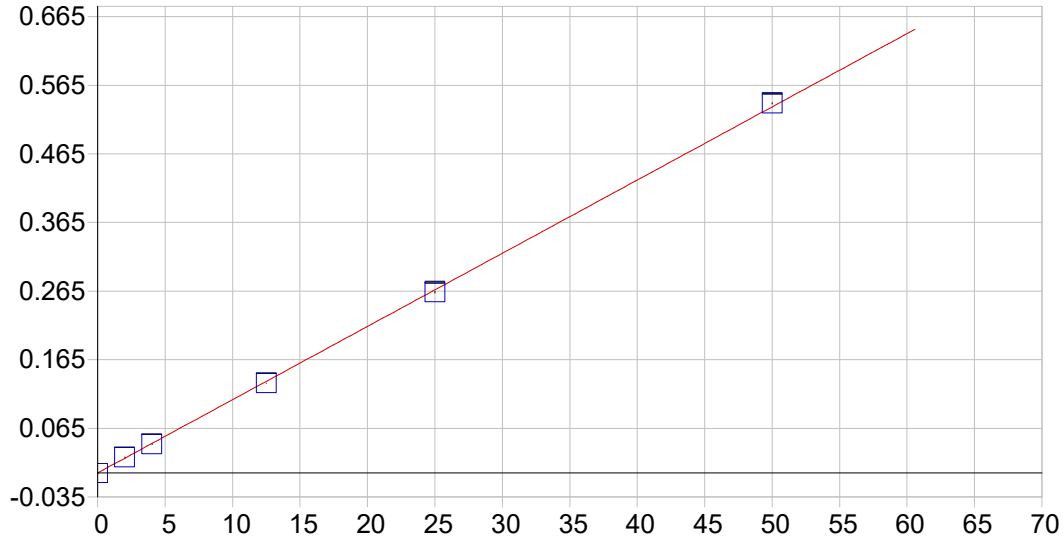
Mn 257.610 {131}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000163	Re-Slope:	1.000000
A1 (Gain):	0.358724	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.000394		
Predicted MQL:	0.001312		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.02000	.02254	.003	12.7	.00825	.000	1
S3	1.2500	1.2408	-.009	-.734	.44537	.001	1
S4	2.5000	2.4510	-.049	-1.96	.87959	.006	1
S5	5.0000	5.0586	.059	1.17	1.8152	.003	1
S2	.40000	.39695	-.003	-.762	.14259	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



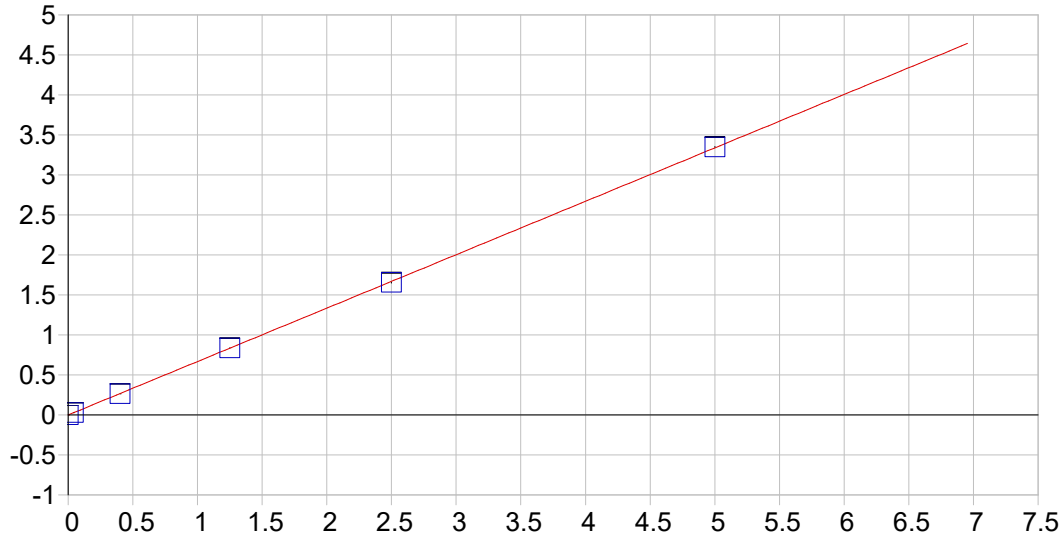
Mg 279.079 {121}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000031	Re-Slope:	1.000000
A1 (Gain):	0.010671	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999877	Status:	OK.
Std Error of Est:	0.000088		
Predicted MDL:	0.015860		
Predicted MQL:	0.052865		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00005	-.000	.000	-.00003	.000	1
S2	4.0000	3.9275	-.073	-1.81	.04188	.000	1
S3	12.500	12.264	-.236	-1.89	.13084	.000	1
S4	25.000	24.693	-.307	-1.23	.26348	.001	1
S5	50.000	50.483	.483	.966	.53869	.001	1
S1	2.0000	2.1323	.132	6.62	.02272	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



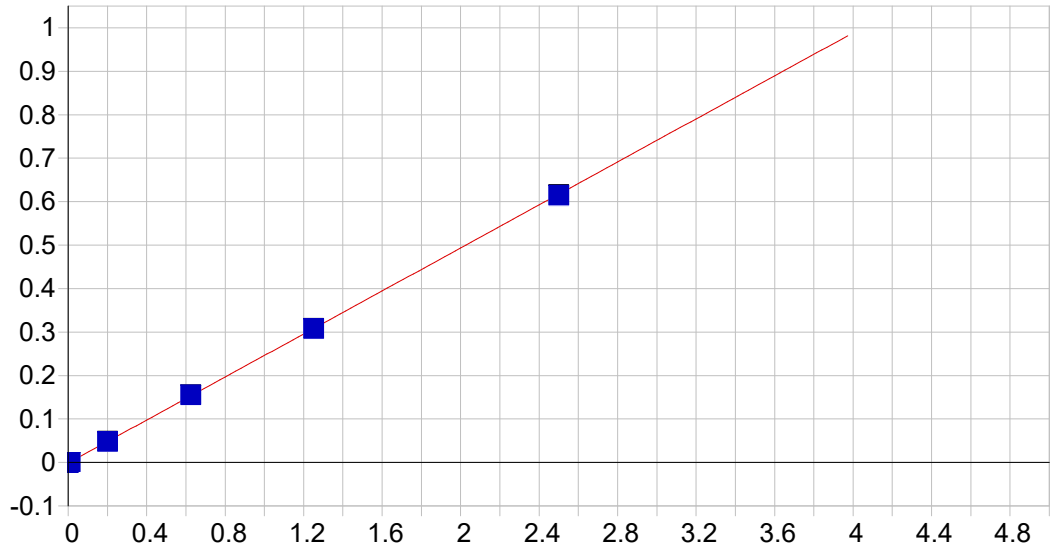
Ni 231.604 {446}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000495	Re-Slope:	1.000000
A1 (Gain):	0.667671	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.000367		
Predicted MQL:	0.001223		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00050	.000	1
S1	.04000	.04025	.000	.631	.02638	.000	1
S3	1.2500	1.2534	.003	.273	.83638	.003	1
S4	2.5000	2.4795	-.021	-.821	1.6550	.007	1
S5	5.0000	5.0180	.018	.360	3.3499	.007	1
S2	.40000	.39888	-.001	-.281	.26582	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



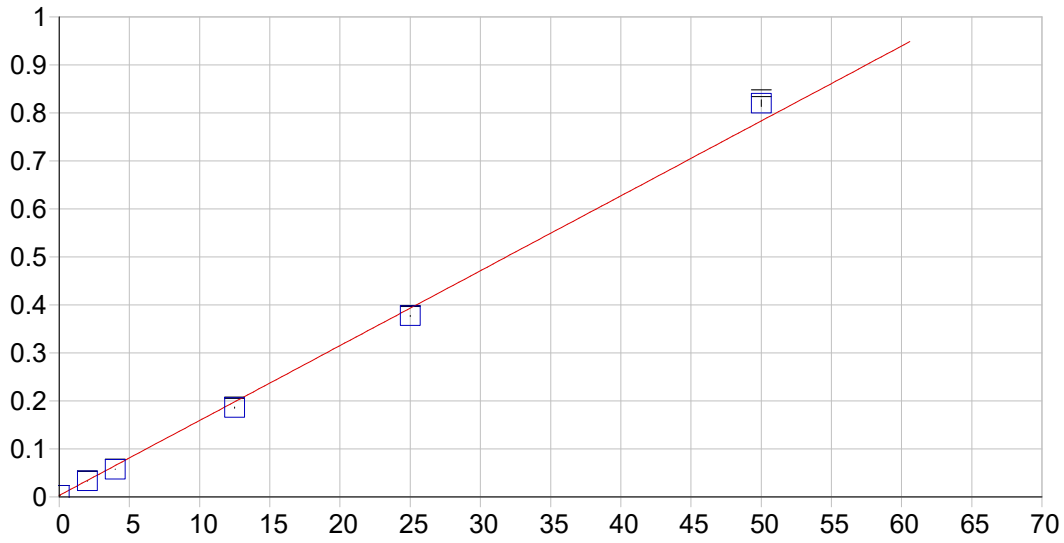
Ag 328.068 {103}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001363	Re-Slope:	1.000000
A1 (Gain):	0.247433	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.000434		
Predicted MQL:	0.001445		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00136	.000	1
S1	.01000	.01017	.000	1.70	.00114	.000	1
S3	.62500	.63291	.008	1.26	.15462	.000	1
S4	1.2500	1.2507	.001	.056	.30687	.000	1
S5	2.5000	2.4904	-.010	-.384	.61239	.001	1
S2	.20000	.20082	.001	.411	.04813	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



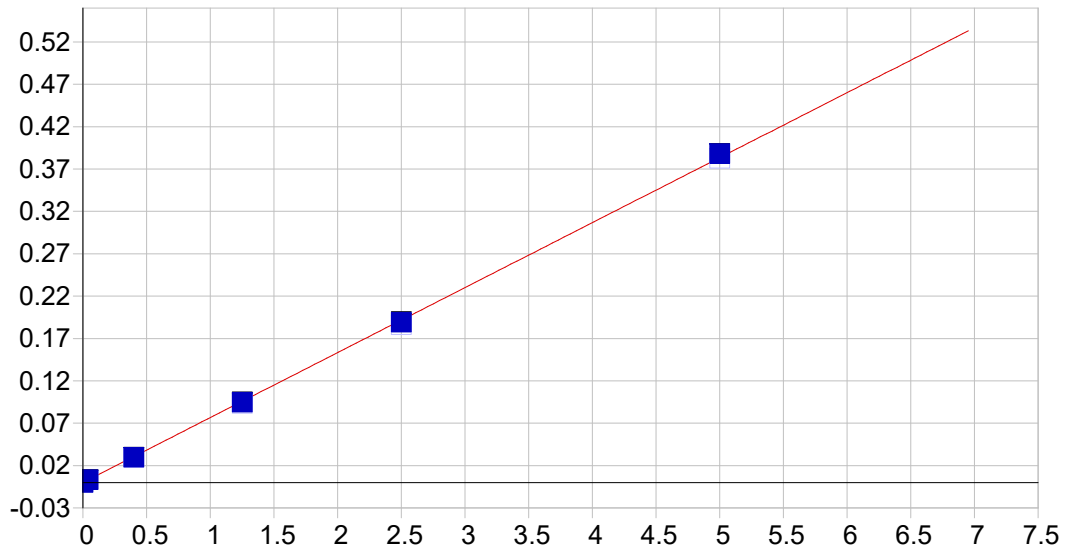
Na 589.592 { 57}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003201	Re-Slope:	1.000000
A1 (Gain):	0.015599	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998561	Status:	OK.
Std Error of Est:	0.000443		
Predicted MDL:	0.016644		
Predicted MQL:	0.055481		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00044	.000	.000	.00321	.000	1
S2	4.0000	3.4906	-.509	-12.7	.05765	.001	1
S3	12.500	11.729	-.771	-6.17	.18617	.001	1
S4	25.000	23.979	-1.02	-4.08	.37726	.001	1
S5	50.000	52.374	2.37	4.75	.82021	.007	1
S1	2.0000	1.9268	-.073	-3.66	.03326	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



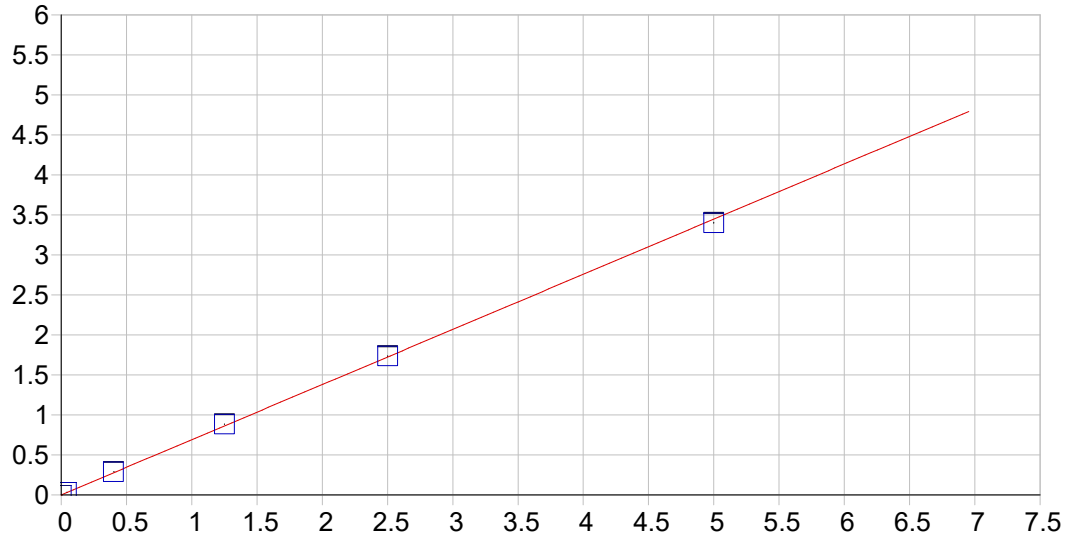
V 292.402 {115}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000080	Re-Slope:	1.000000
A1 (Gain):	0.076703	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.002062		
Predicted MQL:	0.006874		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.000	1
S1	.04000	.04118	.001	2.94	.00296	.000	1
S3	1.2500	1.2356	-.014	-1.15	.09329	.000	1
S4	2.5000	2.4643	-.036	-1.43	.18615	.001	1
S5	5.0000	5.0602	.060	1.20	.38246	.000	1
S2	.40000	.38868	-.011	-2.83	.02929	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



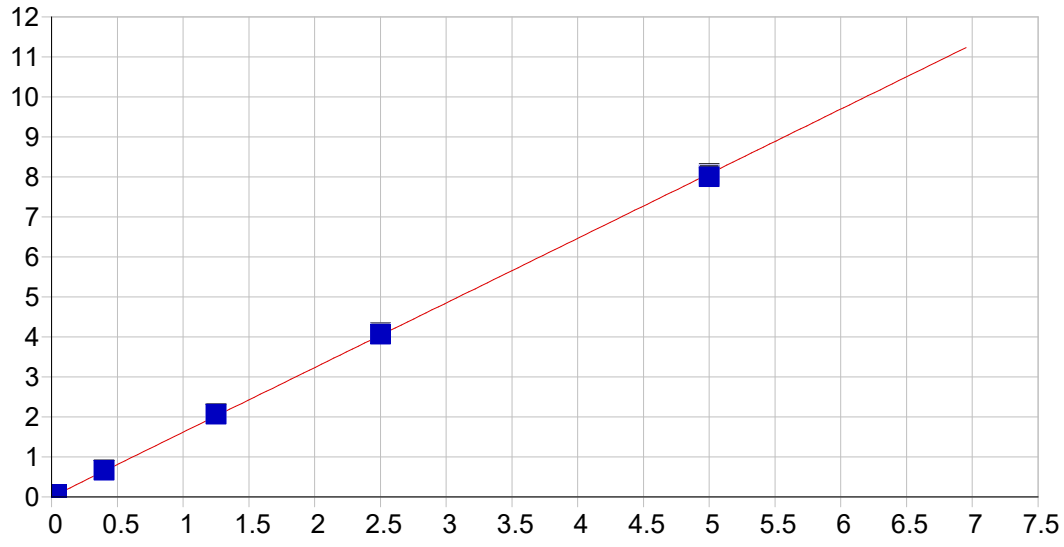
Zn 206.200 {464}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000257	Re-Slope:	1.000000
A1 (Gain):	0.689396	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000281		
Predicted MDL:	0.000278		
Predicted MQL:	0.000927		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00025	.000	1
S1	.04000	.04342	.003	8.55	.03019	.000	1
S3	1.2500	1.2820	.032	2.56	.88406	.002	1
S4	2.5000	2.5151	.015	.605	1.7342	.006	1
S5	5.0000	4.9330	-.067	-1.34	3.4010	.007	1
S2	.40000	.41646	.016	4.11	.28736	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



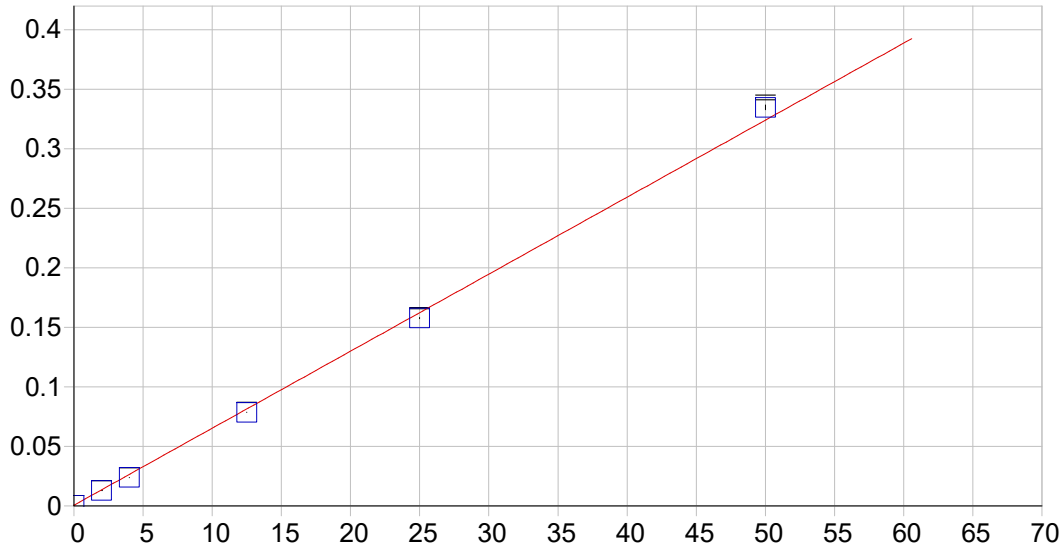
Zn 213.856 {158}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001792	Re-Slope:	1.000000
A1 (Gain):	1.615565	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999927	Status:	OK.
Std Error of Est:	0.000463		
Predicted MDL:	0.000417		
Predicted MQL:	0.001390		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00179	.001	1
S1	.04000	.04204	.002	5.10	.07016	.000	1
S3	1.2500	1.2751	.025	2.01	2.0758	.002	1
S4	2.5000	2.5160	.016	.641	4.0947	.012	1
S5	5.0000	4.9493	-.051	-1.01	8.0539	.024	1
S2	.40000	.40758	.008	1.89	.66476	.003	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



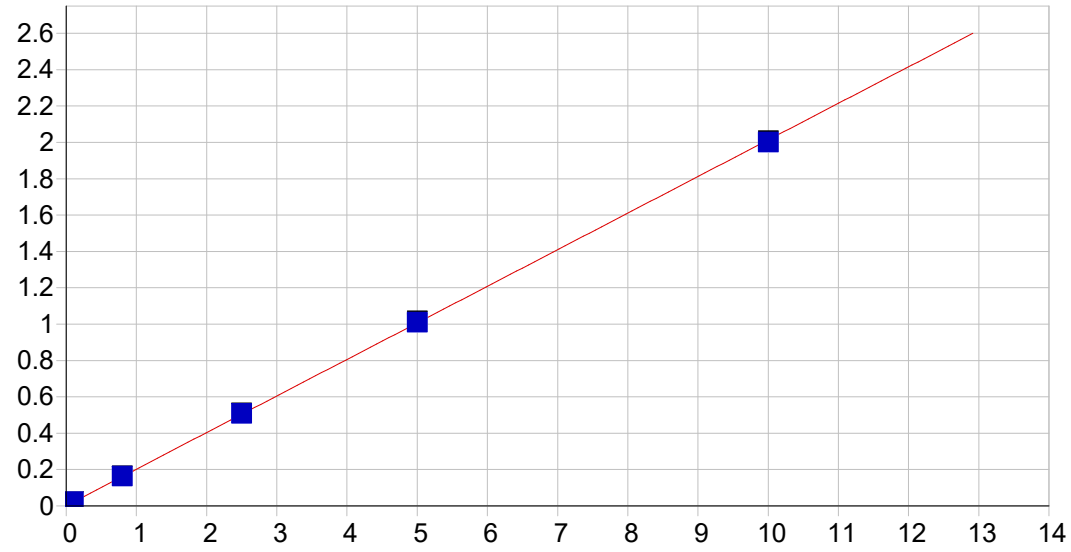
K 766.490 { 44}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000593	Re-Slope:	1.000000
A1 (Gain):	0.006471	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999262	Status:	OK.
Std Error of Est:	0.000132		
Predicted MDL:	0.037293		
Predicted MQL:	0.124311		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00037	.000	.000	.00060	.000	1
S2	4.0000	3.5885	-.412	-10.3	.02381	.000	1
S3	12.500	12.048	-.452	-3.62	.07855	.000	1
S4	25.000	24.305	-.695	-2.78	.15787	.001	1
S5	50.000	51.659	1.66	3.32	.33487	.002	1
S1	2.0000	1.9001	-.100	-5.00	.01289	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



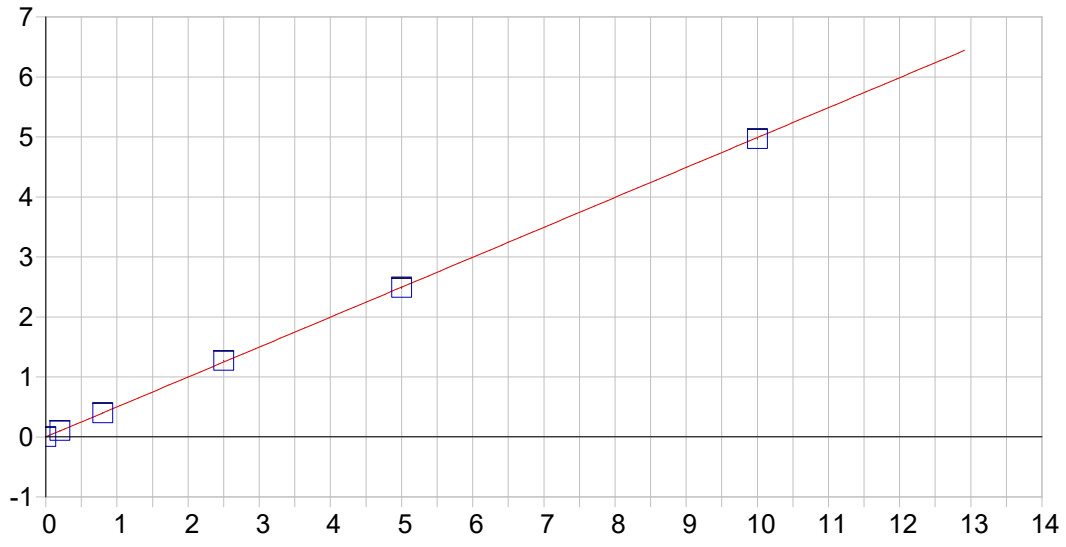
B 249.678 {135}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000806	Re-Slope:	1.000000
A1 (Gain):	0.201256	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000113		
Predicted MDL:	0.000940		
Predicted MQL:	0.003133		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00080	.000	1
S1	.10000	.11136	.011	11.4	.02314	.000	1
S3	2.5000	2.5239	.024	.956	.50789	.002	1
S4	5.0000	5.0145	.014	.290	1.0083	.007	1
S5	10.000	9.9384	-.062	-.616	1.9975	.007	1
S2	.80000	.81192	.012	1.49	.16393	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



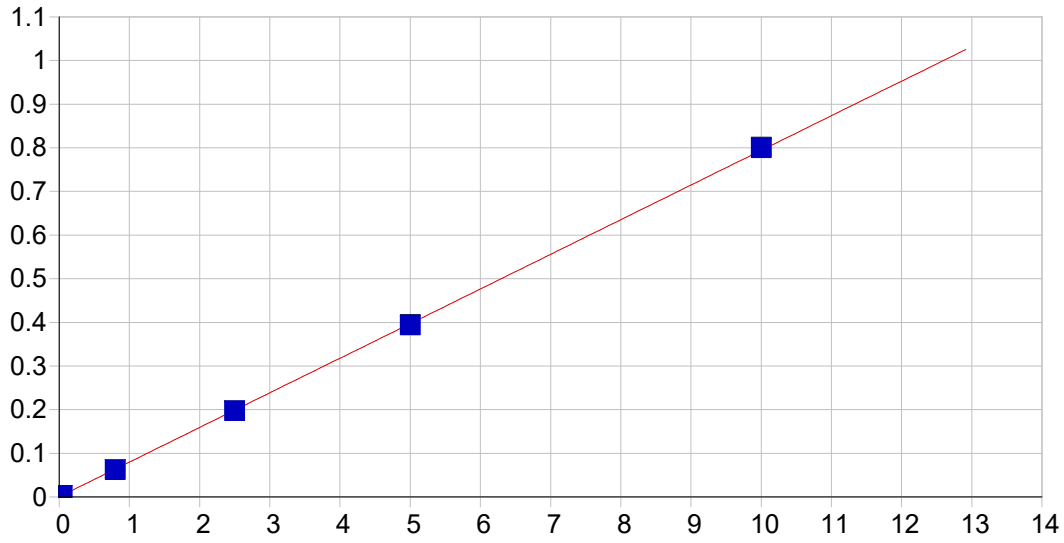
Mo 202.030 {467}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000137	Re-Slope:	1.000000
A1 (Gain):	0.498911	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000351		
Predicted MDL:	0.000399		
Predicted MQL:	0.001331		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00013	.000	1
S1	.20000	.21064	.011	5.32	.10523	.001	1
S3	2.5000	2.5462	.046	1.85	1.2705	.004	1
S4	5.0000	4.9858	-.014	-.285	2.4876	.011	1
S5	10.000	9.9564	-.044	-.436	4.9675	.002	1
S2	.80000	.80100	.001	.125	.39977	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



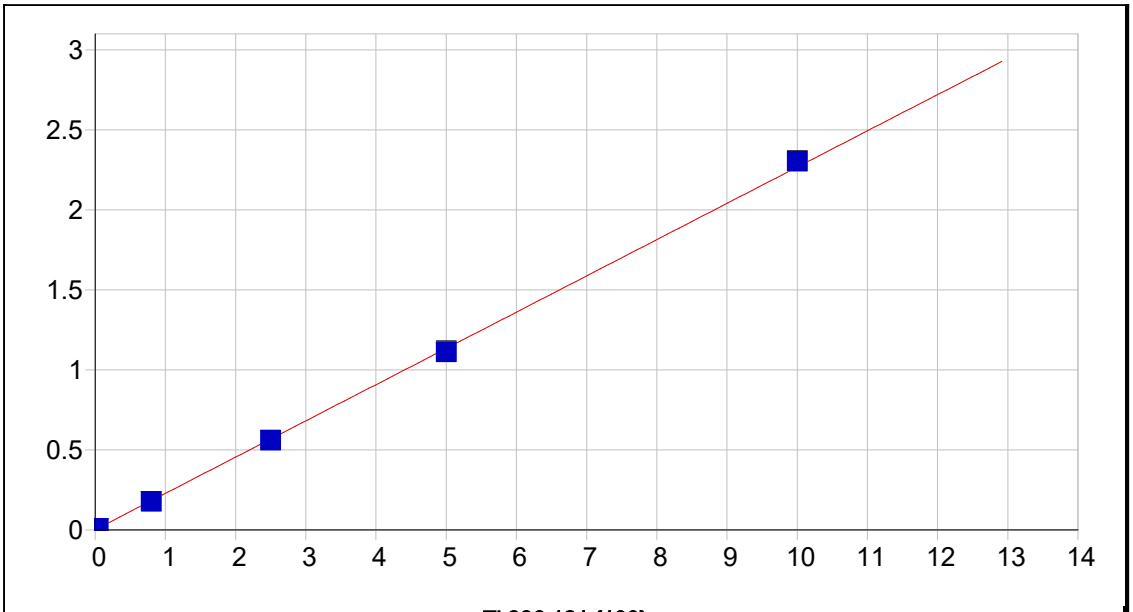
Sn 189.989 {478}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000339	Re-Slope:	1.000000
A1 (Gain):	0.079370	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	0.001258		
Predicted MQL:	0.004195		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00034	.000	1
S1	.04000	.04033	.000	.834	.00354	.000	1
S3	2.5000	2.4854	-.015	-.585	.19740	.001	1
S4	5.0000	4.9559	-.044	-.882	.39329	.001	1
S5	10.000	10.077	.077	.766	.79931	.001	1
S2	.80000	.78173	-.018	-2.28	.06232	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



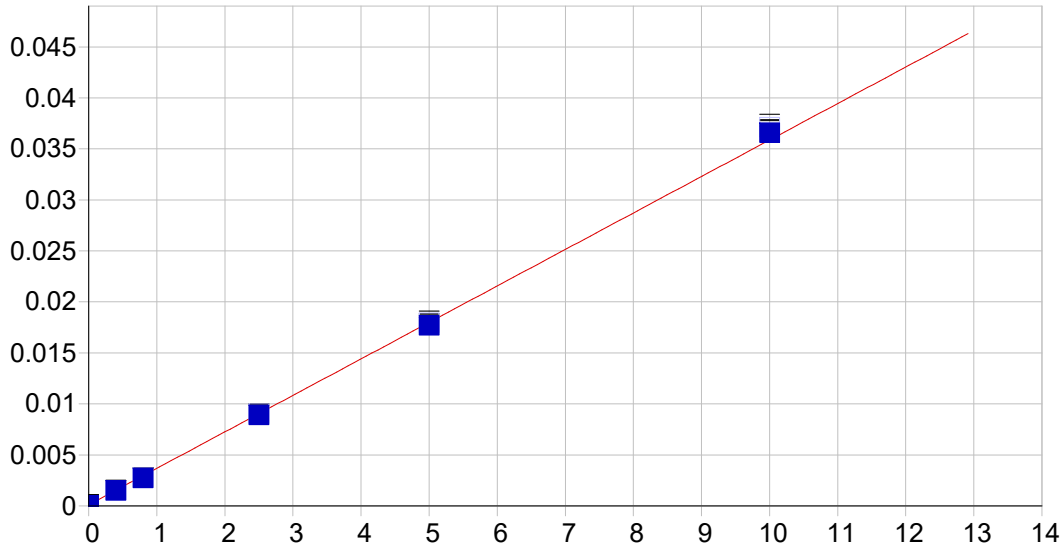
Ti 336.121 {100}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001725	Re-Slope:	1.000000
A1 (Gain):	0.226560	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999846	Status:	OK.
Std Error of Est:	0.000132		
Predicted MDL:	0.001010		
Predicted MQL:	0.003366		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00173	.000	1
S1	.04000	.04063	.001	1.57	.01092	.000	1
S3	2.5000	2.4622	-.038	-1.51	.55936	.001	1
S4	5.0000	4.9008	-.099	-1.98	1.1116	.007	1
S5	10.000	10.158	.158	1.58	2.3023	.004	1
S2	.80000	.77827	-.022	-2.72	.17798	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



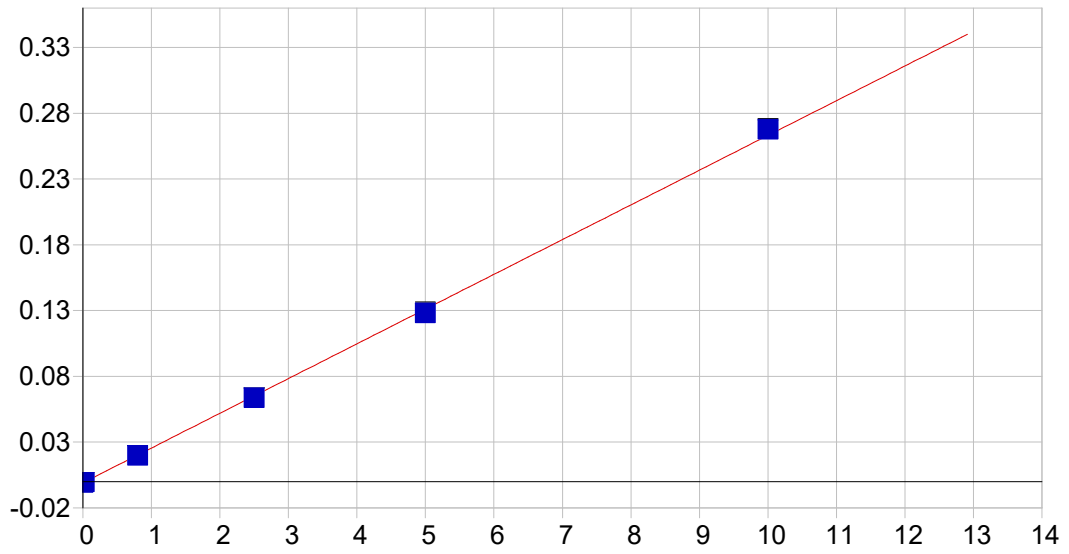
Si 288.158 {117}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000105	Re-Slope:	1.000000
A1 (Gain):	0.003576	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999704	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.012103		
Predicted MQL:	0.040344		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00004	.000	.000	.00011	.000	1
S1	.40000	.39408	-.006	-1.48	.00152	.000	1
S3	2.5000	2.4597	-.040	-1.61	.00904	.000	1
S4	5.0000	4.9152	-.085	-1.70	.01795	.000	1
S5	10.000	10.196	.196	1.96	.03711	.000	1
S2	.80000	.73457	-.065	-8.18	.00278	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



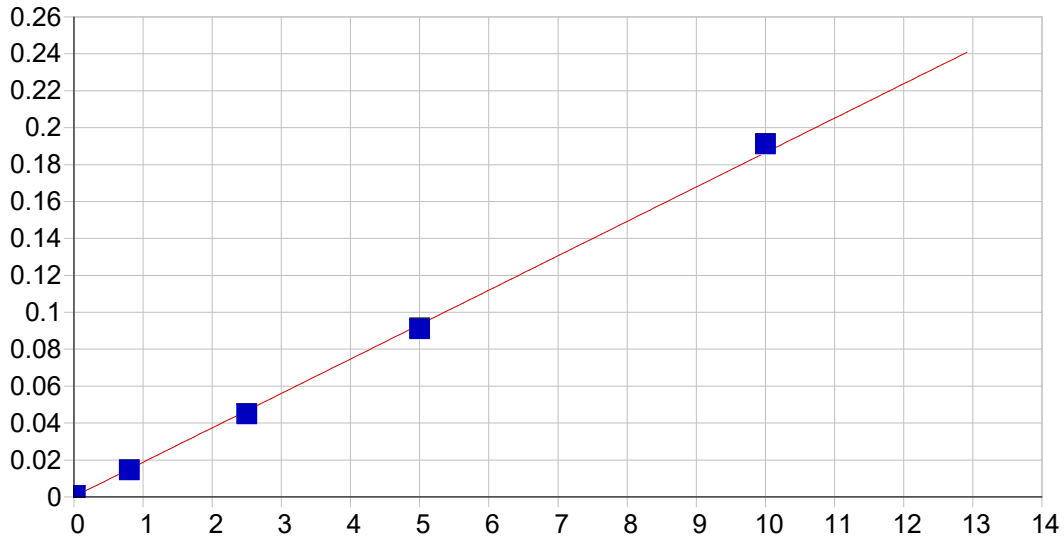
P 177.495 {490}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000876	Re-Slope:	1.000000
A1 (Gain):	0.026404	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999792	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.004058		
Predicted MQL:	0.013525		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00088	.000	1
S1	.02000	.02315	.003	15.7	-.00026	.000	1
S3	2.5000	2.4454	-.055	-2.18	.06368	.000	1
S4	5.0000	4.8913	-.109	-2.17	.12826	.001	1
S5	10.000	10.178	.178	1.78	.26782	.001	1
S2	.80000	.78225	-.018	-2.22	.01978	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



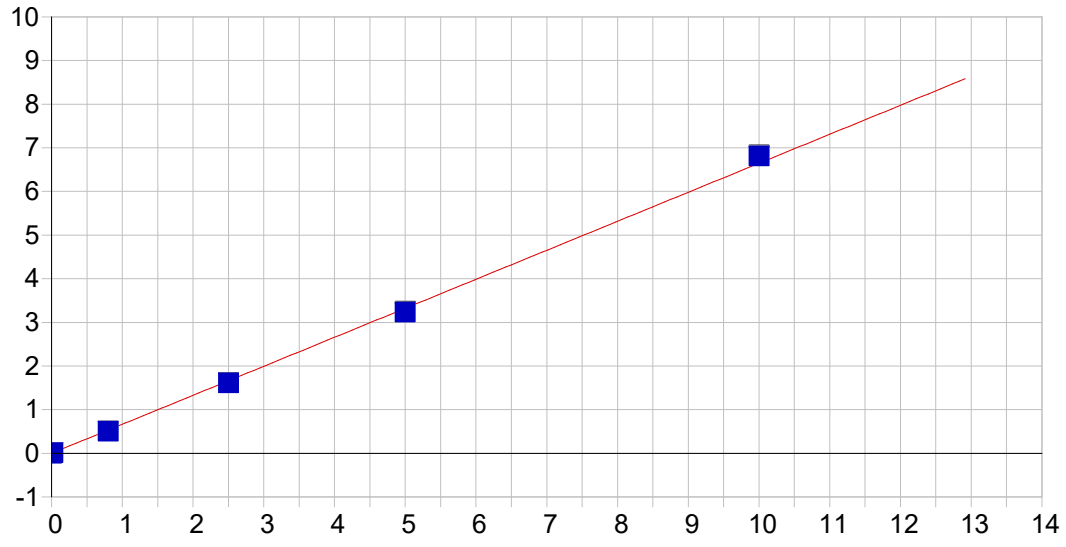
S 182.034 {485}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000151	Re-Slope:	1.000000
A1 (Gain):	0.018634	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999562	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.005087		
Predicted MQL:	0.016957		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00015	.000	1
S1	.02000	.02483	.005	24.1	.00060	.000	1
S3	2.5000	2.3986	-.101	-4.05	.04473	.000	1
S4	5.0000	4.8757	-.124	-2.49	.09076	.000	1
S5	10.000	10.252	.252	2.52	.19071	.000	1
S2	.80000	.76865	-.031	-3.92	.01444	.000	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



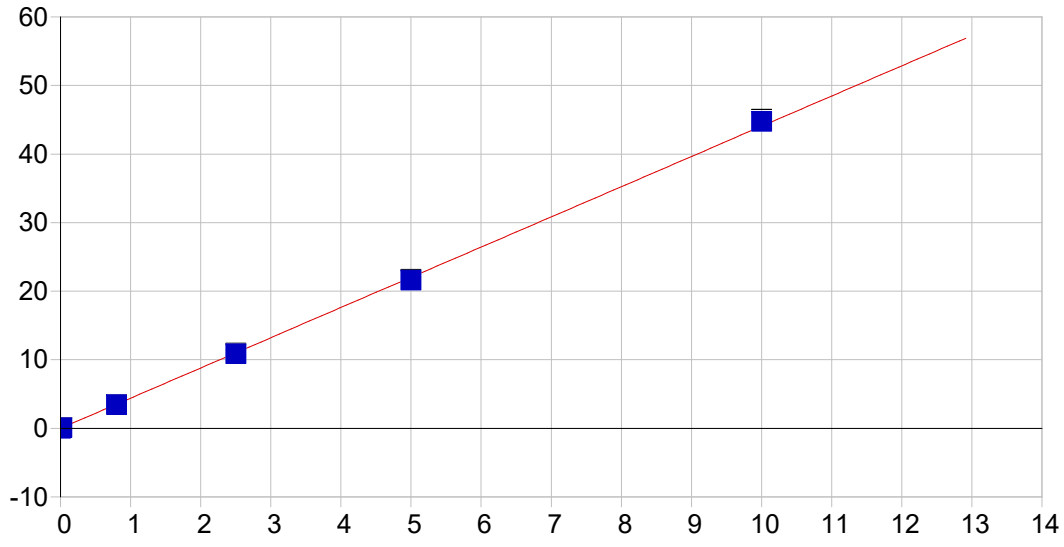
Li 670.784 { 50}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000883	Re-Slope:	1.000000
A1 (Gain):	0.664639	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999594	Status:	OK.
Std Error of Est:	0.000444		
Predicted MDL:	0.001328		
Predicted MQL:	0.004425		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00088	.001	1
S5	10.000	10.251	.251	2.51	6.8160	.016	1
S4	5.0000	4.8668	-.133	-2.66	3.2354	.019	1
S3	2.5000	2.4221	-.078	-3.12	1.6098	.002	1
S1	.02000	.02247	.002	12.4	.01427	.000	1
S2	.80000	.75712	-.043	-5.36	.50259	.001	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



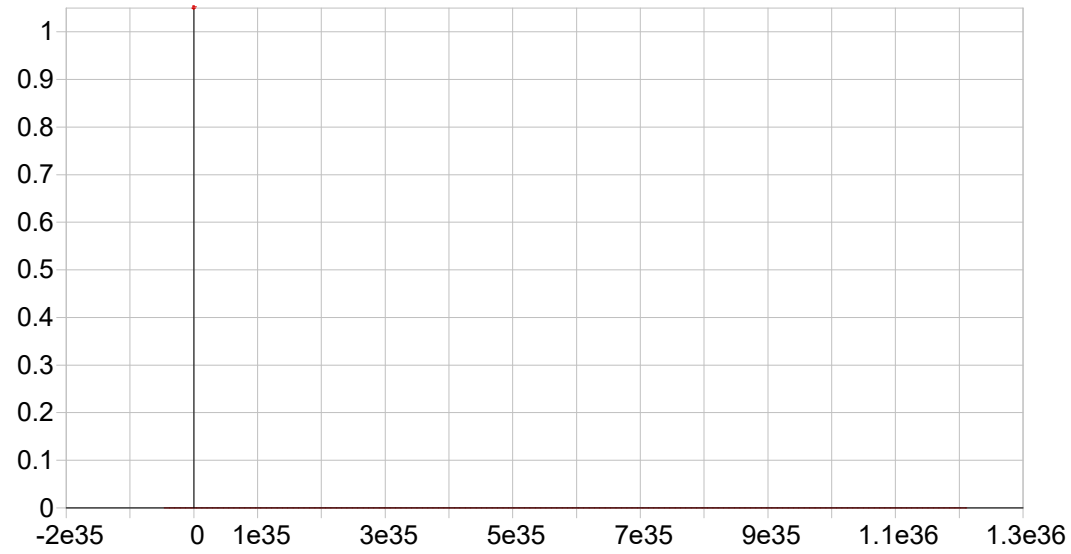
Sr 407.771 { 83}

Date of Fit:	5/21/2025 12:30:29	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000133	Re-Slope:	1.000000
A1 (Gain):	4.405066	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999859	Status:	OK.
Std Error of Est:	0.001737		
Predicted MDL:	0.000104		
Predicted MQL:	0.000347		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00014	.000	1
S1	.02000	.02019	.000	.964	.08951	.000	1
S3	2.5000	2.4636	-.036	-1.45	10.863	.083	1
S4	5.0000	4.9023	-.098	-1.95	21.616	.095	1
S5	10.000	10.152	.152	1.52	44.764	.326	1
S2	.80000	.78149	-.019	-2.31	3.4460	.004	1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

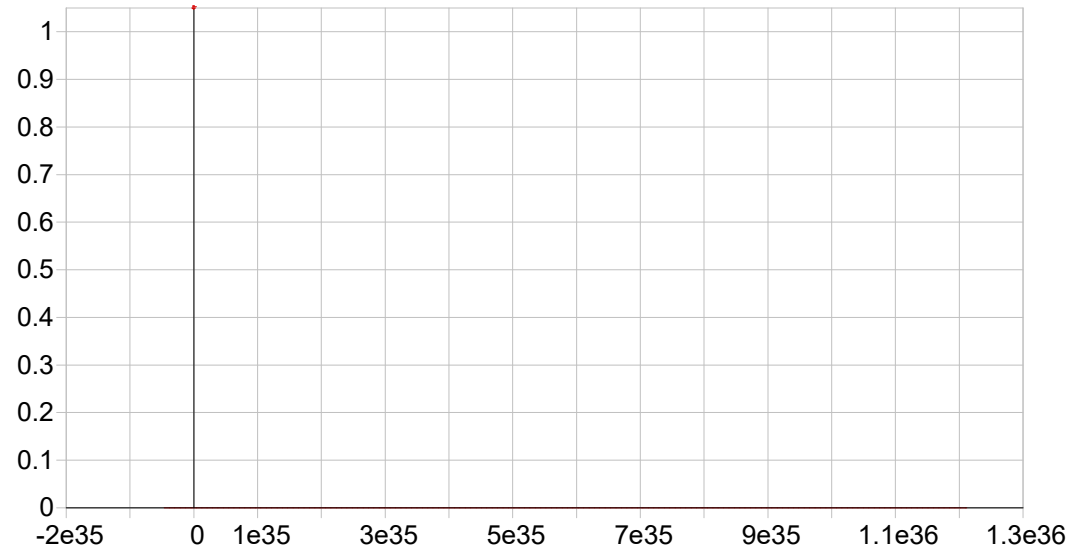


Y 224.306 {450}*

Date of Fit:	5/21/2025 11:55:59	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 360.073 { 94}*

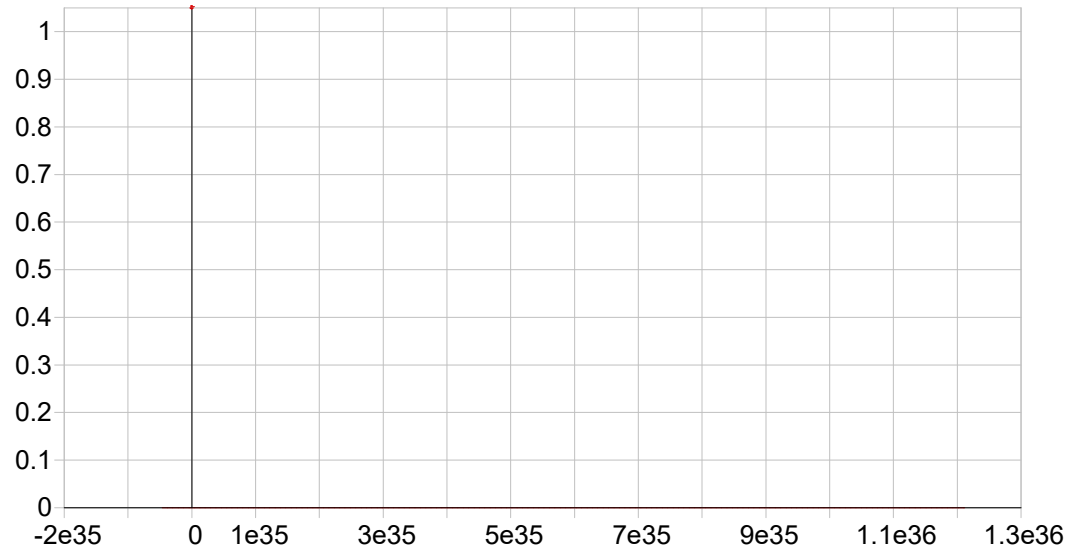
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



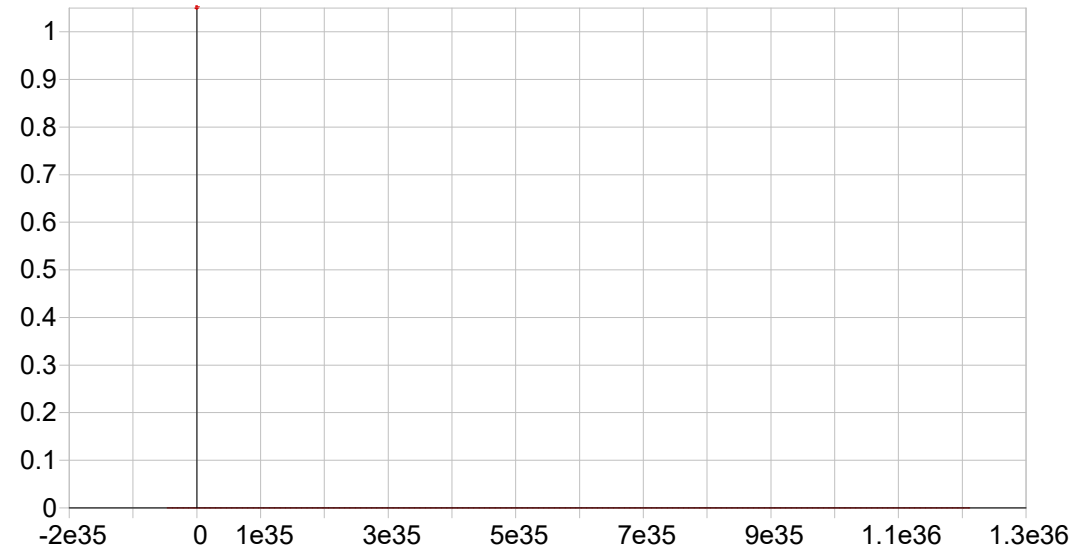
Y 371.030 { 91}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.000000		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

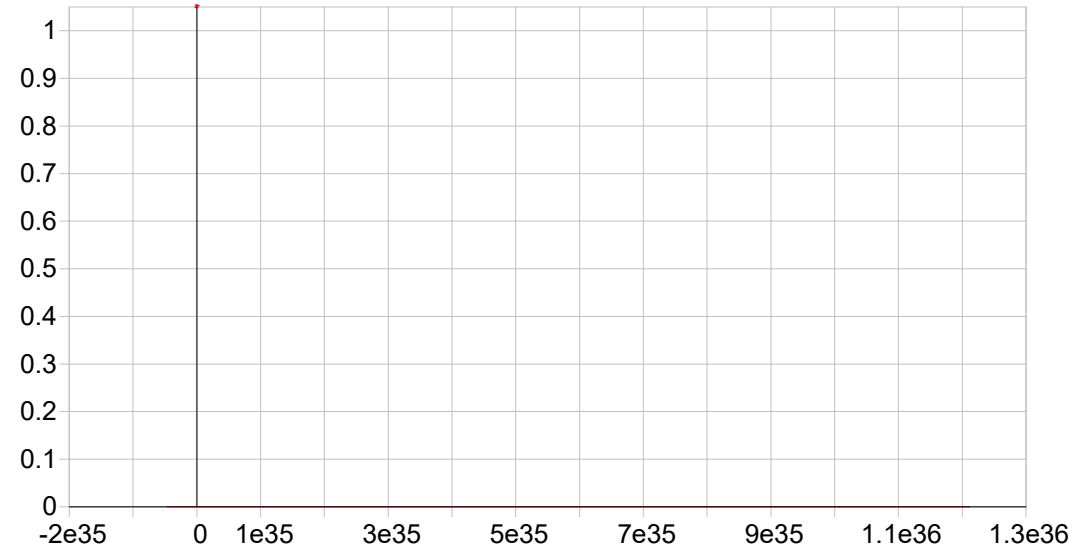
Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868



Y 224.306 {150}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

A2 (Curvature):		0.000000					
n (Exponent):		1.000000					
Correlation:		0.000000		Status:	Warning	Zero Gain	
Std Error of Est:		0.000000					
Predicted MDL:		n/a					
Predicted MQL:		n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S0 Acquired: 5/21/2025 12:05:04 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00003	.00004	.00014	.00021	.00017	.00007	.04032	.00006
Stddev	.00009	.00005	.00016	.00008	.00019	.00046	.00224	.00002
%RSD	313.23	128.82	111.60	40.457	113.64	664.52	5.5545	33.156
#1	-.00012	.00010	-.00003	.00022	.00007	-.00030	.04240	.00004
#2	-.00002	-.00001	.00016	.00029	.00004	.00058	.04061	.00005
#3	.00006	.00003	.00029	.00012	.00039	-.00007	.03795	.00008

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00011	.00060	.00001	-.00016	-.00095	-.00002	.00016	-.00003
Stddev	.00006	.00020	.00003	.00025	.00020	.00001	.00014	.00013
%RSD	52.167	32.936	223.02	151.95	21.315	64.101	84.330	426.67
#1	.00014	.00061	.00002	-.00032	-.00113	-.00001	.00007	.00001
#2	.00015	.00039	-.00002	.00012	-.00073	-.00003	.00010	.00007
#3	.00005	.00078	.00005	-.00030	-.00098	-.00002	.00032	-.00018

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00050	-.00136	.00321	-.00008	.00179	.00060	.00080	.00013
Stddev	.00009	.00003	.00011	.00010	.00117	.00011	.00017	.00014
%RSD	18.280	2.3078	3.5475	126.93	65.574	18.113	21.261	108.52
#1	-.00058	-.00139	.00326	-.00001	.00232	.00049	.00094	.00029
#2	-.00040	-.00137	.00308	-.00004	.00044	.00071	.00085	.00005
#3	-.00051	-.00133	.00329	-.00020	.00260	.00059	.00061	.00005

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00034	.00173	.00011	-.00088	.00015	-.00088	.00014
Stddev	.00006	.00017	.00002	.00009	.00003	.00097	.00046
%RSD	16.430	10.053	19.051	10.015	17.050	110.14	339.94
#1	.00030	.00191	.00010	-.00087	.00013	-.00063	.00050
#2	.00040	.00157	.00009	-.00079	.00015	-.00196	-.00038
#3	.00032	.00170	.00013	-.00097	.00018	-.00006	.00029

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S0 Acquired: 5/21/2025 12:05:04 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.7	64280.	17455.	2508.4	4156.1
Stddev	9.8	191.	87.	13.7	18.2
%RSD	.35542	.29675	.49656	.54527	.43839
#1	2733.6	64369.	17437.	2507.2	4139.6
#2	2744.5	64410.	17550.	2522.7	4153.1
#3	2753.0	64061.	17379.	2495.4	4175.7

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S1 Acquired: 5/21/2025 12:09:28 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00066	.00229	.00227	.00111	.00650	.00813	.16340	.02042
Stddev	.00007	.00009	.00029	.00007	.00012	.00027	.00207	.00005
%RSD	11.040	4.0730	12.635	5.9039	1.8543	3.3508	1.2689	.24024
#1	.00072	.00240	.00252	.00111	.00636	.00789	.16117	.02048
#2	.00058	.00222	.00232	.00105	.00659	.00807	.16527	.02040
#3	.00069	.00226	.00195	.00118	.00654	.00842	.16375	.02039

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01245	.09452	.00154	.02731	.01294	.00040	.00825	.02272
Stddev	.00020	.00049	.00004	.00020	.00021	.00001	.00013	.00008
%RSD	1.5727	.51318	2.7965	.73586	1.5958	2.2113	1.6336	.35853
#1	.01239	.09440	.00150	.02708	.01288	.00039	.00825	.02266
#2	.01230	.09412	.00152	.02738	.01317	.00039	.00839	.02269
#3	.01267	.09506	.00159	.02746	.01277	.00041	.00812	.02282

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02638	.00114	.03326	.00296	.07016	.01289	.02314	.10523
Stddev	.00018	.00002	.00028	.00004	.00027	.00011	.00049	.00063
%RSD	.68457	2.1958	.82862	1.3894	.39009	.81798	2.1211	.59946
#1	.02659	.00111	.03347	.00295	.07047	.01279	.02285	.10585
#2	.02628	.00116	.03336	.00293	.07004	.01300	.02285	.10525
#3	.02627	.00114	.03295	.00301	.06997	.01288	.02370	.10459

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00354	.01092	.00152	-.00026	.00060	.01427	.08951
Stddev	.00010	.00005	.00002	.00003	.00003	.00018	.00039
%RSD	2.8228	.48436	1.3808	11.176	5.1822	1.2290	.43168
#1	.00348	.01086	.00150	-.00023	.00063	.01419	.08963
#2	.00365	.01097	.00151	-.00029	.00058	.01415	.08982
#3	.00348	.01094	.00154	-.00027	.00058	.01447	.08908

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S1 Acquired: 5/21/2025 12:09:28 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2731.3	65269.	17332.	2524.6	4112.8
Stddev	3.7	152.	13.	3.3	6.9
%RSD	.13729	.23296	.07761	.13117	.16699
#1	2729.6	65159.	17347.	2522.1	4114.6
#2	2728.7	65206.	17327.	2523.5	4105.2
#3	2735.6	65443.	17321.	2528.4	4118.6

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S2 Acquired: 5/21/2025 12:13:51 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02915	.04705	.15425	.04136	.09528	.10410	1.9990	.13604
Stddev	.00016	.00020	.00047	.00047	.00063	.00011	.0031	.00009
%RSD	.55090	.42339	.30247	1.1289	.65858	.10869	.15694	.06868
#1	.02897	.04727	.15422	.04112	.09456	.10397	1.9960	.13614
#2	.02928	.04698	.15473	.04106	.09565	.10419	1.9989	.13595
#3	.02920	.04690	.15380	.04190	.09563	.10414	2.0023	.13603

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.77707	.17988	.02457	.35993	.12629	.00310	.14259	.04188
Stddev	.00123	.00083	.00015	.00055	.00051	.00005	.00042	.00012
%RSD	.15865	.45928	.60267	.15177	.40217	1.4536	.29433	.27994
#1	.77786	.17915	.02444	.36056	.12590	.00310	.14306	.04190
#2	.77565	.17970	.02454	.35959	.12610	.00306	.14247	.04199
#3	.77769	.18078	.02473	.35965	.12686	.00315	.14224	.04176

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.26582	.04813	.05765	.02929	.66476	.02381	.16393	.39977
Stddev	.00015	.00040	.00052	.00004	.00341	.00009	.00024	.00053
%RSD	.05623	.84128	.90463	.12142	.51289	.38582	.14889	.13234
#1	.26598	.04785	.05761	.02926	.66162	.02381	.16403	.39952
#2	.26581	.04795	.05715	.02933	.66427	.02391	.16366	.39940
#3	.26568	.04859	.05819	.02927	.66838	.02372	.16411	.40037

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.06232	.17798	.00278	.01978	.01444	.50259	3.4460
Stddev	.00030	.00049	.00003	.00011	.00005	.00089	.0039
%RSD	.47534	.27490	1.1113	.56470	.32456	.17743	.11314
#1	.06253	.17768	.00276	.01986	.01438	.50199	3.4449
#2	.06245	.17772	.00281	.01965	.01446	.50217	3.4429
#3	.06198	.17855	.00275	.01981	.01447	.50362	3.4504

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S2 Acquired: 5/21/2025 12:13:51 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2690.2	64562.	17303.	2506.8	4044.4
Stddev	3.9	244.	11.	14.8	.6
%RSD	.14319	.37852	.06303	.58862	.01573
#1	2693.4	64700.	17291.	2521.1	4043.9
#2	2691.3	64706.	17312.	2507.8	4045.1
#3	2685.9	64280.	17306.	2491.6	4044.2

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S3 Acquired: 5/21/2025 12:17:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09210	.14830	.48743	.12745	.29769	.33355	6.3446	.41773
Stddev	.00040	.00109	.00304	.00095	.00127	.00077	.0091	.00122
%RSD	.43559	.73538	.62307	.74401	.42555	.23115	.14280	.29280
#1	.09196	.14712	.48621	.12710	.29756	.33368	6.3497	.41725
#2	.09178	.14927	.48519	.12673	.29650	.33272	6.3500	.41681
#3	.09255	.14850	.49088	.12852	.29902	.33425	6.3342	.41912

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4347	.57008	.07868	1.1397	.39506	.01014	.44537	.13084
Stddev	.0070	.00108	.00011	.0054	.00142	.00002	.00086	.00025
%RSD	.28577	.18957	.14198	.47278	.35832	.24512	.19222	.19387
#1	2.4295	.57070	.07856	1.1365	.39462	.01017	.44623	.13072
#2	2.4320	.56883	.07875	1.1367	.39393	.01012	.44452	.13113
#3	2.4426	.57071	.07874	1.1460	.39665	.01012	.44534	.13067

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.83638	.15462	.18617	.09329	2.0758	.07855	.50789	1.2705
Stddev	.00295	.00028	.00125	.00023	.0022	.00011	.00200	.0036
%RSD	.35325	.17861	.67310	.24573	.10734	.14286	.39341	.28524
#1	.83520	.15478	.18711	.09348	2.0781	.07855	.50731	1.2695
#2	.83419	.15431	.18666	.09304	2.0757	.07867	.50625	1.2675
#3	.83974	.15478	.18475	.09337	2.0737	.07844	.51012	1.2745

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.19740	.55936	.00904	.06368	.04473	1.6098	10.863
Stddev	.00055	.00093	.00004	.00031	.00020	.0023	.083
%RSD	.28073	.16571	.43286	.49121	.45378	.14284	.76045
#1	.19720	.56043	.00904	.06338	.04460	1.6084	10.897
#2	.19697	.55877	.00907	.06367	.04462	1.6124	10.769
#3	.19803	.55888	.00899	.06400	.04496	1.6084	10.923

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S3 Acquired: 5/21/2025 12:17:57 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2662.2	62172.	17415.	2399.4	3978.3
Stddev	13.6	167.	43.	5.2	16.0
%RSD	.51071	.26829	.24466	.21471	.40204
#1	2657.2	61983.	17410.	2396.1	3975.2
#2	2677.6	62299.	17460.	2396.7	3995.6
#3	2651.9	62234.	17376.	2405.3	3964.1

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S4 Acquired: 5/21/2025 12:22:06 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.18308	.28848	.96918	.25364	.59254	.66399	12.489	.83011
Stddev	.00076	.00039	.00384	.00132	.00284	.00186	.126	.00569
%RSD	.41705	.13576	.39650	.51895	.47894	.27952	1.0078	.68568
#1	.18301	.28848	.96821	.25413	.59281	.66527	12.411	.83651
#2	.18235	.28888	.96592	.25215	.58958	.66186	12.422	.82561
#3	.18387	.28810	.97342	.25464	.59524	.66483	12.634	.82822

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8487	1.1278	.15402	2.2586	.77421	.02008	.87959	.26348
Stddev	.0178	.0060	.00036	.0098	.00348	.00013	.00599	.00128
%RSD	.36784	.53282	.23442	.43256	.44926	.64256	.68102	.48669
#1	4.8424	1.1315	.15437	2.2557	.77498	.02002	.88389	.26427
#2	4.8349	1.1208	.15365	2.2505	.77041	.02000	.87275	.26200
#3	4.8688	1.1310	.15406	2.2694	.77723	.02023	.88213	.26417

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6550	.30687	.37726	.18615	4.0947	.15787	1.0083	2.4876
Stddev	.0066	.00043	.00101	.00098	.0119	.00053	.0073	.0107
%RSD	.39760	.14121	.26830	.52439	.28956	.33320	.71989	.43203
#1	1.6533	.30651	.37721	.18627	4.1018	.15741	1.0164	2.4903
#2	1.6494	.30676	.37628	.18511	4.1013	.15776	1.0025	2.4757
#3	1.6622	.30735	.37830	.18706	4.0810	.15844	1.0058	2.4967

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.39329	1.1116	.01795	.12826	.09076	3.2354	21.616
Stddev	.00079	.0066	.00018	.00054	.00050	.0193	.095
%RSD	.20166	.59305	1.0273	.42440	.54817	.59503	.43812
#1	.39315	1.1170	.01774	.12834	.09067	3.2465	21.509
#2	.39257	1.1043	.01804	.12767	.09032	3.2132	21.686
#3	.39414	1.1137	.01808	.12875	.09130	3.2467	21.654

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S4 Acquired: 5/21/2025 12:22:06 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2643.0	62008.	17299.	2385.7	3890.2
Stddev	14.9	146.	83.	2.4	18.9
%RSD	.56425	.23508	.47807	.10033	.48473
#1	2630.8	62173.	17215.	2384.7	3878.2
#2	2659.6	61954.	17381.	2384.1	3912.0
#3	2638.7	61897.	17300.	2388.5	3880.5

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S5 Acquired: 5/21/2025 12:26:18 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.37059	.58719	1.9628	.51299	1.2056	1.3574	26.481	1.6168
Stddev	.00059	.00566	.0059	.00070	.0015	.0012	.139	.0060
%RSD	.15856	.96402	.30096	.13743	.12192	.08941	.52480	.37416
#1	.36992	.59295	1.9598	.51308	1.2039	1.3585	26.614	1.6237
#2	.37080	.58698	1.9590	.51224	1.2067	1.3576	26.337	1.6145
#3	.37103	.58163	1.9696	.51364	1.2062	1.3561	26.493	1.6122

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.8360	2.3038	.30132	4.5868	1.5444	.04151	1.8152	.53869
Stddev	.0227	.0032	.00046	.0102	.0033	.00033	.0034	.00093
%RSD	.23042	.13823	.15292	.22251	.21340	.79769	.18942	.17297
#1	9.8198	2.3051	.30092	4.5797	1.5406	.04128	1.8145	.53766
#2	9.8262	2.3002	.30122	4.5822	1.5460	.04137	1.8121	.53948
#3	9.8619	2.3062	.30183	4.5985	1.5466	.04189	1.8189	.53893

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3499	.61239	.82021	.38246	8.0539	.33487	1.9975	4.9675
Stddev	.0075	.00148	.00697	.00014	.0239	.00208	.0073	.0022
%RSD	.22384	.24103	.85019	.03586	.29701	.62212	.36816	.04343
#1	3.3465	.61148	.81606	.38231	8.0268	.33320	2.0060	4.9651
#2	3.3446	.61160	.81632	.38252	8.0722	.33421	1.9940	4.9682
#3	3.3585	.61409	.82826	.38256	8.0625	.33721	1.9926	4.9692

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.79931	2.3023	.03711	.26782	.19071	6.8160	44.764
Stddev	.00124	.0036	.00031	.00053	.00020	.0162	.326
%RSD	.15571	.15648	.84546	.19883	.10689	.23773	.72717
#1	.79875	2.3028	.03681	.26758	.19068	6.8211	44.405
#2	.79845	2.2985	.03708	.26746	.19053	6.7978	45.040
#3	.80074	2.3057	.03743	.26844	.19093	6.8290	44.847

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: S5 Acquired: 5/21/2025 12:26:18 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2602.8	62298.	17508.	2372.5	3741.5
Stddev	1.6	335.	5.	14.1	2.0
%RSD	.06310	.53830	.02773	.59359	.05214
#1	2603.8	62651.	17506.	2387.9	3742.6
#2	2600.9	62257.	17504.	2369.4	3742.7
#3	2603.7	61984.	17513.	2360.3	3739.3

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICV01 Acquired: 5/21/2025 13:19:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.020528	1.034365	.9887716	1.051270	1.009246	2.410668
Stddev	.004967	.002316	.0020373	.003965	.001538	.008233
%RSD	.4867377	.2239017	.2060391	.3771501	.1523996	.3415431
#1	1.015087	1.031711	.9901829	1.055442	1.010172	2.417526
#2	1.021678	1.035408	.9864360	1.050819	1.010096	2.412942
#3	1.024820	1.035975	.9896958	1.047551	1.007471	2.401536

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5346198	.4778579	.5099694	9.471368	.5135826	.4976459
Stddev	.0022909	.0026307	.0003375	.024339	.0015019	.0006190
%RSD	.4285158	.5505119	.0661719	.2569762	.2924347	.1243879
#1	.5369175	.4807336	.5100632	9.483452	.5119396	.4982954
#2	.5346061	.4772674	.5095950	9.487300	.5148847	.4970626
#3	.5323357	.4755726	.5102500	9.443352	.5139237	.4975798

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5140703	10.35772	.4856029	5.595090	.5010501	.2636684
Stddev	.0005080	.10547	.0012377	.009545	.0005923	.0010088
%RSD	.0988199	1.018269	.2548812	.1705983	.1182154	.3826136
#1	.5146497	10.25058	.4851573	5.584671	.5017109	.2634622
#2	.5137013	10.46144	.4870017	5.603413	.5005669	.2647644
#3	.5138599	10.36113	.4846497	5.597186	.5008726	.2627787

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.07256	.4733073	1.007691	10.72283	2.316870	2.494952
Stddev	.05673	.0029030	.004850	.07833	.014867	.001833
%RSD	.5632114	.6133389	.4813131	.7305069	.6417035	.0734666
#1	10.00774	.4716022	1.002896	10.63818	2.333595	2.494160
#2	10.11316	.4766592	1.007584	10.79275	2.311863	2.493649
#3	10.09677	.4716605	1.012594	10.73755	2.305153	2.497048

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICV01 Acquired: 5/21/2025 13:19:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.422587	2.381489	F 2.161111	F .0029505	F -.004278	F .0019522
Stddev	.002808	.009579	.015471	.0027864	.001464	.0010769
%RSD	.1159184	.4022255	.7158753	94.43912	34.22160	55.16297
#1	2.420495	2.390864	2.148326	.0039784	-.005413	.0007347
#2	2.425779	2.381886	2.178309	.0050769	-.002626	.0027799
#3	2.421486	2.371718	2.156699	-.000204	-.004796	.0023420

Elem	Sr4077
Units	ppm
Avg	F -.008716
Stddev	.000158
%RSD	1.810007
#1	-.008541
#2	-.008762
#3	-.008846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2660.136	63233.75	18407.75	2410.579	4023.407
Stddev	1.653	246.21	91.86	11.966	2.184
%RSD	.0621268	.3893576	.4990518	.4963987	.0542923
#1	2662.010	63401.40	18313.02	2423.865	4022.479
#2	2658.885	62951.09	18413.77	2400.649	4021.839
#3	2659.513	63348.77	18496.46	2407.224	4025.902

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: LLICV01 Acquired: 5/21/2025 13:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0169797	.0407112	.0110457	.0195240	.0501232	.1112791	.0906126
Stddev	.0019217	.0007238	.0008768	.0042119	.0011541	.0026385	.0006519
%RSD	11.31746	1.777803	7.937947	21.57296	2.302589	2.371088	.7194451
#1	.0157931	.0411286	.0103031	.0243340	.0507176	.1140731	.0910223
#2	.0191968	.0411296	.0120130	.0177422	.0508590	.1088299	.0909547
#3	.0159491	.0398755	.0108211	.0164958	.0487930	.1109343	.0898609

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060138	.0060645	2.019725	.0103337	.0296931	.0218246	.1047850
Stddev	.0000602	.0000172	.007015	.0004617	.0007202	.0013717	.0082033
%RSD	1.000292	.2834782	.3473258	4.468359	2.425593	6.285097	7.828696
#1	.0060769	.0060817	2.011948	.0104020	.0300555	.0224353	.1133997
#2	.0059571	.0060473	2.021651	.0098417	.0301601	.0227849	.1038887
#3	.0060075	.0060646	2.025576	.0107576	.0288636	.0202536	.0970667

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0221981	2.064525	.0396239	.0110020	1.896916	.0401432	.0432477
Stddev	.0004096	.012957	.0002661	.0004222	.008474	.0038820	.0003957
%RSD	1.845070	.6275943	.6716183	3.837906	.4467500	9.670398	.9150449
#1	.0217256	2.060742	.0398987	.0107846	1.887705	.0357504	.0433512
#2	.0224521	2.078952	.0396056	.0114887	1.904382	.0431125	.0428105
#3	.0224165	2.053880	.0393675	.0107328	1.898662	.0415665	.0435813

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.921296	.1123447	.2039622	.0405778	.0403451	.4081851	.0203438
Stddev	.055366	.0010896	.0080643	.0003570	.0007203	.0059584	.0018178
%RSD	2.881717	.9698992	3.953830	.8797034	1.785260	1.459719	8.935180
#1	1.862355	.1132033	.2088786	.0403309	.0409253	.4145594	.0221361
#2	1.929322	.1127119	.2083527	.0409871	.0395389	.4027556	.0203938
#3	1.972212	.1111189	.1946553	.0404154	.0405710	.4072403	.0185016

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: LLICV01 Acquired: 5/21/2025 13:29:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0225787	.0213128	.0198383
Stddev	.0027785	.0004780	.0000774
%RSD	12.30576	2.242662	.3899327
#1	.0229840	.0210418	.0197588
#2	.0196198	.0218647	.0199133
#3	.0251322	.0210320	.0198428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.685	64419.35	18027.46	2473.295	4362.546
Stddev	222.042	111.35	94.45	9.326	253.956
%RSD	7.665382	.1728564	.5238979	.3770698	5.821279
#1	2768.762	64328.93	17943.22	2462.672	4218.664
#2	2768.216	64543.73	18009.60	2480.138	4213.201
#3	3153.077	64385.40	18129.56	2477.075	4655.772

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICB01 Acquired: 5/21/2025 13:36:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002067	-.001227	.0000025	-.002231	.0024203	-.000659	-.002626
Stddev	.001715	.001264	.0001169	.003480	.0016033	.005880	.001543
%RSD	82.95757	103.0138	4653.380	155.9455	66.24177	891.9676	58.75553
#1	-.003576	-.002681	.0001374	.000789	.0034376	.002398	-.004038
#2	-.000202	-.000616	-.000069	-.006037	.0032511	-.007438	-.000979
#3	-.002422	-.000385	-.000061	-.001446	.0005722	.003062	-.002861

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000253	-.000076	-.001256	-.000037	.0004239	.0000619	.0269117
Stddev	.0000179	.000102	.001977	.000242	.0000807	.0004820	.0014922
%RSD	70.78235	134.7139	157.3490	660.4609	19.04071	778.9370	5.544637
#1	.0000383	-.000170	.000891	-.000281	.0004146	.0002313	.0264292
#2	.0000049	.000033	-.003001	.000203	.0005089	.0004363	.0257205
#3	.0000327	-.000091	-.001660	-.000032	.0003483	-.000482	.0285854

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000089	.0006694	.0002148	.0005805	-.043658	-.000857	.0004416
Stddev	.0003102	.0099645	.0002043	.0002210	.012661	.000287	.0002875
%RSD	3501.596	1488.594	95.07416	38.07918	29.00061	33.51663	65.10739
#1	-.000124	-.007680	.0003583	.0003289	-.049951	-.001174	.0003822
#2	-.000213	-.002012	-.000019	.0007436	-.051940	-.000613	.0001885
#3	.000363	.011700	.000305	.0006690	-.029083	-.000785	.0007543

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.040491	.0024075	-.000107	.0000100	-.000061	.0043700	.0012443
Stddev	.026180	.0005429	.000322	.0014772	.001001	.0116075	.0048794
%RSD	64.65724	22.55184	300.8761	14812.70	1631.488	265.6168	392.1307
#1	-.052077	.0030342	.000262	-.000811	-.000980	.0128632	.0064548
#2	-.010517	.0020795	-.000330	.001715	-.000209	-.008856	.0004955
#3	-.058879	.0021088	-.000253	-.000874	.001005	.009103	-.003217

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICB01 Acquired: 5/21/2025 13:36:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000859	-.000398	-.000093
Stddev	.006981	.000752	.000019
%RSD	812.8418	189.1005	20.17707
#1	.003661	.000070	-.000114
#2	.002661	.000002	-.000078
#3	-.008899	-.001265	-.000086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.575	64782.06	18089.14	2471.653	4343.813
Stddev	1.794	36.92	51.99	5.454	3.784
%RSD	.0643181	.0569890	.2874145	.2206668	.0871034
#1	2791.293	64742.07	18139.05	2474.107	4348.044
#2	2787.713	64814.85	18093.07	2465.403	4340.755
#3	2789.718	64789.25	18035.29	2475.449	4342.640

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CRI01 Acquired: 5/21/2025 13:43:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178810	.0395085	.0110710	.0183233	.0512692	.1124467	.0903405
Stddev	.0033808	.0012674	.0033534	.0026248	.0001410	.0033649	.0015010
%RSD	18.90687	3.207863	30.28956	14.32472	.2749456	2.992464	1.661525
#1	.0147423	.0395232	.0090983	.0183980	.0514312	.1085712	.0913372
#2	.0174403	.0407685	.0091718	.0209100	.0512016	.1146251	.0910703
#3	.0214605	.0382338	.0149429	.0156620	.0511747	.1141439	.0886142

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057835	.0062663	2.003596	.0105729	.0301448	.0223569	.1061081
Stddev	.0000567	.0000293	.008211	.0000785	.0003072	.0002091	.0034681
%RSD	.9799367	.4682286	.4098173	.7424272	1.018922	.9350623	3.268422
#1	.0057336	.0062463	2.010245	.0106393	.0304371	.0224758	.1089455
#2	.0057719	.0063000	2.006124	.0104863	.0301727	.0224792	.1071368
#3	.0058451	.0062525	1.994418	.0105931	.0298247	.0221155	.1022421

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216655	2.061703	.0401273	.0101586	1.941864	.0413287	.0434287
Stddev	.0002230	.011420	.0001434	.0005586	.013814	.0008436	.0009960
%RSD	1.029365	.5538904	.3572950	5.498839	.7113964	2.041175	2.293333
#1	.0214913	2.074850	.0401962	.0096174	1.926689	.0415613	.0445409
#2	.0219169	2.054254	.0402233	.0101253	1.945193	.0420316	.0431259
#3	.0215883	2.056005	.0399625	.0107331	1.953709	.0403932	.0426193

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.974775	.1036851	.2097150	.0415022	.0402755	.4171179	.0213047
Stddev	.030104	.0004469	.0013687	.0007819	.0008268	.0118215	.0014943
%RSD	1.524418	.4310537	.6526277	1.883924	2.052785	2.834081	7.014050
#1	1.942149	.1036954	.2112908	.0406333	.0395230	.4059493	.0223419
#2	2.001475	.1041267	.2090311	.0421490	.0401429	.4294988	.0195919
#3	1.980700	.1032330	.2088231	.0417243	.0411605	.4159057	.0219803

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CRI01 Acquired: 5/21/2025 13:43:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0228471	.0200379	.0198595
Stddev	.0019644	.0014541	.0000097
%RSD	8.598004	7.256682	.0489935
#1	.0240545	.0195454	.0198597
#2	.0205805	.0188940	.0198691
#3	.0239064	.0216742	.0198497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2757.466	64579.61	18760.07	2471.581	4158.792
Stddev	26.607	375.92	60.90	10.394	25.060
%RSD	.9648904	.5821029	.3246418	.4205270	.6025685
#1	2729.529	64207.21	18689.76	2462.129	4135.793
#2	2760.364	64958.95	18793.90	2469.902	4155.086
#3	2782.505	64572.66	18796.55	2482.711	4185.499

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSA01 Acquired: 5/21/2025 13:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040950	.0059251	.0043752	-.013771	.0000195	244.8921	.0018293
Stddev	.0052572	.0033987	.0030493	.005470	.0010323	.4930	.0002387
%RSD	128.3822	57.36120	69.69550	39.72174	5285.926	.2013042	13.04675
#1	.0073600	.0037276	.0071924	-.010766	-.001140	245.4607	.0017848
#2	-.001970	.0042080	.0047959	-.010462	.000361	244.6317	.0016161
#3	.006895	.0098398	.0011374	-.020085	.000837	244.5840	.0020871

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006473	.0021901	228.2396	.0552571	.0015989	.0031080	91.30752
Stddev	.0000321	.0001489	.6348	.0000737	.0002750	.0005310	.50672
%RSD	4.958238	6.797700	.2781130	.1332836	17.19640	17.08533	.5549629
#1	.0006823	.0021945	228.8833	.0553400	.0017598	.0036231	91.47402
#2	.0006191	.0023368	228.2213	.0551994	.0012815	.0031388	90.73850
#3	.0006406	.0020391	227.6141	.0552317	.0017556	.0025624	91.71005

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063417	246.9980	.0020715	-.000791	.0041285	.0025194	.0041268
Stddev	.0004554	1.2681	.0003783	.000149	.0027101	.0007711	.0004506
%RSD	7.181005	.5134219	18.25942	18.77955	65.64352	30.60575	10.91922
#1	.0068310	248.4609	.0021537	-.000723	.0072515	.0025737	.0042083
#2	.0062637	246.3224	.0024019	-.000688	.0023941	.0017226	.0036409
#3	.0059303	246.2107	.0016589	-.000961	.0027400	.0032619	.0045310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.053352	.0160284	-.000234	-.008266	-.001360	.0118949	.0070590
Stddev	.017589	.0010730	.000683	.000928	.001116	.0167146	.0056647
%RSD	32.96741	6.694115	291.8403	11.23128	82.00114	140.5198	80.24817
#1	-.054848	.0167965	.000296	-.007214	-.000126	.0303715	.0052245
#2	-.035063	.0148024	-.001004	-.008971	-.001659	.0074873	.0025389
#3	-.070144	.0164862	.000006	-.008614	-.002297	-.002174	.0134135

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSA01 Acquired: 5/21/2025 13:52:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.013927	.0028050	.0069347
Stddev	.004661	.0005641	.0007122
%RSD	33.46725	20.10956	10.26956
#1	-.016974	.0021671	.0067760
#2	-.016245	.0030102	.0077128
#3	-.008561	.0032378	.0063152

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2442.338	57987.21	16575.95	2228.426	3529.944
Stddev	2.147	389.03	74.13	14.090	1.967
%RSD	.0879196	.6708979	.4472173	.6322648	.0557192
#1	2440.887	57728.49	16502.40	2214.044	3528.008
#2	2441.322	58434.60	16574.82	2242.203	3529.885
#3	2444.805	57798.54	16650.64	2229.030	3531.940

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSAB01 Acquired: 5/21/2025 13:56:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1084544	.1031826	.0486680	.0339320	.5929506	239.4027
Stddev	.0053266	.0009656	.0015161	.0091104	.0026655	1.1920
%RSD	4.911345	.9358484	3.115119	26.84885	.4495241	.4978919
#1	.1071907	.1021832	.0470911	.0240145	.5900183	240.3022
#2	.1038733	.1032543	.0501148	.0358526	.5936071	239.8552
#3	.1142992	.1041104	.0487981	.0419290	.5952265	238.0508

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4474138	.4686996	.9598999	224.4673	.5258928	.4726922
Stddev	.0032613	.0027672	.0057033	.8331	.0004834	.0022690
%RSD	.7289239	.5903900	.5941547	.3711384	.0919244	.4800128
#1	.4497410	.4667257	.9543219	224.9824	.5264509	.4704062
#2	.4488141	.4718625	.9596569	224.9133	.5256033	.4727265
#3	.4436862	.4675105	.9657207	223.5062	.5256241	.4749438

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4706975	91.15341	.4557792	239.4114	.9310822	.2146771
Stddev	.0024028	.59701	.0014745	.7093	.0064135	.0003687
%RSD	.5104824	.6549502	.3235171	.2962499	.6888211	.1717367
#1	.4679654	91.83000	.4566859	239.7672	.9249279	.2143020
#2	.4716450	90.70071	.4565739	239.8723	.9305921	.2146905
#3	.4724821	90.92953	.4540778	238.5947	.9377268	.2150390

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.038729	.4466694	.9666491	-.057488	.9235435	.9720378
Stddev	.009151	.0018973	.0010246	.032763	.0056292	.0035576
%RSD	23.62863	.4247601	.1059973	56.99080	.6095185	.3659985
#1	-.037860	.4448304	.9663573	-.079275	.9183865	.9682065
#2	-.048283	.4486200	.9658021	-.073377	.9295486	.9726698
#3	-.030043	.4465578	.9677880	-.019810	.9226954	.9752371

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSAB01 Acquired: 5/21/2025 13:56:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9463469	.9145023	.8602225	F .0010208	F -.017828	F .0023783
Stddev	.0027222	.0047477	.0020968	.0022166	.007713	.0001602
%RSD	.2876505	.5191579	.2437463	217.1491	43.26399	6.736627
#1	.9438328	.9187043	.8598347	-.001417	-.026260	.0022343
#2	.9459699	.9154507	.8624861	.002914	-.016094	.0025509
#3	.9492379	.9093520	.8583467	.001565	-.011130	.0023496

Elem	Sr4077
Units	ppm
Avg	F .0060990
Stddev	.0004419
%RSD	7.245895
#1	.0059466
#2	.0065969
#3	.0057534

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.747	59632.78	17415.91	2258.269	3577.973
Stddev	7.102	160.67	108.82	6.691	11.801
%RSD	.2876931	.2694390	.6248591	.2962916	.3298162
#1	2476.739	59513.00	17466.28	2252.213	3590.552
#2	2466.343	59569.98	17291.02	2257.141	3576.220
#3	2463.158	59815.37	17490.41	2265.452	3567.147

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSADLX20 Acquired: 5/21/2025 14:00:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013434	-.001549	-.000186	.0031170	.0010953	12.06528	-.003295
Stddev	.0022341	.001278	.001931	.0013516	.0002226	.05904	.000719
%RSD	166.3028	82.55279	1038.845	43.36248	20.31890	.4893788	21.81438
#1	-.000454	-.002990	.000764	.0037384	.0012341	12.13253	-.002536
#2	.000639	-.000554	.001086	.0040462	.0012132	12.02195	-.003965
#3	.003845	-.001101	-.002408	.0015665	.0008386	12.04134	-.003383

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000866	-.000092	11.70280	.0029380	.0003643	.0005819	4.450085
Stddev	.0000409	.000056	.06377	.0002661	.0001005	.0001219	.027680
%RSD	47.22880	60.83603	.5449406	9.056363	27.57808	20.94391	.6220113
#1	.0000431	-.000149	11.76325	.0028250	.0003339	.0004691	4.455026
#2	.0000923	-.000089	11.63616	.0027471	.0002825	.0007112	4.420267
#3	.0001243	-.000037	11.70898	.0032420	.0004764	.0005654	4.474961

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000315	12.01530	.0004336	-.000060	-.106731	.0005036	-.000030
Stddev	.000160	.02887	.0001541	.000290	.005656	.0008933	.000255
%RSD	50.74566	.2402622	35.52594	479.0332	5.298972	177.3816	858.7142
#1	-.000339	12.04090	.0003630	-.000094	-.106682	.0013587	-.000244
#2	-.000460	11.98401	.0003276	.000245	-.112411	.0005758	-.000099
#3	-.000144	12.02099	.0006103	-.000332	-.101100	-.000424	.000253

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.077245	.0016274	.0003193	-.001631	-.000403	-.002307	.0005174
Stddev	.026114	.0007725	.0005494	.000405	.000711	.002654	.0002836
%RSD	33.80708	47.46862	172.0642	24.81517	176.4396	115.0686	54.81859
#1	-.054184	.0022958	.0000982	-.001467	-.001214	-.001853	.0004969
#2	-.071948	.0018047	.0009448	-.001335	.000115	-.005158	.0008106
#3	-.105601	.0007816	-.000085	-.002093	-.000110	.000092	.0002445

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSADLX20 Acquired: 5/21/2025 14:00:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000884	.0005196	.0004471
Stddev	.001694	.0008106	.0000579
%RSD	191.5770	155.9916	12.95090
#1	-.000703	.0004403	.0004772
#2	-.002662	-.000248	.0004837
#3	.000712	.001367	.0003803

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2711.212	65690.76	17346.32	2488.407	4108.357
Stddev	2.766	274.53	99.88	9.646	4.042
%RSD	.1020286	.4179196	.5757807	.3876246	.0983935
#1	2714.190	65411.18	17232.45	2483.350	4112.778
#2	2710.726	65959.95	17419.10	2499.530	4107.443
#3	2708.722	65701.16	17387.40	2482.342	4104.850

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSABDLX20 Acquired: 5/21/2025 14:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016598	.0041953	.0011507	.0006398	.0288638	11.82811	.0198886
Stddev	.0012386	.0006952	.0016795	.0033311	.0005326	.02672	.0014713
%RSD	74.62416	16.57135	145.9632	520.6544	1.845039	.2259191	7.397670
#1	.0005358	.0042841	.0021260	-.001855	.0294652	11.83287	.0214546
#2	.0014558	.0034600	.0021147	-.000648	.0284520	11.85213	.0196759
#3	.0029877	.0048419	-.000789	.004423	.0286742	11.79932	.0185352

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0239333	.0483831	11.70520	.0274614	.0231989	.0247214	4.749302
Stddev	.0001312	.0004986	.02229	.0005606	.0003922	.0000982	.018418
%RSD	.5480757	1.030581	.1903936	2.041543	1.690396	.3972719	.3878050
#1	.0239664	.0488276	11.72257	.0281077	.0235036	.0248250	4.741314
#2	.0240448	.0484777	11.71296	.0271712	.0233366	.0247096	4.736227
#3	.0237888	.0478439	11.68007	.0271054	.0227565	.0246296	4.770366

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0240922	11.94594	.0474667	.0104993	-.088260	.0248785	.0535015
Stddev	.0004604	.05622	.0005580	.0002473	.019928	.0010262	.0000291
%RSD	1.910781	.4706464	1.175525	2.355594	22.57913	4.124743	.0543247
#1	.0235618	11.95970	.0477330	.0105990	-.101992	.0250645	.0534770
#2	.0243877	11.99401	.0478417	.0106813	-.097386	.0257990	.0534939
#3	.0243272	11.88411	.0468255	.0102177	-.065403	.0237721	.0535336

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.047922	.0475319	.0484077	.0449686	.0461720	.0412995	-.001330
Stddev	.019341	.0003524	.0008775	.0006177	.0008109	.0026156	.000973
%RSD	40.35939	.7413339	1.812672	1.373596	1.756289	6.333305	73.17112
#1	-.058154	.0471907	.0492413	.0455165	.0466480	.0382795	-.002442
#2	-.059998	.0478945	.0484897	.0442992	.0466324	.0427764	-.000635
#3	-.025614	.0475105	.0474921	.0450903	.0452357	.0428427	-.000913

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: ICSABDLX20 Acquired: 5/21/2025 14:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0015901	-.000738	.0002121
Stddev	.0018508	.000357	.0000734
%RSD	116.3921	48.38163	34.59631
#1	.0021449	-.000650	.0002361
#2	.0031001	-.000433	.0002704
#3	-.000475	-.001131	.0001297

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.284	66118.94	18615.07	2522.598	4137.253
Stddev	1.200	208.11	119.59	8.769	4.233
%RSD	.0438834	.3147579	.6424517	.3476343	.1023198
#1	2735.220	66341.98	18660.64	2532.705	4141.825
#2	2732.931	65929.96	18479.39	2518.087	4133.470
#3	2734.701	66084.87	18705.18	2517.003	4136.465

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV01 Acquired: 5/21/2025 14:09:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.853551	4.971058	4.900043	4.862249	4.891339	9.683936	9.917947
Stddev	.022679	.023882	.007509	.031595	.025188	.012527	.013582
%RSD	.4672760	.4804254	.1532531	.6497967	.5149538	.1293553	.1369479
#1	4.838822	4.962452	4.901314	4.868791	4.878229	9.669528	9.902463
#2	4.842163	4.952672	4.891979	4.827896	4.875409	9.690030	9.927848
#3	4.879668	4.998051	4.906835	4.890061	4.920378	9.692249	9.923531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2342557	2.431395	24.38254	.9835168	2.433461	1.231873	5.063327
Stddev	.0004253	.005020	.09983	.0034091	.003810	.006061	.006219
%RSD	.1815633	.2064547	.4094315	.3466234	.1565795	.4920391	.1228279
#1	.2347417	2.431523	24.27647	.9867018	2.432505	1.229993	5.058094
#2	.2339516	2.426312	24.39650	.9839277	2.430219	1.226975	5.070203
#3	.2340737	2.436348	24.47466	.9799209	2.437658	1.238652	5.061685

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.451505	24.16920	2.440956	1.220850	25.33351	2.449297	2.465590
Stddev	.005322	.03657	.006044	.002566	.06255	.003664	.007603
%RSD	.2171070	.1512942	.2476082	.2101734	.2468883	.1496117	.3083540
#1	2.447238	24.15558	2.440816	1.222273	25.34534	2.446225	2.464010
#2	2.449807	24.14141	2.434983	1.222389	25.38929	2.448314	2.473859
#3	2.457469	24.21063	2.447069	1.217888	25.26589	2.453353	2.458902

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.07337	4.655885	4.959916	4.876729	4.894882	4.957078	4.859807
Stddev	.01378	.002915	.019621	.016644	.014532	.022280	.013287
%RSD	.0549716	.0626065	.3955908	.3412910	.2968752	.4494550	.2734118
#1	25.08818	4.657303	4.951620	4.875351	4.880332	4.976918	4.864692
#2	25.07101	4.657820	4.945806	4.860817	4.894917	4.961342	4.844769
#3	25.06091	4.652533	4.982323	4.894019	4.909395	4.932975	4.869961

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV01 Acquired: 5/21/2025 14:09:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.758192	4.837157	4.914299
Stddev	.011779	.011414	.054029
%RSD	.2475432	.2359650	1.099424
#1	4.752611	4.826151	4.852460
#2	4.750241	4.836379	4.952371
#3	4.771724	4.848940	4.938065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2719.834	64805.98	18777.45	2457.650	4016.696
Stddev	3.150	230.94	14.51	10.578	10.531
%RSD	.1158247	.3563578	.0772535	.4303982	.2621773
#1	2716.591	64605.85	18761.80	2455.965	4006.926
#2	2722.882	64753.43	18790.45	2448.016	4015.311
#3	2720.028	65058.67	18780.10	2468.969	4027.851

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB01 Acquired: 5/21/2025 14:13:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013299	-.001236	-.000276	-.000053	.0007177	.0155205	-.003992
Stddev	.0016637	.002039	.000228	.001502	.0010949	.0018047	.001031
%RSD	125.1044	164.9519	82.48228	2828.082	152.5662	11.62788	25.82136
#1	.0022987	-.000770	-.000212	.001339	-.000547	.0139680	-.003298
#2	-.000591	.000530	-.000087	-.001645	.001335	.0150929	-.003502
#3	.002282	-.003468	-.000530	.000147	.001365	.0175006	-.005176

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000339	.0000689	.0082258	.0004169	.0003369	.0004910	.0131580
Stddev	.0000193	.0001332	.0053487	.0005543	.0001095	.0002626	.0027570
%RSD	56.92054	193.3200	65.02316	132.9788	32.51228	53.47805	20.95298
#1	.0000134	-.000012	.0032658	.0002302	.0004632	.0007379	.0100766
#2	.0000517	-.000004	.0075187	-.000020	.0002782	.0002151	.0140060
#3	.0000366	.000223	.0138928	.001040	.0002692	.0005200	.0153913

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008959	.0013403	.0002123	.0004376	-.066679	.0009831	.0053210
Stddev	.0001690	.0039766	.0001462	.0001018	.011111	.0008591	.0001959
%RSD	18.86955	296.6988	68.87500	23.25214	16.66369	87.39412	3.681477
#1	.0010813	.0043058	.0000488	.0003493	-.058717	.0000326	.0051265
#2	.0008559	.0028936	.0003306	.0004146	-.079372	.0017045	.0055183
#3	.0007504	-.003179	.0002574	.0005489	-.061947	.0012120	.0053182

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.026777	.0085878	.0006294	.0001301	.0002707	-.000030	.0002820
Stddev	.006963	.0006174	.0003695	.0004460	.0004318	.003729	.0025026
%RSD	26.00371	7.189593	58.70221	342.8984	159.5237	12447.08	887.4933
#1	-.023685	.0084312	.0010551	-.000239	.0006301	.004162	.0015370
#2	-.034750	.0080637	.0004408	.000626	.0003903	-.002978	.0019088
#3	-.021895	.0092684	.0003923	.000003	-.000208	-.001274	-.002600

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB01 Acquired: 5/21/2025 14:13:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005814	-.000414	.0001177
Stddev	.0031272	.000879	.0000939
%RSD	537.8224	212.6554	79.84207
#1	-.001519	-.001288	.0000264
#2	.004175	-.000424	.0002141
#3	-.000912	.000471	.0001124

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.343	67537.91	18362.93	2522.675	4327.162
Stddev	12.422	203.06	162.73	12.803	11.832
%RSD	.4442074	.3006534	.8861722	.5075248	.2734244
#1	2810.654	67303.70	18183.31	2508.289	4340.690
#2	2788.356	67645.50	18404.96	2526.919	4322.052
#3	2790.020	67664.54	18500.52	2532.817	4318.744

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2068-01 Acquired: 5/21/2025 14:17:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1898603	.0103875	16.84435	-.023810	.0061489	56.35475	.3967370
Stddev	.0024266	.0021003	.15537	.001342	.0006331	.12661	.0021091
%RSD	1.278091	20.21933	.9223965	5.634825	10.29599	.2246675	.5316130
#1	.1871398	.0079718	16.99984	-.025258	.0063778	56.41082	.3990081
#2	.1906394	.0114101	16.68910	-.023565	.0054332	56.20979	.3963630
#3	.1918016	.0117807	16.84410	-.022608	.0066356	56.44364	.3948400

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056946	.0013063	21.38981	.1129570	.0289228	6.461111	185.3712
Stddev	.0000492	.0001925	.06445	.0004672	.0003127	.017152	.7148
%RSD	.8636485	14.73693	.3013054	.4135763	1.081293	.2654713	.3856187
#1	.0057071	.0010922	21.45055	.1127714	.0285686	6.446784	186.1081
#2	.0057363	.0013614	21.32220	.1126112	.0290393	6.480118	185.3247
#3	.0056404	.0014652	21.39669	.1134885	.0291606	6.456431	184.6808

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7445198	9.319119	.1868584	.0031136	22.13259	.1447520	1.287671
Stddev	.0011253	.026227	.0008088	.0000588	.13127	.0008388	.005454
%RSD	.1511448	.2814314	.4328630	1.887153	.5931046	.5794435	.4235177
#1	.7446099	9.315060	.1875504	.0031218	22.28071	.1443031	1.281663
#2	.7433521	9.295158	.1859692	.0030512	22.08642	.1442333	1.292308
#3	.7455973	9.347138	.1870555	.0031679	22.03065	.1457197	1.289041

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.81946	.1233699	.0156879	.1454045	1.084281	3.803801	2.437823
Stddev	.07716	.0012144	.0004130	.0011270	.002987	.004403	.018031
%RSD	.6527927	.9843717	2.632434	.7750899	.2754611	.1157529	.7396362
#1	11.89703	.1247545	.0153560	.1459831	1.086418	3.808421	2.456903
#2	11.81862	.1224853	.0155573	.1441057	1.080868	3.803328	2.421066
#3	11.74272	.1228699	.0161504	.1461247	1.085557	3.799653	2.435499

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2068-01 Acquired: 5/21/2025 14:17:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.563828	.0937702	.2149811
Stddev	.008950	.0006632	.0009851
%RSD	.3490987	.7072329	.4582083
#1	2.572250	.0935578	.2159071
#2	2.554429	.0945136	.2139461
#3	2.564804	.0932393	.2150902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2959.730	66487.45	19628.73	2505.553	4135.268
Stddev	43.698	276.33	35.43	16.484	38.689
%RSD	1.476413	.4156158	.1804887	.6578825	.9355914
#1	2999.145	66257.45	19590.67	2508.325	4170.403
#2	2912.740	66410.91	19634.78	2487.859	4093.805
#3	2967.305	66793.98	19660.74	2520.475	4141.596

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2067-01 Acquired: 5/21/2025 14:22:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020812	-.006436	.0058541	.0003621	.0021748	.4266961	.0683214
Stddev	.0013568	.003793	.0010945	.0035162	.0015893	.0030640	.0010207
%RSD	65.19015	58.93203	18.69599	970.9096	73.07764	.7180838	1.493997
#1	.0030402	-.007196	.0046091	.0029398	.0003425	.4250240	.0682034
#2	.0005289	-.002321	.0062886	-.003643	.0031789	.4248319	.0693960
#3	.0026746	-.009791	.0066646	.001790	.0030030	.4302324	.0673648

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000117	-.000134	47.59531	.0031711	.0014944	.0049962	5.714720
Stddev	.000008	.000112	.17566	.0002457	.0003268	.0009026	.012945
%RSD	6.528401	83.76816	.3690708	7.747621	21.86495	18.06604	.2265123
#1	-.000111	-.000261	47.54025	.0030683	.0016763	.0057813	5.706030
#2	-.000114	-.000049	47.79190	.0034515	.0016897	.0040100	5.729597
#3	-.000125	-.000092	47.45377	.0029935	.0011172	.0051972	5.708533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.340442	7.746981	.0076258	-.000154	335.6455	.0027015	.0398385
Stddev	.004735	.058267	.0002522	.000268	2.6634	.0020406	.0005795
%RSD	.3532239	.7521220	3.307753	173.8799	.7935182	75.53704	1.454657
#1	1.337947	7.707257	.0079057	.000114	335.3022	.0012140	.0404796
#2	1.345903	7.813870	.0075555	-.000422	333.1704	.0018627	.0396839
#3	1.337477	7.719817	.0074162	-.000154	338.4639	.0050279	.0393519

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.778797	.2406773	.0134233	-.005200	.0205038	7.841936	.9897870
Stddev	.053638	.0004734	.0001307	.001232	.0005941	.038326	.0026509
%RSD	.6895451	.1966997	.9739607	23.68465	2.897706	.4887317	.2678199
#1	7.735065	.2401330	.0133890	-.005174	.0198806	7.839626	.9891612
#2	7.762680	.2409937	.0133131	-.003981	.0210638	7.804818	.9926948
#3	7.838646	.2409052	.0135677	-.006444	.0205671	7.881365	.9875051

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2067-01 Acquired: 5/21/2025 14:22:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.137900	.0024507	.2540506
Stddev	.014992	.0006017	.0002554
%RSD	.2442578	24.55223	.1005197
#1	6.120867	.0030105	.2537632
#2	6.143732	.0018144	.2541373
#3	6.149099	.0025273	.2542513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.408	62144.07	17991.92	2392.873	3838.947
Stddev	15.027	94.70	46.69	9.900	18.910
%RSD	.5667511	.1523933	.2595181	.4137251	.4925848
#1	2638.614	62245.21	17981.86	2399.420	3830.496
#2	2647.653	62129.49	17951.08	2381.484	3825.735
#3	2667.956	62057.49	18042.83	2397.715	3860.608

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2068-03DLX5 Acquired: 5/21/2025 14:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015637	.0058127	2.635970	-.009816	.0156066	6.628069	.6699248
Stddev	.0026815	.0020012	.003466	.002282	.0014580	.001567	.0030759
%RSD	171.4848	34.42790	.1314917	23.24923	9.342224	.0236395	.4591396
#1	-.001017	.0064026	2.636239	-.012179	.0154238	6.627631	.6724902
#2	.004336	.0074526	2.639294	-.007624	.0171473	6.629808	.6707694
#3	.001373	.0035829	2.632378	-.009647	.0142485	6.626768	.6665149

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007217	.0963111	12.54122	.0426807	.0076454	5.212541	80.04601
Stddev	.0000482	.0002202	.03322	.0001740	.0001502	.002401	.55016
%RSD	6.681594	.2286289	.2649137	.4075971	1.964020	.0460660	.6873059
#1	.0006913	.0965507	12.51687	.0428639	.0077106	5.210759	80.37627
#2	.0006965	.0962649	12.52772	.0426606	.0077519	5.215272	80.35084
#3	.0007773	.0961176	12.57907	.0425177	.0074737	5.211592	79.41091

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6864128	3.525714	.0343322	.1898454	16.70250	.0106011	2.234062
Stddev	.0010847	.030045	.0002129	.0024549	.19353	.0008758	.028859
%RSD	.1580213	.8521623	.6200795	1.293086	1.158677	8.261334	1.291773
#1	.6865988	3.494823	.0340916	.1918867	16.85978	.0113172	2.247348
#2	.6873926	3.527483	.0344088	.1905281	16.76134	.0108613	2.253886
#3	.6852472	3.554834	.0344962	.1871215	16.48639	.0096247	2.200953

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.631895	.0788527	.0237933	.0522377	.0957094	7.956842	5.973821
Stddev	.086491	.0008827	.0001609	.0004936	.0009515	.049575	.001767
%RSD	1.001993	1.119487	.6761714	.9448992	.9941553	.6230488	.0295836
#1	8.709606	.0778614	.0236714	.0516845	.0955224	7.991808	5.975860
#2	8.647368	.0795540	.0239756	.0523956	.0948653	7.978610	5.972875
#3	8.538713	.0791426	.0237329	.0526330	.0967405	7.900107	5.972728

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2068-03DLX5 Acquired: 5/21/2025 14:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.662063	.0355777	-.016761
Stddev	.026336	.0007742	.000448
%RSD	.5649080	2.176017	2.675230
#1	4.691914	.0351160	-.016977
#2	4.642110	.0364715	-.017060
#3	4.652165	.0351456	-.016245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.805	66772.73	18056.81	2574.773	4211.370
Stddev	2.514	458.32	16.92	31.347	1.460
%RSD	.0891601	.6863851	.0936929	1.217469	.0346594
#1	2822.632	66377.99	18055.33	2559.230	4210.980
#2	2818.961	66664.82	18074.42	2554.236	4210.145
#3	2817.821	67275.37	18040.68	2610.855	4212.985

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01 Acquired: 5/21/2025 14:30:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2197852	.0039339	4.899120	-.171721	.0173394	350.4605
Stddev	.0008748	.0042398	.007919	.003728	.0040790	2.5701
%RSD	.3980377	107.7752	.1616331	2.171156	23.52454	.7333356
#1	.2206460	.0035385	4.892367	-.175508	.0185971	353.4244
#2	.2188970	.0083575	4.907835	-.171602	.0206414	348.8496
#3	.2198128	-.000094	4.897158	-.168054	.0127796	349.1076

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.902968	.0232480	.1984487	F 3533.825	1.027288	.6027920
Stddev	.004359	.0001127	.0003981	23.963	.004186	.0006840
%RSD	.0889114	.4847868	.2005984	.6781033	.4075113	.1134776
#1	4.897940	.0231757	.1985831	3541.827	1.028608	.6032046
#2	4.905684	.0231905	.1987621	3552.763	1.030655	.6031689
#3	4.905281	.0233779	.1980008	3506.885	1.022600	.6020024

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.625944	815.4057	15.76485	530.1480	1.229883	-.015705
Stddev	.000556	2.2839	.08333	.9693	.002270	.000443
%RSD	.0211703	.2800881	.5285766	.1828353	.1845312	2.819429
#1	2.626396	816.4578	15.78517	529.5672	1.227705	-.016188
#2	2.626114	816.9739	15.83614	531.2669	1.232234	-.015609
#3	2.625324	812.7854	15.67324	529.6097	1.229708	-.015319

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	502.1782	.9222965	14.29530	76.47945	1.773356	.1390552
Stddev	5.9812	.0025037	.08472	.29592	.004242	.0004323
%RSD	1.191060	.2714644	.5926141	.3869280	.2392343	.3108459
#1	508.6719	.9237342	14.23868	76.73660	1.777316	.1395213
#2	500.9683	.9237497	14.25453	76.54575	1.773874	.1389769
#3	496.8944	.9194054	14.39269	76.15601	1.768878	.1386675

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01 Acquired: 5/21/2025 14:30:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0657198	8.443987	F 184.5858	F 41.89180	F 337.3160	.4766345
Stddev	.0049478	.032261	.5375	.07556	.8889	.0032715
%RSD	7.528690	.3820563	.2911659	.1803739	.2635336	.6863645
#1	.0660329	8.456979	185.0453	41.94578	337.7228	.4751350
#2	.0705037	8.467725	184.7173	41.92417	337.9287	.4743815
#3	.0606229	8.407255	183.9948	41.80544	336.2964	.4803869

Elem	Sr4077
Units	ppm
Avg	9.311068
Stddev	.047007
%RSD	.5048465
#1	9.340303
#2	9.336056
#3	9.256845

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2848.375	71251.83	23625.99	2564.813	2398.206
Stddev	4.802	196.64	32.46	5.155	5.314
%RSD	.1685997	.2759813	.1373759	.2010021	.2215728
#1	2843.282	71069.80	23607.41	2565.590	2395.875
#2	2849.023	71225.31	23607.08	2569.536	2394.456
#3	2852.821	71460.39	23663.46	2559.313	2404.287

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-01 Acquired: 5/21/2025 14:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001153	-.005210	.0191488	.0008887	.0029571	1.637970	.0439819
Stddev	.000616	.001393	.0002121	.0019016	.0014660	.006686	.0011739
%RSD	53.37834	26.73617	1.107617	213.9739	49.57591	.4081798	2.669072
#1	-.000908	-.004116	.0193742	.0009356	.0046136	1.645604	.0435306
#2	-.000698	-.006778	.0189531	-.001036	.0024309	1.633159	.0453145
#3	-.001854	-.004736	.0191191	.002766	.0018268	1.635146	.0431006

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000135	.0000052	75.72212	.0075118	.0023653	.0278388	10.52232
Stddev	.0000131	.0000129	.15990	.0003461	.0001943	.0001756	.02343
%RSD	97.24902	248.7873	.2111688	4.606991	8.213009	.6306464	.2227108
#1	.0000153	.0000128	75.89709	.0074758	.0025365	.0277437	10.49855
#2	-.000000	.0000123	75.68570	.0071851	.0021542	.0280414	10.52299
#3	.000026	-.000010	75.58357	.0078744	.0024053	.0277314	10.54541

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2932348	9.357813	.0109043	.0006765	46.00736	.0057982	.2489052
Stddev	.0020271	.032501	.0001898	.0002480	.18730	.0007798	.0018126
%RSD	.6913026	.3473118	1.740754	36.65380	.4071089	13.44908	.7282208
#1	.2955732	9.388688	.0108940	.0003906	46.14744	.0064309	.2499595
#2	.2921561	9.360851	.0107199	.0008062	45.79462	.0049270	.2468123
#3	.2919751	9.323900	.0110991	.0008326	46.08003	.0060367	.2499439

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.894178	.0526698	.0044065	-.005399	.0831223	13.02405	1.779191
Stddev	.024948	.0001977	.0002877	.001023	.0005855	.04054	.004583
%RSD	.2804988	.3752711	6.528056	18.94936	.7044073	.3112458	.2575754
#1	8.920354	.0525064	.0047249	-.006496	.0827576	12.98673	1.776192
#2	8.891509	.0528895	.0043295	-.005231	.0837977	13.01823	1.776915
#3	8.870673	.0526135	.0041652	-.004471	.0828117	13.06718	1.784467

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-01 Acquired: 5/21/2025 14:35:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.521283	-.002157	.2323042
Stddev	.025824	.001212	.0012462
%RSD	.5711601	56.18648	.5364429
#1	4.502101	-.000876	.2337092
#2	4.511103	-.002310	.2313327
#3	4.550645	-.003285	.2318706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2686.815	63271.41	18580.05	2411.898	4062.661
Stddev	14.892	145.03	55.68	10.924	12.505
%RSD	.5542750	.2292198	.2996775	.4529384	.3078153
#1	2679.594	63345.35	18540.20	2408.116	4060.914
#2	2676.909	63364.56	18643.67	2424.211	4051.121
#3	2703.941	63104.31	18556.28	2403.368	4075.948

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02 Acquired: 5/21/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003062	-.008304	.0247791	.0010837	.0029442	2.120802
Stddev	.003892	.002440	.0013659	.0030796	.0011190	.012572
%RSD	127.1147	29.38319	5.512428	284.1809	38.00728	.5928028
#1	-.007527	-.009697	.0254101	.0028054	.0039723	2.124436
#2	-.000384	-.005487	.0232117	.0029174	.0017523	2.106813
#3	-.001276	-.009729	.0257154	-.002472	.0031079	2.131157

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0649944	.0001070	-.000038	102.9084	.0098834	.0035879
Stddev	.0010580	.0000236	.000102	.2494	.0002545	.0002253
%RSD	1.627843	22.06536	270.3584	.2423869	2.575070	6.278963
#1	.0637773	.0001240	-.000106	102.6608	.0098736	.0037663
#2	.0655116	.0000800	.000079	103.1596	.0101426	.0033347
#3	.0656944	.0001170	-.000086	102.9048	.0096339	.0036626

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0355873	16.13615	.4661731	10.22366	.0119788	.0007753
Stddev	.0004894	.03537	.0001724	.05119	.0001087	.0001177
%RSD	1.375293	.2192134	.0369888	.5007497	.9076579	15.17684
#1	.0357169	16.09533	.4659753	10.16584	.0119293	.0006887
#2	.0359989	16.15773	.4662521	10.26322	.0121034	.0009093
#3	.0350461	16.15540	.4662919	10.24192	.0119036	.0007279

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.31647	.0071201	.3161113	13.40373	.0671083	.0066574
Stddev	.16211	.0024230	.0028920	.07427	.0001566	.0004674
%RSD	.3355083	34.03097	.9148540	.5541325	.2333627	7.020735
#1	48.36415	.0074077	.3139319	13.33130	.0669692	.0071816
#2	48.13588	.0045661	.3150099	13.40017	.0672779	.0065066
#3	48.44940	.0093865	.3193922	13.47972	.0670778	.0062841

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02 Acquired: 5/21/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005908	.1011636	F 14.26149	2.484846	3.798792	.0007600
Stddev	.000364	.0020929	.04389	.012943	.007302	.0007045
%RSD	6.165502	2.068822	.3077408	.5208781	.1922073	92.70432
#1	-.006209	.1017751	14.24418	2.477578	3.792152	.0009413
#2	-.006013	.1028826	14.22890	2.499789	3.806611	.0013560
#3	-.005503	.0988330	14.31139	2.477170	3.797611	-.000017

Elem	Sr4077
Units	ppm
Avg	.3144382
Stddev	.0002848
%RSD	.0905684
#1	.3141256
#2	.3146829
#3	.3145063

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.736	63943.29	19099.13	2403.363	4071.848
Stddev	9.313	196.46	55.89	13.054	15.627
%RSD	.3448181	.3072463	.2926268	.5431642	.3837802
#1	2701.915	64130.97	19153.95	2417.948	4079.986
#2	2709.403	63959.81	19042.23	2399.371	4081.727
#3	2690.890	63739.08	19101.20	2392.772	4053.832

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02DUP Acquired: 5/21/2025 14:44:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001652	-.004671	.0237331	-.001471	.0030892	2.050992	.0657511
Stddev	.001474	.001954	.0012895	.004361	.0012800	.003332	.0005609
%RSD	89.22426	41.83550	5.433471	296.3630	41.43607	.1624593	.8530257
#1	-.002119	-.003450	.0233264	-.004113	.0044414	2.052682	.0663517
#2	-.000001	-.006925	.0226959	.003562	.0018963	2.053141	.0652410
#3	-.002836	-.003639	.0251769	-.003863	.0029298	2.047154	.0656605

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001118	.0000803	103.5593	.0096139	.0037469	.0343149	15.30809
Stddev	.0000303	.0000539	.1949	.0001877	.0003360	.0003796	.10889
%RSD	27.12688	67.12083	.1881747	1.951831	8.966706	1.106263	.7113082
#1	.0001236	.0001269	103.3909	.0094232	.0034076	.0340338	15.25660
#2	.0000774	.0000926	103.5141	.0097983	.0037535	.0347467	15.23450
#3	.0001345	.0000213	103.7728	.0096202	.0040795	.0341641	15.43317

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4735603	10.33492	.0122430	.0003221	45.83441	.0075112	.3132364
Stddev	.0028917	.07712	.0002108	.0002797	.25109	.0014400	.0016308
%RSD	.6106379	.7462555	1.721824	86.84755	.5478172	19.17191	.5206128
#1	.4710170	10.25049	.0122289	.0003664	45.77484	.0091083	.3116508
#2	.4729582	10.35263	.0120395	.0000228	45.61846	.0063118	.3149088
#3	.4767057	10.40166	.0124604	.0005770	46.10993	.0071134	.3131495

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.69314	.0696837	.0064127	-.006247	.0962948	13.33389	2.581283
Stddev	.12246	.0007432	.0000793	.001030	.0007437	.08825	.028777
%RSD	.9647388	1.066515	1.237203	16.48422	.7723237	.6618452	1.114825
#1	12.70820	.0701262	.0065042	-.006094	.0960347	13.38045	2.551822
#2	12.56384	.0700991	.0063722	-.005302	.0971336	13.23211	2.582702
#3	12.80736	.0688257	.0063619	-.007344	.0957160	13.38911	2.609323

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02DUP Acquired: 5/21/2025 14:44:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.855587	.0049078	.3146100
Stddev	.038105	.0079215	.0010815
%RSD	.9883152	161.4058	.3437433
#1	3.824450	.0140224	.3140246
#2	3.844233	-.000316	.3139475
#3	3.898080	.001017	.3158580

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2733.252	64574.10	18003.63	2462.315	4071.840
Stddev	9.609	194.23	12.57	8.777	11.743
%RSD	.3515446	.3007853	.0698209	.3564436	.2884008
#1	2723.403	64561.84	18003.32	2455.345	4058.283
#2	2733.754	64774.17	17991.22	2472.171	4078.835
#3	2742.600	64386.30	18016.36	2459.428	4078.403

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02LX5 Acquired: 5/21/2025 14:48:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001718	-.003627	.0043225	-.000265	.0001391	.5646906	.0124558
Stddev	.005224	.002138	.0019282	.003333	.0016017	.0142997	.0001749
%RSD	304.0235	58.93073	44.60799	1256.636	1151.872	2.532314	1.404173
#1	-.003577	-.006095	.0039593	.002733	.0019666	.5623040	.0124046
#2	.004181	-.002418	.0064065	.000325	-.001021	.5800335	.0126506
#3	-.005758	-.002369	.0026018	-.003853	-.000529	.5517343	.0123123

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000781	-.000003	20.33433	.0021022	.0007743	.0091299	3.072960
Stddev	.0000145	.000062	.00237	.0003799	.0002558	.0004870	.030098
%RSD	18.49765	2043.118	.0116337	18.07198	33.02987	5.334497	.9794377
#1	.0000731	.000013	20.33586	.0025201	.0008665	.0094233	3.095683
#2	.0000669	.000049	20.33553	.0017778	.0004853	.0085677	3.084371
#3	.0000945	-.000072	20.33161	.0020086	.0009712	.0093987	3.038825

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0940329	2.088910	.0026271	.0000749	8.189688	.0018759	.0608772
Stddev	.0002046	.011234	.0001825	.0001632	.053417	.0013599	.0006874
%RSD	.2176033	.5377728	6.945429	217.8538	.6522513	72.49274	1.129151
#1	.0937967	2.081132	.0028313	.0002542	8.209923	.0034075	.0615007
#2	.0941555	2.101789	.0025699	-.000065	8.230032	.0014101	.0601400
#3	.0941466	2.083808	.0024801	.000036	8.129110	.0008101	.0609908

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.364559	.0145583	.0011649	-.003222	.0379644	3.119837	.5164012
Stddev	.039813	.0005270	.0000990	.000531	.0045666	.062401	.0010268
%RSD	1.683728	3.619859	8.499819	16.48380	12.02871	2.000148	.1988377
#1	2.350289	.0151318	.0012275	-.002839	.0395812	3.097311	.5152623
#2	2.409540	.0144478	.0010508	-.002998	.0415027	3.190374	.5166850
#3	2.333848	.0140953	.0012165	-.003828	.0328093	3.071826	.5172562

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02LX5 Acquired: 5/21/2025 14:48:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7900493	.0005690	.0607117
Stddev	.0128984	.0010280	.0002299
%RSD	1.632602	180.6788	.3786745
#1	.8037587	.0013877	.0605231
#2	.7882354	.0009040	.0606442
#3	.7781540	-.000585	.0609678

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2895.467	66867.82	18347.29	2575.697	4376.399
Stddev	22.927	350.90	64.49	18.253	24.723
%RSD	.7918409	.5247694	.3515092	.7086672	.5649197
#1	2897.340	66807.10	18407.26	2579.872	4370.169
#2	2917.400	66551.24	18355.54	2555.718	4403.641
#3	2871.660	67245.12	18279.06	2591.500	4355.387

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02MS Acquired: 5/21/2025 14:52:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9302251	2.197338	1.133865	2.067306	.9119504	4.411373
Stddev	.0077830	.010133	.006428	.013117	.0063671	.011032
%RSD	.8366838	.4611374	.5668693	.6344755	.6981795	.2500860
#1	.9331235	2.194906	1.138177	2.066554	.9046096	4.398778
#2	.9214088	2.188643	1.126477	2.054582	.9152687	4.416012
#3	.9361432	2.208465	1.136939	2.080783	.9159729	4.419327

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2834594	.2212235	.2309283	108.7239	.4734157	.2308566
Stddev	.0016828	.0013771	.0019550	.6651	.0011761	.0012915
%RSD	.5936629	.6225085	.8465883	.6117221	.2484388	.5594255
#1	.2815649	.2212882	.2315446	108.4797	.4722627	.2317509
#2	.2847808	.2198152	.2287394	109.4766	.4733706	.2293760
#3	.2840325	.2225672	.2325009	108.2155	.4746137	.2314430

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3737003	19.59315	.7074743	13.00158	.5782229	.0791124
Stddev	.0008109	.27781	.0025261	.15023	.0027354	.0004918
%RSD	.2169976	1.417898	.3570589	1.155450	.4730727	.6216944
#1	.3728818	19.43109	.7048105	12.94152	.5789708	.0791909
#2	.3737154	19.91393	.7098354	13.17254	.5751913	.0795603
#3	.3745035	19.43442	.7077771	12.89067	.5805065	.0785861

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	51.34372	.3476463	.7396569	24.71964	.3805889	.4899974
Stddev	.24102	.0025567	.0025825	.07083	.0028009	.0018439
%RSD	.4694152	.7354249	.3491552	.2865158	.7359478	.3762976
#1	51.08878	.3454793	.7380827	24.64502	.3823513	.4883212
#2	51.56785	.3469934	.7426374	24.78594	.3773591	.4896985
#3	51.37453	.3504661	.7382507	24.72794	.3820562	.4919724

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02MS Acquired: 5/21/2025 14:52:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6936208	.3217668	F 15.15346	9.615915	3.990320	.2324377
Stddev	.0063610	.0039732	.13217	.062790	.022601	.0007943
%RSD	.9170661	1.234806	.8722011	.6529851	.5663855	.3417355
#1	.6978534	.3172644	15.03386	9.628778	4.001099	.2315647
#2	.6863059	.3247812	15.29536	9.547689	3.964348	.2326303
#3	.6967032	.3232547	15.13115	9.671278	4.005513	.2331179

Elem	Sr4077
Units	ppm
Avg	.5485665
Stddev	.0014390
%RSD	.2623218
#1	.5482856
#2	.5472886
#3	.5501252

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.959	64000.17	18369.74	2409.544	4048.675
Stddev	33.193	415.70	67.04	27.762	35.378
%RSD	1.215451	.6495252	.3649663	1.152165	.8738090
#1	2751.418	64024.19	18314.95	2407.030	4065.064
#2	2692.660	63572.98	18349.76	2383.124	4008.074
#3	2748.799	64403.33	18444.50	2438.477	4072.885

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02MSD Acquired: 5/21/2025 14:56:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8672605	2.037985	1.046464	1.915044	.8580469	4.030755	.2552655
Stddev	.0066498	.034270	.010579	.005310	.0016486	.010434	.0003427
%RSD	.7667584	1.681584	1.010962	.2772590	.1921380	.2588533	.1342531
#1	.8598628	2.001084	1.038430	1.910421	.8585274	4.036523	.2549007
#2	.8691773	2.044058	1.042512	1.913869	.8562114	4.037032	.2553153
#3	.8727413	2.068813	1.058451	1.920843	.8594019	4.018711	.2555806

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2124535	.2117331	99.54416	.4370679	.2126212	.3459040	16.67004
Stddev	.0017683	.0024064	.27687	.0038075	.0016466	.0010416	.09206
%RSD	.8323403	1.136521	.2781350	.8711570	.7744292	.3011298	.5522565
#1	.2132611	.2094882	99.29163	.4391093	.2112553	.3452005	16.57908
#2	.2136738	.2114375	99.84021	.4394195	.2121586	.3454110	16.66787
#3	.2104255	.2142737	99.50064	.4326750	.2144495	.3471006	16.76316

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6473607	11.99216	.5317130	.0733845	43.05716	.3197789	.5021415
Stddev	.0015687	.02538	.0039768	.0002419	.20996	.0017473	.0018182
%RSD	.2423227	.2116720	.7479260	.3296152	.4876314	.5463931	.3620931
#1	.6457429	11.96285	.5281730	.0735266	42.81586	.3180249	.5009948
#2	.6488752	12.00705	.5309500	.0731052	43.15744	.3215193	.5011918
#3	.6474640	12.00658	.5360161	.0735217	43.19818	.3197924	.5042379

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.06855	.3682960	.4661508	.6342917	.2898496	12.89315	8.643957
Stddev	.11269	.0036894	.0021071	.0065413	.0020880	.05498	.109472
%RSD	.5348607	1.001737	.4520309	1.031279	.7203583	.4264587	1.266453
#1	20.94296	.3694075	.4637178	.6280962	.2877137	12.84669	8.528725
#2	21.16083	.3713019	.4673441	.6336476	.2918861	12.87891	8.656571
#3	21.10184	.3641787	.4673904	.6411312	.2899490	12.95386	8.746576

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02MSD Acquired: 5/21/2025 14:56:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.615816	.2163711	.4999721
Stddev	.036709	.0004260	.0013647
%RSD	1.015242	.1969028	.2729641
#1	3.575179	.2158798	.4992751
#2	3.625690	.2165955	.5015445
#3	3.646578	.2166381	.4990965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.197	67196.94	17934.91	2500.124	4062.144
Stddev	28.469	294.00	12.94	28.346	29.847
%RSD	1.050846	.4375136	.0721638	1.133770	.7347499
#1	2688.608	67365.92	17932.54	2518.025	4044.978
#2	2697.296	67367.43	17948.87	2514.904	4044.846
#3	2741.685	66857.46	17923.32	2467.443	4096.607

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV02 Acquired: 5/21/2025 15:00:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.857961	4.819077	4.912665	4.857416	4.825374	9.674699	9.491572
Stddev	.011031	.048821	.012496	.019243	.023124	.025106	.067042
%RSD	.2270610	1.013086	.2543626	.3961538	.4792266	.2595043	.7063310
#1	4.865440	4.875162	4.925021	4.874138	4.847156	9.673061	9.489921
#2	4.845293	4.795979	4.900033	4.836384	4.801108	9.650451	9.559424
#3	4.863151	4.786092	4.912942	4.861728	4.827859	9.700584	9.425371

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2415287	2.458754	24.39316	.9954756	2.444318	1.219681	4.929888
Stddev	.0009526	.006836	.06511	.0017599	.007164	.004754	.022446
%RSD	.3943971	.2780214	.2669172	.1767933	.2930760	.3897531	.4552978
#1	.2422024	2.466608	24.45449	.9935146	2.452484	1.223611	4.911046
#2	.2419448	2.455508	24.32483	.9959942	2.441375	1.214397	4.923898
#3	.2404388	2.454146	24.40015	.9969180	2.439095	1.221035	4.954722

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.409149	24.47905	2.448617	1.218126	23.98485	2.426339	2.440437
Stddev	.006069	.09654	.008151	.001457	.22489	.005000	.003542
%RSD	.2519273	.3943884	.3328808	.1195901	.9376210	.2060584	.1451193
#1	2.414467	24.53543	2.457814	1.216454	23.75260	2.430451	2.441100
#2	2.402537	24.36757	2.442287	1.219127	24.00037	2.427792	2.443600
#3	2.410444	24.53413	2.445749	1.218796	24.20157	2.420774	2.436611

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.15801	4.767599	4.898346	4.917171	4.814084	5.022438	4.786506
Stddev	.18261	.015314	.022429	.016862	.009737	.018729	.006830
%RSD	.7559000	.3212161	.4578938	.3429282	.2022603	.3729075	.1426964
#1	24.01168	4.781237	4.922194	4.936511	4.814528	5.011367	4.793249
#2	24.09969	4.770528	4.877675	4.909453	4.804133	5.011884	4.786676
#3	24.36266	4.751032	4.895168	4.905549	4.823592	5.044062	4.779592

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV02 Acquired: 5/21/2025 15:00:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.771516	4.702035	4.804138
Stddev	.015050	.024862	.028686
%RSD	.3154211	.5287603	.5971166
#1	4.776740	4.683560	4.809501
#2	4.754550	4.692243	4.773148
#3	4.783258	4.730303	4.829764

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.492	64688.53	18422.19	2485.479	4064.162
Stddev	19.434	92.26	77.60	2.469	22.947
%RSD	.7004598	.1426170	.4212156	.0993398	.5646204
#1	2766.372	64782.69	18343.86	2485.877	4052.193
#2	2796.670	64684.60	18423.69	2487.725	4090.619
#3	2760.435	64598.31	18499.03	2482.835	4049.673

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB02 Acquired: 5/21/2025 15:04:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001174	.0004412	-.000601	.0003955	.0005404	.0090427	.0007081
Stddev	.001233	.0003028	.001058	.0034950	.0019390	.0022921	.0007215
%RSD	105.0464	68.62953	176.0539	883.7488	358.8105	25.34746	101.8964
#1	-.000286	.0007893	.000465	.0031239	-.000586	.0094072	.0008769
#2	-.002582	.0002958	-.001651	-.003544	.002779	.0065902	-.000083
#3	-.000654	.0002385	-.000618	.001607	-.000572	.0111308	.001330

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000305	.0000708	.0138838	.0004786	.0002098	.0003932	.0138615
Stddev	.0000245	.0000390	.0028711	.0002196	.0004159	.0002229	.0028491
%RSD	80.40846	55.07706	20.67954	45.88437	198.2862	56.67615	20.55381
#1	.0000587	.0000416	.0108569	.0002335	-.000055	.0001637	.0163692
#2	.0000143	.0000557	.0142260	.0006575	-.000005	.0004072	.0107636
#3	.0000185	.0001151	.0165684	.0005449	.000689	.0006088	.0144518

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009535	-.016814	.0003148	.0001368	-.035854	.0017478	.0079667
Stddev	.0003817	.001622	.0004097	.0003082	.007344	.0011605	.0002454
%RSD	40.03871	9.649494	130.1407	225.2993	20.48248	66.39865	3.080774
#1	.0013206	-.017225	.0007672	.0004892	-.031581	.0022573	.0082478
#2	.0009812	-.018192	-.000031	-.000082	-.044333	.0004197	.0078574
#3	.0005586	-.015026	.000208	.000004	-.031647	.0025665	.0077949

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010406	.0080579	.0006519	.0006715	.0001324	.0048883	.0017559
Stddev	.010417	.0005590	.0003074	.0008131	.0005179	.0088034	.0032795
%RSD	100.1117	6.936800	47.15333	121.0958	391.1427	180.0912	186.7686
#1	-.003287	.0084946	.0010037	.0013524	.0005845	.0008642	.0045029
#2	-.005568	.0082512	.0004351	.0008909	-.000433	.0149846	-.001875
#3	-.022362	.0074280	.0005169	-.000229	.000245	-.001184	.002640

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB02 Acquired: 5/21/2025 15:04:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0039469	.0017656	.0001122
Stddev	.0041354	.0007821	.0000696
%RSD	104.7780	44.29790	62.08898
#1	.0075138	.0008795	.0001541
#2	-.000586	.0020571	.0001506
#3	.004913	.0023600	.0000318

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2847.436	66514.73	17911.39	2584.381	4307.363
Stddev	3.434	166.04	335.75	4.242	10.183
%RSD	.1205952	.2496274	1.874478	.1641290	.2364151
#1	2843.675	66475.31	17523.99	2580.822	4295.886
#2	2850.405	66696.93	18092.16	2589.074	4310.885
#3	2848.229	66371.95	18118.02	2583.247	4315.317

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DLX2 Acquired: 5/21/2025 15:09:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1147156	.0140124	2.334872	-.075419	.0095687	207.1374
Stddev	.0121406	.0082064	.370220	.034748	.0008635	.5094
%RSD	10.58320	58.56491	15.85610	46.07379	9.024584	.2459124
#1	.1248793	.0085803	2.555993	-.096928	.0105425	207.6314
#2	.1179955	.0100044	2.541159	-.093999	.0092675	206.6139
#3	.1012720	.0234526	1.907465	-.035331	.0088961	207.1668

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.950260	.0142275	.0538738	F 2322.398	.6587638	.2773570
Stddev	.009088	.0001669	.0269896	14.244	.0027523	.0475382
%RSD	.3080566	1.173140	50.09773	.6133319	.4177911	17.13972
#1	2.960581	.0143818	.0706179	2338.825	.6611965	.3059511
#2	2.946745	.0140504	.0682649	2314.889	.6557765	.3036391
#3	2.943453	.0142504	.0227386	2313.480	.6593185	.2224808

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.552250	513.1520	9.890973	329.8385	.5875318	-.003629
Stddev	.250621	3.4344	.053806	1.6822	.0934571	.000852
%RSD	16.14567	.6692828	.5439874	.5100176	15.90673	23.47639
#1	1.708397	509.3131	9.948074	331.7581	.6438430	-.004205
#2	1.685185	515.9332	9.883627	329.1357	.6391009	-.002650
#3	1.263168	514.2096	9.841218	328.6215	.4796516	-.004031

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	284.2966	.5674468	9.549348	41.40733	1.162712	.0790046
Stddev	1.3354	.0041393	.014532	.31048	.006762	.0115901
%RSD	.4697134	.7294539	.1521756	.7498296	.5816065	14.67020
#1	284.7638	.5721304	9.533378	41.05209	1.170435	.0868524
#2	282.7904	.5642794	9.561792	41.54305	1.159848	.0844689
#3	285.3356	.5659306	9.552876	41.62684	1.157853	.0656924

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DLX2 Acquired: 5/21/2025 15:09:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0264808	5.183502	F 104.9746	F 18.76008	F 153.8282	.2147238
Stddev	.0041481	.017449	.8668	3.33613	28.6999	.0032350
%RSD	15.66444	.3366275	.8257316	17.78314	18.65712	1.506597
#1	.0294644	5.203385	103.9838	20.79364	171.1734	.2112157
#2	.0282342	5.176381	105.3471	20.57671	169.6105	.2153664
#3	.0217440	5.170739	105.5928	14.90988	120.7007	.2175893

Elem	Sr4077
Units	ppm
Avg	5.779046
Stddev	.049920
%RSD	.8638088
#1	5.835765
#2	5.759586
#3	5.741786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2846.415	65774.05	20836.69	2442.560	3027.839
Stddev	292.153	231.07	134.76	23.694	402.642
%RSD	10.26389	.3513160	.6467648	.9700390	13.29798
#1	2669.931	66011.18	20682.30	2469.800	2787.990
#2	2685.671	65761.42	20930.75	2431.150	2802.837
#3	3183.641	65549.55	20897.02	2426.730	3492.691

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02A Acquired: 5/21/2025 15:13:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001725	-.001093	.0056679	-.003036	-.000977	1.530564	-.002173
Stddev	.0004639	.000199	.0012870	.000487	.000194	.394445	.005432
%RSD	269.0099	18.17309	22.70671	16.05274	19.88464	25.77125	249.9844
#1	.0003005	-.001067	.0070962	-.002715	-.000788	1.942698	.003240
#2	-.000342	-.001304	.0053093	-.002796	-.000966	1.492414	-.002135
#3	.000559	-.000909	.0045983	-.003597	-.001177	1.156579	-.007623

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000872	-.000334	20.69469	.0036387	.0008556	.0061478	3.728583
Stddev	.0000299	.000117	5.27512	.0018423	.0001324	.0007341	.916392
%RSD	34.23985	34.93521	25.49020	50.63140	15.47363	11.94053	24.57748
#1	.0001213	-.000461	25.99965	.0057654	.0009997	.0069502	4.714063
#2	.0000663	-.000311	20.63448	.0025318	.0008275	.0059832	3.569602
#3	.0000739	-.000231	15.44993	.0026189	.0007395	.0055099	2.902083

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0847023	2.893356	.0022209	.0001989	1.270897	.0058802	.0503981
Stddev	.0217835	.737003	.0002757	.0000324	.369633	.0013820	.0249179
%RSD	25.71776	25.47227	12.41387	16.31184	29.08445	23.50236	49.44206
#1	.1068195	3.645792	.0025298	.0002335	1.634644	.0073382	.0790775
#2	.0840189	2.861453	.0021331	.0001691	1.282400	.0057130	.0380630
#3	.0632685	2.172822	.0019998	.0001940	.895646	.0045894	.0340538

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1289235	.0061310	.0000067	-.004584	.0401228	.6296714	.0379357
Stddev	.0560129	.0028877	.0000289	.000260	.0104793	.1566433	.0089568
%RSD	43.44663	47.09958	428.9554	5.675240	26.11806	24.87700	23.61043
#1	.1800302	.0093762	-.000008	-.004360	.0510342	.7957180	.0480347
#2	.1377000	.0051720	.000040	-.004523	.0391972	.6087650	.0348185
#3	.0690405	.0038448	-.000012	-.004869	.0301370	.4845311	.0309541

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2090-02A Acquired: 5/21/2025 15:13:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3156520	.0008993	.0435900
Stddev	.0661598	.0000404	.0113625
%RSD	20.95971	4.495979	26.06673
#1	.3875899	.0009071	.0550692
#2	.3019502	.0009352	.0433527
#3	.2574161	.0008555	.0323480

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14832.80	308719.8	77413.91	12655.36	22548.39
Stddev	76.78	4589.0	2052.47	386.89	179.76
%RSD	.5176172	1.486471	2.651288	3.057094	.7972366
#1	14750.65	303702.4	75765.59	12282.03	22342.40
#2	14902.74	312704.4	76763.32	12629.54	22673.52
#3	14845.00	309752.8	79712.82	13054.51	22629.26

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DL2X5 Acquired: 5/21/2025 15:18:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010018	-.000870	.0177966	-.004591	-.000992	1.328996	-.004891
Stddev	.0004625	.000041	.0072694	.000658	.000275	.400415	.004950
%RSD	46.17192	4.665301	40.84731	14.34074	27.69375	30.12913	101.1944
#1	.0008590	-.000832	.0209881	-.004946	-.000992	1.584295	-.001528
#2	.0006275	-.000913	.0094774	-.003831	-.001267	.867507	-.010575
#3	.0015189	-.000865	.0229243	-.004994	-.000718	1.535186	-.002571

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001544	.0001949	^ *****	.0067003	.0023691	.0175686	3.470492
Stddev	.0000210	.0001526	-----	.0009907	.0007804	.0060334	1.057948
%RSD	13.61121	78.32730	-----	14.78540	32.94152	34.34178	30.48410
#1	.0001302	.0001947	21.37652	.0057156	.0026325	.0201696	4.092119
#2	.0001676	.0000423	12.36949	.0066885	.0014911	.0106710	2.248943
#3	.0001656	.0003476	^ -----	.0076968	.0029837	.0218651	4.070415

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0734744	2.484895	.0053098	-.000173	1.176206	.0052470	.0926289
Stddev	.0205966	.687976	.0017839	.000309	.330461	.0007590	.0129674
%RSD	28.03238	27.68630	33.59706	179.3521	28.09550	14.46527	13.99930
#1	.0873745	2.952844	.0060271	.000152	1.420816	.0057006	.0802086
#2	.0498117	1.694973	.0032789	-.000464	.800270	.0043707	.0915965
#3	.0832369	2.806869	.0066234	-.000206	1.307533	.0056695	.1060817

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1130889	.0078444	.0005822	-.005152	.0351806	.5753828	.1203407
Stddev	.0399223	.0011845	.0003065	.000129	.0103423	.1738982	.0490730
%RSD	35.30167	15.10061	52.64593	2.503493	29.39764	30.22304	40.77837
#1	.1447158	.0074018	.0007752	-.005237	.0418889	.6793786	.1417443
#2	.0682308	.0069449	.0002288	-.005004	.0232701	.3746259	.0642014
#3	.1263203	.0091865	.0007426	-.005216	.0403828	.6721439	.1550765

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DL2X5 Acquired: 5/21/2025 15:18:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9485820	k .0021300	.0379254
Stddev	.3677913	.0022252	.0105132
%RSD	38.77275	104.4698	27.72080
#1	1.097069	.0008925	.0453221
#2	.529760	.0007986	.0258907
#3	1.218917	k .0046988	.0425634

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	13444.11	307897.8	82441.57	12368.55	19837.47
Stddev	113.02	4148.4	895.09	111.40	365.94
%RSD	.8406657	1.347337	1.085727	.9006784	1.844711
#1	13396.44	311980.7	83117.02	12457.79	19666.85
#2	13573.15	308026.0	81426.34	12404.15	20257.57
#3	13362.73	303686.8	82781.34	12243.69	19588.00

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-05 Acquired: 5/21/2025 15:24:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0319817	-.008944	.0118087	-.052426	-.005017	191.3232	.1330888
Stddev	.0044503	.001327	.0007328	.006253	.004505	.2986	.0004110
%RSD	13.91499	14.84114	6.205232	11.92815	89.79130	.1560499	.3087890
#1	.0323100	-.007605	.0109820	-.053682	.000012	191.3663	.1326370
#2	.0362588	-.008967	.0120662	-.045640	-.008683	191.5978	.1331891
#3	.0273765	-.010260	.0123780	-.057956	-.006381	191.0054	.1334403

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035317	.0166011	186.2963	.0555094	.2957159	.7059952	429.8488
Stddev	.0000986	.0010094	.1833	.0004925	.0006398	.0033919	4.7529
%RSD	2.792327	6.079972	.0984079	.8871893	.2163744	.4804369	1.105721
#1	.0034871	.0167185	186.1308	.0558735	.2951650	.7040921	428.4354
#2	.0034632	.0155383	186.4933	.0557057	.2955649	.7039822	435.1481
#3	.0036447	.0175467	186.2647	.0549491	.2964177	.7099113	425.9629

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.868968	131.1272	.2345904	.0002661	36.84212	1.497505	.4637931
Stddev	.008123	.3790	.0014312	.0006168	.58037	.001792	.0004843
%RSD	.2831197	.2890377	.6100782	231.7916	1.575292	.1196537	.1044119
#1	2.859606	130.9020	.2333989	.0000463	36.75733	1.499544	.4635178
#2	2.874144	130.9147	.2341944	.0009627	37.46022	1.496786	.4635092
#3	2.873153	131.5647	.2361779	-.000211	36.30880	1.496184	.4643522

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.806325	1.267875	.0042110	-.001238	9.081395	8.483515	8.918665
Stddev	.024238	.002805	.0005536	.001474	.023784	.095961	.023379
%RSD	.8636837	.2212398	13.14653	119.1166	.2618970	1.131148	.2621399
#1	2.806965	1.265899	.0045011	-.002826	9.079686	8.472072	8.906322
#2	2.830236	1.266641	.0045592	.000086	9.105987	8.584685	8.904044
#3	2.781773	1.271086	.0035726	-.000973	9.058511	8.393789	8.945629

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-05 Acquired: 5/21/2025 15:24:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	13.20560	.2702488	.0377247
Stddev	.04572	.0025746	.0026674
%RSD	.3462257	.9526588	7.070808
#1	13.18168	.2692939	.0383908
#2	13.17679	.2731644	.0347873
#3	13.25831	.2682881	.0399960

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2998.382	70596.19	20508.68	2687.757	3684.298
Stddev	4.967	277.63	128.22	9.325	5.636
%RSD	.1656451	.3932630	.6251913	.3469348	.1529734
#1	2992.727	70593.89	20482.29	2685.602	3679.347
#2	3002.038	70319.72	20648.04	2679.699	3690.432
#3	3000.380	70874.97	20395.70	2697.971	3683.115

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-07 Acquired: 5/21/2025 15:28:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4411121	-.017266	.4909455	-.042602	-.004822	257.0888
Stddev	.0028186	.005119	.0034560	.002515	.001150	1.8321
%RSD	.6389745	29.64547	.7039395	5.902758	23.85122	.7126262
#1	.4386900	-.022215	.4927819	-.041987	-.005776	254.9735
#2	.4442059	-.017591	.4869590	-.045367	-.003545	258.1691
#3	.4404404	-.011993	.4930955	-.040452	-.005144	258.1239

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.612684	.0144421	.0239316	51.41245	.4001076	.2223453
Stddev	.005518	.0000842	.0009296	.11070	.0039410	.0014108
%RSD	.3421783	.5831363	3.884546	.2153148	.9849732	.6345219
#1	1.614114	.0145104	.0248444	51.45386	.3978234	.2238568
#2	1.606592	.0144679	.0229860	51.28701	.4046582	.2210632
#3	1.617347	.0143480	.0239645	51.49647	.3978412	.2221159

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6965580	403.4501	6.090459	92.30309	.4511996	.0028641
Stddev	.0035899	1.6514	.010146	.15352	.0033253	.0006378
%RSD	.5153783	.4093314	.1665915	.1663202	.7369856	22.27021
#1	.7001654	402.2344	6.092204	92.28898	.4543291	.0029844
#2	.6929858	405.3303	6.079553	92.15711	.4477081	.0021747
#3	.6965229	402.7856	6.099619	92.46317	.4515617	.0034333

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.247093	.5657238	1.215363	82.18465	.1536644	.0195149
Stddev	.006688	.0010377	.011645	.22553	.0006446	.0005734
%RSD	.2059663	.1834286	.9581440	.2744188	.4194532	2.938195
#1	3.243514	.5667777	1.209281	81.97454	.1543702	.0188933
#2	3.254808	.5647031	1.228790	82.42295	.1531069	.0200232
#3	3.242955	.5656905	1.208019	82.15645	.1535162	.0196282

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-07 Acquired: 5/21/2025 15:28:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004178	17.61715	F 20.96038	16.76303	12.93622	.6451106
Stddev	.001612	.04288	.09424	.13406	.08893	.0022604
%RSD	38.57478	.2433911	.4496039	.7997319	.6874181	.3503838
#1	-.002557	17.63136	20.85652	16.90102	13.01821	.6472436
#2	-.005781	17.56897	21.04043	16.63329	12.84169	.6427414
#3	-.004197	17.65112	20.98419	16.75478	12.94876	.6453469

Elem	Sr4077
Units	ppm
Avg	-.115735
Stddev	.002413
%RSD	2.084627
#1	-.114164
#2	-.118513
#3	-.114528

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3311.415	78824.89	22901.27	3032.654	3732.073
Stddev	13.344	282.83	59.75	14.343	26.175
%RSD	.4029658	.3588131	.2609066	.4729538	.7013480
#1	3296.467	79102.58	22890.72	3048.160	3704.273
#2	3322.125	78537.18	22965.60	3019.863	3756.243
#3	3315.652	78834.93	22847.50	3029.938	3735.705

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-09 Acquired: 5/21/2025 15:37:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3759342	-.014788	.4481839	-.046143	-.006459	257.4820
Stddev	.0046403	.004187	.0017188	.002398	.003473	.5713
%RSD	1.234337	28.31736	.3835000	5.197098	53.76888	.2218902
#1	.3740527	-.011268	.4499025	-.044350	-.008543	257.6866
#2	.3725302	-.013676	.4464649	-.048867	-.008385	257.9227
#3	.3812198	-.019419	.4481842	-.045212	-.002450	256.8365

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.574503	.0138346	.0262067	48.90548	.3869703	.2537350
Stddev	.002797	.0001730	.0002952	.23733	.0008190	.0004759
%RSD	.1776737	1.250211	1.126599	.4852756	.2116376	.1875720
#1	1.577635	.0136408	.0263724	48.63209	.3868862	.2532163
#2	1.573620	.0139734	.0263819	49.05850	.3861965	.2541515
#3	1.572253	.0138896	.0258659	49.02586	.3878280	.2538373

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6798668	406.7998	7.555073	90.71231	.4281788	.0040820
Stddev	.0001179	2.1183	.023421	.72297	.0005680	.0001844
%RSD	.0173352	.5207312	.3100092	.7969928	.1326556	4.516766
#1	.6799890	409.2027	7.532144	89.87832	.4275239	.0042751
#2	.6798576	405.9944	7.578958	91.16144	.4285365	.0040631
#3	.6797539	405.2023	7.554118	91.09718	.4284761	.0039078

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.115879	.6079897	1.184278	82.60714	.1472175	.0194066
Stddev	.038802	.0032122	.000992	.73682	.0032398	.0006365
%RSD	1.245295	.5283306	.0837482	.8919516	2.200697	3.279819
#1	3.153573	.6042816	1.185376	83.45607	.1509416	.0196983
#2	3.118008	.6097702	1.184012	82.13392	.1456638	.0198449
#3	3.076057	.6099174	1.183447	82.23142	.1450472	.0186765

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-09 Acquired: 5/21/2025 15:37:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0562976	17.78192	F 20.61258	16.14847	11.75210	.6406669
Stddev	.0004220	.02281	.11279	.05741	.01699	.0032775
%RSD	.7495477	.1282570	.5471672	.3555341	.1445724	.5115695
#1	.0567831	17.75700	20.73238	16.10964	11.74429	.6440909
#2	.0560901	17.78699	20.50845	16.21442	11.77159	.6403509
#3	.0560195	17.80177	20.59691	16.12135	11.74041	.6375589

Elem	Sr4077
Units	ppm
Avg	-.133874
Stddev	.001655
%RSD	1.236419
#1	-.135748
#2	-.133263
#3	-.132611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3440.849	79976.46	23537.18	3022.238	3855.895
Stddev	24.512	283.95	119.88	20.789	23.900
%RSD	.7123934	.3550441	.5093016	.6878828	.6198312
#1	3413.895	79651.12	23672.34	3002.203	3829.224
#2	3446.847	80103.82	23443.74	3020.803	3863.091
#3	3461.807	80174.43	23495.46	3043.708	3875.371

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-11 Acquired: 5/21/2025 15:41:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3139060	-.013680	.3647010	-.041630	-.007545	209.9142
Stddev	.0040386	.001049	.0014703	.006583	.004968	1.5211
%RSD	1.286578	7.668355	.4031608	15.81430	65.84410	.7246160
#1	.3161421	-.012654	.3652369	-.038857	-.001811	210.6948
#2	.3092438	-.013634	.3658283	-.036886	-.010278	208.1613
#3	.3163320	-.014751	.3630379	-.049146	-.010547	210.8864

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.338962	.0105612	.0183129	65.96474	.3096313	.1941684
Stddev	.005792	.0000153	.0004513	.28684	.0047358	.0012933
%RSD	.4326033	.1446710	2.464556	.4348394	1.529502	.6660623
#1	1.333633	.0105551	.0183525	65.83332	.3050810	.1948220
#2	1.345127	.0105499	.0187432	66.29375	.3092800	.1950045
#3	1.338127	.0105786	.0178431	65.76716	.3145330	.1926788

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5584383	355.9255	6.721934	83.87850	.3370811	.0048175
Stddev	.0024626	3.4764	.018815	.48616	.0017723	.0002660
%RSD	.4409819	.9767315	.2799012	.5795983	.5257693	5.521876
#1	.5588369	352.7457	6.708331	83.64904	.3386116	.0050968
#2	.5606772	355.3935	6.743406	84.43692	.3374923	.0047888
#3	.5558006	359.6373	6.714066	83.54953	.3351394	.0045671

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.032127	.5021921	1.100589	85.31367	.1609971	.0154969
Stddev	.043240	.0027718	.016691	.84329	.0033998	.0001893
%RSD	1.426075	.5519413	1.516566	.9884546	2.111716	1.221291
#1	2.989595	.4997576	1.086190	84.55074	.1594109	.0156818
#2	3.030743	.5052087	1.096694	85.17113	.1586803	.0153036
#3	3.076043	.5016101	1.118883	86.21915	.1649001	.0155052

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-11 Acquired: 5/21/2025 15:41:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0650599	15.87184	F 15.29389	15.38409	11.13720	.5264391
Stddev	.0027023	.06673	.11550	.00156	.02032	.0017143
%RSD	4.153587	.4204350	.7552196	.0101139	.1824887	.3256397
#1	.0664386	15.84475	15.16807	15.38427	11.14643	.5244626
#2	.0619463	15.94785	15.31851	15.38245	11.15127	.5275220
#3	.0667948	15.82291	15.39510	15.38555	11.11390	.5273326

Elem	Sr4077
Units	ppm
Avg	-.071790
Stddev	.003657
%RSD	5.093893
#1	-.069549
#2	-.069811
#3	-.076010

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3246.841	77227.54	23202.14	2889.797	3803.689
Stddev	23.523	709.18	118.60	25.585	15.731
%RSD	.7244786	.9182932	.5111392	.8853679	.4135788
#1	3272.463	77948.57	23263.80	2913.520	3821.806
#2	3241.834	77203.20	23065.42	2893.183	3795.772
#3	3226.224	76530.84	23277.20	2862.687	3793.490

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-13 Acquired: 5/21/2025 15:45:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3154424	-.016872	.4151427	-.041992	-.005039	233.5026
Stddev	.0067612	.001403	.0005817	.004618	.003971	1.8492
%RSD	2.143413	8.317253	.1401168	10.99699	78.82053	.7919334
#1	.3226636	-.016469	.4155676	-.045821	-.004134	235.3769
#2	.3144017	-.018432	.4144798	-.036864	-.009384	233.4513
#3	.3092618	-.015714	.4153808	-.043291	-.001597	231.6796

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.504211	.0131721	.0243100	74.39201	.3653654	.2076222
Stddev	.003736	.0001053	.0003271	.12031	.0012898	.0006934
%RSD	.2483840	.7992920	1.345487	.1617238	.3530213	.3339605
#1	1.507712	.0132459	.0244699	74.48636	.3656479	.2079796
#2	1.500277	.0130515	.0239337	74.25653	.3639578	.2080639
#3	1.504643	.0132188	.0245263	74.43314	.3664906	.2068230

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6638769	348.0559	7.058034	93.54883	.3928709	-.000855
Stddev	.0004901	1.0623	.015790	.36505	.0020616	.000793
%RSD	.0738237	.3052173	.2237174	.3902208	.5247456	92.67573
#1	.6644178	349.2763	7.062326	93.14136	.3929108	-.000053
#2	.6634623	347.3382	7.040542	93.65912	.3949122	-.000876
#3	.6637506	347.5532	7.071235	93.84602	.3907897	-.001637

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.430537	.5663236	1.237119	78.73802	.1544584	.0178650
Stddev	.036339	.0015899	.005451	.22506	.0013471	.0002266
%RSD	1.059272	.2807400	.4406521	.2858380	.8721243	1.268615
#1	3.472466	.5657581	1.232149	78.99785	.1559647	.0181262
#2	3.410994	.5650938	1.236258	78.60371	.1533693	.0177491
#3	3.408153	.5681189	1.242949	78.61250	.1540410	.0177198

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-13 Acquired: 5/21/2025 15:45:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016938	15.93449	F 14.47102	16.34880	16.47853	.6411290
Stddev	.0012895	.03592	.02844	.07005	.08587	.0028175
%RSD	76.13136	.2254049	.1965110	.4284859	.5211305	.4394511
#1	.0010659	15.96978	14.48815	16.37190	16.44356	.6432475
#2	.0008385	15.89798	14.48672	16.40438	16.57637	.6379315
#3	.0031770	15.93570	14.43820	16.27011	16.41566	.6422080

Elem	Sr4077
Units	ppm
Avg	.0008472
Stddev	.0005717
%RSD	67.47287
#1	.0007290
#2	.0003440
#3	.0014688

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3264.843	76900.16	21200.55	2916.334	3769.759
Stddev	25.449	88.60	63.93	8.802	18.707
%RSD	.7794860	.1152134	.3015391	.3018040	.4962501
#1	3250.582	76960.75	21267.57	2921.016	3756.469
#2	3294.225	76798.48	21193.83	2906.181	3791.152
#3	3249.723	76941.26	21140.25	2921.806	3761.657

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DL3X20 Acquired: 5/21/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101379	-.000174	.3175246	-.012524	.0014435	30.63548
Stddev	.0022348	.001325	.0093001	.006708	.0009834	.36633
%RSD	22.04351	762.6319	2.928936	53.55932	68.12433	1.195777
#1	.0126934	-.000296	.3271575	-.016810	.0013715	31.00515
#2	.0091700	-.001434	.3168190	-.015968	.0004981	30.62870
#3	.0085503	.001208	.3085975	-.004794	.0024609	30.27258

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4362266	.0021996	.0025337	405.5391	.1054171	.0365057
Stddev	.0054413	.0000244	.0003179	3.6741	.0006427	.0010068
%RSD	1.247365	1.108574	12.54732	.9059912	.6096753	2.757803
#1	.4417355	.0021865	.0027266	409.7815	.1061363	.0375326
#2	.4360889	.0021845	.0027077	403.3914	.1052158	.0364640
#3	.4308554	.0022277	.0021667	403.4443	.1048990	.0355204

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2700199	79.42482	1.644672	53.08271	.0794242	.0002425
Stddev	.0072723	.95973	.020084	.65100	.0022505	.0003065
%RSD	2.693245	1.208356	1.221185	1.226394	2.833487	126.3824
#1	.2775590	80.29938	1.666576	53.75077	.0814243	.0000494
#2	.2694530	79.57700	1.640318	53.04715	.0798610	.0005960
#3	.2630476	78.39809	1.627121	52.45022	.0769874	.0000822

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.29015	.0930802	1.540878	5.130599	.1756561	.0123486
Stddev	.47732	.0018367	.011795	.075354	.0018001	.0003668
%RSD	1.280018	1.973243	.7654848	1.468719	1.024778	2.969952
#1	37.65181	.0911273	1.554003	5.205538	.1775490	.0127579
#2	37.46950	.0947730	1.537467	5.131422	.1754533	.0120499
#3	36.74913	.0933401	1.531165	5.054837	.1739660	.0122379

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2065-01DL3X20 Acquired: 5/21/2025 15:53:15 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003610	.8535246	F 13.50714	2.241381	18.44416	.0187661
Stddev	.000571	.0123559	.13951	.065245	.50724	.0011272
%RSD	15.81256	1.447632	1.032828	2.910949	2.750129	6.006731
#1	-.004162	.8619519	13.64728	2.309612	18.94512	.0179482
#2	-.003647	.8592811	13.50586	2.234931	18.45650	.0200520
#3	-.003022	.8393408	13.36828	2.179600	17.93087	.0182982

Elem	Sr4077
Units	ppm
Avg	.9289197
Stddev	.0110977
%RSD	1.194684
#1	.9396199
#2	.9296759
#3	.9174633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2685.109	65217.37	18567.40	2453.780	3725.884
Stddev	1.714	17.57	50.34	6.520	3.850
%RSD	.0638506	.0269347	.2711219	.2657047	.1033304
#1	2687.066	65225.29	18592.40	2460.897	3722.072
#2	2684.387	65229.58	18600.34	2452.347	3729.771
#3	2683.874	65197.24	18509.45	2448.096	3725.809

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15 Acquired: 5/21/2025 15:58:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4469705	-.017643	.5276932	-.050877	-.007776	302.3241
Stddev	.0040172	.006118	.0021765	.006528	.003458	1.7235
%RSD	.8987558	34.67438	.4124606	12.83136	44.46880	.5700835
#1	.4470876	-.012400	.5278893	-.043339	-.011042	304.3073
#2	.4509278	-.024365	.5297650	-.054664	-.008130	301.1885
#3	.4428960	-.016164	.5254252	-.054629	-.004154	301.4765

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.813268	.0161238	.0353591	49.20117	.4276713	.2807380
Stddev	.000635	.0000206	.0000537	.01751	.0014003	.0001553
%RSD	.0350460	.1276046	.1519671	.0355789	.3274346	.0553082
#1	1.814002	.0161375	.0353172	49.20142	.4273836	.2806054
#2	1.812876	.0161338	.0354196	49.18354	.4264372	.2809088
#3	1.812927	.0161002	.0353403	49.21855	.4291932	.2806999

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7949707	481.9848	7.115196	100.8595	.5135801	.0042845
Stddev	.0020892	.5660	.007974	.1487	.0020077	.0004597
%RSD	.2627991	.1174358	.1120745	.1474161	.3909140	10.72871
#1	.7925614	482.4029	7.106177	100.8371	.5127657	.0048149
#2	.7962799	481.3407	7.121312	101.0181	.5158670	.0040013
#3	.7960709	482.2107	7.118100	100.7233	.5121076	.0040373

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.518209	.6441400	1.342449	97.92523	.1698393	.0246050
Stddev	.010634	.0011424	.004308	.28064	.0019907	.0003959
%RSD	.3022694	.1773568	.3209280	.2865877	1.172101	1.609199
#1	3.508943	.6452150	1.341359	97.60797	.1675709	.0244632
#2	3.515862	.6442648	1.347198	98.02670	.1712953	.0250523
#3	3.529820	.6429404	1.338791	98.14102	.1706518	.0242994

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15 Acquired: 5/21/2025 15:58:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205649	19.85747	F 15.52328	F 18.83806	17.51400	.7448727
Stddev	.0015846	.02693	.03523	.02769	.03316	.0007938
%RSD	7.705374	.1356008	.2269672	.1470080	.1893427	.1065662
#1	.0197387	19.87869	15.49833	18.86459	17.50604	.7457416
#2	.0223919	19.86654	15.56358	18.84026	17.55042	.7441857
#3	.0195641	19.82718	15.50792	18.80934	17.48555	.7446907

Elem	Sr4077
Units	ppm
Avg	-.189279
Stddev	.000684
%RSD	.3614612
#1	-.189811
#2	-.188507
#3	-.189520

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3361.625	79753.97	24693.02	3017.550	3638.901
Stddev	9.646	250.49	35.52	5.340	10.882
%RSD	.2869463	.3140723	.1438341	.1769632	.2990507
#1	3369.024	79974.12	24672.84	3022.633	3651.114
#2	3365.136	79806.36	24734.04	3011.986	3635.352
#3	3350.715	79481.44	24672.20	3018.032	3630.236

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV03 Acquired: 5/21/2025 16:02:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.777602	4.671026	4.807279	4.794893	4.814832	9.717491	9.431282
Stddev	.049329	.109293	.056372	.048869	.060460	.025685	.083658
%RSD	1.032516	2.339807	1.172648	1.019185	1.255701	.2643145	.8870277
#1	4.812184	4.595212	4.819805	4.816084	4.846207	9.697329	9.335479
#2	4.721113	4.621560	4.745698	4.739005	4.745134	9.746409	9.468453
#3	4.799508	4.796307	4.856336	4.829589	4.853155	9.708736	9.489912

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2438632	2.392510	24.05297	.9826573	2.392780	1.212513	4.855265
Stddev	.0008314	.028879	.03934	.0030090	.028195	.015428	.021759
%RSD	.3409224	1.207067	.1635409	.3062138	1.178351	1.272423	.4481613
#1	.2440144	2.400212	24.00784	.9794299	2.403907	1.218949	4.831413
#2	.2446086	2.360561	24.07108	.9853855	2.360719	1.194908	4.860353
#3	.2429666	2.416758	24.07999	.9831565	2.413714	1.223680	4.874031

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.394265	24.03935	2.400047	1.218765	23.57233	2.416985	2.456823
Stddev	.003536	.02991	.030036	.000926	.17378	.008924	.006395
%RSD	.1476843	.1244273	1.251467	.0760109	.7372146	.3692393	.2602968
#1	2.393008	24.00501	2.409747	1.217800	23.46411	2.406917	2.451304
#2	2.391531	24.05331	2.366360	1.218848	23.48011	2.420119	2.463831
#3	2.398258	24.05973	2.424035	1.219647	23.77278	2.423921	2.455335

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.93325	4.831518	4.859072	4.776737	4.802890	4.970061	4.736095
Stddev	.08175	.016309	.058753	.055851	.007458	.019943	.046592
%RSD	.3415747	.3375576	1.209150	1.169223	.1552869	.4012537	.9837576
#1	23.85276	4.833526	4.883132	4.790103	4.794283	4.956142	4.770252
#2	23.93079	4.846731	4.792108	4.715416	4.806932	4.961132	4.683020
#3	24.01620	4.814298	4.901977	4.824693	4.807455	4.992908	4.755012

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV03 Acquired: 5/21/2025 16:02:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.663200	4.762905	4.803775
Stddev	.047618	.014187	.016605
%RSD	1.021153	.2978676	.3456600
#1	4.668195	4.747966	4.818372
#2	4.613281	4.764553	4.785710
#3	4.708124	4.776197	4.807243

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.456	64539.16	18149.12	2441.345	4081.586
Stddev	27.105	344.21	60.67	9.928	41.305
%RSD	.9822661	.5333421	.3342764	.4066455	1.011979
#1	2746.650	64913.60	18202.76	2452.803	4067.077
#2	2790.591	64467.42	18083.27	2435.930	4128.187
#3	2741.127	64236.48	18161.33	2435.302	4049.493

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB03 Acquired: 5/21/2025 16:25:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001701	-.002504	-.000961	-.000809	-.000511	.0046097	-.003237
Stddev	.000877	.001657	.001135	.001515	.002348	.0026982	.000727
%RSD	51.56470	66.16748	118.0244	187.3491	459.5653	58.53315	22.45846
#1	-.000995	-.002455	.000236	-.001921	.000148	.0020308	-.002398
#2	-.001425	-.000872	-.001100	.000917	.001437	.0043852	-.003639
#3	-.002683	-.004185	-.002021	-.001422	-.003117	.0074132	-.003674

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000013	-.000035	-.005856	.0002625	.0001988	.0001708	.0022852
Stddev	.000046	.000082	.008702	.0001457	.0002286	.0004576	.0061919
%RSD	360.9124	231.8362	148.5837	55.51794	114.9744	267.9358	270.9511
#1	.000036	-.000123	-.015904	.0003465	.0002784	-.000045	.0059993
#2	-.000055	.000038	-.000896	.0000942	-.000059	-.000139	-.004863
#3	-.000019	-.000021	-.000769	.0003467	.000377	.000696	.005719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000510	-.003189	-.000083	.0002101	-.110779	.0002337	-.000248
Stddev	.000127	.010817	.000447	.0002941	.005618	.0004077	.000228
%RSD	24.90386	339.1633	536.1069	139.9800	5.071081	174.4160	91.79308
#1	-.000578	.004173	-.000567	.0003526	-.106059	-.000179	-.000170
#2	-.000589	.001868	.000002	.0004059	-.109286	.000636	-.000505
#3	-.000364	-.015609	.000315	-.000128	-.116993	.000245	-.000070

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010431	-.000187	-.000295	-.001143	.0001776	.0035214	-.001153
Stddev	.027473	.000153	.000303	.000525	.0005233	.0029482	.003058
%RSD	263.3697	81.74225	102.7343	45.96596	294.7038	83.72194	265.1770
#1	-.024544	-.000271	-.000039	-.001432	.0006948	.0050943	-.004579
#2	-.027980	-.000279	-.000629	-.000537	.0001896	.0053496	.001301
#3	.021230	-.000011	-.000216	-.001461	-.000352	.0001203	-.000182

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB03 Acquired: 5/21/2025 16:25:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000546	-.001086	-.000071
Stddev	.003823	.000959	.000025
%RSD	699.6864	88.27828	34.87829
#1	.002427	-.002140	-.000084
#2	-.004858	-.000267	-.000042
#3	.000793	-.000850	-.000086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2834.485	66103.02	18194.78	2551.218	4343.932
Stddev	5.625	366.69	98.35	17.025	13.625
%RSD	.1984338	.5547208	.5405440	.6673197	.3136630
#1	2832.493	65693.43	18281.25	2540.386	4340.396
#2	2830.128	66400.76	18215.30	2570.842	4332.423
#3	2840.835	66214.88	18087.79	2542.428	4358.976

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15DUP Acquired: 5/21/2025 16:29:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3877610	-.014143	.4829468	-.047954	-.007567	268.9307
Stddev	.0042157	.001771	.0050961	.004136	.000729	2.0833
%RSD	1.087183	12.51982	1.055214	8.625706	9.630211	.7746737
#1	.3830656	-.014053	.4770681	-.045173	-.006889	268.6803
#2	.3889964	-.012419	.4856608	-.052707	-.007475	271.1279
#3	.3912209	-.015957	.4861116	-.045981	-.008337	266.9839

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.677067	.0146209	.0303607	65.13342	.4036328	.2601636
Stddev	.012295	.0000381	.0003705	.45062	.0005927	.0003173
%RSD	.7331273	.2609490	1.220206	.6918415	.1468388	.1219705
#1	1.686641	.0146553	.0301296	65.41586	.4033893	.2601335
#2	1.681358	.0145799	.0307880	65.37065	.4032007	.2604949
#3	1.663201	.0146276	.0301645	64.61374	.4043085	.2598624

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7468924	402.1408	7.752588	93.42541	.4622572	.0015016
Stddev	.0010572	.9719	.063996	.70389	.0002581	.0001155
%RSD	.1415436	.2416883	.8254775	.7534267	.0558390	7.690387
#1	.7471926	403.2594	7.804063	93.65588	.4621343	.0016252
#2	.7477671	401.6599	7.772767	93.98517	.4625538	.0013964
#3	.7457176	401.5030	7.680936	92.63517	.4620834	.0014832

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.655117	.5854849	1.304609	83.45805	.1530422	.0199495
Stddev	.025616	.0044454	.004820	.12710	.0006714	.0001423
%RSD	.7008339	.7592619	.3694910	.1522926	.4386809	.7133264
#1	3.682060	.5866626	1.299051	83.59066	.1524727	.0197870
#2	3.652214	.5892227	1.307656	83.44620	.1528714	.0200521
#3	3.631075	.5805692	1.307120	83.33728	.1537825	.0200093

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15DUP Acquired: 5/21/2025 16:29:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0434164	17.88179	F 19.59802	F 18.17182	15.46961	.6458465
Stddev	.0014526	.13216	.03565	.06254	.06740	.0050972
%RSD	3.345669	.7390998	.1819090	.3441701	.4357131	.7892331
#1	.0433861	17.96544	19.58417	18.10655	15.40151	.6496008
#2	.0419792	17.95050	19.63851	18.23122	15.53630	.6478950
#3	.0448838	17.72942	19.57137	18.17770	15.47101	.6400437

Elem	Sr4077
Units	ppm
Avg	-.065164
Stddev	.002231
%RSD	3.423470
#1	-.064415
#2	-.063404
#3	-.067673

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3224.094	78373.64	22482.90	2931.769	3614.289
Stddev	1.483	139.23	85.60	11.948	5.698
%RSD	.0459946	.1776509	.3807183	.4075434	.1576627
#1	3225.530	78483.31	22445.56	2940.271	3620.416
#2	3222.568	78420.62	22422.32	2936.929	3609.147
#3	3224.184	78217.00	22580.82	2918.108	3613.305

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15LX5 Acquired: 5/21/2025 16:34:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1087316	-.002095	.1068943	-.009435	-.002773	72.20250	.4224191
Stddev	.0059644	.000669	.0023017	.003964	.003513	.62730	.0042819
%RSD	5.485437	31.91339	2.153250	42.01740	126.7022	.8688117	1.013666
#1	.1044895	-.002725	.1087026	-.004894	-.002671	72.92587	.4273615
#2	.1061540	-.001393	.1076771	-.012208	.000688	71.87330	.4200668
#3	.1155513	-.002168	.1043033	-.011202	-.006336	71.80832	.4198290

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041379	.0010886	12.50318	.1081506	.0540621	.2055836	118.3534
Stddev	.0000238	.0002553	.07092	.0002853	.0001301	.0014846	.6215
%RSD	.5738963	23.45400	.5672270	.2638351	.2407373	.7221265	.5251269
#1	.0041149	.0009061	12.57295	.1082390	.0539944	.2041830	119.0289
#2	.0041623	.0013804	12.43116	.1078315	.0542121	.2071399	117.8058
#3	.0041363	.0009795	12.50542	.1083812	.0539797	.2054278	118.2256

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.790722	25.18468	.1035448	.0012128	.6689811	.1596720	.3307450
Stddev	.017630	.16269	.0004446	.0002203	.0136565	.0004325	.0008259
%RSD	.9845137	.6459856	.4293737	18.16453	2.041389	.2708637	.2497176
#1	1.811079	25.37210	.1030530	.0010944	.6805062	.1601464	.3306568
#2	1.780375	25.10210	.1036631	.0010769	.6538976	.1595698	.3316116
#3	1.780713	25.07984	.1039182	.0014669	.6725394	.1592997	.3299668

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.01977	.0399422	.0054984	.0019423	4.825482	3.399109	3.791339
Stddev	.16418	.0003871	.0004770	.0017778	.042649	.017450	.013673
%RSD	.7810844	.9690167	8.675109	91.53115	.8838244	.5133787	.3606432
#1	21.20726	.0396963	.0056790	.0010478	4.874564	3.419255	3.776552
#2	20.90172	.0397419	.0049575	.0007894	4.804426	3.388671	3.803524
#3	20.95032	.0403884	.0058587	.0039896	4.797456	3.389402	3.793942

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15LX5 Acquired: 5/21/2025 16:34:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.356274	.1725857	-.048346
Stddev	.002576	.0014901	.000365
%RSD	.0767470	.8634228	.7552598
#1	3.353300	.1742427	-.048044
#2	3.357816	.1713554	-.048242
#3	3.357706	.1721591	-.048752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.537	67619.71	19548.33	2621.849	4075.088
Stddev	5.423	168.33	96.69	3.181	3.901
%RSD	.1843625	.2489415	.4945953	.1213241	.0957296
#1	2940.441	67450.28	19436.71	2618.226	4078.793
#2	2936.746	67786.92	19606.22	2624.185	4071.017
#3	2947.425	67621.94	19602.06	2623.135	4075.453

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15MS Acquired: 5/21/2025 16:38:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9838846	1.795408	1.348048	1.474350	.1740171	240.7601
Stddev	.0008901	.016091	.007506	.006755	.0040732	2.0198
%RSD	.0904672	.8962447	.5567837	.4581839	2.340718	.8389072
#1	.9828658	1.777031	1.347839	1.472439	.1763748	238.4409
#2	.9842766	1.806969	1.355656	1.468757	.1693137	242.1328
#3	.9845114	1.802225	1.340649	1.481855	.1763628	241.7067

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.587720	.1585415	.2159367	55.50450	.6523261	.4219038
Stddev	.004149	.0002087	.0014963	.16231	.0021813	.0020612
%RSD	.2613209	.1316110	.6929122	.2924202	.3343908	.4885554
#1	1.590604	.1584720	.2164764	55.45830	.6529144	.4222497
#2	1.582965	.1587760	.2170882	55.68490	.6541529	.4237702
#3	1.589591	.1583764	.2142455	55.37030	.6499109	.4196915

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8458018	375.3326	7.065526	86.06596	.8828887	.0619261
Stddev	.0005796	.6080	.008782	.29531	.0057681	.0002406
%RSD	.0685261	.1619904	.1242902	.3431165	.6533236	.3885744
#1	.8457273	375.1428	7.069482	85.95209	.8838198	.0620467
#2	.8464151	376.0129	7.071634	86.40125	.8881346	.0616490
#3	.8452631	374.8421	7.055462	85.84454	.8767116	.0620826

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.576437	.7428615	1.278904	83.13084	.3450159	.3241191
Stddev	.025011	.0030626	.002880	.09802	.0009727	.0009937
%RSD	.4485094	.4122694	.2252009	.1179083	.2819143	.3065962
#1	5.588940	.7445105	1.275588	83.22517	.3459713	.3251077
#2	5.547641	.7447462	1.280342	83.02951	.3440269	.3231203
#3	5.592732	.7393277	1.280782	83.13783	.3450496	.3241292

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15MS Acquired: 5/21/2025 16:38:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6621280	16.68125	F 21.96956	F 21.51419	12.46070	.7318950
Stddev	.0028650	.01453	.04174	.11944	.06124	.0023283
%RSD	.4327016	.0870946	.1899699	.5551869	.4914906	.3181208
#1	.6597323	16.68939	21.92624	21.53172	12.45194	.7337963
#2	.6653017	16.68987	22.00950	21.62390	12.52585	.7292982
#3	.6613501	16.66447	21.97293	21.38695	12.40431	.7325904

Elem	Sr4077
Units	ppm
Avg	.0562209
Stddev	.0014291
%RSD	2.541882
#1	.0574322
#2	.0546448
#3	.0565856

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3294.296	77214.82	22788.72	2919.930	3717.371
Stddev	30.633	283.38	113.57	18.387	21.387
%RSD	.9298909	.3670008	.4983520	.6296946	.5753185
#1	3290.483	77424.80	22859.20	2938.548	3709.757
#2	3326.657	76892.49	22657.71	2901.783	3741.523
#3	3265.747	77327.16	22849.25	2919.460	3700.834

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15MSD Acquired: 5/21/2025 16:42:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9435280	1.680694	1.296919	1.422559	.1726080	235.8137
Stddev	.0043857	.008521	.000743	.005461	.0008682	1.0946
%RSD	.4648146	.5070030	.0573157	.3838834	.5029794	.4641603
#1	.9404364	1.689344	1.296153	1.428230	.1731882	236.9770
#2	.9416003	1.680429	1.296967	1.417335	.1730258	235.6600
#3	.9485473	1.672308	1.297637	1.422112	.1716099	234.8041

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.596875	.1548495	.2084540	56.98004	.6194748	.4074827
Stddev	.012109	.0010222	.0006836	.38011	.0026274	.0003307
%RSD	.7582746	.6601470	.3279257	.6670916	.4241392	.0811606
#1	1.610413	.1559166	.2089737	57.36362	.6204390	.4076584
#2	1.593136	.1547531	.2076797	56.97300	.6214839	.4071012
#3	1.587078	.1538790	.2087088	56.60350	.6165015	.4076885

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8408081	340.8374	7.619630	86.03930	.8398658	.0559717
Stddev	.0012547	1.0285	.054797	.46731	.0009633	.0001881
%RSD	.1492302	.3017655	.7191492	.5431342	.1146904	.3360056
#1	.8415107	341.4951	7.671840	86.44070	.8409141	.0557605
#2	.8393595	341.3650	7.624481	86.15090	.8390198	.0560334
#3	.8415542	339.6521	7.562570	85.52629	.8396634	.0561212

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.319611	.7367465	1.211749	76.60355	.2995763	.3180349
Stddev	.031233	.0069487	.002491	.18356	.0003342	.0009088
%RSD	.5871253	.9431586	.2055502	.2396217	.1115458	.2857417
#1	5.353949	.7447698	1.208941	76.81414	.2992328	.3190502
#2	5.311988	.7328044	1.212613	76.47749	.2995960	.3177569
#3	5.292895	.7326653	1.213692	76.51902	.2999003	.3172976

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15MSD Acquired: 5/21/2025 16:42:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6445942	16.37078	F 18.30690	F 20.63387	13.32458	.7246295
Stddev	.0037323	.10019	.02733	.06804	.01841	.0047180
%RSD	.5790103	.6120200	.1492909	.3297369	.1381510	.6510969
#1	.6485291	16.47955	18.32712	20.70634	13.34395	.7300745
#2	.6441489	16.35051	18.31778	20.57136	13.30732	.7217545
#3	.6411045	16.28226	18.27581	20.62391	13.32247	.7220594

Elem	Sr4077
Units	ppm
Avg	.1025562
Stddev	.0023497
%RSD	2.291146
#1	.1052261
#2	.1008033
#3	.1016392

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.503	82399.33	22271.03	2984.146	3709.641
Stddev	5.066	232.69	60.06	19.243	5.254
%RSD	.1572577	.2823891	.2696979	.6448319	.1416193
#1	3226.643	82662.07	22228.86	3004.010	3714.228
#2	3221.352	82316.63	22244.42	2965.592	3710.787
#3	3216.514	82219.29	22339.80	2982.835	3703.910

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15A Acquired: 5/21/2025 16:46:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9774677	1.714774	1.343142	1.476172	.6131405	250.1169
Stddev	.0040131	.021763	.006968	.003793	.0022118	3.7715
%RSD	.4105566	1.269136	.5187641	.2569470	.3607334	1.507905
#1	.9742596	1.703161	1.346144	1.480387	.6110131	254.4650
#2	.9819675	1.701280	1.335176	1.473035	.6129805	248.1559
#3	.9761758	1.739880	1.348104	1.475093	.6154280	247.7299

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.818204	.1492498	.2060113	71.89497	.6727326	.4300969
Stddev	.010263	.0021639	.0001331	.74580	.0026912	.0013516
%RSD	.5644765	1.449850	.0646239	1.037349	.4000408	.3142616
#1	1.829748	.1514589	.2059197	72.73665	.6747133	.4292567
#2	1.810113	.1491564	.2059502	71.31634	.6696686	.4293778
#3	1.814750	.1471342	.2061640	71.63193	.6738160	.4316560

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9255714	402.1326	8.188566	91.90457	.8853920	.0613527
Stddev	.0010026	3.1559	.075980	1.02662	.0019181	.0005814
%RSD	.1083243	.7847921	.9278760	1.117054	.2166339	.9475815
#1	.9245841	401.4344	8.273283	93.08411	.8865883	.0609457
#2	.9255416	399.3843	8.126454	91.21251	.8831796	.0610939
#3	.9265887	405.5792	8.165961	91.41707	.8864081	.0620185

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.196555	.7825232	1.398483	91.71726	.3924157	.3284461
Stddev	.060566	.0069295	.001640	.75441	.0047247	.0017445
%RSD	.9774136	.8855269	.1172873	.8225345	1.203999	.5311325
#1	6.157896	.7905235	1.397681	91.37566	.3901713	.3271306
#2	6.165412	.7784046	1.397399	91.19407	.3892315	.3277827
#3	6.266355	.7786416	1.400370	92.58204	.3978442	.3304250

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q1984-15A Acquired: 5/21/2025 16:46:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7126099	17.44446	F 23.13861	F 23.36983	14.69275	.7668833
Stddev	.0016651	.13798	.18577	.07058	.03171	.0039451
%RSD	.2336573	.7909419	.8028697	.3020183	.2158240	.5144351
#1	.7115011	17.59989	23.09379	23.35225	14.68352	.7711452
#2	.7145246	17.33645	22.97935	23.30970	14.66668	.7633592
#3	.7118041	17.39703	23.34269	23.44753	14.72805	.7661455

Elem	Sr4077
Units	ppm
Avg	.1064018
Stddev	.0038801
%RSD	3.646619
#1	.1103697
#2	.1062198
#3	.1026160

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3136.893	77447.76	23168.25	2925.764	3574.190
Stddev	6.893	248.47	310.67	12.484	8.238
%RSD	.2197459	.3208166	1.340948	.4266957	.2304932
#1	3142.747	77298.08	22821.50	2930.287	3580.433
#2	3138.637	77734.57	23262.00	2935.356	3577.285
#3	3129.295	77310.63	23421.26	2911.649	3564.853

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168085BL Acquired: 5/21/2025 16:51:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002704	-.000754	-.000127	-.002245	.0000403	.0166026	-.003784
Stddev	.001100	.000311	.001460	.001134	.0018724	.0057001	.000049
%RSD	40.68240	41.20280	1146.065	50.49200	4649.147	34.33278	1.286001
#1	-.001769	-.001046	-.001451	-.003444	.0000807	.0115696	-.003823
#2	-.002427	-.000788	.001438	-.002102	-.001852	.0154458	-.003800
#3	-.003917	-.000427	-.000369	-.001190	.001892	.0227924	-.003730

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000471	-.000051	-.003607	-.000085	.0002583	.0002091	.0226872
Stddev	.0000041	.000096	.002669	.000310	.0000936	.0001269	.0023503
%RSD	8.679348	189.1256	73.98986	365.1949	36.24046	60.66610	10.35971
#1	.0000424	.000056	-.004146	-.000345	.0001966	.0003335	.0209570
#2	.0000490	-.000080	-.000710	-.000169	.0003659	.0000799	.0217415
#3	.0000499	-.000128	-.005966	.000259	.0002122	.0002139	.0253631

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000128	-.004394	.0000651	.0000849	-.124063	.0008127	.0000312
Stddev	.000151	.017874	.0000780	.0002958	.007618	.0003528	.0003608
%RSD	117.6782	406.8136	119.8208	348.4053	6.140708	43.41262	1155.146
#1	.000034	-.017302	-.000023	.0003343	-.116133	.0011265	-.000280
#2	-.000154	-.011886	.000125	.0001622	-.131325	.0008808	-.000052
#3	-.000264	.016007	.000093	-.000242	-.124732	.0004308	.000426

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.042491	-.000780	-.000210	.0002811	.0002796	-.004838	-.001130
Stddev	.032529	.000477	.000133	.0007424	.0009428	.002891	.004263
%RSD	76.55616	61.20174	63.13217	264.1338	337.1251	59.76890	377.2752
#1	-.006130	-.000317	-.000363	.0001367	.0002497	-.004674	.003039
#2	-.052513	-.000754	-.000138	.0010850	-.000648	-.007807	-.000947
#3	-.068829	-.001270	-.000130	-.000379	.001237	-.002032	-.005481

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168085BL Acquired: 5/21/2025 16:51:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006099	-.001492	-.000118
Stddev	.0039716	.001263	.000037
%RSD	651.1780	84.59992	31.29434
#1	-.003838	-.001832	-.000134
#2	.003802	-.000095	-.000075
#3	.001865	-.002550	-.000143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2804.480	67027.76	18169.31	2560.335	4267.413
Stddev	9.196	211.39	235.94	10.135	10.047
%RSD	.3279165	.3153814	1.298545	.3958467	.2354301
#1	2800.568	67111.35	17915.65	2570.927	4261.574
#2	2814.986	66787.36	18210.06	2550.730	4279.014
#3	2797.887	67184.59	18382.22	2559.348	4261.651

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168085BS Acquired: 5/21/2025 17:05:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7526875	1.904242	.9327562	1.911450	.7611490	1.794192
Stddev	.0016348	.014284	.0031303	.004649	.0046301	.003145
%RSD	.2171953	.7501129	.3355945	.2432319	.6083067	.1752712
#1	.7544835	1.894453	.9323669	1.907226	.7588456	1.796262
#2	.7512862	1.920633	.9360629	1.916432	.7581222	1.790573
#3	.7522928	1.897640	.9298388	1.910693	.7664790	1.795740

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1751626	.1832897	.1917185	.9169110	.3764625	.1849237
Stddev	.0014014	.0006904	.0006051	.0037081	.0006867	.0005755
%RSD	.8000447	.3766586	.3156091	.4044162	.1823953	.3112372
#1	.1767017	.1833790	.1916887	.9148610	.3756700	.1854170
#2	.1748259	.1825590	.1923380	.9146805	.3768383	.1850629
#3	.1739603	.1839311	.1911289	.9211915	.3768793	.1842914

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2884067	2.778547	.1875425	1.810890	.4682069	.0692559
Stddev	.0002901	.016919	.0003344	.007504	.0013555	.0003580
%RSD	.1005941	.6089165	.1783239	.4143571	.2895095	.5168666
#1	.2887412	2.759738	.1878796	1.813662	.4678957	.0695166
#2	.2882228	2.792526	.1872108	1.802394	.4696909	.0688478
#3	.2882562	2.783376	.1875371	1.816613	.4670340	.0694034

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.705487	.2752532	.1880508	8.586742	.2724049	.3873250
Stddev	.032604	.0019581	.0014685	.062962	.0020958	.0003222
%RSD	1.205090	.7113890	.7809208	.7332462	.7693829	.0831820
#1	2.719457	.2769275	.1869453	8.591402	.2706608	.3876861
#2	2.728777	.2757318	.1874900	8.647245	.2718239	.3872220
#3	2.668226	.2731001	.1897171	8.521580	.2747299	.3870669

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168085BS Acquired: 5/21/2025 17:05:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6655467	.1860206	.7823912	5.732275	F -.008714	.1843693
Stddev	.0040616	.0002533	.0118838	.033849	.002187	.0007931
%RSD	.6102667	.1361596	1.518906	.5905061	25.09373	.4301602
#1	.6642637	.1860677	.7775225	5.701114	-.008917	.1851424
#2	.6700949	.1857471	.7959362	5.768289	-.006433	.1835577
#3	.6622816	.1862471	.7737149	5.727423	-.010792	.1844080

Elem	Sr4077
Units	ppm
Avg	.1822840
Stddev	.0006390
%RSD	.3505543
#1	.1830202
#2	.1818733
#3	.1819584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2843.422	68749.00	19161.61	2625.462	4296.180
Stddev	7.499	119.78	57.96	9.284	3.838
%RSD	.2637394	.1742304	.3024958	.3536091	.0893280
#1	2838.488	68864.33	19167.59	2635.977	4292.100
#2	2852.052	68625.22	19216.35	2618.396	4299.718
#3	2839.726	68757.46	19100.89	2622.012	4296.721

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168087BL Acquired: 5/21/2025 17:10:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001481	-.001376	-.001306	.0004368	.0024527	.0188344	-.003434
Stddev	.001919	.001386	.000266	.0016744	.0005851	.0060466	.000472
%RSD	129.5989	100.6670	20.35352	383.3656	23.85349	32.10380	13.73955
#1	-.000666	-.002694	-.001359	-.000510	.0018161	.0144799	-.003934
#2	-.003673	-.001504	-.001018	.002370	.0029668	.0162852	-.002996
#3	-.000103	.000068	-.001542	-.000549	.0025753	.0257381	-.003371

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000560	-.000104	-.000468	.0002925	.0001651	-.000076	.0177553
Stddev	.0000299	.000066	.003691	.0005766	.0001468	.000256	.0019733
%RSD	53.41121	62.84009	788.9681	197.0893	88.89555	338.7192	11.11386
#1	.0000224	-.000035	-.000807	.0004489	.0001732	.000220	.0164075
#2	.0000661	-.000111	.003381	-.000346	.0003077	-.000222	.0200203
#3	.0000796	-.000166	-.003978	.000775	.0000145	-.000225	.0168382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000301	-.001447	.0001527	.0002006	-.121991	.0004709	.0015930
Stddev	.000101	.011622	.0003209	.0001699	.001975	.0012124	.0001333
%RSD	33.66772	803.2959	210.1231	84.70452	1.618573	257.4579	8.367260
#1	-.000188	-.014867	.0004579	.0000194	-.124241	.0017396	.0015148
#2	-.000383	.005321	.0001823	.0003564	-.120547	.0003492	.0015173
#3	-.000333	.005206	-.000182	.0002259	-.121185	-.000676	.0017469

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.056427	-.001204	-.000020	.0002348	-.000479	-.006119	.0004557
Stddev	.018809	.000235	.000281	.0010638	.000470	.003825	.0044507
%RSD	33.33308	19.47709	1382.166	453.1314	98.23283	62.52182	976.7606
#1	-.035900	-.000935	.000119	.0009130	-.000740	-.002113	-.002232
#2	-.072835	-.001365	-.000344	.0007826	.000064	-.006509	.005593
#3	-.060547	-.001313	.000164	-.000991	-.000761	-.009734	-.001994

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168087BL Acquired: 5/21/2025 17:10:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000508	-.000729	-.000099
Stddev	.0021347	.001181	.000066
%RSD	4201.235	162.1070	66.75630
#1	-.002316	-.000940	-.000110
#2	.000638	-.001790	-.000160
#3	.001831	.000544	-.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2827.975	66288.31	18225.68	2550.285	4288.308
Stddev	4.127	261.37	55.19	7.237	3.170
%RSD	.1459520	.3942986	.3027947	.2837899	.0739170
#1	2826.701	66345.18	18173.67	2554.349	4287.922
#2	2832.589	66516.57	18283.57	2554.578	4291.653
#3	2824.635	66003.19	18219.81	2541.929	4285.349

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168087BS Acquired: 5/21/2025 17:15:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7717902	1.883161	.9327739	1.957148	.7700683	1.803793
Stddev	.0014558	.034190	.0002215	.004844	.0016634	.006929
%RSD	.1886254	1.815584	.0237445	.2475205	.2160004	.3841181
#1	.7734530	1.922540	.9327865	1.962034	.7705003	1.811637
#2	.7707453	1.861028	.9329888	1.952347	.7714730	1.801235
#3	.7711722	1.865916	.9325464	1.957062	.7682316	1.798507

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1703803	.1856679	.1930311	.9013768	.3807707	.1860126
Stddev	.0013178	.0006335	.0003683	.0052211	.0010443	.0001355
%RSD	.7734687	.3411795	.1908241	.5792347	.2742626	.0728200
#1	.1710057	.1863293	.1928577	.9033417	.3810588	.1861659
#2	.1712690	.1850667	.1927814	.9053303	.3796125	.1859627
#3	.1688662	.1856077	.1934542	.8954583	.3816407	.1859092

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2916712	2.805571	.1828688	1.800040	.4704854	.0708106
Stddev	.0004256	.008412	.0011494	.018005	.0002397	.0004074
%RSD	.1459326	.2998436	.6285234	1.000279	.0509477	.5753611
#1	.2913354	2.796239	.1841564	1.805703	.4704618	.0708397
#2	.2915283	2.807902	.1825036	1.779884	.4702584	.0712027
#3	.2921499	2.812572	.1819463	1.814534	.4707361	.0703894

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.749882	.2740101	.1889090	8.778622	.2753616	.3868975
Stddev	.007978	.0013023	.0012762	.053210	.0012142	.0017150
%RSD	.2901286	.4752856	.6755521	.6061318	.4409489	.4432699
#1	2.753243	.2743041	.1874504	8.718424	.2766243	.3885886
#2	2.755629	.2725859	.1894568	8.798071	.2742025	.3851596
#3	2.740773	.2751403	.1898199	8.819372	.2752581	.3869444

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168087BS Acquired: 5/21/2025 17:15:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6704645	.1839381	.8016569	5.853866	F -.007794	.1830239
Stddev	.0019467	.0004441	.0104182	.029656	.004381	.0012035
%RSD	.2903580	.2414339	1.299584	.5066034	56.20755	.6575363
#1	.6687445	.1839270	.7935020	5.887972	-.012179	.1839087
#2	.6700711	.1834996	.8133935	5.839476	-.007787	.1816535
#3	.6725779	.1843876	.7980752	5.834151	-.003417	.1835093

Elem	Sr4077
Units	ppm
Avg	.1794137
Stddev	.0005949
%RSD	.3315895
#1	.1800203
#2	.1788311
#3	.1793898

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.543	65382.41	18702.56	2531.795	4138.872
Stddev	4.894	179.03	35.64	13.642	6.490
%RSD	.1783038	.2738156	.1905768	.5388182	.1568112
#1	2747.631	65587.39	18671.19	2546.876	4143.707
#2	2747.098	65256.70	18741.32	2528.196	4141.412
#3	2738.901	65303.15	18695.16	2520.314	4131.496

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168086BL Acquired: 5/21/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001982	-.001232	-.000960	.0000629	.0001858	.0020913	-.003866
Stddev	.006905	.000374	.000467	.0025235	.0027547	.0029105	.000535
%RSD	348.3624	30.31352	48.68714	4014.127	1482.468	139.1689	13.83885
#1	.005776	-.001457	-.001270	-.002851	-.000955	.0025289	-.003950
#2	-.004268	-.001439	-.000422	.001503	-.001815	-.001013	-.004355
#3	-.007454	-.000801	-.001187	.001536	.003328	.004758	-.003294

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000018	-.000084	-.003897	.0006286	.0001321	.0001532	.0013047
Stddev	.000002	.000072	.004953	.0001674	.0000035	.0001353	.0075407
%RSD	11.15246	86.18712	127.1185	26.62914	2.619711	88.31353	577.9403
#1	-.000016	-.000098	.000657	.0005703	.0001359	.0000525	.0095789
#2	-.000020	-.000148	-.009171	.0004982	.0001312	.0003070	-.000484
#3	-.000019	-.000006	-.003176	.0008174	.0001292	.0001002	-.005181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000289	-.002326	.0000770	.0002112	-.123488	-.000311	.0006462
Stddev	.000270	.003248	.0001986	.0001794	.006595	.000360	.0002846
%RSD	93.48538	139.6481	257.8386	84.90758	5.340579	115.5995	44.04498
#1	-.000562	-.005894	.0001512	.0004184	-.130003	.000001	.0008811
#2	-.000022	-.001541	.0002278	.0001073	-.116816	-.000231	.0007277
#3	-.000283	.000458	-.000148	.0001081	-.123644	-.000705	.0003297

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.079164	-.001586	-.000191	-.000494	-.000516	-.005847	-.000596
Stddev	.020264	.000157	.000274	.000696	.000336	.009886	.003318
%RSD	25.59742	9.899440	143.2245	141.0969	65.20685	169.0829	557.1812
#1	-.087543	-.001429	.000017	.000303	-.000902	.003713	-.004084
#2	-.056055	-.001743	-.000089	-.000797	-.000284	-.005224	-.000223
#3	-.093895	-.001586	-.000502	-.000987	-.000362	-.016030	.002521

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168086BL Acquired: 5/21/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002359	-.001712	-.000039
Stddev	.003968	.000843	.000092
%RSD	168.2269	49.24413	237.1111
#1	.001449	-.000766	-.000100
#2	-.002056	-.002385	.000067
#3	-.006469	-.001985	-.000083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2826.069	66357.95	19025.53	2560.500	4287.909
Stddev	2.539	115.34	142.80	14.769	5.409
%RSD	.0898596	.1738175	.7505903	.5767824	.1261369
#1	2823.582	66272.75	18898.61	2546.302	4293.964
#2	2825.966	66311.89	18997.83	2559.417	4283.557
#3	2828.658	66489.20	19180.16	2575.780	4286.207

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV04 Acquired: 5/21/2025 17:27:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.681575	4.785340	4.787596	4.702377	4.746178	9.545513	9.487857
Stddev	.014771	.023212	.011452	.008478	.004675	.022772	.039408
%RSD	.3155121	.4850601	.2391991	.1802982	.0984935	.2385590	.4153497
#1	4.698594	4.809243	4.787783	4.706673	4.750765	9.524774	9.468826
#2	4.672102	4.762888	4.798954	4.707848	4.741420	9.569882	9.461576
#3	4.674028	4.783889	4.776052	4.692611	4.746349	9.541884	9.533168

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2436491	2.372006	23.96050	.9609411	2.365451	1.194010	4.793217
Stddev	.0010972	.001430	.02005	.0025264	.003928	.001597	.039273
%RSD	.4503269	.0602866	.0836836	.2629119	.1660480	.1337199	.8193348
#1	.2427160	2.372638	23.97475	.9631809	2.369942	1.192196	4.798387
#2	.2448579	2.370369	23.93757	.9614399	2.362656	1.194633	4.751616
#3	.2433733	2.373012	23.96918	.9582025	2.363756	1.195202	4.829649

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.416544	23.90523	2.376604	1.199684	23.49504	2.407366	2.435487
Stddev	.010377	.03306	.001949	.003509	.16400	.006493	.004173
%RSD	.4294291	.1383075	.0819964	.2924565	.6980267	.2696974	.1713478
#1	2.404999	23.87885	2.378667	1.203730	23.57876	2.399869	2.440256
#2	2.419537	23.94232	2.374795	1.197845	23.30607	2.411092	2.432504
#3	2.425096	23.89452	2.376348	1.197478	23.60028	2.411137	2.433701

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.39069	4.832750	4.806120	4.737560	4.792809	4.741166	4.780605
Stddev	.16083	.027678	.004960	.005131	.013855	.025518	.005540
%RSD	.6875839	.5727260	.1032053	.1082954	.2890724	.5382224	.1158905
#1	23.50458	4.819301	4.803631	4.743310	4.777129	4.740427	4.775899
#2	23.20671	4.864583	4.802897	4.733450	4.797899	4.716025	4.779205
#3	23.46078	4.814365	4.811832	4.735920	4.803399	4.767046	4.786711

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV04 Acquired: 5/21/2025 17:27:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.636529	4.719958	4.771072
Stddev	.024964	.013564	.094327
%RSD	.5384196	.2873823	1.977051
#1	4.662997	4.704320	4.687274
#2	4.613407	4.728536	4.873228
#3	4.633183	4.727019	4.752714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2825.595	66010.64	18282.59	2527.367	4157.000
Stddev	6.497	291.18	83.60	10.499	6.862
%RSD	.2299314	.4411102	.4572612	.4154212	.1650714
#1	2832.341	65674.46	18305.29	2515.899	4163.581
#2	2825.064	66174.08	18189.98	2536.506	4157.532
#3	2819.380	66183.38	18352.49	2529.695	4149.888

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB04 Acquired: 5/21/2025 17:32:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004252	-.000778	-.000281	-.001112	.0007203	.0137961	-.002377
Stddev	.001301	.000094	.000515	.002491	.0006104	.0061085	.001139
%RSD	30.60261	12.10739	183.1695	223.9813	84.74585	44.27685	47.91203
#1	-.003377	-.000887	.000309	-.000202	.0009492	.0163403	-.001802
#2	-.003632	-.000727	-.000637	.000796	.0000285	.0182212	-.001641
#3	-.005748	-.000720	-.000515	-.003930	.0011832	.0068267	-.003689

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000010	.0000975	-.004854	-.000022	.0003624	.0000833	.0137676
Stddev	.000009	.0000740	.007398	.000277	.0002402	.0004728	.0026113
%RSD	89.79893	75.91925	152.3993	1259.339	66.26702	567.3775	18.96687
#1	-.000004	.0000528	-.011163	-.000250	.0002733	.0003586	.0128799
#2	-.000021	.0000568	.003288	-.000102	.0001796	-.000463	.0167070
#3	-.000006	.0001830	-.006687	.000286	.0006344	.000354	.0117159

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000173	-.007542	.0002999	.0001571	-.113951	.0005728	.0027208
Stddev	.0002145	.004601	.0002610	.0001533	.014045	.0010122	.0001875
%RSD	1237.671	61.01371	87.05673	97.56653	12.32545	176.7149	6.892175
#1	-.000229	-.012854	.0001231	.0001395	-.105065	-.000570	.0028666
#2	.000165	-.004938	.0001768	.0000134	-.130143	.000932	.0027865
#3	.000116	-.004832	.0005997	.0003184	-.106645	.001357	.0025092

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.064408	.0045320	.0005518	.0002111	.0000466	-.002844	-.001427
Stddev	.033961	.0004722	.0000608	.0005533	.0004186	.013537	.003199
%RSD	52.72756	10.41997	11.01090	262.0824	898.8850	475.9220	224.1601
#1	-.103481	.0040651	.0005612	-.000428	.0005199	.012606	-.000143
#2	-.041993	.0045215	.0004869	.000528	-.000275	-.012623	.000931
#3	-.047749	.0050094	.0006073	.000533	-.000105	-.008516	-.005069

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB04 Acquired: 5/21/2025 17:32:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003267	-.000904	.0002126
Stddev	.002062	.001400	.0000543
%RSD	63.11101	154.8728	25.55532
#1	-.001225	-.000346	.0002231
#2	-.003229	.000131	.0002608
#3	-.005348	-.002497	.0001537

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2856.667	66923.79	18750.49	2576.016	4375.013
Stddev	10.300	133.34	60.62	6.159	16.914
%RSD	.3605560	.1992478	.3233144	.2390937	.3866005
#1	2867.214	67069.14	18680.64	2580.720	4389.115
#2	2856.154	66807.12	18789.38	2569.044	4379.663
#3	2846.634	66895.09	18781.44	2578.282	4356.261

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168086BS Acquired: 5/21/2025 17:37:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7557963	1.868712	.9246779	1.902224	.7540927	1.858378
Stddev	.0043582	.026134	.0031034	.007543	.0046692	.033468
%RSD	.5766381	1.398491	.3356230	.3965539	.6191816	1.800946
#1	.7510602	1.894442	.9281080	1.908163	.7570849	1.843103
#2	.7596378	1.869502	.9220645	1.904773	.7487124	1.835272
#3	.7566907	1.842192	.9238612	1.893736	.7564807	1.896758

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1709118	.1944102	.1891057	.9259021	.3820874	.1837704
Stddev	.0030934	.0032749	.0005697	.0199525	.0008942	.0002388
%RSD	1.809942	1.684541	.3012728	2.154924	.2340381	.1299312
#1	.1689440	.1925656	.1884494	.9113426	.3825223	.1840113
#2	.1693141	.1924735	.1894734	.9177185	.3810589	.1835338
#3	.1744774	.1981913	.1893942	.9486453	.3826810	.1837662

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2887827	2.715670	.1859157	1.828364	.4633658	.0699216
Stddev	.0013209	.018760	.0031982	.030338	.0001537	.0000960
%RSD	.4574082	.6908105	1.720264	1.659324	.0331712	.1372620
#1	.2889512	2.703085	.1839965	1.830346	.4633724	.0700245
#2	.2873856	2.706694	.1841429	1.797083	.4635161	.0698346
#3	.2900112	2.737232	.1896078	1.857662	.4632089	.0699057

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.608487	.2770271	.1894960	8.538043	.2928000	.3852102
Stddev	.021278	.0044606	.0005010	.012589	.0064367	.0011432
%RSD	.8157397	1.610155	.2643973	.1474426	2.198343	.2967752
#1	2.588620	.2779809	.1889660	8.523651	.2901644	.3864649
#2	2.605900	.2721668	.1899618	8.547006	.2880994	.3842277
#3	2.630940	.2809337	.1895601	8.543473	.3001363	.3849379

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168086BS Acquired: 5/21/2025 17:37:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6515807	.1852141	.7820291	5.575919	F -.009050	.1886470
Stddev	.0013003	.0043476	.0039908	.012359	.002315	.0045013
%RSD	.1995548	2.347314	.5103117	.2216496	25.58445	2.386091
#1	.6508522	.1816474	.7858793	5.587854	-.011428	.1869778
#2	.6530819	.1839381	.7779112	5.576727	-.006803	.1852187
#3	.6508081	.1900569	.7822970	5.563176	-.008918	.1937445

Elem	Sr4077
Units	ppm
Avg	.1809988
Stddev	.0035950
%RSD	1.986194
#1	.1790670
#2	.1787827
#3	.1851467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.514	66123.43	18020.98	2543.709	4344.413
Stddev	11.273	135.12	295.43	5.117	8.299
%RSD	.3971559	.2043480	1.639355	.2011739	.1910355
#1	2827.254	66043.72	18158.35	2543.555	4335.233
#2	2849.801	66279.44	18222.70	2548.901	4351.383
#3	2838.487	66047.13	17681.88	2538.670	4346.625

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168107BL Acquired: 5/21/2025 17:41:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001916	-.001611	-.000590	.0004614	.0007661	-.000124	-.004207
Stddev	.003874	.001116	.000452	.0022527	.0012595	.005029	.000853
%RSD	202.1826	69.29322	76.61372	488.2580	164.4035	4059.823	20.28930
#1	-.000133	-.002824	-.001110	.0010685	.0016596	-.004972	-.003632
#2	.000745	-.000626	-.000357	.0023483	-.000674	.005070	-.005187
#3	-.006360	-.001383	-.000301	-.002033	.001313	-.000470	-.003801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000122	.0000009	-.006254	-.000069	.0002129	-.000089	.0044490
Stddev	.0000229	.0000494	.007024	.000379	.0001854	.000355	.0024416
%RSD	187.4878	5244.853	112.3074	553.5439	87.07852	397.8669	54.88067
#1	.0000387	-.000018	-.014055	-.000275	.0003909	-.000361	.0020354
#2	.0000005	-.000036	-.004274	.000369	.0002268	-.000219	.0043937
#3	-.000002	.000057	-.000433	-.000299	.0000209	.000312	.0069178

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000274	-.011200	.0001245	.0004045	-.118825	.0011339	-.000303
Stddev	.000246	.008641	.0001272	.0002265	.011680	.0012228	.000504
%RSD	89.83389	77.14798	102.2069	55.99220	9.829433	107.8335	166.3396
#1	-.000095	-.011559	.0001291	.0001617	-.131337	.0024782	-.000884
#2	-.000173	-.019656	.0002494	.0004418	-.108210	.0000878	-.000031
#3	-.000554	-.002386	-.000005	.0006100	-.116928	.0008358	.000007

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.044319	.0015345	-.000149	-.000652	-.000022	.0021453	.0007356
Stddev	.020352	.0002637	.000348	.000552	.000427	.0056729	.0021386
%RSD	45.92235	17.18525	234.1877	84.62371	1975.058	264.4400	290.7179
#1	-.066909	.0012589	-.000267	-.001028	.000008	.0086286	.0030555
#2	-.038636	.0017845	-.000422	-.000911	-.000463	-.001907	-.001157
#3	-.027412	.0015601	.000243	-.000018	.000390	-.000286	.000309

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168107BL Acquired: 5/21/2025 17:41:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001025	-.001043	-.000114
Stddev	.005387	.000184	.000031
%RSD	525.6973	17.63746	26.75466
#1	.003687	-.001209	-.000083
#2	-.006897	-.000845	-.000144
#3	.000136	-.001076	-.000115

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2822.831	67658.37	19060.36	2593.487	4280.836
Stddev	6.355	279.10	36.22	18.748	10.483
%RSD	.2251225	.4125156	.1900153	.7228863	.2448870
#1	2816.280	67360.17	19058.69	2582.874	4268.915
#2	2823.244	67701.62	19097.38	2582.452	4288.618
#3	2828.969	67913.33	19025.00	2615.134	4284.975

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168107BS Acquired: 5/21/2025 17:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7589602	1.863368	.9350926	1.924853	.7688834	1.821078
Stddev	.0027940	.021931	.0027167	.011934	.0006957	.006188
%RSD	.3681406	1.176951	.2905224	.6199853	.0904748	.3397794
#1	.7560100	1.840339	.9324138	1.912146	.7681464	1.824792
#2	.7593041	1.865762	.9350184	1.926592	.7689752	1.824508
#3	.7615663	1.884005	.9378456	1.935823	.7695285	1.813935

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1725300	.1906927	.1920367	.9158928	.3792788	.1853725
Stddev	.0002819	.0007402	.0005187	.0029691	.0013882	.0006963
%RSD	.1634084	.3881635	.2700886	.3241729	.3660056	.3756428
#1	.1723866	.1909490	.1917441	.9126710	.3806226	.1850816
#2	.1723487	.1912706	.1917304	.9185188	.3793636	.1848688
#3	.1728549	.1898584	.1926355	.9164887	.3778501	.1861671

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2894818	2.754089	.1867151	1.809012	.4691655	.0700141
Stddev	.0007848	.005678	.0011641	.010301	.0012407	.0000997
%RSD	.2711207	.2061674	.6234547	.5694284	.2644401	.1423444
#1	.2894901	2.748101	.1877935	1.813048	.4684463	.0700756
#2	.2886928	2.754771	.1854810	1.816683	.4684521	.0698991
#3	.2902624	2.759396	.1868708	1.797304	.4705981	.0700676

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.577574	.2747063	.1902483	8.596378	.2867482	.3870396
Stddev	.018790	.0028723	.0007245	.043940	.0014978	.0015750
%RSD	.7289773	1.045583	.3808132	.5111448	.5223498	.4069286
#1	2.599210	.2776051	.1910661	8.604885	.2875242	.3860228
#2	2.568162	.2718613	.1896866	8.635442	.2876989	.3862421
#3	2.565350	.2746527	.1899924	8.548806	.2850216	.3888538

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168107BS Acquired: 5/21/2025 17:45:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6656573	.1860102	F .7749976	5.686333	F -.008741	.1871297
Stddev	.0030254	.0008775	.0097419	.023295	.002331	.0005979
%RSD	.4544982	.4717484	1.257021	.4096684	26.66882	.3195178
#1	.6627705	.1868142	.7756058	5.681025	-.009049	.1864912
#2	.6653969	.1850742	.7649658	5.666150	-.006271	.1872216
#3	.6688045	.1861421	.7844211	5.711824	-.010902	.1876764

Elem	Sr4077
Units	ppm
Avg	.1810022
Stddev	.0007610
%RSD	.4204409
#1	.1815957
#2	.1812666
#3	.1801442

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2828.884	67212.68	18542.55	2598.590	4272.439
Stddev	4.244	150.87	50.19	19.766	8.648
%RSD	.1500383	.2244594	.2706960	.7606494	.2024236
#1	2828.457	67151.54	18525.42	2583.795	4267.015
#2	2833.325	67101.97	18503.16	2590.937	4282.413
#3	2824.869	67384.51	18599.07	2621.039	4267.890

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168067TB Acquired: 5/21/2025 17:49:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004222	-.005502	-.000114	.0014669	.0010921	.0109904	-.002890
Stddev	.001665	.000517	.001754	.0016191	.0014040	.0022385	.001220
%RSD	39.44006	9.397761	1534.620	110.3762	128.5591	20.36785	42.21346
#1	-.005938	-.005084	.001726	.0025304	.0022357	.0084282	-.003964
#2	-.004114	-.006080	-.001767	-.000396	-.000475	.0125671	-.003144
#3	-.002613	-.005341	-.000302	.002267	.001515	.0119758	-.001563

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000071	-.000150	.0299194	.0006209	-.000057	.0005546	.0127435
Stddev	.000039	.000054	.0048043	.0001166	.000089	.0001374	.0008101
%RSD	55.22513	36.06094	16.05748	18.77680	154.9728	24.77415	6.357023
#1	-.000067	-.000195	.0284913	.0004903	-.000016	.0007015	.0121599
#2	-.000034	-.000165	.0259911	.0006579	.000003	.0004292	.0136684
#3	-.000113	-.000090	.0352759	.0007145	-.000159	.0005331	.0124022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019863	-.013762	.0011670	-.000041	362.2583	.0011842	.0026955
Stddev	.0003432	.004977	.0001929	.000100	.8675	.0013138	.0003453
%RSD	17.27928	36.16279	16.52551	246.0709	.2394787	110.9480	12.81099
#1	.0022756	-.015444	.0013576	-.000107	363.0726	.0023114	.0027595
#2	.0020763	-.008162	.0011715	.000074	361.3459	.0014998	.0023227
#3	.0016071	-.017679	.0009719	-.000090	362.3565	-.000259	.0030044

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014641	.0006756	.0003697	-.001973	.0001256	.0118326	.0025829
Stddev	.050284	.0004616	.0001786	.000369	.0000188	.0071152	.0007280
%RSD	343.4509	68.32264	48.29984	18.71768	14.95362	60.13243	28.18590
#1	-.030248	.0006273	.0003534	-.002393	.0001050	.0149353	.0032357
#2	-.055270	.0011594	.0001998	-.001698	.0001299	.0168695	.0017978
#3	.041596	.0002401	.0005558	-.001829	.0001419	.0036929	.0027151

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: PB168067TB Acquired: 5/21/2025 17:49:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0334904	-.001763	.0000093
Stddev	.0016513	.000918	.0001262
%RSD	4.930726	52.09366	1360.979
#1	.0323776	-.002770	-.000133
#2	.0353878	-.000972	.000106
#3	.0327059	-.001547	.000055

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2709.828	64919.68	17105.85	2473.053	3893.759
Stddev	18.084	124.76	82.56	15.821	26.957
%RSD	.6673309	.1921832	.4826235	.6397158	.6923014
#1	2707.722	65062.29	17188.36	2488.151	3879.325
#2	2728.873	64866.10	17105.94	2474.411	3924.859
#3	2692.890	64830.66	17023.25	2456.597	3877.093

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-04 Acquired: 5/21/2025 17:53:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004684	-.006967	.0036196	-.000191	.0007430	.0469611	.7442307
Stddev	.001667	.002018	.0001857	.001613	.0008759	.0030509	.0005241
%RSD	35.58323	28.97203	5.131850	844.0363	117.8892	6.496596	.0704252
#1	-.003840	-.004861	.0034138	.000464	-.000045	.0471064	.7437574
#2	-.003608	-.008885	.0037748	-.002028	.000588	.0438401	.7447940
#3	-.006604	-.007154	.0036704	.000991	.001686	.0499367	.7441408

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000662	.0001775	15.06313	.0022811	.0052749	.0273303	.0254490
Stddev	.0000323	.0000617	.03354	.0001462	.0002945	.0002753	.0051247
%RSD	48.77939	34.76243	.2226742	6.409583	5.583186	1.007183	20.13711
#1	.0001026	.0002481	15.07663	.0021228	.0050320	.0275360	.0196295
#2	.0000547	.0001504	15.02495	.0024111	.0051902	.0270176	.0292876
#3	.0000412	.0001340	15.08782	.0023092	.0056024	.0274373	.0274299

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.308239	1.744436	.0061483	-.000388	388.8132	.0003199	.3094430
Stddev	.006484	.010152	.0003065	.000542	2.5667	.0025080	.0020350
%RSD	.2808936	.5819619	4.985847	139.6717	.6601406	783.8978	.6576389
#1	2.314531	1.752640	.0058161	-.000534	386.2695	.0003838	.3117811
#2	2.301579	1.733082	.0062085	-.000843	391.4023	-.002219	.3080707
#3	2.308607	1.747586	.0064203	.000212	388.7678	.002795	.3084771

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.307100	.1667824	-.000056	-.003301	-.000979	1.412500	.0131630
Stddev	.017343	.0013260	.000232	.000684	.000980	.009445	.0005515
%RSD	1.326863	.7950573	417.5442	20.71926	100.1267	.6686971	4.189871
#1	1.295404	.1681518	-.000259	-.003789	-.002107	1.415825	.0131504
#2	1.327026	.1666909	-.000104	-.002519	-.000489	1.419833	.0126179
#3	1.298870	.1655045	.000197	-.003594	-.000340	1.401841	.0137207

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-04 Acquired: 5/21/2025 17:53:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.070280	-.002902	.0919137
Stddev	.004071	.000777	.0000696
%RSD	.3804063	26.75663	.0757109
#1	1.069844	-.002015	.0919615
#2	1.066444	-.003459	.0919457
#3	1.074552	-.003233	.0918338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2626.993	62481.71	18162.83	2404.441	3784.225
Stddev	11.663	174.68	168.93	18.991	18.936
%RSD	.4439844	.2795664	.9301130	.7898383	.5003870
#1	2632.561	62301.72	17984.88	2382.971	3800.033
#2	2634.829	62492.88	18182.58	2411.309	3789.403
#3	2613.589	62650.54	18321.01	2419.042	3763.239

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-08 Acquired: 5/21/2025 17:58:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004290	-.006482	.0016828	-.003934	-.000752	.0393768	.2917850
Stddev	.000526	.000662	.0008804	.002283	.001719	.0046409	.0009772
%RSD	12.25411	10.21335	52.31885	58.04004	228.7321	11.78578	.3349072
#1	-.004155	-.006636	.0012065	-.002706	-.002186	.0444948	.2924957
#2	-.003845	-.005756	.0011431	-.002528	-.001223	.0354422	.2906707
#3	-.004870	-.007053	.0026988	-.006569	.001154	.0381936	.2921888

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000196	.0005473	9.908057	.0001225	.0000794	.0109109	.0167698
Stddev	.0000118	.0000878	.067195	.0000708	.0001399	.0004436	.0055245
%RSD	60.14154	16.04734	.6781822	57.82936	176.2723	4.065200	32.94308
#1	.0000331	.0005810	9.976966	.0000513	.0001571	.0110898	.0119370
#2	.0000110	.0006132	9.904488	.0001231	-.000082	.0112370	.0155801
#3	.0000147	.0004476	9.842719	.0001930	.000163	.0104058	.0227921

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1180465	1.365356	.0028941	-.000132	310.5890	.0001688	.1229786
Stddev	.0006115	.004428	.0001266	.000084	.4668	.0002014	.0002417
%RSD	.5180408	.3242995	4.372811	63.67688	.1503038	119.3427	.1965059
#1	.1186865	1.360257	.0029312	-.000169	310.6180	-.000003	.1227113
#2	.1179849	1.368224	.0029981	-.000190	310.1084	.000119	.1230429
#3	.1174681	1.367588	.0027532	-.000036	311.0407	.000391	.1231816

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.445583	.0411104	.0001412	-.003782	-.000612	.9870014	.0113715
Stddev	.052271	.0012104	.0001995	.000998	.000448	.0148571	.0009877
%RSD	3.615922	2.944212	141.3167	26.39614	73.22724	1.505273	8.685953
#1	1.500979	.0410129	.0003692	-.003390	-.000154	.9978411	.0122987
#2	1.397131	.0423666	-.000001	-.004917	-.001049	.9700660	.0103327
#3	1.438639	.0399518	.000056	-.003039	-.000632	.9930970	.0114830

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-08 Acquired: 5/21/2025 17:58:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2804071	-.002914	.0666967
Stddev	.0037746	.000895	.0002827
%RSD	1.346129	30.72416	.4238194
#1	.2847459	-.003629	.0668260
#2	.2778786	-.003205	.0663726
#3	.2785968	-.001910	.0668917

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.121	64900.89	18586.66	2446.112	3997.891
Stddev	6.781	45.57	140.82	2.025	13.859
%RSD	.2466719	.0702202	.7576501	.0828000	.3466701
#1	2744.529	64879.23	18536.19	2444.195	3984.431
#2	2756.910	64870.18	18478.03	2445.910	4012.118
#3	2745.923	64953.25	18745.76	2448.231	3997.125

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-12 Acquired: 5/21/2025 18:02:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002205	-.006897	.0015261	.0037396	.0012085	.0109019	.6633591
Stddev	.001042	.000528	.0018204	.0037478	.0005485	.0008694	.0032716
%RSD	47.24536	7.655554	119.2834	100.2186	45.38522	7.975111	.4931853
#1	-.002327	-.006798	.0020339	.0003642	.0011312	.0113623	.6641001
#2	-.003181	-.006426	.0030387	.0077727	.0007028	.0114444	.6597806
#3	-.001108	-.007468	-.000494	.0030820	.0017916	.0098991	.6661966

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000025	.0000509	65.61995	.0010578	-.000167	.0121012	.0163664
Stddev	.0000197	.0000969	.15728	.0002594	.000224	.0002458	.0045732
%RSD	801.4821	190.4156	.2396784	24.52711	134.2159	2.030870	27.94286
#1	.0000095	.0001201	65.43836	.0011166	-.000420	.0118472	.0213429
#2	-.000020	.0000924	65.71296	.0007740	-.000088	.0121186	.0154077
#3	.000018	-.000060	65.70853	.0012828	.000007	.0123377	.0123485

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2508998	2.052703	.0036835	.0001675	322.5545	.0004967	.0935036
Stddev	.0008649	.005518	.0003528	.0001164	8.1579	.0004801	.0001964
%RSD	.3447350	.2688191	9.577183	69.48419	2.529164	96.66848	.2099949
#1	.2499069	2.058594	.0038283	.0002280	331.9244	.0000755	.0933738
#2	.2514894	2.051859	.0032814	.0002412	318.7097	.0010195	.0937295
#3	.2513031	2.047655	.0039409	.0000333	317.0294	.0003950	.0934076

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8648711	.0469443	.0005705	-.000173	-.001435	.9823694	.0116342
Stddev	.0139917	.0004215	.0005580	.001202	.000805	.0125108	.0004691
%RSD	1.617783	.8977852	97.80262	696.3854	56.10808	1.273536	4.032245
#1	.8717750	.0468268	-.000074	-.000740	-.001933	.9947118	.0112617
#2	.8487692	.0474120	.000881	-.000986	-.000506	.9696966	.0114798
#3	.8740690	.0465940	.000904	.001208	-.001867	.9826997	.0121610

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-12 Acquired: 5/21/2025 18:02:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5526701	-.011450	.1930284
Stddev	.0049891	.000072	.0002646
%RSD	.9027181	.6258429	.1370761
#1	.5546045	-.011439	.1931982
#2	.5564024	-.011527	.1927235
#3	.5470036	-.011384	.1931635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2653.674	65728.06	18953.92	2472.072	3809.741
Stddev	7.616	222.72	40.02	6.516	10.537
%RSD	.2870014	.3388526	.2111649	.2635956	.2765856
#1	2661.786	65473.22	18924.62	2466.338	3816.579
#2	2652.559	65885.47	18937.63	2479.158	3815.038
#3	2646.677	65825.49	18999.53	2470.722	3797.606

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-16 Acquired: 5/21/2025 18:07:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004319	-.005550	.0006416	.0019089	.0023350	.0608870	.2349869
Stddev	.002959	.001928	.0009637	.0007638	.0011219	.0012785	.0098994
%RSD	68.52036	34.73727	150.2136	40.01154	48.04638	2.099739	4.212762
#1	-.006139	-.006680	-.000056	.0025305	.0016354	.0603178	.2427183
#2	-.000904	-.006646	.000240	.0021399	.0036290	.0623512	.2238296
#3	-.005913	-.003324	.001741	.0010563	.0017406	.0599920	.2384128

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000079	.0000544	6.975913	.0007534	.0002654	.0155612	.0252683
Stddev	.0000289	.0000241	.240614	.0000481	.0002011	.0004125	.0023935
%RSD	364.1529	44.25865	3.449214	6.385703	75.75351	2.651015	9.472484
#1	.0000117	.0000810	7.153813	.0007376	.0001955	.0152328	.0241376
#2	.0000348	.0000479	6.702142	.0007151	.0001087	.0160243	.0280177
#3	-.000023	.0000342	7.071784	.0008074	.0004921	.0154266	.0236496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0985339	.5377724	.0019079	-.000363	366.8020	.0015768	.0742979
Stddev	.0035607	.0176317	.0001553	.000419	19.5254	.0015548	.0043809
%RSD	3.613713	3.278650	8.137037	115.3940	5.323139	98.60495	5.896437
#1	.1013178	.5479299	.0018741	-.000760	389.3412	.0000533	.0793227
#2	.0945216	.5174132	.0017724	-.000402	356.0106	.0031611	.0712800
#3	.0997624	.5479743	.0020773	.000074	355.0541	.0015159	.0722909

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5320635	.0382927	-.000040	-.003571	-.000086	.8407773	.0114299
Stddev	.0519556	.0021898	.000137	.000666	.000334	.0449306	.0015077
%RSD	9.764917	5.718593	339.4608	18.65511	386.2253	5.343930	13.19098
#1	.5756408	.0402932	-.000122	-.002816	-.000261	.8879598	.0096897
#2	.5459840	.0359532	.000118	-.004078	.000298	.7985015	.0122562
#3	.4745657	.0386318	-.000117	-.003819	-.000296	.8358706	.0123438

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-16 Acquired: 5/21/2025 18:07:14 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3549797	-.003210	.0610729
Stddev	.0077748	.000047	.0020157
%RSD	2.190200	1.459223	3.300458
#1	.3568710	-.003156	.0625508
#2	.3464337	-.003234	.0587768
#3	.3616343	-.003240	.0618913

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2704.588	61614.16	18496.99	2375.137	3914.909
Stddev	10.790	2909.57	531.90	112.628	21.892
%RSD	.3989541	4.722241	2.875577	4.741947	.5591907
#1	2716.882	58263.54	18105.96	2245.193	3939.881
#2	2696.690	63502.96	19102.67	2444.682	3905.822
#3	2700.191	63075.99	18282.34	2435.536	3899.023

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-20 Acquired: 5/21/2025 18:11:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002216	-.005813	.0014450	-.000280	.0034168	.0286838	.7111539
Stddev	.001145	.000806	.0012994	.001012	.0030969	.0049083	.0011152
%RSD	51.69363	13.86933	89.92700	360.8951	90.63564	17.11191	.1568120
#1	-.002400	-.006429	.0027668	.000756	.0069552	.0231038	.7122253
#2	-.003258	-.006108	.0001692	-.001266	.0012001	.0306137	.7112368
#3	-.000989	-.004900	.0013989	-.000330	.0020951	.0323339	.7099996

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001629	.0003842	36.78932	.0036548	.0072175	.0174706	.0310404
Stddev	.0000316	.0000504	.08656	.0003096	.0001294	.0007145	.0040517
%RSD	19.40465	13.12464	.2352856	8.469821	1.792624	4.089964	13.05292
#1	.0001941	.0004243	36.88826	.0036230	.0070789	.0167214	.0263654
#2	.0001309	.0003276	36.75215	.0039791	.0072384	.0181445	.0335339
#3	.0001636	.0004008	36.72756	.0033625	.0073351	.0175460	.0332219

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.295109	1.807907	.0207326	-.000497	351.7034	-.000764	.1423616
Stddev	.019546	.003078	.0004376	.000562	3.4171	.000465	.0007727
%RSD	.4550754	.1702381	2.110805	113.2320	.9715996	60.89023	.5427567
#1	4.317251	1.807531	.0202449	-.000478	354.9736	-.000264	.1428499
#2	4.287828	1.811155	.0210908	-.001068	348.1562	-.000845	.1414708
#3	4.280249	1.805034	.0208623	.000056	351.9803	-.001183	.1427642

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7037279	.0763758	-.000041	-.004022	-.000733	1.028707	.0110202
Stddev	.0125357	.0009292	.000188	.000734	.000180	.025912	.0034804
%RSD	1.781322	1.216676	452.9553	18.25316	24.53735	2.518905	31.58213
#1	.6940389	.0770682	-.000087	-.004850	-.000537	1.048712	.0079446
#2	.6992593	.0767395	.000165	-.003451	-.000772	.999436	.0147983
#3	.7178856	.0753197	-.000203	-.003765	-.000891	1.037972	.0103177

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-20 Acquired: 5/21/2025 18:11:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7020182	-.007108	.1240194
Stddev	.0061522	.001097	.0005288
%RSD	.8763613	15.43000	.4264029
#1	.6959403	-.007224	.1246297
#2	.7082422	-.005958	.1236968
#3	.7018720	-.008143	.1237317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2672.691	62819.64	17780.41	2423.702	3814.311
Stddev	10.416	383.99	87.40	17.168	15.638
%RSD	.3897334	.6112568	.4915324	.7083276	.4099707
#1	2680.527	62433.65	17694.29	2407.875	3826.177
#2	2676.674	63201.60	17777.91	2441.953	3820.164
#3	2660.870	62823.66	17869.03	2421.279	3796.591

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV05 Acquired: 5/21/2025 18:16:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.731233	4.709413	4.834294	4.723392	4.725763	9.490459	9.440486
Stddev	.028523	.086640	.020376	.043396	.033722	.018578	.124316
%RSD	.6028688	1.839717	.4214982	.9187556	.7135789	.1957532	1.316841
#1	4.715099	4.685718	4.816749	4.707597	4.700074	9.511893	9.583442
#2	4.714433	4.637086	4.829490	4.690106	4.713264	9.478978	9.380287
#3	4.764166	4.805435	4.856644	4.772474	4.763949	9.480507	9.357730

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2443242	2.411559	24.08363	.9842306	2.399639	1.201143	4.872174
Stddev	.0028345	.013656	.11321	.0013408	.011665	.007374	.016137
%RSD	1.160141	.5662747	.4700512	.1362245	.4861293	.6139038	.3312113
#1	.2475894	2.399280	24.20965	.9835946	2.389739	1.195024	4.858033
#2	.2428871	2.409130	24.05068	.9833263	2.396679	1.199075	4.889753
#3	.2424961	2.426266	23.99055	.9857710	2.412500	1.209330	4.868738

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.402264	24.31170	2.407058	1.205910	23.44667	2.400779	2.428211
Stddev	.012567	.11291	.010976	.001227	.18503	.010709	.008218
%RSD	.5231381	.4644352	.4560108	.1017534	.7891407	.4460792	.3384177
#1	2.414080	24.43080	2.395595	1.207084	23.24285	2.410926	2.437642
#2	2.403650	24.29808	2.408108	1.204636	23.60406	2.401826	2.424399
#3	2.389061	24.20622	2.417472	1.206010	23.49311	2.389584	2.422592

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.47838	4.775663	4.832669	4.824105	4.762026	4.801194	4.899443
Stddev	.16070	.050818	.031791	.023940	.014419	.038102	.033051
%RSD	.6844536	1.064099	.6578424	.4962631	.3027942	.7935958	.6745818
#1	23.29519	4.834314	4.811101	4.803680	4.777204	4.759954	4.878344
#2	23.54438	4.744758	4.817727	4.818185	4.760364	4.808539	4.882452
#3	23.59557	4.747918	4.869179	4.850450	4.748510	4.835089	4.937533

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV05 Acquired: 5/21/2025 18:16:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.661150	4.594978	4.753833
Stddev	.035960	.008454	.038084
%RSD	.7714902	.1839757	.8011236
#1	4.631125	4.598190	4.796480
#2	4.651323	4.601354	4.741805
#3	4.701003	4.585388	4.723216

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2751.556	63433.72	17799.12	2446.575	4037.638
Stddev	11.970	161.73	149.55	3.928	17.478
%RSD	.4350161	.2549640	.8401869	.1605396	.4328683
#1	2762.936	63602.77	17626.50	2442.111	4055.431
#2	2752.659	63417.95	17881.35	2448.112	4036.990
#3	2739.073	63280.46	17889.50	2449.501	4020.493

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB05 Acquired: 5/21/2025 18:20:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001636	-.001888	-.000455	-.002836	.0015886	.0045179	-.002093
Stddev	.003041	.001688	.001202	.002866	.0015044	.0044553	.001014
%RSD	185.9013	89.38981	264.3316	101.0672	94.70226	98.61636	48.45011
#1	.001752	-.002209	-.000245	-.001278	.0033168	.0061695	-.000984
#2	-.004128	-.003392	.000629	-.006144	.0008769	.0079115	-.002322
#3	-.002531	-.000063	-.001748	-.001086	.0005721	-.000527	-.002974

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000468	-.000060	-.002793	.0001342	.0003903	-.000071	.0003017
Stddev	.0000101	.000102	.002479	.0000573	.0002622	.000432	.0007808
%RSD	21.59523	170.8137	88.75182	42.67688	67.18482	608.9572	258.8296
#1	.0000355	-.000164	-.002759	.0000688	.0000910	.000427	-.000600
#2	.0000549	.000040	-.000331	.0001585	.0005795	-.000285	.000745
#3	.0000500	-.000056	-.005289	.0001753	.0005003	-.000354	.000760

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000099	.0025226	.0002147	.0003435	-.031594	.0019748	-.000629
Stddev	.000313	.0066054	.0002375	.0000084	.016813	.0005363	.000446
%RSD	314.8030	261.8557	110.6605	2.441821	53.21612	27.15569	70.79297
#1	.000237	-.004198	-.000048	.0003404	-.042096	.0013767	-.001087
#2	-.000382	.009006	.000277	.0003371	-.012202	.0021350	-.000605
#3	-.000154	.002760	.000415	.0003530	-.040483	.0024127	-.000197

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030996	.0057367	.0003663	-.000134	.0009020	.0046824	-.003264
Stddev	.006472	.0002709	.0003786	.000883	.0005299	.0040495	.001442
%RSD	20.87995	4.722675	103.3338	658.5787	58.74851	86.48294	44.16813
#1	-.024482	.0059301	.0007745	-.001154	.0014954	.0089200	-.004394
#2	-.031082	.0054270	.0000268	.000354	.0004760	.0042753	-.001640
#3	-.037425	.0058530	.0002977	.000398	.0007346	.0008518	-.003758

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB05 Acquired: 5/21/2025 18:20:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003664	.0022067	.0000496
Stddev	.005369	.0010439	.0000347
%RSD	146.5200	47.30684	69.93069
#1	.001330	.0010408	.0000458
#2	-.002980	.0030548	.0000861
#3	-.009342	.0025243	.0000170

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2783.623	68528.90	17497.97	2592.063	4202.699
Stddev	11.088	349.34	65.28	18.338	12.949
%RSD	.3983323	.5097764	.3730463	.7074750	.3081138
#1	2770.871	68618.39	17444.70	2600.080	4188.856
#2	2789.006	68143.51	17570.78	2571.082	4204.725
#3	2790.992	68824.79	17478.42	2605.028	4214.515

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-06 Acquired: 5/21/2025 18:24:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001475	-.003760	-.000746	.0020374	.0020068	.0649149	.3591365
Stddev	.002377	.002438	.000563	.0029936	.0022790	.0056488	.0017237
%RSD	161.2082	64.84321	75.39396	146.9285	113.5673	8.701870	.4799670
#1	-.004050	-.006436	-.000884	.0043326	.0045633	.0639579	.3610238
#2	.000635	-.003183	-.001227	.0031282	.0001880	.0709810	.3587403
#3	-.001008	-.001663	-.000128	-.001349	.0012690	.0598057	.3576453

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000047	.0000961	7.920653	.0034220	.0001239	.0097380	.0356147
Stddev	.0000604	.0000646	.009963	.0001356	.0001470	.0003149	.0031984
%RSD	1286.337	67.17428	.1257906	3.963222	118.7015	3.233810	8.980619
#1	.0000742	.0001665	7.921963	.0034251	.0000600	.0095077	.0369529
#2	-.000036	.0000396	7.910099	.0035560	.0002920	.0100969	.0379266
#3	-.000024	.0000823	7.929897	.0032849	.0000195	.0096095	.0319645

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0569878	2.082673	.0019622	.0001722	331.9856	.0012457	.1209114
Stddev	.0004275	.030088	.0002639	.0003844	1.3362	.0010834	.0007803
%RSD	.7502280	1.444700	13.45178	223.2865	.4024885	86.96971	.6453192
#1	.0567725	2.096476	.0019198	.0003373	333.1413	.0001632	.1216084
#2	.0574802	2.048159	.0017220	-.000267	330.5224	.0023299	.1210573
#3	.0567107	2.103383	.0022447	.000446	332.2930	.0012439	.1200685

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.031538	.0580748	.0002442	-.003369	.0000645	.2393569	.0146516
Stddev	.017653	.0005405	.0002934	.001067	.0003861	.0127684	.0043342
%RSD	1.711353	.9307016	120.1326	31.66993	598.5388	5.334448	29.58152
#1	1.035226	.0586978	.0001763	-.004600	.0002576	.2474284	.0190626
#2	1.012333	.0577312	-.000009	-.002721	.0003161	.2246362	.0144936
#3	1.047057	.0577954	.000566	-.002785	-.000380	.2460062	.0103986

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-06 Acquired: 5/21/2025 18:24:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5261421	-.003516	.0305498
Stddev	.0038763	.001038	.0000820
%RSD	.7367360	29.51027	.2683425
#1	.5217715	-.003209	.0306002
#2	.5291635	-.004672	.0305939
#3	.5274912	-.002667	.0304552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2696.593	62205.01	17607.44	2399.448	3899.529
Stddev	16.266	291.26	80.03	18.530	14.857
%RSD	.6031958	.4682260	.4545242	.7722741	.3809831
#1	2703.160	61870.73	17517.05	2382.530	3905.761
#2	2708.548	62340.20	17635.99	2396.561	3910.255
#3	2678.070	62404.12	17669.28	2419.252	3882.572

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12 Acquired: 5/21/2025 18:29:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006192	-.006920	-.000818	.0014079	.0032785	.0353913	.3293284
Stddev	.002195	.001875	.001968	.0023324	.0015577	.0048190	.0010436
%RSD	35.45150	27.09598	240.6491	165.6680	47.51247	13.61624	.3168747
#1	-.008256	-.004967	.001410	.0028231	.0050357	.0405802	.3292408
#2	-.006435	-.007087	-.002319	.0026846	.0027329	.0310564	.3304130
#3	-.003886	-.008706	-.001545	-.001284	.0020670	.0345373	.3283314

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000306	-.000022	12.94426	.0003535	-.000109	.0106480	.0089322
Stddev	.0000157	.000021	.08859	.0001397	.000149	.0002771	.0037888
%RSD	51.27420	95.63888	.6844300	39.52137	136.9568	2.602351	42.41705
#1	.0000243	-.000033	12.98188	.0003390	.000063	.0105672	.0051428
#2	.0000191	.000002	13.00783	.0002216	-.000204	.0109565	.0127204
#3	.0000485	-.000036	12.84306	.0004999	-.000186	.0104203	.0089335

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193936	2.703406	.0010752	-.000093	390.2644	.0003320	.0818804
Stddev	.0002154	.029921	.0001890	.000166	4.7775	.0019732	.0002701
%RSD	1.110390	1.106802	17.57692	179.0539	1.224174	594.3369	.3299121
#1	.0191500	2.708718	.0008601	-.000216	389.5099	.0001075	.0816078
#2	.0195585	2.730315	.0012145	-.000157	385.9091	.0024078	.0818854
#3	.0194725	2.671184	.0011509	.000096	395.3743	-.001519	.0821480

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6881290	.0437863	.0000791	-.003033	-.000598	.3492672	.0115636
Stddev	.0266886	.0004499	.0001183	.000280	.000398	.0127295	.0057742
%RSD	3.878424	1.027408	149.5667	9.217809	66.46859	3.644631	49.93469
#1	.7083690	.0432675	.0001187	-.002776	-.000182	.3452217	.0182310
#2	.6981346	.0440678	-.000054	-.002991	-.000638	.3390522	.0082623
#3	.6578835	.0440237	.000172	-.003331	-.000975	.3635279	.0081974

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12 Acquired: 5/21/2025 18:29:05 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3867160	-.004013	.0497517
Stddev	.0019292	.000802	.0001605
%RSD	.4988701	19.97849	.3225884
#1	.3846019	-.003668	.0496385
#2	.3883811	-.003441	.0499354
#3	.3871652	-.004929	.0496813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2644.621	63346.86	17798.76	2424.884	3782.540
Stddev	11.101	217.26	86.38	19.487	25.682
%RSD	.4197666	.3429615	.4853380	.8036408	.6789668
#1	2643.808	63590.82	17754.59	2446.602	3794.277
#2	2656.106	63174.24	17743.40	2408.926	3800.257
#3	2633.948	63275.52	17898.30	2419.122	3753.086

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12DUP Acquired: 5/21/2025 18:33:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006203	-.004274	-.000561	-.000790	.0003040	.0256023	.2142072
Stddev	.002311	.001189	.001128	.002299	.0018644	.0021109	.0009587
%RSD	37.25330	27.81910	201.0916	291.1764	613.3516	8.244795	.4475673
#1	-.004332	-.005508	.000739	-.000288	.0014889	.0248600	.2132811
#2	-.008786	-.004178	-.001283	-.003299	.0012681	.0239629	.2141451
#3	-.005490	-.003136	-.001139	.001217	-.001845	.0279841	.2151955

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000255	-.000086	8.365493	.0028946	.0001761	.0075075	.0249056
Stddev	.0000188	.000047	.027845	.0002334	.0003653	.0004550	.0056953
%RSD	73.83233	54.23449	.3328565	8.062986	207.3958	6.061051	22.86753
#1	.0000177	-.000062	8.371573	.0031165	.0002301	.0074773	.0306538
#2	.0000470	-.000057	8.335110	.0026512	-.000213	.0079769	.0192648
#3	.0000118	-.000140	8.389795	.0029162	.000511	.0070683	.0247982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0246938	1.747808	.0054110	.0000056	261.7404	.0013679	.0539762
Stddev	.0006285	.013704	.0004539	.0002955	1.9111	.0008331	.0006786
%RSD	2.545256	.7840584	8.388372	5290.901	.7301338	60.90727	1.257157
#1	.0245004	1.733151	.0059104	-.000080	259.7154	.0007212	.0532174
#2	.0241848	1.749970	.0050237	-.000238	261.9934	.0023080	.0541864
#3	.0253964	1.760301	.0052987	.000334	263.5123	.0010743	.0545248

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4457782	.0275671	.0000149	-.003054	-.000510	.2320252	.0073550
Stddev	.0168015	.0010690	.0001558	.000435	.000536	.0052180	.0025714
%RSD	3.769035	3.877872	1046.060	14.25353	104.9302	2.248904	34.96186
#1	.4282745	.0287969	-.000033	-.003310	-.000380	.2357975	.0044068
#2	.4472838	.0268605	-.000111	-.002551	-.001099	.2342079	.0091345
#3	.4617763	.0270438	.000189	-.003301	-.000052	.2260703	.0085236

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12DUP Acquired: 5/21/2025 18:33:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2381627	-.003249	.0322656
Stddev	.0031973	.000030	.0001514
%RSD	1.342469	.9348912	.4692532
#1	.2406574	-.003247	.0323049
#2	.2345585	-.003219	.0320984
#3	.2392723	-.003280	.0323935

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2677.098	62274.42	18040.12	2423.212	3870.078
Stddev	9.114	203.51	36.25	16.638	1.105
%RSD	.3404375	.3267953	.2009386	.6865926	.0285582
#1	2681.292	62405.91	18006.18	2434.670	3871.295
#2	2683.360	62377.34	18078.31	2430.838	3869.800
#3	2666.642	62040.00	18035.86	2404.128	3869.138

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12LX5 Acquired: 5/21/2025 18:37:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000780	-.002464	-.001120	-.000949	-.000155	.0090207	.0629727
Stddev	.001518	.002302	.002205	.005093	.001789	.0017277	.0014810
%RSD	194.7593	93.43484	196.8051	536.6287	1155.203	19.15311	2.351823
#1	-.002233	-.005113	-.003623	-.006720	.001813	.0088094	.0625450
#2	.000796	-.000943	.000537	.000959	-.000596	.0074082	.0646204
#3	-.000901	-.001336	-.000275	.002914	-.001681	.0108443	.0617525

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000179	.0000015	2.537064	.0000496	-.000025	.0022234	.0036609
Stddev	.0000408	.0001311	.012962	.0000971	.000267	.0002771	.0074251
%RSD	228.7739	8635.953	.5109242	195.6776	1049.646	12.46191	202.8217
#1	-.000000	-.000103	2.523710	.0000796	.000256	.0019634	-.003073
#2	-.000011	-.000041	2.537884	-.000059	-.000275	.0021920	.002432
#3	.000065	.000149	2.549596	.000128	-.000057	.0025149	.011624

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032437	.5376345	.0002271	.0001666	74.37517	.0007073	.0218803
Stddev	.0004626	.0157597	.0001516	.0001058	.24522	.0012053	.0002561
%RSD	14.26072	2.931301	66.74747	63.47163	.3297002	170.4093	1.170565
#1	.0027882	.5230582	.0002061	.0001031	74.46980	-.000449	.0216604
#2	.0037130	.5354880	.0003881	.0002887	74.55898	.001956	.0218190
#3	.0032298	.5543575	.0000871	.0001081	74.09674	.000615	.0221615

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1418689	.0090630	-.000266	-.001653	-.000429	.0681870	.0016831
Stddev	.0095513	.0002682	.000328	.000106	.000232	.0067472	.0050260
%RSD	6.732449	2.958922	123.3534	6.426859	54.08398	9.895126	298.6229
#1	.1442002	.0093700	-.000594	-.001747	-.000441	.0724936	-.001792
#2	.1500387	.0088749	-.000266	-.001537	-.000654	.0604110	.007446
#3	.1313679	.0089440	.000062	-.001674	-.000191	.0716564	-.000604

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12LX5 Acquired: 5/21/2025 18:37:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0689010	.0008733	.0094914
Stddev	.0028997	.0009454	.0000514
%RSD	4.208538	108.2598	.5411934
#1	.0694525	.0002005	.0095341
#2	.0657651	.0004651	.0095057
#3	.0714854	.0019542	.0094344

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2707.647	63274.20	17444.70	2445.025	3993.685
Stddev	8.719	245.11	54.23	14.901	15.444
%RSD	.3220164	.3873710	.3108873	.6094558	.3867115
#1	2698.920	63139.10	17382.74	2440.276	3994.889
#2	2716.359	63126.37	17467.75	2433.077	4008.491
#3	2707.662	63557.13	17483.59	2461.722	3977.674

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12MS Acquired: 5/21/2025 18:42:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8195563	1.924753	.9851237	1.985581	.8125572	1.994366	.4953034
Stddev	.0029786	.012928	.0046513	.009300	.0025054	.004811	.0011003
%RSD	.3634352	.6716951	.4721538	.4683941	.3083360	.2412428	.2221473
#1	.8211167	1.939402	.9878934	1.977068	.8106682	1.997657	.4959069
#2	.8161217	1.914940	.9877239	1.984167	.8116041	1.996597	.4959700
#3	.8214305	1.919916	.9797537	1.995507	.8153993	1.988844	.4940335

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1988857	.2071386	13.28250	.4082711	.2012170	.2997495	2.884296
Stddev	.0004448	.0007166	.04631	.0029886	.0005058	.0008306	.014309
%RSD	.2236198	.3459449	.3486550	.7320253	.2513852	.2770908	.4961112
#1	.1984084	.2070516	13.33098	.4048229	.2007885	.3000672	2.887461
#2	.1992884	.2078947	13.27780	.4098750	.2017750	.2988069	2.896758
#3	.1989603	.2064695	13.23872	.4101154	.2010875	.3003743	2.868669

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2138997	4.505447	.5032929	.0519828	360.0005	.2978691	.2738681
Stddev	.0005934	.030323	.0017547	.0003228	2.7244	.0011818	.0017208
%RSD	.2774050	.6730193	.3486509	.6208875	.7567654	.3967445	.6283205
#1	.2145848	4.530824	.5016113	.0523520	357.2288	.2965237	.2733052
#2	.2135529	4.513650	.5051126	.0517544	360.0977	.2983444	.2724993
#3	.2135613	4.471867	.5031548	.0518419	362.6749	.2987393	.2757998

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.60562	.3250422	.4311512	.7358860	.2021465	1.177235	6.508935
Stddev	.02323	.0024178	.0009385	.0035043	.0006518	.012285	.013493
%RSD	.2189978	.7438313	.2176755	.4762073	.3224451	1.043511	.2072994
#1	10.58985	.3223538	.4301061	.7342778	.2027601	1.190416	6.507753
#2	10.63229	.3257345	.4319218	.7399058	.2022171	1.166105	6.522980
#3	10.59473	.3270383	.4314259	.7334744	.2014622	1.175185	6.496072

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12MS Acquired: 5/21/2025 18:42:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3503002	.2015614	.2374594
Stddev	.0016367	.0008477	.0003299
%RSD	.4672405	.4205602	.1389183
#1	.3504155	.2005828	.2377648
#2	.3486089	.2020660	.2375038
#3	.3518763	.2020356	.2371096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2620.468	62337.16	17107.59	2374.255	3773.009
Stddev	6.980	85.27	41.79	19.059	2.063
%RSD	.2663753	.1367827	.2442962	.8027448	.0546792
#1	2616.651	62292.57	17072.04	2370.542	3773.077
#2	2628.524	62435.48	17153.63	2394.897	3770.913
#3	2616.229	62283.44	17097.10	2357.325	3775.037

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12MSD Acquired: 5/21/2025 18:46:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8215675	1.852981	.9843066	2.016117	.8151986	1.976916	.5158802
Stddev	.0035457	.025484	.0077982	.007267	.0047409	.002244	.0025630
%RSD	.4315746	1.375299	.7922545	.3604229	.5815600	.1134894	.4968129
#1	.8208961	1.824123	.9753442	2.012697	.8097358	1.976310	.5146279
#2	.8184056	1.862425	.9880342	2.011192	.8182369	1.979400	.5188285
#3	.8254009	1.872395	.9895415	2.024463	.8176232	1.975038	.5141841

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1839431	.2071686	13.50809	.4280837	.2010607	.2993293	3.168164
Stddev	.0011841	.0009478	.03009	.0007797	.0006545	.0014736	.012798
%RSD	.6437474	.4574923	.2227803	.1821490	.3255101	.4922934	.4039428
#1	.1850200	.2060763	13.53619	.4289833	.2004945	.2976893	3.156451
#2	.1841343	.2076554	13.51174	.4276023	.2009103	.2997566	3.181823
#3	.1826750	.2077740	13.47633	.4276654	.2017773	.3005421	3.166218

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2154017	4.495238	.5088402	.0671272	400.7548	.2988659	.2795060
Stddev	.0009803	.041043	.0027073	.0005562	4.6932	.0001521	.0006986
%RSD	.4550908	.9130395	.5320461	.8285803	1.171095	.0508885	.2499488
#1	.2158011	4.526397	.5057692	.0671609	396.9893	.2989454	.2791725
#2	.2161193	4.510583	.5098701	.0676658	399.2625	.2989618	.2790366
#3	.2142848	4.448733	.5108814	.0665549	406.0128	.2986906	.2803089

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.32074	.3026438	.4293921	.7307992	.2008716	1.245071	6.434748
Stddev	.03659	.0029242	.0009792	.0028992	.0012578	.008315	.028980
%RSD	.3232324	.9662286	.2280367	.3967124	.6261686	.6678363	.4503745
#1	11.28256	.3034214	.4287497	.7278593	.2006905	1.251969	6.401284
#2	11.32416	.3051007	.4289075	.7308825	.2022101	1.247406	6.451538
#3	11.35550	.2994094	.4305191	.7336559	.1997142	1.235838	6.451421

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12MSD Acquired: 5/21/2025 18:46:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3693447	.2005541	.2421189
Stddev	.0026682	.0010434	.0004728
%RSD	.7224117	.5202489	.1952881
#1	.3662929	.1996729	.2417514
#2	.3705039	.2017062	.2426523
#3	.3712371	.2002833	.2419529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2609.320	62842.65	18560.44	2366.986	3763.584
Stddev	4.232	180.67	126.85	1.351	6.112
%RSD	.1621910	.2874987	.6834425	.0570681	.1624065
#1	2604.541	62634.05	18425.89	2365.679	3763.966
#2	2610.827	62944.16	18577.58	2368.377	3757.290
#3	2612.593	62949.73	18677.85	2366.902	3769.497

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12A Acquired: 5/21/2025 18:50:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7598046	1.816577	.9409102	1.863609	.7294889	1.845265	.4554978
Stddev	.0025374	.014257	.0069113	.012738	.0038370	.003190	.0034939
%RSD	.3339559	.7848276	.7345358	.6835370	.5259793	.1728649	.7670605
#1	.7584193	1.814976	.9349644	1.850082	.7250614	1.845406	.4590727
#2	.7582614	1.831566	.9484931	1.875376	.7315596	1.842007	.4520908
#3	.7627332	1.803187	.9392732	1.865369	.7318456	1.848382	.4553299

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1823445	.1968477	11.61319	.3878265	.1900098	.2806893	2.913289
Stddev	.0003553	.0003961	.04143	.0002106	.0004242	.0015577	.017155
%RSD	.1948463	.2012163	.3567460	.0543126	.2232669	.5549561	.5888668
#1	.1819529	.1967241	11.64899	.3879635	.1895530	.2788924	2.933094
#2	.1824343	.1972908	11.56781	.3879320	.1903914	.2816571	2.903027
#3	.1826463	.1965281	11.62277	.3875840	.1900851	.2815183	2.903745

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2115521	4.080065	.4789602	.0686604	324.0825	.2844558	.2518444
Stddev	.0004499	.013335	.0006265	.0005768	1.6879	.0038164	.0020496
%RSD	.2126629	.3268274	.1308061	.8399971	.5208247	1.341631	.8138485
#1	.2120567	4.091100	.4782807	.0692444	322.9255	.2856255	.2535151
#2	.2114066	4.065248	.4795149	.0686456	326.0193	.2801915	.2524608
#3	.2111929	4.083849	.4790851	.0680912	323.3026	.2875503	.2495573

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.24795	.2940020	.3869792	.6674238	.1860929	1.094491	6.143439
Stddev	.02512	.0002642	.0015708	.0017605	.0016009	.004685	.029507
%RSD	.2450969	.0898565	.4059038	.2637755	.8602905	.4280521	.4802969
#1	10.24185	.2939102	.3854097	.6654290	.1878401	1.092172	6.110085
#2	10.22644	.2937960	.3885512	.6687601	.1846963	1.099883	6.166142
#3	10.27555	.2942998	.3869768	.6680824	.1857422	1.091417	6.154089

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-12A Acquired: 5/21/2025 18:50:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2966579	.1873987	.2241976
Stddev	.0054770	.0003023	.0010136
%RSD	1.846223	.1613257	.4520945
#1	.2945939	.1873964	.2251461
#2	.2925128	.1870975	.2231295
#3	.3028670	.1877021	.2243173

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2727.104	64143.67	18290.13	2500.668	3905.226
Stddev	5.481	215.18	86.47	21.419	5.141
%RSD	.2009733	.3354733	.4727825	.8565137	.1316322
#1	2733.418	63933.49	18193.62	2476.232	3909.629
#2	2723.569	64134.00	18360.55	2509.585	3899.577
#3	2724.326	64363.53	18316.23	2516.188	3906.472

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2070-01 Acquired: 5/21/2025 18:54:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0413396	-.012832	.0920841	-.029759	.0102032	137.8107
Stddev	.0003711	.006399	.0048456	.004771	.0031531	.3329
%RSD	.8976808	49.86669	5.262195	16.03358	30.90267	.2415522
#1	.0410905	-.014931	.0976680	-.027833	.0072003	138.1470
#2	.0411623	-.017917	.0889834	-.035192	.0134875	137.8037
#3	.0417661	-.005647	.0896008	-.026251	.0099216	137.4813

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.217576	.0058155	.0033830	1680.708	.2392964	.0507879
Stddev	.007760	.0000468	.0001480	10.098	.0014226	.0001219
%RSD	.6373201	.8044339	4.375251	.6008405	.5945064	.2399576
#1	1.226249	.0058389	.0032703	1686.440	.2402807	.0509279
#2	1.215191	.0058460	.0033280	1686.636	.2376653	.0507052
#3	1.211289	.0057617	.0035506	1669.048	.2399432	.0507307

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1046566	141.2989	2.016457	81.77731	.1423030	.0006423
Stddev	.0006921	.9155	.010962	.00945	.0005107	.0003963
%RSD	.6613510	.6478822	.5436165	.0115570	.3588800	61.69570
#1	.1041984	142.1121	2.027857	81.78634	.1418912	.0007879
#2	.1043186	141.4771	2.015521	81.76749	.1421433	.0009452
#3	.1054528	140.3074	2.005994	81.77810	.1428744	.0001938

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.21715	.2553456	.3701423	56.24790	.2926371	.0135268
Stddev	.21861	.0037559	.0009022	.42456	.0004178	.0004754
%RSD	1.081317	1.470921	.2437426	.7547975	.1427725	3.514466
#1	20.42916	.2594726	.3697767	56.60189	.2921586	.0140242
#2	20.22980	.2521274	.3694802	56.36463	.2928235	.0130770
#3	19.99248	.2544369	.3711699	55.77719	.2929293	.0134790

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2070-01 Acquired: 5/21/2025 18:54:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003764	5.647310	8.612116	6.597773	F 82.17193	-.083346
Stddev	.000994	.024945	.041810	.033612	.37124	.000339
%RSD	26.40468	.4417164	.4854770	.5094484	.4517848	.4063897
#1	-.004776	5.674191	8.616391	6.559102	81.77664	-.083111
#2	-.003726	5.642829	8.651625	6.614245	82.22597	-.083735
#3	-.002789	5.624908	8.568333	6.619973	82.51320	-.083193

Elem	Sr4077
Units	ppm
Avg	6.777045
Stddev	.020123
%RSD	.2969271
#1	6.775286
#2	6.757859
#3	6.797990

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2579.605	59322.13	18644.64	2319.189	3224.665
Stddev	7.917	27.02	46.82	3.292	9.316
%RSD	.3069101	.0455507	.2511311	.1419299	.2888940
#1	2571.989	59329.46	18668.11	2315.795	3215.144
#2	2587.792	59292.19	18675.08	2319.405	3233.761
#3	2579.033	59344.72	18590.72	2322.367	3225.089

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-01 Acquired: 5/21/2025 18:59:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0565371	.0126296	.1506669	-.024927	-.002304	126.5886	1.633637
Stddev	.0027624	.0014247	.0015730	.003952	.003581	.8227	.010563
%RSD	4.886043	11.28068	1.044012	15.85605	155.4332	.6499208	.6465826
#1	.0589616	.0114430	.1517237	-.027505	-.006431	127.0749	1.644686
#2	.0571198	.0122362	.1488592	-.020376	-.000476	125.6386	1.623638
#3	.0535298	.0142097	.1514178	-.026899	-.000006	127.0521	1.632588

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096585	.0055121	25.04975	.2709350	.1017530	.2477882	261.9383
Stddev	.0001205	.0003546	.14935	.0007452	.0006184	.0012015	1.2885
%RSD	1.247931	6.433010	.5962131	.2750351	.6076926	.4848762	.4918943
#1	.0097765	.0053258	25.18722	.2713842	.1018100	.2464091	263.4259
#2	.0096635	.0052895	24.89084	.2700748	.1011081	.2486087	261.1748
#3	.0095356	.0059211	25.07119	.2713460	.1023409	.2483467	261.2143

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.098542	45.93313	.2429921	-.000147	4.771676	.3252405	.5510121
Stddev	.020256	.29523	.0007679	.000129	.038043	.0024107	.0023287
%RSD	.6537179	.6427448	.3160352	87.38599	.7972603	.7412090	.4226256
#1	3.118296	46.14397	.2422049	-.000012	4.815222	.3263050	.5526076
#2	3.077820	45.59571	.2430322	-.000269	4.754908	.3224807	.5520889
#3	3.099509	46.05970	.2437392	-.000161	4.744897	.3269356	.5483399

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.95053	.0838678	.0067674	.0171684	2.081272	3.642817	4.622408
Stddev	.04037	.0015456	.0004680	.0004296	.007394	.017073	.021187
%RSD	.2893855	1.842896	6.914707	2.502049	.3552728	.4686859	.4583460
#1	13.99235	.0846896	.0063351	.0167327	2.089336	3.637742	4.605959
#2	13.91178	.0848290	.0072643	.0171809	2.074811	3.628856	4.614949
#3	13.94746	.0820850	.0067028	.0175916	2.079669	3.661852	4.646315

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-01 Acquired: 5/21/2025 18:59:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5778616	.3161674	-.098037
Stddev	.0125650	.0011557	.000335
%RSD	2.174394	.3655423	.3414521
#1	.5902730	.3172117	-.098208
#2	.5781632	.3149257	-.098252
#3	.5651485	.3163648	-.097651

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3116.762	71057.27	19928.05	2780.208	3912.742
Stddev	18.602	189.21	136.51	15.773	21.403
%RSD	.5968484	.2662753	.6850119	.5673454	.5470026
#1	3122.429	70873.99	19846.64	2765.375	3920.847
#2	3131.873	71251.89	20085.65	2778.472	3928.908
#3	3095.986	71045.93	19851.86	2796.778	3888.470

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV06 Acquired: 5/21/2025 19:08:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.941219	4.911278	4.994297	4.941551	4.875383	9.728627	9.565967
Stddev	.010796	.046796	.004719	.017672	.008660	.050502	.046511
%RSD	.2184920	.9528248	.0944941	.3576303	.1776285	.5191063	.4862161
#1	4.941477	4.965274	4.998531	4.957489	4.870157	9.763258	9.616988
#2	4.951884	4.886065	4.995151	4.944619	4.885380	9.751943	9.554982
#3	4.930296	4.882495	4.989209	4.922546	4.870613	9.670679	9.525932

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2515156	2.500928	24.58004	1.012526	2.475654	1.237000	4.966298
Stddev	.0002912	.001663	.17237	.000665	.002792	.003230	.040667
%RSD	.1157663	.0664813	.7012533	.0657271	.1127860	.2610793	.8188608
#1	.2515021	2.502807	24.67440	1.012005	2.478819	1.233283	4.967887
#2	.2518133	2.500331	24.68462	1.013276	2.473541	1.239119	5.006148
#3	.2512314	2.499647	24.38109	1.012298	2.474601	1.238599	4.924860

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.432653	24.83850	2.486322	1.244091	23.64867	2.453593	2.488148
Stddev	.014190	.25017	.002365	.003996	.07791	.009675	.009216
%RSD	.5833006	1.007188	.0951381	.3212236	.3294446	.3943283	.3704053
#1	2.443861	25.03486	2.488954	1.242720	23.64228	2.454727	2.489985
#2	2.437400	24.92381	2.484374	1.240961	23.72958	2.462652	2.496308
#3	2.416698	24.55684	2.485638	1.248593	23.57415	2.443401	2.478152

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.96076	4.949441	4.935049	4.985579	4.838415	4.987803	5.061169
Stddev	.08453	.005635	.005250	.009000	.020051	.020919	.003226
%RSD	.3527736	.1138482	.1063743	.1805138	.4144181	.4194072	.0637404
#1	23.98908	4.949707	4.929499	4.995821	4.848346	5.002545	5.057696
#2	24.02749	4.943678	4.939935	4.981981	4.851563	4.997004	5.061738
#3	23.86571	4.954938	4.935712	4.978935	4.815337	4.963861	5.064073

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV06 Acquired: 5/21/2025 19:08:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.899255	4.657346	4.814428
Stddev	.017044	.021847	.049328
%RSD	.3478965	.4690964	1.024582
#1	4.913096	4.645092	4.757469
#2	4.880217	4.682570	4.843033
#3	4.904451	4.644376	4.842782

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2762.300	63506.09	17955.55	2463.172	4032.780
Stddev	2.817	76.20	16.14	8.374	4.780
%RSD	.1019786	.1199885	.0899095	.3399831	.1185222
#1	2765.541	63593.25	17960.23	2462.573	4033.089
#2	2760.911	63472.96	17937.59	2455.114	4037.397
#3	2760.446	63452.07	17968.84	2471.830	4027.853

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB06 Acquired: 5/21/2025 19:16:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001625	-.003496	-.000301	-.002075	.0000251	.0022958	-.001535
Stddev	.002565	.002325	.000148	.000214	.0012570	.0052448	.001642
%RSD	157.7869	66.48261	49.29146	10.28970	5005.591	228.4528	106.9474
#1	.001147	-.005180	-.000431	-.002270	-.000892	-.002922	.000330
#2	-.003913	-.004466	-.000139	-.002108	.001458	.002243	-.002761
#3	-.002111	-.000844	-.000333	-.001847	-.000491	.007567	-.002175

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000085	-.000061	-.010020	-.000130	.0003165	.0003214	.0009190
Stddev	.0000294	.000097	.008050	.000303	.0003618	.0000710	.0055866
%RSD	344.9197	158.5751	80.33199	233.6267	114.3127	22.08947	607.8757
#1	.0000106	-.000047	-.006164	-.000107	.0006662	.0003389	.0068044
#2	.0000368	.000028	-.019273	-.000443	.0003393	.0003820	-.004311
#3	-.000022	-.000165	-.004625	.000162	-.000056	.0002433	.000264

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000297	-.009314	.0000358	.0001061	-.062783	.0010935	-.000134
Stddev	.000130	.010979	.0001394	.0001492	.008057	.0012327	.000439
%RSD	43.60372	117.8763	389.5956	140.6898	12.83303	112.7282	327.5097
#1	-.000426	-.006157	.0000959	.0000744	-.066471	.0021581	.000358
#2	-.000167	-.021526	.0001351	.0002686	-.068336	-.000257	-.000483
#3	-.000299	-.000259	-.000124	-.000025	-.053542	.001380	-.000277

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.033803	.0058462	.0002046	-.000965	-.000185	.0007734	-.002100
Stddev	.014688	.0007639	.0003089	.000958	.000844	.0091619	.003652
%RSD	43.45206	13.06716	150.9934	99.25990	455.9895	1184.598	173.8861
#1	-.025250	.0055310	.0004786	-.000577	-.001129	-.002188	.002052
#2	-.050763	.0067174	-.000130	-.002056	.000498	.011050	-.003538
#3	-.025396	.0052904	.000265	-.000262	.000076	-.006541	-.004814

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB06 Acquired: 5/21/2025 19:16:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002010	.0007437	-.000066
Stddev	.001633	.0008698	.000072
%RSD	81.23616	116.9511	108.7708
#1	-.002086	-.000224	-.000015
#2	-.000340	.000995	-.000035
#3	-.003603	.001460	-.000148

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2930.709	68929.54	17813.40	2655.574	4424.661
Stddev	5.620	213.91	13.18	15.419	6.203
%RSD	.1917645	.3103256	.0740080	.5806417	.1401856
#1	2924.871	69059.07	17799.90	2662.293	4420.862
#2	2931.173	68682.64	17826.25	2637.935	4431.819
#3	2936.083	69046.90	17814.04	2666.493	4421.303

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-05 Acquired: 5/21/2025 19:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2101339	.0124190	.9876855	-.027676	-.004531	124.2691	1.262056
Stddev	.0037537	.0028962	.0019630	.001691	.001151	.0850	.003379
%RSD	1.786325	23.32085	.1987509	6.110548	25.40592	.0683959	.2677546
#1	.2090654	.0115890	.9867052	-.025748	-.003699	124.2527	1.265628
#2	.2143059	.0100285	.9864057	-.028909	-.004049	124.3611	1.261633
#3	.2070302	.0156397	.9899456	-.028372	-.005845	124.1935	1.258909

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109943	.0078937	19.88869	.2205456	.1135767	.4228484	267.0630
Stddev	.0001113	.0000330	.02711	.0006021	.0007106	.0007283	.5753
%RSD	1.012369	.4183741	.1363047	.2729883	.6256249	.1722435	.2153991
#1	.0111013	.0078576	19.89407	.2199123	.1135598	.4220128	266.4160
#2	.0110024	.0079011	19.91271	.2206137	.1128747	.4233489	267.5165
#3	.0108792	.0079224	19.85929	.2211106	.1142955	.4231834	267.2566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.639612	32.26764	.2006057	.0009850	3.105414	.3740947	1.658949
Stddev	.017003	.01925	.0003356	.0004387	.007096	.0003883	.004213
%RSD	.1967976	.0596518	.1673117	44.53384	.2285002	.1037899	.2539803
#1	8.657600	32.25530	.2002263	.0013208	3.112948	.3736994	1.655821
#2	8.637429	32.25779	.2007268	.0004887	3.104435	.3744755	1.657286
#3	8.623806	32.28982	.2008639	.0011455	3.098858	.3741092	1.663740

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.647342	.0832561	.0054229	.0380596	1.503872	5.420668	5.748813
Stddev	.018595	.0007877	.0003259	.0010148	.004490	.025308	.003589
%RSD	.2431592	.9461071	6.010485	2.666427	.2985574	.4668859	.0624385
#1	7.662895	.0825536	.0051164	.0381260	1.508276	5.391564	5.744686
#2	7.652386	.0831071	.0053870	.0390396	1.504038	5.432936	5.751210
#3	7.626745	.0841077	.0057654	.0370132	1.499301	5.437506	5.750542

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-05 Acquired: 5/21/2025 19:20:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.182988	.2724604	-.123444
Stddev	.009065	.0017112	.001173
%RSD	.7662951	.6280627	.9503389
#1	1.174535	.2732635	-.122094
#2	1.181867	.2736224	-.124017
#3	1.192561	.2704954	-.124220

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2937.764	69726.01	19825.30	2689.753	3947.363
Stddev	5.823	505.19	48.87	14.175	5.093
%RSD	.1982222	.7245337	.2465006	.5270074	.1290313
#1	2942.815	70303.08	19869.70	2702.196	3948.645
#2	2931.395	69511.37	19833.27	2692.740	3941.751
#3	2939.083	69363.59	19772.94	2674.322	3951.693

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-09 Acquired: 5/21/2025 19:24:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0602012	.0016744	.2431878	-.013256	-.001561	111.2649	1.555274
Stddev	.0011721	.0015237	.0027826	.006226	.002344	.1303	.002566
%RSD	1.946934	91.00109	1.144220	46.96535	150.1230	.1171089	.1650108
#1	.0591768	.0000036	.2412817	-.006068	-.000401	111.4067	1.557935
#2	.0599476	.0029874	.2419008	-.016959	-.000024	111.1504	1.552814
#3	.0614794	.0020322	.2463809	-.016741	-.004259	111.2376	1.555072

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0121743	.0050839	36.76004	.2944861	.1800245	.2600508	191.4595
Stddev	.0000504	.0001897	.06591	.0049729	.0001781	.0005541	2.2083
%RSD	.4141941	3.731073	.1793016	1.688663	.0989134	.2130625	1.153408
#1	.0121490	.0050090	36.82956	.2905058	.1801085	.2602347	190.2486
#2	.0121415	.0052996	36.69846	.2928920	.1801450	.2604896	190.1215
#3	.0122323	.0049431	36.75210	.3000606	.1798200	.2594282	194.0084

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.592618	58.25586	.3585904	.0016247	4.332528	.3859705	.8048236
Stddev	.011086	.12542	.0012391	.0003652	.063835	.0027723	.0162933
%RSD	.4275841	.2152874	.3455488	22.47691	1.473400	.7182648	2.024452
#1	2.605413	58.39911	.3573376	.0020061	4.294611	.3832343	.7938106
#2	2.586535	58.16581	.3598153	.0015896	4.296745	.3887775	.7971201
#3	2.585905	58.20266	.3586184	.0012783	4.406229	.3858996	.8235402

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.37136	.0859744	.0027643	.0027761	3.084547	3.350230	5.029502
Stddev	.26612	.0009946	.0000895	.0012742	.006009	.043751	.006538
%RSD	1.373782	1.156900	3.236006	45.90018	.1948132	1.305923	.1299916
#1	19.21894	.0855426	.0027398	.0013813	3.090411	3.312320	5.022146
#2	19.21650	.0852686	.0026896	.0038792	3.078403	3.340266	5.031709
#3	19.67865	.0871119	.0028634	.0030677	3.084825	3.398104	5.034651

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-09 Acquired: 5/21/2025 19:24:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7525289	.3288216	-.004440
Stddev	.0045945	.0006403	.002266
%RSD	.6105452	.1947390	51.02086
#1	.7480707	.3290704	-.003155
#2	.7572486	.3280942	-.003110
#3	.7522674	.3293002	-.007056

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3293.987	75826.26	22494.73	2964.466	3933.312
Stddev	2.803	943.58	73.17	39.616	5.652
%RSD	.0850974	1.244399	.3252800	1.336358	.1437068
#1	3294.549	76326.91	22415.60	2978.734	3939.550
#2	3290.945	76414.00	22559.94	2994.972	3928.529
#3	3296.466	74737.87	22508.66	2919.693	3931.857

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-13 Acquired: 5/21/2025 19:28:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0458241	.0093355	.1697658	-.019382	-.003762	116.6371	.9372761
Stddev	.0058908	.0018395	.0015444	.003968	.004012	.1313	.0024789
%RSD	12.85533	19.70504	.9097216	20.47138	106.6426	.1125604	.2644822
#1	.0395446	.0114368	.1710463	-.018281	-.000324	116.7873	.9377752
#2	.0466993	.0085534	.1702005	-.023785	-.008170	116.5793	.9394674
#3	.0512283	.0080161	.1680507	-.016082	-.002791	116.5446	.9345855

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067332	.0028500	11.29324	.1987295	.0837891	.1746549	194.5464
Stddev	.0001170	.0001741	.04186	.0007400	.0001668	.0011385	.3877
%RSD	1.737914	6.110279	.3706856	.3723713	.1990489	.6518584	.1992716
#1	.0067113	.0026517	11.31680	.1994609	.0839732	.1758929	194.1676
#2	.0068596	.0029200	11.31802	.1979812	.0836480	.1736529	194.5294
#3	.0066287	.0029782	11.24491	.1987463	.0837462	.1744189	194.9423

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.075600	31.01942	.1610739	-.000845	4.992930	.2623743	.5687843
Stddev	.011292	.11680	.0008867	.000256	.035851	.0019368	.0019260
%RSD	.3671438	.3765242	.5504954	30.29817	.7180255	.7381823	.3386204
#1	3.077802	31.12956	.1613607	-.000977	4.953876	.2644131	.5684180
#2	3.085628	31.03174	.1600793	-.000550	5.024346	.2621509	.5708671
#3	3.063369	30.89695	.1617817	-.001008	5.000569	.2605589	.5670677

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.194387	.0469248	.0038688	.0148423	1.468384	3.442062	2.689134
Stddev	.006072	.0013015	.0003065	.0000778	.004266	.018188	.004623
%RSD	.0980310	2.773610	7.923523	.5245223	.2905448	.5283960	.1719273
#1	6.192418	.0461444	.0040611	.0147872	1.468862	3.445775	2.684620
#2	6.189544	.0462027	.0040299	.0148083	1.472391	3.422304	2.688923
#3	6.201200	.0484272	.0035153	.0149313	1.463899	3.458107	2.693859

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-13 Acquired: 5/21/2025 19:28:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8793644	.2514393	-.060222
Stddev	.0020950	.0016897	.000789
%RSD	.2382409	.6719911	1.310533
#1	.8798820	.2494910	-.059705
#2	.8770591	.2523230	-.059830
#3	.8811520	.2525038	-.061130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2927.262	68031.76	18277.83	2666.714	4049.437
Stddev	7.812	261.12	86.47	3.901	11.517
%RSD	.2668835	.3838172	.4731033	.1462890	.2844192
#1	2935.556	67926.39	18182.15	2666.030	4060.802
#2	2920.042	68329.10	18300.93	2663.200	4037.773
#3	2926.187	67839.80	18350.41	2670.912	4049.737

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-17 Acquired: 5/21/2025 19:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0603599	.0128882	.1880294	-.024704	-.005641	124.3896	2.021243
Stddev	.0019429	.0009517	.0017431	.001250	.000923	.1523	.003921
%RSD	3.218823	7.384135	.9270479	5.058479	16.36277	.1224606	.1939767
#1	.0611500	.0120475	.1900363	-.023273	-.006677	124.4174	2.019108
#2	.0581464	.0126957	.1868925	-.025259	-.005337	124.2253	2.018854
#3	.0617832	.0139214	.1871594	-.025581	-.004908	124.5262	2.025768

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0111655	.0062017	30.49662	.2639991	.1168028	.2332020	262.5992
Stddev	.0001243	.0001279	.10597	.0005071	.0002936	.0006033	1.3911
%RSD	1.113409	2.061984	.3474916	.1920748	.2513998	.2587037	.5297278
#1	.0112985	.0063392	30.46359	.2638231	.1171359	.2328695	261.0151
#2	.0110521	.0061798	30.41109	.2636035	.1166915	.2338984	263.1610
#3	.0111460	.0060863	30.61517	.2645708	.1165811	.2328380	263.6215

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.602706	48.03021	.2915990	.0013719	6.378968	.3387882	.6270173
Stddev	.013172	.10687	.0005034	.0003315	.031305	.0020612	.0015465
%RSD	.2861702	.2225159	.1726474	24.16168	.4907571	.6083921	.2466490
#1	4.597278	48.09024	.2910626	.0010270	6.343093	.3386210	.6282076
#2	4.593116	47.90682	.2916733	.0016881	6.393067	.3409278	.6275750
#3	4.617724	48.09358	.2920612	.0014007	6.400744	.3368157	.6252692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.92584	.1069280	.0029720	.0043419	2.649058	1.653715	4.632217
Stddev	.08107	.0023945	.0001146	.0008855	.008507	.019220	.006816
%RSD	.5821519	2.239324	3.855478	20.39535	.3211474	1.162217	.1471345
#1	13.83232	.1041969	.0030477	.0039036	2.651066	1.631541	4.637667
#2	13.96894	.1086664	.0028402	.0037609	2.639727	1.665595	4.624575
#3	13.97625	.1079208	.0030281	.0053611	2.656382	1.664009	4.634408

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2071-17 Acquired: 5/21/2025 19:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.885313	.3447056	-.062806
Stddev	.012192	.0014375	.001173
%RSD	.6466772	.4170070	1.867118
#1	1.882706	.3445935	-.061458
#2	1.874635	.3433275	-.063594
#3	1.898597	.3461958	-.063365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3194.908	74885.96	21820.44	2912.520	3979.641
Stddev	3.642	121.77	117.14	13.337	.731
%RSD	.1139806	.1626011	.5368574	.4579149	.0183666
#1	3196.430	74966.77	21754.76	2926.907	3978.799
#2	3190.752	74945.19	21955.69	2900.569	3980.112
#3	3197.542	74745.91	21750.87	2910.086	3980.013

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-01 Acquired: 5/21/2025 19:36:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0418038	.0080320	.1979377	-.019649	-.005272	84.88889	.6740043
Stddev	.0055466	.0014793	.0018469	.002739	.001296	.17334	.0016928
%RSD	13.26807	18.41737	.9330525	13.93943	24.57947	.2041923	.2511615
#1	.0377103	.0088446	.1973042	-.022502	-.003844	84.72714	.6720736
#2	.0395849	.0089268	.1964910	-.019406	-.005600	84.86766	.6747048
#3	.0481164	.0063245	.2000180	-.017040	-.006372	85.07186	.6752345

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091479	.0049950	1.532779	.1930792	.0577125	.1379021	185.3009
Stddev	.0001136	.0002224	.008321	.0002258	.0001739	.0008525	.5300
%RSD	1.241336	4.452993	.5428617	.1169399	.3012348	.6181759	.2860240
#1	.0090604	.0052500	1.523174	.1928210	.0578380	.1387182	184.7794
#2	.0091069	.0048407	1.537343	.1932394	.0575140	.1370174	185.8391
#3	.0092762	.0048943	1.537819	.1931774	.0577854	.1379707	185.2841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5233604	12.80461	.1045004	-.000647	2.121192	.3277571	.3450708
Stddev	.0014929	.03066	.0004134	.000323	.012811	.0024542	.0008124
%RSD	.2852467	.2394655	.3956220	49.95192	.6039306	.7488021	.2354176
#1	.5217130	12.80158	.1044652	-.000979	2.108988	.3263067	.3445782
#2	.5237444	12.77557	.1049303	-.000628	2.134533	.3263739	.3446258
#3	.5246237	12.83667	.1041057	-.000334	2.120053	.3305908	.3460085

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.694697	.0662754	.0028231	.0116532	1.464566	2.017419	1.469912
Stddev	.038923	.0007769	.0004675	.0008440	.001790	.012962	.002063
%RSD	1.053488	1.172183	16.55960	7.242331	.1221954	.6425011	.1403555
#1	3.689280	.0658693	.0027483	.0117252	1.466560	2.011607	1.467886
#2	3.736045	.0671712	.0033235	.0124588	1.464040	2.032269	1.472011
#3	3.658766	.0657858	.0023975	.0107755	1.463099	2.008379	1.469840

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-01 Acquired: 5/21/2025 19:36:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8736924	.1608618	-.119286
Stddev	.0022482	.0004884	.000499
%RSD	.2573166	.3036167	.4184348
#1	.8745573	.1603663	-.118790
#2	.8753796	.1613428	-.119789
#3	.8711402	.1608762	-.119280

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3317.652	76763.04	20894.99	3046.339	4133.828
Stddev	2.109	218.92	27.64	16.196	4.977
%RSD	.0635623	.2851937	.1322652	.5316684	.1204082
#1	3315.379	76673.51	20865.75	3037.839	4128.448
#2	3319.545	76603.07	20920.68	3036.162	4134.766
#3	3318.033	77012.54	20898.54	3065.016	4138.270

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-02 Acquired: 5/21/2025 19:41:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0433994	.0137613	.0686846	-.027684	-.004575	120.4712	.3257758
Stddev	.0018515	.0023965	.0014782	.005579	.000339	.2124	.0012924
%RSD	4.266216	17.41463	2.152112	20.15212	7.419270	.1762813	.3967041
#1	.0440876	.0161363	.0677873	-.027515	-.004887	120.3516	.3245168
#2	.0413023	.0138037	.0678758	-.022192	-.004625	120.7164	.3257114
#3	.0448083	.0113439	.0703907	-.033346	-.004214	120.3456	.3270991

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087906	.0068702	3.744384	.1715225	.0907357	.0761767	239.0651
Stddev	.0000334	.0011020	.025292	.0008078	.0023740	.0034564	.9906
%RSD	.3795743	16.03974	.6754714	.4709597	2.616408	4.537273	.4143795
#1	.0088273	.0065494	3.715700	.1708914	.0892478	.0744238	238.4787
#2	.0087621	.0059643	3.763484	.1724329	.0894857	.0739481	240.2089
#3	.0087823	.0080970	3.753967	.1712431	.0934735	.0801583	238.5078

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7627234	4.448171	.0787819	-.001352	5.401311	.2246713	.2049709
Stddev	.0028106	.025437	.0015123	.000631	.045059	.0019845	.0014008
%RSD	.3684988	.5718515	1.919632	46.63518	.8342166	.8832847	.6834090
#1	.7647297	4.454807	.0782991	-.001073	5.385788	.2224544	.2037103
#2	.7595110	4.420073	.0775699	-.000910	5.452079	.2262821	.2064789
#3	.7639295	4.469631	.0804767	-.002075	5.366066	.2252772	.2047234

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.844331	.0708912	.0001801	.0071477	2.065792	1.943556	2.340759
Stddev	.019509	.0016772	.0003693	.0002939	.000945	.014933	.062312
%RSD	.6858764	2.365916	205.0625	4.111599	.0457445	.7683120	2.662050
#1	2.832017	.0722162	-.000246	.0068283	2.066112	1.932281	2.309362
#2	2.866824	.0714518	.000406	.0072082	2.064729	1.960491	2.300392
#3	2.834153	.0690054	.000381	.0074067	2.066536	1.937897	2.412525

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-02 Acquired: 5/21/2025 19:41:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2278163	.1186793	-.182694
Stddev	.0120231	.0004765	.001062
%RSD	5.277548	.4014938	.5811107
#1	.2191919	.1183569	-.182100
#2	.2227066	.1192266	-.183920
#3	.2415503	.1184544	-.182062

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.036	77564.23	21075.91	3031.748	4034.606
Stddev	57.665	293.32	67.24	16.120	80.807
%RSD	1.754850	.3781605	.3190309	.5317169	2.002858
#1	3313.303	77788.13	21041.78	3046.012	4074.450
#2	3325.011	77232.20	21153.37	3014.259	4087.753
#3	3219.794	77672.36	21032.58	3034.973	3941.614

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-03 Acquired: 5/21/2025 19:45:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0414768	.0053088	.3425108	-.010695	.0031036	96.91741	.5031363
Stddev	.0016778	.0006069	.0012973	.004620	.0010861	.17884	.0018706
%RSD	4.045112	11.43239	.3787704	43.19588	34.99412	.1845251	.3717876
#1	.0401244	.0059766	.3418939	-.005836	.0031124	97.11332	.5037054
#2	.0409517	.0051587	.3440015	-.015031	.0020131	96.87601	.5046563
#3	.0433543	.0047909	.3416371	-.011218	.0041852	96.76291	.5010473

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056062	.0040294	5.980801	.1568682	.0363992	.1162830	130.0154
Stddev	.0000819	.0001051	.019859	.0000850	.0000705	.0006712	.3681
%RSD	1.461341	2.609156	.3320392	.0541712	.1936701	.5772526	.2830913
#1	.0055713	.0039366	5.993825	.1569395	.0363459	.1160029	130.0771
#2	.0056998	.0041436	5.990634	.1567741	.0364792	.1170489	129.6204
#3	.0055474	.0040080	5.957945	.1568909	.0363726	.1157972	130.3487

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5465101	6.207467	.0780305	.0005810	5.724976	.2562242	.6072270
Stddev	.0018873	.011211	.0003007	.0001822	.024541	.0022167	.0020098
%RSD	.3453394	.1806061	.3854066	31.36046	.4286588	.8651388	.3309839
#1	.5481301	6.198998	.0778289	.0006267	5.741008	.2582135	.6090726
#2	.5444377	6.203223	.0783762	.0003802	5.696725	.2538346	.6050857
#3	.5469625	6.220181	.0778865	.0007359	5.737197	.2566244	.6075228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.425769	.0335458	.0036550	.0540609	1.096302	1.806276	2.095153
Stddev	.018207	.0008547	.0002412	.0001985	.001970	.007209	.004219
%RSD	.7505775	2.547946	6.599969	.3672169	.1796883	.3990861	.2013826
#1	2.417715	.0338221	.0035846	.0541216	1.098486	1.805379	2.090620
#2	2.412977	.0325871	.0034569	.0538391	1.095763	1.813892	2.095874
#3	2.446614	.0342283	.0039236	.0542219	1.094658	1.799558	2.098965

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-03 Acquired: 5/21/2025 19:45:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.450783	.0900451	-.079797
Stddev	.004476	.0002115	.000366
%RSD	.3084997	.2349198	.4581230
#1	1.445791	.0901669	-.079683
#2	1.454439	.0898009	-.079502
#3	1.452118	.0901676	-.080206

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3103.141	74745.01	20674.56	2873.599	4143.822
Stddev	7.042	78.45	91.04	12.114	6.879
%RSD	.2269298	.1049540	.4403546	.4215784	.1660082
#1	3110.863	74682.62	20646.21	2859.884	4151.322
#2	3097.073	74719.33	20601.07	2878.073	4142.339
#3	3101.489	74833.08	20776.41	2882.841	4137.806

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-04 Acquired: 5/21/2025 19:49:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0474546	.0002452	.1177954	-.011022	-.003201	125.0569	.4018100
Stddev	.0046874	.0019199	.0016669	.001850	.003039	.1897	.0017714
%RSD	9.877708	783.1837	1.415116	16.78323	94.93305	.1516954	.4408503
#1	.0431571	.0014007	.1176441	-.013097	-.006006	124.9319	.4021108
#2	.0467537	-.001971	.1195329	-.010420	-.003624	124.9635	.3999075
#3	.0524531	.001306	.1162093	-.009548	.000027	125.2751	.4034117

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046900	.0018160	4.606048	.1835318	.0449733	.0722304	132.1529
Stddev	.0000281	.0000461	.023944	.0004353	.0000803	.0001246	.3141
%RSD	.5981894	2.539263	.5198373	.2371930	.1785203	.1725245	.2376906
#1	.0047115	.0017671	4.602068	.1834955	.0449904	.0722250	132.5141
#2	.0047003	.0018223	4.584343	.1839842	.0448859	.0721086	132.0006
#3	.0046583	.0018587	4.631732	.1831158	.0450437	.0723577	131.9440

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3992226	11.17031	.0795109	.0011553	10.05278	.3489299	.1853446
Stddev	.0010611	.03522	.0001634	.0003458	.03827	.0018102	.0008888
%RSD	.2658020	.3153282	.2054497	29.92880	.3806806	.5187726	.4795478
#1	.3996173	11.17385	.0796852	.0012660	10.07665	.3468408	.1863646
#2	.3980206	11.13346	.0793613	.0014321	10.07304	.3499182	.1847364
#3	.4000298	11.20364	.0794862	.0007677	10.00864	.3500309	.1849327

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.473109	.0386124	.0013410	.1166138	1.154157	1.481413	1.203272
Stddev	.023804	.0008262	.0002578	.0003995	.001923	.012098	.008272
%RSD	.6853780	2.139763	19.22630	.3425832	.1665919	.8166207	.6874251
#1	3.476700	.0382282	.0010515	.1161553	1.156367	1.490727	1.197864
#2	3.494914	.0380482	.0014256	.1167998	1.152868	1.485772	1.212794
#3	3.447714	.0395607	.0015459	.1168865	1.153235	1.467740	1.199158

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-04 Acquired: 5/21/2025 19:49:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5851037	.1225920	-.086497
Stddev	.0063823	.0007022	.000295
%RSD	1.090794	.5728329	.3407144
#1	.5907282	.1224396	-.086836
#2	.5781675	.1219785	-.086297
#3	.5864153	.1233580	-.086359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3098.671	76018.69	21667.90	2910.139	4069.931
Stddev	4.652	146.49	25.82	4.333	4.633
%RSD	.1501213	.1927079	.1191854	.1489008	.1138262
#1	3101.115	76131.10	21691.45	2907.077	4074.250
#2	3093.306	75853.01	21671.96	2915.097	4065.038
#3	3101.591	76071.96	21640.28	2908.242	4070.505

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-05 Acquired: 5/21/2025 19:53:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0316983	.0040895	.0258467	-.009436	.0005435	11.89140	.2947061
Stddev	.0023843	.0018368	.0009782	.001885	.0014151	.01336	.0007393
%RSD	7.521692	44.91485	3.784600	19.97749	260.3637	.1123473	.2508455
#1	.0289461	.0052469	.0248392	-.008200	.0009846	11.87772	.2939883
#2	.0330141	.0019716	.0259081	-.008502	.0016856	11.89207	.2954651
#3	.0331347	.0050499	.0267927	-.011605	-.001040	11.90441	.2946650

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022080	-.001373	.7586520	.0487779	.0085856	.0825292	90.22439
Stddev	.0000687	.000108	.0091383	.0001097	.0001034	.0004396	.14823
%RSD	3.110980	7.898432	1.204549	.2249649	1.204337	.5326368	.1642939
#1	.0022649	-.001258	.7599070	.0486553	.0085800	.0821358	90.13054
#2	.0022274	-.001474	.7489510	.0488669	.0086916	.0830037	90.14735
#3	.0021317	-.001386	.7670980	.0488114	.0084850	.0824481	90.39528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1118617	.5187948	.0077417	.0006979	.6404486	.1117782	.0491427
Stddev	.0006242	.0072038	.0000338	.0002459	.0049337	.0010072	.0004370
%RSD	.5580086	1.388562	.4370523	35.23470	.7703583	.9010764	.8891883
#1	.1116036	.5116793	.0077724	.0008901	.6461277	.1106157	.0494707
#2	.1114079	.5260837	.0077474	.0007827	.6372176	.1123882	.0493108
#3	.1125735	.5186213	.0077054	.0004208	.6380006	.1123308	.0486466

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6321516	.0266288	.0007840	.0455164	.3352184	2.798196	.6328833
Stddev	.0169071	.0002742	.0000716	.0012927	.0003591	.016172	.0036862
%RSD	2.674537	1.029606	9.126466	2.840079	.1071245	.5779318	.5824520
#1	.6189436	.0269047	.0007088	.0457387	.3356030	2.788910	.6312370
#2	.6263051	.0263564	.0007918	.0441270	.3348919	2.788808	.6303072
#3	.6512060	.0266252	.0008513	.0466836	.3351604	2.816869	.6371058

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-05 Acquired: 5/21/2025 19:53:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7341788	.0381288	-.075403
Stddev	.0035499	.0005155	.000083
%RSD	.4835171	1.352029	.1102718
#1	.7313846	.0377490	-.075340
#2	.7329786	.0379217	-.075372
#3	.7381732	.0387157	-.075497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2902.941	68228.28	19899.59	2626.586	4308.163
Stddev	5.108	79.79	24.83	8.395	.644
%RSD	.1759577	.1169448	.1247836	.3196255	.0149492
#1	2901.735	68273.07	19928.18	2636.066	4308.115
#2	2898.544	68136.16	19887.27	2620.092	4308.829
#3	2908.544	68275.61	19883.33	2623.601	4307.544

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV07 Acquired: 5/21/2025 19:57:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.941553	4.864764	4.946347	4.968311	4.915346	9.727341	9.577264
Stddev	.021337	.050154	.021197	.031932	.017722	.013491	.106893
%RSD	.4317959	1.030962	.4285407	.6427217	.3605486	.1386885	1.116111
#1	4.933834	4.847337	4.939241	4.947521	4.902391	9.725032	9.700061
#2	4.925150	4.825647	4.929615	4.952333	4.908104	9.741837	9.526665
#3	4.965676	4.921306	4.970184	5.005078	4.935542	9.715154	9.505065

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2530231	2.476158	24.42485	.9995059	2.456731	1.239828	4.918212
Stddev	.0008975	.010307	.09097	.0036919	.006062	.003763	.021107
%RSD	.3547230	.4162531	.3724432	.3693685	.2467625	.3035301	.4291582
#1	.2540545	2.469290	24.52959	1.002670	2.453761	1.238912	4.933272
#2	.2524189	2.471174	24.37935	1.000398	2.452727	1.236607	4.927277
#3	.2525960	2.488009	24.36561	.995450	2.463706	1.243964	4.894087

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.438062	24.57817	2.470493	1.241477	23.55152	2.441202	2.494459
Stddev	.007661	.05980	.008198	.003210	.09148	.005553	.012998
%RSD	.3142371	.2432941	.3318302	.2585339	.3884382	.2274876	.5210624
#1	2.444340	24.64167	2.465746	1.244690	23.65140	2.447599	2.505684
#2	2.440319	24.56990	2.465774	1.238270	23.53136	2.437619	2.497475
#3	2.429525	24.52293	2.479959	1.241470	23.47179	2.438387	2.480219

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.82405	4.988782	4.926630	4.930470	4.847685	4.883649	5.023601
Stddev	.10013	.004648	.014460	.021686	.010031	.018202	.018485
%RSD	.4202702	.0931716	.2935054	.4398306	.2069248	.3727047	.3679538
#1	23.88186	4.991574	4.917519	4.912390	4.857898	4.899436	5.015714
#2	23.88185	4.983417	4.919068	4.924506	4.847311	4.863740	5.010369
#3	23.70843	4.991357	4.943303	4.954513	4.837846	4.887771	5.044721

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV07 Acquired: 5/21/2025 19:57:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.915791	4.723463	4.851879
Stddev	.027606	.015214	.025744
%RSD	.5615781	.3221021	.5305998
#1	4.901080	4.740042	4.866791
#2	4.898656	4.720207	4.822152
#3	4.947637	4.710140	4.866693

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.806	64529.99	18035.87	2485.601	4056.199
Stddev	2.974	153.30	36.95	10.644	4.544
%RSD	.1074821	.2375688	.2048902	.4282375	.1120272
#1	2763.403	64362.55	17993.89	2480.391	4050.988
#2	2768.906	64563.98	18050.27	2478.566	4059.337
#3	2768.108	64663.45	18063.46	2497.847	4058.272

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB07 Acquired: 5/21/2025 20:02:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004387	-.001802	.0004300	-.002395	.0014211	.0056182	-.001129
Stddev	.001382	.001055	.0008370	.003207	.0004643	.0028630	.000245
%RSD	31.50654	58.55327	194.6429	133.8996	32.67176	50.95941	21.66864
#1	-.005448	-.001485	.0009526	.000278	.0009007	.0060603	-.000991
#2	-.004888	-.002980	-.000535	-.005951	.0015696	.0025598	-.000985
#3	-.002824	-.000942	.000873	-.001512	.0017930	.0082344	-.001411

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000276	-.000050	-.005356	.0003208	.0002399	.0002122	.0070554
Stddev	.0000461	.000027	.002558	.0003867	.0000666	.0004449	.0037186
%RSD	167.0044	55.41565	47.75417	120.5522	27.76766	209.6829	52.70564
#1	.0000549	-.000047	-.002403	-.000035	.0002629	-.000286	.0048752
#2	.0000536	-.000078	-.006848	.000265	.0002920	.000569	.0049418
#3	-.000026	-.000024	-.006818	.000732	.0001648	.000354	.0113490

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000593	-.007665	.0001979	-.000300	-.107299	.0005672	-.000262
Stddev	.000184	.011259	.0002042	.000350	.004269	.0011007	.000215
%RSD	31.00882	146.8852	103.1414	116.6288	3.978861	194.0523	82.12852
#1	-.000802	-.007775	.0003687	-.000479	-.111898	-.000703	-.000176
#2	-.000514	.003648	.0002534	-.000523	-.106535	.001240	-.000507
#3	-.000461	-.018869	-.000028	.000103	-.103463	.001165	-.000103

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.049802	.0049070	.0006895	.0002839	.0002009	-.001316	-.005004
Stddev	.037795	.0005812	.0001256	.0009639	.0004682	.006529	.002039
%RSD	75.89162	11.84484	18.21623	339.5338	233.0335	496.2794	40.75609
#1	-.059042	.0047087	.0008103	-.000793	.0000557	.005383	-.003372
#2	-.082120	.0055614	.0006988	.000578	-.000178	-.001670	-.007290
#3	-.008243	.0044508	.0005596	.001067	.000725	-.007660	-.004350

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB07 Acquired: 5/21/2025 20:02:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001014	-.000415	.0000028
Stddev	.001320	.000553	.0000245
%RSD	130.2007	133.0896	864.9035
#1	.000025	-.000900	-.000025
#2	-.002499	.000187	.000020
#3	-.000568	-.000533	.000013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2965.575	68951.11	18699.23	2670.912	4483.337
Stddev	8.719	1606.25	143.04	67.692	15.215
%RSD	.2940026	2.329542	.7649752	2.534420	.3393692
#1	2955.556	67100.35	18855.41	2592.754	4465.958
#2	2971.445	69771.38	18574.58	2709.126	4494.261
#3	2969.722	69981.59	18667.71	2710.856	4489.791

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-06 Acquired: 5/21/2025 20:06:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0892231	.0400086	.2145072	-.063175	-.010159	46.49060	.1465986
Stddev	.0012532	.0030431	.0016289	.002512	.002592	.05121	.0011829
%RSD	1.404594	7.606109	.7593762	3.975986	25.51666	.1101512	.8068998
#1	.0903034	.0378819	.2129128	-.061192	-.009608	46.44590	.1452747
#2	.0895169	.0386494	.2161685	-.062334	-.007887	46.47943	.1469693
#3	.0878491	.0434944	.2144401	-.065999	-.012983	46.54648	.1475518

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108266	.0093759	3.273135	.2761033	.0397792	.2022628	512.4691
Stddev	.0001555	.0007001	.018047	.0010113	.0004897	.0026770	4.0766
%RSD	1.436304	7.466564	.5513773	.3662576	1.231132	1.323530	.7954819
#1	.0106514	.0087890	3.293277	.2772377	.0395181	.1991725	515.3025
#2	.0108798	.0101507	3.267697	.2757758	.0403442	.2038705	507.7970
#3	.0109484	.0091879	3.258433	.2752963	.0394754	.2037453	514.3079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8916341	2.082012	.0494064	-.008996	1.108058	.4166218	.7222915
Stddev	.0049933	.004013	.0004227	.000845	.004029	.0000957	.0015789
%RSD	.5600201	.1927495	.8554480	9.390230	.3635914	.0229706	.2185928
#1	.8862018	2.082846	.0489723	-.008437	1.110419	.4166868	.7240327
#2	.8926768	2.085542	.0498166	-.009968	1.103406	.4165119	.7218888
#3	.8960238	2.077647	.0494305	-.008583	1.110348	.4166667	.7209529

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.922628	.0607477	.0019227	.2008404	1.222686	1.891394	3.334884
Stddev	.032236	.0060643	.0002575	.0019929	.003335	.008399	.004952
%RSD	1.102967	9.982731	13.39012	.9922560	.2727528	.4440527	.1485040
#1	2.941989	.0627648	.0020715	.2011488	1.218847	1.900420	3.331357
#2	2.885416	.0539319	.0016254	.2026611	1.224336	1.889953	3.332749
#3	2.940479	.0655465	.0020711	.1987114	1.224873	1.883809	3.340546

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-06 Acquired: 5/21/2025 20:06:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.264552	.2318222	-.424628
Stddev	.005881	.0002570	.003850
%RSD	.2596781	.1108517	.9067850
#1	2.262167	.2320412	-.427210
#2	2.271250	.2315393	-.420202
#3	2.260238	.2318861	-.426471

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.657	70344.47	18180.57	2736.340	4105.645
Stddev	10.339	237.40	80.21	4.266	12.630
%RSD	.3428477	.3374875	.4411907	.1559107	.3076191
#1	3027.583	70280.64	18242.76	2734.297	4120.191
#2	3009.220	70145.51	18090.03	2741.244	4099.273
#3	3010.168	70607.27	18208.91	2733.480	4097.471

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-07 Acquired: 5/21/2025 20:10:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0433362	.0069312	.2552027	-.013981	.0002626	39.33185	.3053659
Stddev	.0012674	.0020573	.0016113	.001123	.0015057	.07646	.0008787
%RSD	2.924543	29.68252	.6313920	8.030561	573.5153	.1944030	.2877691
#1	.0423353	.0093060	.2553799	-.015270	.0008006	39.25153	.3060355
#2	.0447613	.0056911	.2567181	-.013456	.0014253	39.34026	.3056914
#3	.0429121	.0057963	.2535101	-.013216	-.001438	39.40376	.3043709

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034714	.0012520	12.19477	.1487463	.0124885	.1746005	135.6649
Stddev	.0000855	.0000249	.00968	.0003396	.0002403	.0001113	.5390
%RSD	2.461697	1.987169	.0794000	.2283050	1.924327	.0637643	.3973375
#1	.0033765	.0012252	12.19247	.1489835	.0124709	.1746108	136.1173
#2	.0035423	.0012743	12.18644	.1483573	.0122575	.1747064	135.0685
#3	.0034955	.0012564	12.20539	.1488982	.0127371	.1744844	135.8088

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2273757	2.615566	.0209417	.0001329	9.850775	.2651642	.4214751
Stddev	.0005977	.023104	.0003237	.0000743	.057525	.0018163	.0007490
%RSD	.2628887	.8833390	1.545887	55.89404	.5839691	.6849871	.1777030
#1	.2267148	2.597453	.0211450	.0002110	9.894526	.2631658	.4207505
#2	.2278786	2.641585	.0205684	.0000632	9.785615	.2667147	.4222463
#3	.2275335	2.607658	.0211116	.0001245	9.872185	.2656122	.4214287

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.453285	.0420668	.0032307	.0241263	.2015271	1.937770	1.008411
Stddev	.014090	.0004793	.0002435	.0013150	.0006202	.006699	.005576
%RSD	.4080253	1.139416	7.536376	5.450704	.3077648	.3456884	.5529041
#1	3.469355	.0423720	.0032895	.0231012	.2016433	1.932490	1.011601
#2	3.447452	.0415143	.0034394	.0236686	.2020811	1.945305	1.001973
#3	3.443047	.0423141	.0029632	.0256090	.2008570	1.935516	1.011658

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-07 Acquired: 5/21/2025 20:10:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.022446	.1151535	-.019972
Stddev	.003099	.0001533	.000734
%RSD	.3030651	.1331656	3.676270
#1	1.025360	.1151981	-.020542
#2	1.019191	.1149828	-.019144
#3	1.022785	.1152796	-.020232

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3039.895	71930.40	19858.17	2761.560	4165.635
Stddev	5.224	254.97	50.87	12.436	9.857
%RSD	.1718625	.3544695	.2561698	.4503149	.2366359
#1	3038.296	71769.82	19914.01	2749.060	4162.416
#2	3035.656	72224.39	19814.47	2773.930	4157.789
#3	3045.732	71796.97	19846.03	2761.688	4176.699

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-08 Acquired: 5/21/2025 20:14:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1066624	.0450557	.5178535	-.067865	-.010428	76.72904	.3011643
Stddev	.0011036	.0027735	.0014930	.004459	.001485	.44366	.0016177
%RSD	1.034637	6.155655	.2883073	6.570720	14.23925	.5782136	.5371499
#1	.1058465	.0482238	.5162745	-.062820	-.011925	76.82455	.3020383
#2	.1079181	.0430657	.5192423	-.069497	-.010404	76.24541	.2992976
#3	.1062226	.0438778	.5180439	-.071279	-.008955	77.11717	.3021571

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0114113	.0042663	7.294771	.2968720	.0446862	.2320396	588.6199
Stddev	.0000688	.0010520	.067416	.0005802	.0005784	.0013898	5.9667
%RSD	.6027793	24.65808	.9241641	.1954255	1.294435	.5989670	1.013680
#1	.0114166	.0031229	7.278617	.2974222	.0441937	.2304963	595.0960
#2	.0113399	.0051932	7.236900	.2969278	.0453231	.2331926	583.3455
#3	.0114772	.0044826	7.368796	.2962659	.0445417	.2324298	587.4181

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4032195	1.822303	.0528775	-.002338	2.302809	.5365471	.3958008
Stddev	.0025349	.033003	.0008050	.001166	.029881	.0046089	.0012832
%RSD	.6286530	1.811058	1.522303	49.85133	1.297593	.8589853	.3241912
#1	.4046966	1.816302	.0521992	-.001000	2.330855	.5397587	.3964806
#2	.4002926	1.792712	.0526662	-.003135	2.306191	.5312663	.3966011
#3	.4046694	1.857894	.0537670	-.002879	2.271380	.5386164	.3943208

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.545736	.1309000	.0001573	.0249022	.7726680	3.908787	2.854160
Stddev	.027419	.0076961	.0004637	.0016047	.0047924	.029458	.010098
%RSD	.7732866	5.879365	294.8211	6.444055	.6202443	.7536315	.3538019
#1	3.576484	.1395272	.0005768	.0255394	.7773623	3.941652	2.856384
#2	3.536897	.1284326	.0002357	.0260904	.7677832	3.899951	2.862961
#3	3.523827	.1247402	-.000341	.0230767	.7728586	3.884758	2.843136

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2074-08 Acquired: 5/21/2025 20:14:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.700769	.2991444	-.456512
Stddev	.024317	.0025543	.005371
%RSD	.2794848	.8538714	1.176496
#1	8.674463	.3015830	-.462491
#2	8.705415	.2964883	-.452096
#3	8.722427	.2993620	-.454949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2906.374	67707.65	19151.25	2622.660	4025.575
Stddev	3.060	168.11	127.84	15.190	3.728
%RSD	.1052910	.2482868	.6675450	.5791812	.0926164
#1	2905.781	67513.54	19191.14	2605.763	4027.867
#2	2903.654	67803.90	19254.40	2627.033	4027.585
#3	2909.687	67805.52	19008.22	2635.184	4021.273

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-01 Acquired: 5/21/2025 20:19:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0913785	.0212206	.4666169	-.040872	-.003114	185.6945	1.569318
Stddev	.0056715	.0010160	.0002535	.005326	.003769	.1744	.001572
%RSD	6.206609	4.787606	.0543321	13.03155	121.0631	.0939311	.1001842
#1	.0956652	.0214180	.4663275	-.035014	-.001912	185.8234	1.570888
#2	.0849475	.0221233	.4667998	-.042178	-.000091	185.4960	1.569323
#3	.0935228	.0201204	.4667233	-.045424	-.007337	185.7642	1.567744

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0154595	.0098233	15.88707	.3446519	.1901525	.1927021	393.4795
Stddev	.0000802	.0004935	.00984	.0010567	.0008644	.0009682	1.9943
%RSD	.5189408	5.024056	.0619130	.3065925	.4545931	.5024481	.5068293
#1	.0155325	.0097632	15.88241	.3435883	.1905110	.1935011	393.0438
#2	.0154724	.0103441	15.88042	.3446657	.1907800	.1929797	391.7391
#3	.0153736	.0093626	15.89836	.3457016	.1891665	.1916253	395.6556

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.69880	64.51415	.3560890	.0015052	1.519446	.4645462	.9640046
Stddev	.01205	.09052	.0007788	.0005842	.016862	.0031526	.0024780
%RSD	.1029610	.1403157	.2187009	38.81058	1.109771	.6786398	.2570550
#1	11.70548	64.59883	.3569828	.0008664	1.529325	.4609732	.9618894
#2	11.70603	64.41874	.3557283	.0016368	1.499976	.4657291	.9633933
#3	11.68490	64.52488	.3555560	.0020123	1.529037	.4669362	.9667310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.50822	.1658913	.0063220	.0155637	2.873925	3.234240	9.189555
Stddev	.07222	.0032924	.0004715	.0004667	.009528	.009543	.035392
%RSD	.4978198	1.984655	7.458394	2.998479	.3315205	.2950623	.3851347
#1	14.48800	.1655412	.0059014	.0160111	2.884877	3.228955	9.211855
#2	14.44826	.1627879	.0068317	.0150799	2.869351	3.228508	9.208064
#3	14.58840	.1693447	.0062330	.0156000	2.867547	3.245256	9.148746

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-01 Acquired: 5/21/2025 20:19:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.553373	.5718003	-.276525
Stddev	.008140	.0022457	.001935
%RSD	.3187872	.3927512	.6998555
#1	2.562168	.5739321	-.275712
#2	2.551849	.5694557	-.275128
#3	2.546103	.5720131	-.278734

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3096.431	73531.69	21102.26	2828.462	3977.437
Stddev	11.003	355.70	53.29	24.586	10.614
%RSD	.3553323	.4837430	.2525271	.8692196	.2668666
#1	3096.199	73739.49	21143.34	2841.808	3973.875
#2	3085.546	73734.61	21042.05	2843.488	3969.061
#3	3107.548	73120.97	21121.40	2800.090	3989.374

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-07 Acquired: 5/21/2025 20:23:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0815485	.0169255	.6120363	-.038611	-.000188	207.9659	1.475461
Stddev	.0014386	.0027774	.0030052	.001969	.002281	.7528	.006147
%RSD	1.764156	16.40959	.4910215	5.100549	1210.517	.3619836	.4166163
#1	.0799061	.0137852	.6085841	-.038189	.002111	207.1309	1.468644
#2	.0825856	.0179318	.6140672	-.040757	-.000225	208.1744	1.477155
#3	.0821537	.0190595	.6134578	-.036887	-.002451	208.5925	1.480583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0169175	.0153011	26.42554	.3903242	.2224856	.2801461	385.2339
Stddev	.0000376	.0002738	.11444	.0011466	.0007093	.0005581	1.4850
%RSD	.2220622	1.789247	.4330759	.2937568	.3187894	.1992183	.3854907
#1	.0169592	.0156024	26.35510	.3891670	.2220418	.2795309	383.7287
#2	.0169069	.0150676	26.36392	.3914599	.2233036	.2806198	385.2750
#3	.0168864	.0152333	26.55758	.3903457	.2221114	.2802877	386.6979

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.57528	76.50256	.4375934	-.000919	2.555519	.4882786	1.088813
Stddev	.07746	.27435	.0008113	.000584	.020419	.0017376	.006807
%RSD	.4973284	.3586093	.1853893	63.61414	.7990039	.3558522	.6251461
#1	15.51583	76.33697	.4367109	-.001201	2.533619	.4886089	1.086866
#2	15.54712	76.35148	.4377627	-.001308	2.574033	.4863996	1.083191
#3	15.66288	76.81924	.4383067	-.000247	2.558905	.4898273	1.096381

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.57689	.1138602	.0061779	.0169306	3.563376	2.273845	6.262797
Stddev	.08715	.0024691	.0007294	.0011947	.020875	.009546	.015509
%RSD	.5257326	2.168500	11.80635	7.056321	.5858225	.4198352	.2476411
#1	16.47930	.1110099	.0053467	.0180437	3.547515	2.272995	6.252626
#2	16.64697	.1153400	.0064757	.0156684	3.555586	2.283788	6.280648
#3	16.60438	.1152308	.0067112	.0170797	3.587025	2.264752	6.255118

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2080-07 Acquired: 5/21/2025 20:23:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.378036	.6005856	-.214899
Stddev	.007862	.0035983	.000832
%RSD	.3305902	.5991296	.3870088
#1	2.384804	.5965154	-.214133
#2	2.369413	.6018978	-.214782
#3	2.379892	.6033437	-.215784

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3138.187	73290.98	20320.97	2841.015	3956.169
Stddev	1.901	159.62	66.47	17.417	2.843
%RSD	.0605799	.2177940	.3271232	.6130570	.0718651
#1	3137.450	73471.13	20344.05	2858.064	3954.876
#2	3136.765	73167.15	20372.83	2841.730	3954.202
#3	3140.347	73234.65	20246.03	2823.252	3959.429

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01 Acquired: 5/21/2025 20:27:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0207604	.0039371	.0792732	-.012700	-.003397	101.9001	.5479446
Stddev	.0027863	.0002110	.0010616	.002488	.000698	.1756	.0009745
%RSD	13.42140	5.360163	1.339221	19.58776	20.54294	.1723431	.1778528
#1	.0239511	.0041795	.0782500	-.011839	-.003999	101.7235	.5470800
#2	.0195228	.0037947	.0803695	-.010757	-.002632	102.0748	.5490007
#3	.0188072	.0038369	.0792001	-.015504	-.003560	101.9021	.5477531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056015	.0023732	13.11243	.1450613	.0657275	.1276657	167.8441
Stddev	.0001218	.0003699	.03508	.0007723	.0001012	.0009994	2.2883
%RSD	2.175318	15.58494	.2675200	.5323580	.1539248	.7827942	1.363328
#1	.0055424	.0022495	13.08772	.1442190	.0658171	.1277170	168.1207
#2	.0057416	.0027891	13.15258	.1457360	.0656178	.1286385	165.4301
#3	.0055204	.0020811	13.09700	.1452288	.0657476	.1266418	169.9814

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.068911	22.39661	.1061661	.0002076	1.350774	.2701135	.2300998
Stddev	.006585	.04569	.0008308	.0004571	.019235	.0012810	.0019739
%RSD	.2145634	.2040065	.7825151	220.1905	1.423979	.4742247	.8578631
#1	3.062000	22.35119	.1053253	.0001117	1.348180	.2711961	.2319631
#2	3.069622	22.39608	.1061866	-.000194	1.332968	.2686994	.2280313
#3	3.075112	22.44256	.1069864	.000705	1.371175	.2704451	.2303052

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.949983	.0608858	.0011914	.0003941	2.915063	5.106096	3.868762
Stddev	.104256	.0040425	.0005396	.0004355	.002946	.079978	.004542
%RSD	1.500087	6.639542	45.28965	110.5076	.1010769	1.566333	.1174103
#1	6.978760	.0618409	.0011974	.0004665	2.914343	5.107020	3.865634
#2	6.834361	.0564513	.0006488	-.000073	2.912544	5.025660	3.873972
#3	7.036827	.0643653	.0017280	.000789	2.918303	5.185609	3.866680

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01 Acquired: 5/21/2025 20:27:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5889599	.1494229	-.111924
Stddev	.0055172	.0018867	.002223
%RSD	.9367781	1.262666	1.986060
#1	.5850109	.1484614	-.112130
#2	.5952638	.1482107	-.109605
#3	.5866049	.1515967	-.114037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3093.504	71240.17	19832.13	2804.499	4100.757
Stddev	5.697	462.37	193.78	16.693	7.754
%RSD	.1841603	.6490338	.9770849	.5952087	.1890857
#1	3096.860	71504.43	19969.53	2810.664	4104.057
#2	3086.926	71509.81	19610.49	2817.232	4091.899
#3	3096.725	70706.28	19916.38	2785.600	4106.315

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01DUP Acquired: 5/21/2025 20:31:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0475346	.0105451	.4013946	-.020180	-.006478	166.4890	1.425626
Stddev	.0021831	.0015565	.0007892	.001190	.004245	.2765	.007470
%RSD	4.592680	14.75992	.1966058	5.897132	65.53044	.1660588	.5240140
#1	.0500319	.0087902	.4015722	-.021547	-.003553	166.3071	1.417126
#2	.0465831	.0110867	.4005318	-.019379	-.011347	166.3528	1.428604
#3	.0459887	.0117585	.4020798	-.019614	-.004534	166.8072	1.431148

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0118652	.0051420	14.80914	.2200206	.1656940	.1553567	211.6240
Stddev	.0000630	.0003060	.03036	.0005391	.0002239	.0004047	1.5243
%RSD	.5307783	5.950781	.2050335	.2450450	.1351234	.2604825	.7202881
#1	.0119126	.0054938	14.77663	.2195896	.1655605	.1552399	209.8760
#2	.0117937	.0049375	14.83677	.2206251	.1655689	.1550232	212.6766
#3	.0118892	.0049948	14.81403	.2198470	.1659524	.1558069	212.3193

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.32118	61.37922	.3158003	.0005537	1.242703	.2861989	.8653027
Stddev	.03811	.11376	.0010785	.0001903	.027815	.0044548	.0008592
%RSD	.3692098	.1853428	.3415138	34.37121	2.238240	1.556540	.0992901
#1	10.27842	61.47290	.3148880	.0006076	1.213411	.2834976	.8644809
#2	10.33359	61.25263	.3155223	.0003423	1.245942	.2913407	.8661949
#3	10.35154	61.41213	.3169906	.0007113	1.268757	.2837584	.8652323

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.01498	.0506493	-.000756	.0019979	.9991222	1.235154	6.513845
Stddev	.12267	.0012154	.000368	.0005546	.0007367	.023735	.006477
%RSD	.9425484	2.399724	48.66280	27.75976	.0737321	1.921636	.0994421
#1	12.87790	.0493697	-.000406	.0013810	.9998345	1.225815	6.519628
#2	13.11441	.0507899	-.000723	.0021576	.9983633	1.262139	6.515062
#3	13.05264	.0517883	-.001139	.0024551	.9991689	1.217510	6.506845

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01DUP Acquired: 5/21/2025 20:31:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.214630	.4669813	-.122035
Stddev	.006112	.0030158	.001132
%RSD	.2759662	.6458168	.9279187
#1	2.217533	.4636640	-.120770
#2	2.207608	.4677226	-.122954
#3	2.218749	.4695574	-.122382

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3105.559	75275.82	20807.85	2889.754	4102.021
Stddev	8.409	71.68	74.94	4.718	8.636
%RSD	.2707824	.0952175	.3601562	.1632827	.2105307
#1	3096.016	75327.49	20726.65	2892.358	4092.183
#2	3111.882	75194.00	20874.35	2892.598	4108.349
#3	3108.780	75305.98	20822.56	2884.308	4105.532

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01LX5 Acquired: 5/21/2025 20:35:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053431	-.000262	.0157566	-.005462	-.000294	22.77051	.1245352
Stddev	.0028403	.000231	.0008607	.002579	.000876	.01621	.0011404
%RSD	53.15901	88.28847	5.462515	47.21251	298.2143	.0711796	.9156942
#1	.0074459	-.000529	.0163105	-.008237	-.001195	22.76544	.1245845
#2	.0064714	-.000148	.0147650	-.005009	.000555	22.78865	.1233710
#3	.0021120	-.000110	.0161942	-.003140	-.000241	22.75744	.1256501

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012387	-.000447	3.001219	.0322773	.0135991	.0299118	38.10642
Stddev	.0000146	.000116	.004908	.0001853	.0002135	.0004016	.32317
%RSD	1.176814	26.03964	.1635488	.5740457	1.570355	1.342781	.8480740
#1	.0012538	-.000425	3.002015	.0320633	.0136295	.0297345	37.73329
#2	.0012377	-.000343	2.995961	.0323854	.0137958	.0296293	38.28839
#3	.0012247	-.000573	3.005681	.0323831	.0133719	.0303716	38.29758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7185348	5.121865	.0219907	-.000120	.2075224	.0624970	.0519108
Stddev	.0015527	.031760	.0003588	.000206	.0124250	.0008430	.0003085
%RSD	.2160852	.6200965	1.631740	171.3166	5.987313	1.348850	.5942382
#1	.7190369	5.087789	.0223351	-.000358	.1943202	.0630724	.0515946
#2	.7167932	5.127160	.0220181	-.000011	.2189874	.0615294	.0522109
#3	.7197742	5.150645	.0216190	.000008	.2092596	.0628894	.0519268

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.495561	.0142972	-.000177	-.002461	.6748834	1.424091	.7952109
Stddev	.051276	.0004859	.000214	.001046	.0017944	.015404	.0076187
%RSD	3.428576	3.398890	121.1852	42.48284	.2658788	1.081651	.9580739
#1	1.483340	.0137375	-.000075	-.002742	.6739605	1.425931	.8029992
#2	1.451499	.0146125	-.000422	-.001304	.6737384	1.438492	.7948595
#3	1.551844	.0145414	-.000032	-.003337	.6769514	1.407850	.7877739

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01LX5 Acquired: 5/21/2025 20:35:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1138673	.0323824	-.025259
Stddev	.0021885	.0005001	.000416
%RSD	1.921986	1.544309	1.646121
#1	.1156055	.0324590	-.024783
#2	.1145869	.0318485	-.025441
#3	.1114096	.0328398	-.025553

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.769	68974.68	18792.21	2706.150	4315.578
Stddev	12.242	533.75	62.81	32.258	12.850
%RSD	.4150281	.7738324	.3342365	1.192028	.2977572
#1	2953.726	69590.08	18776.10	2743.354	4318.270
#2	2959.543	68696.22	18861.51	2685.976	4326.869
#3	2936.038	68637.75	18739.03	2689.120	4301.595

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01MS Acquired: 5/21/2025 20:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7190136	1.787373	1.374503	1.450237	.2809910	194.9739	1.570749
Stddev	.0058232	.010329	.001352	.004308	.0021071	.3824	.004157
%RSD	.8098798	.5778886	.0983708	.2970211	.7498818	.1961065	.2646286
#1	.7203356	1.791042	1.373376	1.448862	.2792940	194.5834	1.575074
#2	.7240621	1.795367	1.374131	1.455064	.2833495	194.9906	1.570388
#3	.7126431	1.775711	1.376003	1.446785	.2803295	195.3476	1.566785

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1818612	.1931383	15.88646	.6511942	.3686900	.4172143	353.3941
Stddev	.0002436	.0003177	.08590	.0010904	.0003756	.0008860	.7063
%RSD	.1339319	.1644918	.5407263	.1674408	.1018775	.2123574	.1998660
#1	.1819256	.1935051	15.83760	.6524458	.3685385	.4164288	354.1964
#2	.1820660	.1929470	15.98565	.6506868	.3684138	.4170394	353.1198
#3	.1815918	.1929629	15.83614	.6504500	.3691177	.4181746	352.8660

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.20609	70.27396	.8160610	.0646000	3.930210	.6644321	1.162399
Stddev	.01858	.22756	.0006788	.0004945	.030970	.0024171	.003979
%RSD	.1657796	.3238169	.0831791	.7655247	.7879925	.3637896	.3423458
#1	11.21587	70.08271	.8161247	.0641902	3.965968	.6627066	1.166871
#2	11.21773	70.52563	.8153527	.0644604	3.912745	.6671947	1.161077
#3	11.18467	70.21355	.8167058	.0651493	3.911918	.6633950	1.159249

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.57475	.2937808	.3362932	.6170035	3.192564	2.761341	12.97127
Stddev	.06959	.0037212	.0003789	.0014429	.002709	.021758	.01574
%RSD	.2951872	1.266648	.1126753	.2338606	.0848493	.7879598	.1213702
#1	23.59665	.2978945	.3366508	.6154846	3.190699	2.757714	12.98816
#2	23.49684	.2906492	.3358960	.6171699	3.195671	2.741624	12.96864
#3	23.63075	.2927986	.3363328	.6183560	3.191322	2.784685	12.95700

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01MS Acquired: 5/21/2025 20:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.386708	.7574745	-.070206
Stddev	.006702	.0012930	.000406
%RSD	.2808064	.1706936	.5787161
#1	2.390436	.7588343	-.070665
#2	2.378971	.7573283	-.069894
#3	2.390717	.7562608	-.070059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3039.062	70609.18	20009.24	2781.161	3950.545
Stddev	7.620	34.47	38.37	5.247	9.605
%RSD	.2507351	.0488226	.1917555	.1886443	.2431257
#1	3033.840	70618.63	20045.81	2775.145	3944.454
#2	3047.806	70637.95	19969.29	2784.785	3961.617
#3	3035.540	70570.97	20012.61	2783.553	3945.564

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV08 Acquired: 5/21/2025 20:43:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.801229	4.730133	4.823726	4.815623	4.772286	9.506578	9.410234
Stddev	.015517	.036679	.006079	.017429	.003058	.003829	.064202
%RSD	.3231920	.7754311	.1260189	.3619204	.0640838	.0402737	.6822611
#1	4.809520	4.701648	4.826473	4.818086	4.770262	9.504317	9.406080
#2	4.783327	4.717232	4.816759	4.797093	4.775804	9.510999	9.476412
#3	4.810839	4.771520	4.827946	4.831689	4.770792	9.504418	9.348209

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2505944	2.412405	23.81311	.9742530	2.394858	1.212385	4.722155
Stddev	.0005225	.004052	.03874	.0007440	.003564	.001700	.014099
%RSD	.2085096	.1679685	.1627025	.0763699	.1488096	.1401878	.2985747
#1	.2511515	2.410558	23.78289	.9746453	2.391677	1.213623	4.719572
#2	.2501153	2.409606	23.85679	.9733949	2.394186	1.210447	4.737368
#3	.2505163	2.417052	23.79966	.9747187	2.398709	1.213085	4.709527

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.392427	24.12034	2.407758	1.209486	22.62965	2.384720	2.428799
Stddev	.008787	.07977	.004380	.002771	.07116	.008941	.002498
%RSD	.3672696	.3307295	.1819308	.2291096	.3144674	.3749429	.1028547
#1	2.393279	24.02942	2.404566	1.207152	22.65561	2.375403	2.425918
#2	2.400756	24.15300	2.405957	1.212548	22.68418	2.393232	2.430114
#3	2.383244	24.17860	2.412752	1.208756	22.54914	2.385524	2.430365

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.79994	4.933494	4.796433	4.808173	4.738391	4.687876	4.990161
Stddev	.05004	.009191	.010254	.012119	.009452	.028533	.019751
%RSD	.2194769	.1863057	.2137883	.2520470	.1994865	.6086619	.3957917
#1	22.76036	4.938120	4.792687	4.800086	4.745498	4.662256	4.967383
#2	22.85619	4.922909	4.788578	4.802326	4.742012	4.718626	5.000573
#3	22.78328	4.939453	4.808034	4.822107	4.727664	4.682746	5.002527

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV08 Acquired: 5/21/2025 20:43:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.797352	4.611722	4.728957
Stddev	.018744	.015061	.059030
%RSD	.3907208	.3265766	1.248276
#1	4.781404	4.616811	4.662594
#2	4.792653	4.623580	4.775612
#3	4.817999	4.594777	4.748666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.699	64885.91	17791.19	2516.716	4036.299
Stddev	3.592	165.68	28.90	8.520	9.266
%RSD	.1303059	.2553442	.1624236	.3385537	.2295654
#1	2760.814	65056.52	17820.68	2526.084	4046.996
#2	2755.092	64725.64	17762.93	2509.430	4030.780
#3	2754.190	64875.58	17789.97	2514.632	4031.120

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB08 Acquired: 5/21/2025 20:48:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001896	-.001513	-.002134	.0012599	.0019779	.0027589	-.003222
Stddev	.001884	.001788	.001453	.0014134	.0015944	.0012576	.001031
%RSD	99.33215	118.2023	68.09731	112.1802	80.60858	45.58223	31.98888
#1	-.000986	-.002449	-.000592	-.000327	.0016384	.0027240	-.002032
#2	-.004063	.000549	-.003478	.002382	.0037147	.0015191	-.003822
#3	-.000641	-.002638	-.002332	.001725	.0005806	.0040335	-.003813

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000351	-.000014	-.002711	.0003126	.0001006	.0004638	.0065077
Stddev	.0000791	.000083	.011848	.0001584	.0001620	.0000790	.0045247
%RSD	225.0812	582.8476	437.0772	50.65659	161.0321	17.02393	69.52801
#1	.0000450	.000082	-.015896	.0004471	.0002873	.0004309	.0116904
#2	-.000048	-.000059	.007040	.0003527	.0000185	.0004067	.0044885
#3	.000109	-.000066	.000725	.0001381	-.000004	.0005539	.0033443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000172	-.011168	-.000015	.0003051	-.132249	.0003976	-.000297
Stddev	.000503	.010297	.000277	.0002572	.004320	.0008877	.000160
%RSD	292.1856	92.19590	1882.792	84.28583	3.266507	223.2592	53.86298
#1	-.000454	-.000019	-.000259	.0000656	-.128374	-.000406	-.000219
#2	-.000472	-.013166	-.000072	.0002728	-.136907	.001350	-.000481
#3	.000409	-.020320	.000287	.0005769	-.131465	.000249	-.000191

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.069177	.0046394	.0007289	.0000572	-.000697	-.000509	-.001478
Stddev	.010716	.0005173	.0001133	.0005437	.000703	.005098	.000633
%RSD	15.49057	11.15123	15.53875	950.2722	100.8265	1002.293	42.83039
#1	-.061587	.0040429	.0008406	.0006682	-.001004	.005365	-.000778
#2	-.064508	.0049653	.0006141	-.000123	.000107	-.003106	-.002011
#3	-.081435	.0049100	.0007319	-.000373	-.001194	-.003784	-.001645

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB08 Acquired: 5/21/2025 20:48:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0024621	-.000498	.0000156
Stddev	.0039751	.000309	.0000444
%RSD	161.4542	62.16327	284.9287
#1	.0038190	-.000817	.0000062
#2	-.002014	-.000200	-.000023
#3	.005581	-.000476	.000064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2899.510	70774.87	18578.72	2690.992	4420.028
Stddev	5.929	274.96	97.90	14.752	1.302
%RSD	.2044984	.3884931	.5269682	.5481914	.0294491
#1	2897.895	70777.41	18468.05	2676.264	4420.496
#2	2894.555	71048.54	18654.05	2705.768	4418.557
#3	2906.079	70498.65	18614.06	2690.944	4421.030

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01MSD Acquired: 5/21/2025 20:52:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7295707	1.790246	1.416128	1.456887	.2898376	222.3259	1.753330
Stddev	.0016915	.005112	.001218	.001573	.0039572	.4755	.004796
%RSD	.2318521	.2855583	.0860288	.1079504	1.365310	.2138818	.2735257
#1	.7278209	1.784356	1.416192	1.457509	.2937011	221.9142	1.753424
#2	.7311972	1.792859	1.414879	1.458055	.2857930	222.8464	1.758078
#3	.7296939	1.793524	1.417313	1.455099	.2900187	222.2170	1.748488

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1780500	.1949046	17.53335	.7003566	.4073604	.4331303	414.6328
Stddev	.0006810	.0007744	.07921	.0039604	.0012532	.0013029	3.7994
%RSD	.3824797	.3973014	.4517739	.5654794	.3076369	.3008135	.9163299
#1	.1775964	.1955346	17.52194	.6964897	.4086979	.4343628	413.2435
#2	.1777204	.1940401	17.61765	.7044043	.4062134	.4317668	418.9313
#3	.1788330	.1951390	17.46046	.7001757	.4071698	.4332612	411.7235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.23688	81.64396	.8962701	.0668529	4.241452	.7013180	1.306206
Stddev	.02784	.27244	.0017197	.0008242	.042425	.0024737	.002593
%RSD	.2477254	.3336938	.1918669	1.232795	1.000244	.3527169	.1985066
#1	11.21857	81.54179	.8976868	.0661040	4.235184	.7031190	1.306586
#2	11.26891	81.95272	.8967667	.0677358	4.286662	.7023374	1.308588
#3	11.22315	81.43737	.8943568	.0667188	4.202510	.6984975	1.303444

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.29036	.3246012	.3363751	.6229892	3.442291	3.389835	13.04342
Stddev	.16570	.0038329	.0010765	.0029665	.005245	.063075	.00766
%RSD	.6071904	1.180809	.3200183	.4761735	.1523667	1.860696	.0587007
#1	27.18488	.3233896	.3376095	.6197503	3.442500	3.363724	13.03932
#2	27.48135	.3288934	.3356313	.6236431	3.447429	3.461772	13.05225
#3	27.20485	.3215204	.3358846	.6255743	3.436945	3.344008	13.03868

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01MSD Acquired: 5/21/2025 20:52:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.445026	.8587402	-.120390
Stddev	.008596	.0014227	.003204
%RSD	.3515739	.1656761	2.661359
#1	2.450907	.8575072	-.118555
#2	2.435160	.8602969	-.124090
#3	2.449010	.8584166	-.118526

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3022.905	70041.17	20799.69	2739.964	3895.272
Stddev	8.946	483.71	27.18	19.307	6.468
%RSD	.2959558	.6906121	.1306908	.7046621	.1660500
#1	3016.765	70302.76	20827.74	2733.926	3891.183
#2	3018.780	69482.99	20773.47	2724.397	3891.903
#3	3033.170	70337.76	20797.84	2761.569	3902.729

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01A Acquired: 5/21/2025 20:56:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7075345	1.839148	1.098520	1.638966	.6773473	120.1948	.9730683
Stddev	.0002019	.032764	.002751	.005619	.0005437	.2120	.0033312
%RSD	.0285413	1.781504	.2504309	.3428413	.0802645	.1763555	.3423347
#1	.7077313	1.869400	1.097417	1.645018	.6772588	119.9752	.9737684
#2	.7073278	1.843697	1.096492	1.637965	.6779298	120.2112	.9694428
#3	.7075443	1.804346	1.101652	1.633915	.6768533	120.3981	.9759938

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1686838	.1918334	14.17115	.5072900	.2814623	.3819360	191.9323
Stddev	.0005147	.0005105	.00754	.0007252	.0006795	.0001925	.6633
%RSD	.3051036	.2661002	.0532325	.1429646	.2414028	.0504152	.3455737
#1	.1684965	.1913239	14.16299	.5068357	.2812208	.3819153	192.6968
#2	.1682890	.1923448	14.17788	.5081264	.2809365	.3817547	191.5887
#3	.1692658	.1918316	14.17258	.5069079	.2822295	.3821381	191.5112

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.318970	34.92237	.6332805	.0655827	3.881071	.5180681	.5858544
Stddev	.013416	.06702	.0009976	.0003863	.012702	.0014428	.0021856
%RSD	.2522375	.1919001	.1575317	.5890572	.3272763	.2784937	.3730704
#1	5.325074	34.92388	.6321338	.0657750	3.870880	.5168233	.5842036
#2	5.303587	34.98861	.6339493	.0651379	3.877032	.5177315	.5883330
#3	5.328249	34.85460	.6337584	.0658351	3.895302	.5196494	.5850265

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.67418	.3146055	.3508690	.6730209	2.531371	5.959394	10.56715
Stddev	.04375	.0014643	.0005638	.0012788	.007239	.036843	.04981
%RSD	.2475432	.4654443	.1606841	.1900045	.2859907	.6182280	.4713908
#1	17.72167	.3151167	.3507303	.6715586	2.523414	6.000608	10.62024
#2	17.66536	.3157457	.3514892	.6739300	2.537568	5.947922	10.55979
#3	17.63551	.3129542	.3503876	.6735739	2.533132	5.929653	10.52143

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2084-01A Acquired: 5/21/2025 20:56:29 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.086165	.4123558	.0411458
Stddev	.009792	.0010844	.0009655
%RSD	.9015552	.2629867	2.346617
#1	1.095877	.4120972	.0403595
#2	1.086324	.4114240	.0408544
#3	1.076294	.4135461	.0422234

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3016.994	70367.02	20781.48	2742.022	3964.734
Stddev	5.529	326.01	30.74	17.658	5.599
%RSD	.1832713	.4632960	.1479004	.6439663	.1412183
#1	3021.049	70091.18	20751.92	2728.282	3970.124
#2	3010.696	70283.09	20779.25	2735.844	3958.947
#3	3019.237	70726.78	20813.27	2761.938	3965.132

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-01 Acquired: 5/21/2025 21:00:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002988	-.005120	.0008946	-.003741	.0020734	.1447835
Stddev	.001724	.001832	.0004109	.000773	.0018876	.0022037
%RSD	57.68632	35.78023	45.92773	20.65980	91.04137	1.522076
#1	-.001350	-.006328	.0006805	-.004514	.0010459	.1425499
#2	-.004786	-.003012	.0006350	-.002969	.0009223	.1448447
#3	-.002828	-.006019	.0013683	-.003740	.0042519	.1469560

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064619	-.000077	.0004074	202.5188	.0022868	.0003176
Stddev	.0004342	.000050	.0001269	.1937	.0001027	.0001745
%RSD	6.718626	64.78785	31.14818	.0956692	4.491337	54.94067
#1	.0067742	-.000100	.0004625	202.4868	.0024042	.0001497
#2	.0066454	-.000112	.0002623	202.3430	.0022421	.0003050
#3	.0059661	-.000020	.0004974	202.7265	.0022140	.0004980

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043962	.4782507	.0689564	68.64098	.0027353	-.000197
Stddev	.0002488	.0069723	.0004614	.12588	.0003018	.000097
%RSD	5.660067	1.457867	.6691233	.1833938	11.03465	49.10949
#1	.0041231	.4783862	.0694664	68.60381	.0030705	-.000087
#2	.0044553	.4712117	.0688346	68.78127	.0026503	-.000232
#3	.0046101	.4851542	.0685680	68.53788	.0024850	-.000271

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	71.27223	.0229536	.0400022	2.924676	.1263957	.0010295
Stddev	.63596	.0009230	.0011782	.036208	.0026389	.0000073
%RSD	.8922955	4.021219	2.945325	1.238029	2.087811	.7134495
#1	71.86600	.0236315	.0410931	2.964822	.1254793	.0010282
#2	70.60115	.0219024	.0401608	2.914716	.1293707	.0010374
#3	71.34955	.0233268	.0387528	2.894489	.1243372	.0010229

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-01 Acquired: 5/21/2025 21:00:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007867	-.000108	F 37.78451	.1266688	12.03999	-.030355
Stddev	.000773	.000282	.28699	.0022924	.02135	.000140
%RSD	9.823677	260.7998	.7595556	1.809770	.1772897	.4622686
#1	-.008035	.000212	38.09523	.1287278	12.02525	-.030251
#2	-.008542	-.000217	37.52937	.1270799	12.06447	-.030514
#3	-.007024	-.000320	37.72895	.1241986	12.03025	-.030299

Elem	Sr4077
Units	ppm
Avg	.6342025
Stddev	.0020522
%RSD	.3235844
#1	.6356360
#2	.6318517
#3	.6351199

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2706.421	63982.38	18791.28	2429.118	3963.343
Stddev	30.626	351.16	6.14	24.764	27.506
%RSD	1.131621	.5488453	.0326677	1.019471	.6940199
#1	2732.018	63632.13	18796.61	2401.539	3984.791
#2	2714.755	64334.45	18792.67	2436.363	3972.908
#3	2672.490	63980.57	18784.57	2449.451	3932.331

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-02 Acquired: 5/21/2025 21:04:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002733	-.005416	.0039248	-.004527	.0018234	12.79414
Stddev	.004424	.003445	.0015980	.004133	.0009431	.00639
%RSD	161.8764	63.61082	40.71560	91.30210	51.72457	.0499463
#1	-.004775	-.009372	.0056610	-.009164	.0019429	12.80150
#2	.002343	-.003797	.0035976	-.001232	.0008262	12.79078
#3	-.005768	-.003078	.0025156	-.003185	.0027011	12.79012

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0125731	.0002547	-.000314	46.12142	.0214519	.0172459
Stddev	.0007372	.0000610	.000073	.05023	.0004545	.0003983
%RSD	5.863329	23.93056	23.22891	.1089030	2.118453	2.309734
#1	.0119669	.0002557	-.000244	46.06713	.0210044	.0168180
#2	.0123588	.0003152	-.000390	46.16623	.0214382	.0176060
#3	.0133938	.0001933	-.000308	46.13089	.0219130	.0173137

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0734951	27.93504	.7969301	28.04111	.0269630	.0005975
Stddev	.0001994	.19943	.0001122	.05665	.0001784	.0001157
%RSD	.2713710	.7139117	.0140840	.2020306	.6616149	19.36912
#1	.0734453	27.74063	.7970419	27.97589	.0271315	.0004699
#2	.0733253	27.92534	.7968174	28.07809	.0269816	.0006957
#3	.0737147	28.13914	.7969311	28.06936	.0267761	.0006268

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	64.21188	.0477427	.0485717	4.771658	.2673264	.0002298
Stddev	.39626	.0015884	.0000799	.076842	.0023769	.0001664
%RSD	.6171119	3.326928	.1644805	1.610378	.8891508	72.40945
#1	64.00819	.0495631	.0485716	4.727781	.2699798	.0003643
#2	63.95891	.0470261	.0486516	4.726807	.2653919	.0000437
#3	64.66856	.0466389	.0484918	4.860385	.2666075	.0002812

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-02 Acquired: 5/21/2025 21:04:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005309	.7146641	F 39.38324	.1957936	5.716551	.0204825
Stddev	.000176	.0028844	.20737	.0018005	.006749	.0015674
%RSD	3.320620	.4036075	.5265544	.9195894	.1180682	7.652404
#1	-.005241	.7119014	39.22646	.1972728	5.709942	.0209666
#2	-.005176	.7176565	39.30488	.1937888	5.723433	.0217508
#3	-.005509	.7144345	39.61838	.1963192	5.716279	.0187302

Elem	Sr4077
Units	ppm
Avg	.1561880
Stddev	.0004388
%RSD	.2809381
#1	.1566353
#2	.1561702
#3	.1557583

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2831.105	66195.51	19235.54	2580.350	4130.570
Stddev	6.911	469.06	47.25	27.723	5.229
%RSD	.2441119	.7085955	.2456205	1.074404	.1265829
#1	2831.311	66446.95	19218.33	2596.788	4129.930
#2	2837.911	66485.24	19288.97	2595.920	4136.090
#3	2824.094	65654.34	19199.31	2548.342	4125.691

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-03 Acquired: 5/21/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001880	-.005898	.0014888	-.001705	.0017285	1.283333
Stddev	.002452	.000631	.0017173	.001129	.0002040	.009885
%RSD	130.4126	10.70666	115.3498	66.20729	11.79888	.7702982
#1	-.003118	-.005782	.0025380	-.000488	.0015254	1.287011
#2	.000944	-.005332	-.000493	-.002718	.0017270	1.272135
#3	-.003467	-.006579	.002421	-.001909	.0019333	1.290852

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091328	-.000238	.0020168	141.1161	.0040980	.0086803
Stddev	.0009233	.000037	.0001086	.3704	.0001997	.0002121
%RSD	10.10968	15.45137	5.383922	.2624801	4.873379	2.443913
#1	.0081779	-.000217	.0019100	141.1554	.0040996	.0085211
#2	.0091997	-.000280	.0021271	140.7276	.0038975	.0089211
#3	.0100209	-.000216	.0020132	141.4652	.0042969	.0085987

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160183	2.545192	4.333909	65.70044	.0094840	-.000329
Stddev	.0009052	.024511	.012749	.17411	.0001121	.000141
%RSD	5.651333	.9630411	.2941701	.2650100	1.182046	42.71962
#1	.0151510	2.559326	4.345801	65.64357	.0096133	-.000211
#2	.0159465	2.559360	4.320448	65.56187	.0094149	-.000292
#3	.0169573	2.516888	4.335477	65.89588	.0094237	-.000485

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.87353	.0100135	.0229291	3.532741	.2702921	.0008898
Stddev	.41351	.0014292	.0002821	.022938	.0016059	.0000961
%RSD	.7535739	14.27255	1.230307	.6493014	.5941515	10.80209
#1	55.19720	.0104616	.0232391	3.558900	.2701413	.0007827
#2	55.01569	.0084140	.0228607	3.523257	.2687669	.0009183
#3	54.40768	.0111649	.0226874	3.516066	.2719681	.0009685

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-03 Acquired: 5/21/2025 21:08:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007199	.0795681	F 24.87273	.0628129	19.65589	-.018742
Stddev	.000869	.0009830	.08376	.0060865	.32229	.000761
%RSD	12.06505	1.235454	.3367701	9.689895	1.639669	4.060748
#1	-.006578	.0785418	24.86547	.0563199	19.44185	-.019331
#2	-.006827	.0796612	24.95988	.0683888	20.02656	-.017882
#3	-.008191	.0805013	24.79283	.0637301	19.49926	-.019012

Elem	Sr4077
Units	ppm
Avg	.4063910
Stddev	.0025066
%RSD	.6167855
#1	.4092637
#2	.4046487
#3	.4052606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.847	65017.43	17838.03	2510.345	4011.862
Stddev	48.447	243.59	52.47	3.196	71.036
%RSD	1.764378	.3746512	.2941262	.1273228	1.770659
#1	2772.757	64979.37	17823.43	2513.726	4056.394
#2	2689.918	64795.11	17896.25	2507.374	3929.940
#3	2774.865	65277.81	17794.41	2509.934	4049.252

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04 Acquired: 5/21/2025 21:13:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003284	-.004845	-.000341	-.003060	.0022922	.3993589
Stddev	.002204	.001391	.003172	.003756	.0028717	.0084339
%RSD	67.09539	28.71214	931.0989	122.7721	125.2821	2.111865
#1	-.002555	-.003697	.003281	-.002484	.0055815	.4090157
#2	-.001538	-.004446	-.001674	-.007071	.0010100	.3934395
#3	-.005760	-.006392	-.002629	.000376	.0002849	.3956214

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002671	-.000063	-.000035	175.3133	.0024479	.0004144
Stddev	.002324	.000019	.000056	.6171	.0004669	.0001334
%RSD	86.98750	30.48056	159.6561	.3520129	19.07165	32.20372
#1	-.001210	-.000053	-.000027	175.4945	.0019101	.0002733
#2	-.001453	-.000085	.000016	175.8195	.0026848	.0004313
#3	-.005350	-.000051	-.000095	174.6258	.0027488	.0005385

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019308	.8310619	.0600290	41.77001	.0028699	-.000402
Stddev	.0000942	.0072712	.0008757	.13749	.0002849	.000057
%RSD	4.878514	.8749258	1.458860	.3291506	9.928568	14.18113
#1	.0018239	.8381064	.0608976	41.77454	.0028352	-.000425
#2	.0020015	.8314958	.0600431	41.90518	.0026039	-.000443
#3	.0019670	.8235835	.0591463	41.63032	.0031706	-.000337

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.12871	.0083348	.0072836	.5012082	.6758738	.0009272
Stddev	.15308	.0011279	.0001236	.0203736	.0027767	.0001664
%RSD	.6091777	13.53302	1.696935	4.064899	.4108274	17.94849
#1	25.29106	.0086286	.0071463	.5202105	.6730456	.0010879
#2	25.10808	.0092867	.0073188	.4796959	.6785959	.0007556
#3	24.98699	.0070890	.0073858	.5037182	.6759800	.0009380

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04 Acquired: 5/21/2025 21:13:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006588	.0166411	F 27.06180	.0389438	12.55754	-.026068
Stddev	.000707	.0008601	.06594	.0027094	.04258	.000621
%RSD	10.72551	5.168461	.2436814	6.957185	.3390698	2.381263
#1	-.006691	.0164085	27.10466	.0382369	12.52490	-.026742
#2	-.007237	.0159212	27.09489	.0366579	12.54202	-.025520
#3	-.005836	.0175935	26.98587	.0419366	12.60571	-.025943

Elem	Sr4077
Units	ppm
Avg	.1404277
Stddev	.0005180
%RSD	.3688952
#1	.1409724
#2	.1403694
#3	.1399412

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.881	64256.10	18175.17	2448.930	4085.271
Stddev	15.910	94.28	40.22	9.456	20.109
%RSD	.5783768	.1467324	.2212840	.3861460	.4922437
#1	2738.305	64292.84	18200.12	2450.956	4068.262
#2	2745.569	64148.98	18128.77	2438.624	4080.085
#3	2768.767	64326.49	18196.62	2457.208	4107.465

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04DUP Acquired: 5/21/2025 21:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006551	-.006139	-.001383	-.001700	.0013319	.3764337
Stddev	.001736	.001371	.001214	.002025	.0004152	.0060958
%RSD	26.49537	22.32495	87.79202	119.1581	31.17461	1.619345
#1	-.004655	-.007721	-.002149	.000468	.0010067	.3819867
#2	-.008062	-.005302	.000017	-.003545	.0017995	.3699114
#3	-.006936	-.005395	-.002018	-.002022	.0011894	.3774030

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001336	-.000045	.0000432	174.9020	.0040362	.0000885
Stddev	.001474	.000035	.0001258	1.3593	.0001336	.0003473
%RSD	110.3046	78.88847	291.1760	.7771755	3.310653	392.3524
#1	-.002208	-.000083	-.000099	174.6359	.0041023	-.000117
#2	.000366	-.000015	.000088	176.3746	.0038824	-.000107
#3	-.002166	-.000036	.000140	173.6954	.0041239	.000489

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027379	.7692471	.0582291	41.91617	.0017957	-.000167
Stddev	.0003680	.0073436	.0005883	.44123	.0003089	.000197
%RSD	13.44194	.9546438	1.010391	1.052650	17.20181	117.8330
#1	.0023765	.7755988	.0581462	41.90941	.0020861	-.000336
#2	.0027249	.7612061	.0588545	42.36074	.0018298	-.000213
#3	.0031123	.7709365	.0576866	41.47836	.0014712	.000049

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.90175	.0090296	.0091878	.4324376	.7111747	.0008871
Stddev	.09589	.0003830	.0004619	.0214786	.0042068	.0004080
%RSD	.4187011	4.241009	5.027616	4.966868	.5915308	45.98707
#1	22.82588	.0093930	.0096541	.4081898	.7106625	.0004289
#2	22.86983	.0086297	.0091790	.4490740	.7156141	.0010213
#3	23.00952	.0090662	.0087304	.4400489	.7072474	.0012110

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04DUP Acquired: 5/21/2025 21:17:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007557	.0162976	F 25.40062	.0369733	12.61913	-.025563
Stddev	.000992	.0001832	.07750	.0012031	.03322	.000888
%RSD	13.13106	1.124146	.3051139	3.253860	.2632324	3.474362
#1	-.008540	.0161189	25.33708	.0383428	12.58148	-.024654
#2	-.006556	.0164850	25.37781	.0360869	12.63162	-.026429
#3	-.007575	.0162888	25.48697	.0364901	12.64430	-.025607

Elem	Sr4077
Units	ppm
Avg	.1373735
Stddev	.0004650
%RSD	.3385053
#1	.1375060
#2	.1377578
#3	.1368566

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2749.390	65483.47	17265.30	2495.959	4082.119
Stddev	3.794	64.33	124.77	11.972	9.530
%RSD	.1380014	.0982310	.7226746	.4796621	.2334527
#1	2747.461	65539.63	17257.37	2504.142	4071.495
#2	2746.949	65413.29	17144.67	2482.218	4084.951
#3	2753.762	65497.48	17393.84	2501.516	4089.912

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04LX5 Acquired: 5/21/2025 21:21:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006098	-.003222	-.001652	-.000686	.0017991	.0828885	-.002517
Stddev	.001834	.000739	.001697	.001824	.0009165	.0014260	.001380
%RSD	30.07111	22.92717	102.7141	265.8313	50.94340	1.720432	54.81289
#1	-.004596	-.002402	-.002174	-.001103	.0020749	.0817608	-.001583
#2	-.005556	-.003836	-.003028	.001310	.0025460	.0844915	-.004102
#3	-.008142	-.003428	.000244	-.002266	.0007763	.0824133	-.001867

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000355	-.000051	35.18322	.0003650	.0002816	.0004739	.1708600
Stddev	.0000193	.000075	.10210	.0003440	.0000936	.0003336	.0034211
%RSD	54.36612	145.9904	.2901959	94.22629	33.23268	70.39423	2.002298
#1	.0000188	-.000098	35.21061	.0002507	.0001832	.0007329	.1672477
#2	.0000311	.000035	35.26883	.0000928	.0002922	.0000975	.1712812
#3	.0000566	-.000091	35.07022	.0007516	.0003694	.0005914	.1740510

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116410	8.433095	.0010183	-.000087	4.434514	.0015381	.0009934
Stddev	.0005390	.019842	.0002047	.000132	.045167	.0021347	.0000498
%RSD	4.629934	.2352923	20.10740	150.6989	1.018544	138.7882	5.013065
#1	.0115708	8.455415	.0009650	-.000090	4.387366	.0002233	.0009541
#2	.0111405	8.426412	.0008454	-.000218	4.477399	.0003899	.0010494
#3	.0122116	8.417456	.0012444	.000046	4.438777	.0040011	.0009767

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0625451	.1448854	.0003056	-.003736	.0036652	5.220646	.0050252
Stddev	.0115484	.0007740	.0000732	.001004	.0011876	.039424	.0007844
%RSD	18.46418	.5342459	23.95831	26.87200	32.40077	.7551627	15.60932
#1	.0744043	.1454120	.0003708	-.003130	.0023056	5.183763	.0059236
#2	.0513347	.1439967	.0002264	-.003184	.0044999	5.215978	.0046760
#3	.0618963	.1452475	.0003197	-.004895	.0041900	5.262196	.0044760

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04LX5 Acquired: 5/21/2025 21:21:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.537036	-.005574	.0279775
Stddev	.006678	.001222	.0001528
%RSD	.2632039	21.93295	.5460989
#1	2.544642	-.004682	.0278045
#2	2.534332	-.006967	.0280338
#3	2.532135	-.005072	.0280941

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2879.059	67294.63	18352.55	2623.353	4318.847
Stddev	7.949	396.88	23.65	11.733	7.924
%RSD	.2761074	.5897700	.1288538	.4472632	.1834771
#1	2871.994	67695.38	18371.41	2631.031	4310.863
#2	2887.666	67286.77	18326.02	2629.180	4326.710
#3	2877.516	66901.74	18360.22	2609.846	4318.967

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04MS Acquired: 5/21/2025 21:25:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7653984	1.841271	.9267356	1.842227	.7721102	2.298611
Stddev	.0044332	.010106	.0001595	.007675	.0031349	.007886
%RSD	.5792055	.5488562	.0172142	.4165968	.4060203	.3430632
#1	.7650899	1.851490	.9269190	1.846050	.7685948	2.296992
#2	.7611274	1.841040	.9266285	1.833392	.7731199	2.307181
#3	.7699778	1.831282	.9266594	1.847239	.7746158	2.291661

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1816771	.1838473	.1906555	168.3168	.3912953	.1857162
Stddev	.0007081	.0013923	.0003872	.7056	.0008318	.0004810
%RSD	.3897855	.7573144	.2030965	.4192200	.2125667	.2589973
#1	.1823231	.1839630	.1902561	168.3790	.3922353	.1852444
#2	.1817883	.1851782	.1906812	168.9893	.3906546	.1856983
#3	.1809200	.1824008	.1910293	167.5822	.3909961	.1862059

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2812595	3.837760	.2493008	41.29445	.4645585	.0332643
Stddev	.0002933	.002759	.0022293	.24627	.0003827	.0004691
%RSD	.1042955	.0718792	.8942168	.5963864	.0823816	1.410169
#1	.2814213	3.837869	.2476122	41.24744	.4645462	.0333857
#2	.2809208	3.840463	.2518277	41.56083	.4641820	.0336608
#3	.2814362	3.834949	.2484626	41.07506	.4649471	.0327465

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.92219	.2958666	.1990128	10.29786	.8837748	.4089497
Stddev	.10171	.0017022	.0013365	.01897	.0077483	.0007160
%RSD	.3642703	.5753373	.6715854	.1842092	.8767291	.1750749
#1	27.92346	.2948955	.2002483	10.27994	.8816021	.4081252
#2	27.81985	.2978321	.1991959	10.31773	.8923775	.4094155
#3	28.02327	.2948722	.1975942	10.29591	.8773447	.4093082

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04MS Acquired: 5/21/2025 21:25:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6695603	.2082299	F 27.55302	5.932960	12.00188	.1704408
Stddev	.0039508	.0000956	.09816	.011542	.00955	.0004897
%RSD	.5900547	.0459271	.3562440	.1945481	.0796043	.2872984
#1	.6649985	.2081415	27.59051	5.926649	11.99608	.1701295
#2	.6718052	.2083314	27.44165	5.946282	11.99666	.1701877
#3	.6718772	.2082168	27.62691	5.925949	12.01291	.1710052

Elem	Sr4077
Units	ppm
Avg	.3258544
Stddev	.0006118
%RSD	.1877612
#1	.3258091
#2	.3264876
#3	.3252665

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2780.061	64993.45	19077.73	2477.225	4131.189
Stddev	4.463	167.09	67.08	7.799	8.139
%RSD	.1605374	.2570924	.3516160	.3148272	.1970111
#1	2779.398	64961.40	19092.89	2472.617	4138.435
#2	2784.818	65174.25	19004.37	2486.229	4132.751
#3	2775.967	64844.71	19135.94	2472.827	4122.383

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV09 Acquired: 5/21/2025 21:29:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.785532	4.826143	4.888938	4.794219	4.778450	9.618435
Stddev	.033142	.046913	.011158	.023505	.024825	.060372
%RSD	.6925452	.9720570	.2282389	.4902751	.5195120	.6276662
#1	4.770565	4.781570	4.878998	4.770072	4.761159	9.659696
#2	4.762513	4.875089	4.886808	4.795563	4.767296	9.646465
#3	4.823517	4.821770	4.901007	4.817024	4.806895	9.549144

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.434760	.2576640	2.442139	24.37123	.9925795	2.419328
Stddev	.043902	.0022372	.005790	.15248	.0059493	.005781
%RSD	.4653215	.8682558	.2370939	.6256690	.5993758	.2389415
#1	9.474028	.2599496	2.437609	24.41954	.9974848	2.414251
#2	9.442889	.2575639	2.440147	24.49371	.9942920	2.418112
#3	9.387361	.2554786	2.448663	24.20044	.9859618	2.425620

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.204549	4.752854	2.438762	24.83158	2.430544	1.219373
Stddev	.004588	.017751	.010921	.15059	.007755	.002126
%RSD	.3808772	.3734858	.4477910	.6064383	.3190811	.1743928
#1	1.201973	4.750179	2.449404	24.87035	2.424850	1.221323
#2	1.201827	4.771790	2.439297	24.95899	2.427404	1.219691
#3	1.209845	4.736591	2.427583	24.66540	2.439377	1.217106

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.36404	2.427029	2.452603	22.76099	5.078279	4.852003
Stddev	.04157	.012682	.004268	.06985	.036247	.014602
%RSD	.1858747	.5225170	.1740006	.3068733	.7137667	.3009447
#1	22.39327	2.425446	2.454161	22.68088	5.115937	4.841168
#2	22.38240	2.440428	2.455872	22.80917	5.075270	4.846232
#3	22.31645	2.415213	2.447775	22.79291	5.043631	4.868608

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV09 Acquired: 5/21/2025 21:29:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.870695	4.808023	4.737929	4.908555	4.743428	4.618731
Stddev	.014982	.023081	.038602	.020973	.032824	.020118
%RSD	.3075861	.4800607	.8147443	.4272805	.6919885	.4355798
#1	4.854422	4.829486	4.708368	4.884957	4.706821	4.641457
#2	4.873748	4.810976	4.781601	4.915639	4.753222	4.611539
#3	4.883915	4.783607	4.723820	4.925069	4.770239	4.603197

Elem	Sr4077
Units	ppm
Avg	4.749297
Stddev	.034958
%RSD	.7360613
#1	4.748151
#2	4.784813
#3	4.714926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2880.173	66167.77	17862.67	2578.531	4206.240
Stddev	9.276	202.80	63.79	16.566	9.467
%RSD	.3220481	.3064975	.3570957	.6424406	.2250607
#1	2880.655	66347.78	17820.86	2596.282	4208.101
#2	2889.198	65948.05	17831.07	2563.484	4214.638
#3	2870.666	66207.48	17936.09	2575.827	4195.981

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB09 Acquired: 5/21/2025 21:34:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002916	-.000498	-.001204	.0014419	.0022524	.0030642	-.002541
Stddev	.003836	.001495	.000910	.0015753	.0006077	.0077002	.001142
%RSD	131.5647	300.1826	75.58712	109.2514	26.97827	251.2945	44.93419
#1	-.000828	-.001878	-.001251	.0018206	.0026264	.0044120	-.003434
#2	-.000577	-.000706	-.000271	.0027933	.0015512	.0100016	-.002934
#3	-.007343	.001090	-.002089	-.000288	.0025795	-.005221	-.001254

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000181	-.000040	-.003857	.0004582	.0002713	.0001536	.0076985
Stddev	.0000160	.000117	.002123	.0000586	.0001718	.0004234	.0020019
%RSD	88.52939	290.6787	55.03757	12.78687	63.33008	275.6479	26.00326
#1	.0000339	.000094	-.002241	.0003913	.0002242	.0005832	.0099989
#2	.0000019	-.000119	-.006261	.0005004	.0004617	-.000263	.0063520
#3	.0000183	-.000096	-.003069	.0004829	.0001280	.000141	.0067446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000512	-.009879	.0002485	-.000059	-.119360	.0010944	-.000241
Stddev	.000111	.005942	.0000902	.000505	.016882	.0025299	.000243
%RSD	21.58801	60.14362	36.31677	861.0784	14.14408	231.1548	101.0214
#1	-.000638	-.011633	.0002086	.000241	-.136658	.0037410	-.000105
#2	-.000428	-.003258	.0003518	.000225	-.118496	.0008421	-.000096
#3	-.000471	-.014747	.0001851	-.000642	-.102926	-.001300	-.000522

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.038034	.0064822	.0001941	-.000641	.0000301	-.000443	-.002283
Stddev	.009488	.0003701	.0001976	.000805	.0001347	.006320	.001505
%RSD	24.94622	5.709197	101.8303	125.6098	447.6744	1426.045	65.92577
#1	-.040816	.0061119	.0002960	-.000761	.0001702	-.006191	-.002492
#2	-.045820	.0068520	.0003200	-.001379	-.000098	-.001464	-.003673
#3	-.027466	.0064826	-.000034	.000218	.000018	.006325	-.000684

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB09 Acquired: 5/21/2025 21:34:06 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000706	-.000427	.0000482
Stddev	.005311	.000190	.0000330
%RSD	752.3237	44.40138	68.48153
#1	-.006791	-.000352	.0000281
#2	.002993	-.000287	.0000862
#3	.001680	-.000643	.0000302

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2945.163	67615.53	19402.91	2671.535	4432.029
Stddev	54.399	793.33	40.97	37.093	86.938
%RSD	1.847072	1.173297	.2111423	1.388466	1.961591
#1	2882.385	68301.61	19444.05	2699.710	4331.657
#2	2974.686	66746.81	19402.57	2629.509	4480.716
#3	2978.418	67798.17	19362.12	2685.385	4483.715

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04MSD Acquired: 5/21/2025 21:38:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7817981	1.855804	.9477568	1.880279	.7870765	2.343167
Stddev	.0042994	.028346	.0032163	.007795	.0027365	.001911
%RSD	.5499416	1.527434	.3393565	.4145402	.3476850	.0815447
#1	.7768778	1.882507	.9506982	1.880322	.7884949	2.342345
#2	.7836854	1.826060	.9443225	1.872464	.7839219	2.345352
#3	.7848311	1.858846	.9482497	1.888053	.7888126	2.341806

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1845439	.1921684	.1938757	174.1903	.3836258	.1890593
Stddev	.0011719	.0006208	.0006348	.3434	.0013772	.0008193
%RSD	.6350055	.3230693	.3274046	.1971399	.3589935	.4333612
#1	.1855962	.1916268	.1945137	174.1565	.3824979	.1899865
#2	.1847545	.1920324	.1932442	173.8650	.3832189	.1884331
#3	.1832810	.1928459	.1938692	174.5493	.3851606	.1887581

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2873914	3.607501	.2600520	42.95305	.4733993	.0316500
Stddev	.0013382	.002951	.0007880	.16179	.0022942	.0001968
%RSD	.4656244	.0818113	.3030087	.3766706	.4846241	.6217635
#1	.2881298	3.610872	.2598686	42.98304	.4751821	.0317400
#2	.2858467	3.606250	.2593720	42.77837	.4708109	.0317856
#3	.2881976	3.605382	.2609156	43.09776	.4742048	.0314243

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.71897	.3002916	.1965508	9.726048	.9439800	.4114251
Stddev	.05202	.0006056	.0003724	.047598	.0026354	.0018162
%RSD	.1947084	.2016798	.1894603	.4893906	.2791838	.4414541
#1	26.71981	.3006890	.1961209	9.754723	.9426946	.4111148
#2	26.77056	.3005913	.1967740	9.752318	.9422339	.4097839
#3	26.66652	.2995946	.1967574	9.671104	.9470115	.4133765

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04MSD Acquired: 5/21/2025 21:38:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6829891	.2151856	F 26.17317	6.194916	12.72190	.1749709
Stddev	.0022944	.0012014	.00732	.028039	.08405	.0010284
%RSD	.3359368	.5583267	.0279794	.4526196	.6607006	.5877408
#1	.6841393	.2165713	26.18137	6.222400	12.78989	.1749175
#2	.6803471	.2145504	26.16728	6.166352	12.62792	.1760249
#3	.6844809	.2144351	26.17085	6.195995	12.74789	.1739703

Elem	Sr4077
Units	ppm
Avg	.3339927
Stddev	.0005254
%RSD	.1573143
#1	.3343618
#2	.3342252
#3	.3333912

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2714.483	67843.98	18207.69	2561.330	3998.921
Stddev	15.543	75.76	64.34	1.575	19.306
%RSD	.5725978	.1116623	.3533409	.0615028	.4827912
#1	2710.343	67835.65	18231.96	2560.350	3987.873
#2	2731.677	67923.55	18256.36	2563.147	4021.213
#3	2701.429	67772.73	18134.75	2560.493	3987.675

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04A Acquired: 5/21/2025 21:42:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7320723	1.758932	.8936402	1.770464	.7523980	2.212798
Stddev	.0077891	.008038	.0031494	.001011	.0063891	.018410
%RSD	1.063985	.4569559	.3524278	.0571017	.8491587	.8319882
#1	.7242731	1.749715	.8950268	1.769763	.7508144	2.220827
#2	.7398514	1.762596	.8958584	1.770006	.7469497	2.225829
#3	.7320925	1.764483	.8900354	1.771623	.7594300	2.191736

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1730612	.1798123	.1827416	173.2795	.3734765	.1778357
Stddev	.0011858	.0010675	.0004688	.4713	.0007402	.0001125
%RSD	.6851719	.5936900	.2565584	.2719884	.1982036	.0632653
#1	.1740404	.1810424	.1824932	173.5994	.3733212	.1778672
#2	.1734004	.1791284	.1832824	173.5007	.3742820	.1779290
#3	.1717428	.1792661	.1824492	172.7382	.3728262	.1777107

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2706393	3.671242	.2405883	42.84685	.4457900	.0613296
Stddev	.0003675	.037710	.0007852	.20943	.0001715	.0039450
%RSD	.1357732	1.027159	.3263834	.4887927	.0384625	6.432409
#1	.2703889	3.632644	.2409516	43.01339	.4459194	.0620815
#2	.2710612	3.707995	.2411260	42.91545	.4458551	.0570628
#3	.2704679	3.673087	.2396871	42.61173	.4455956	.0648446

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.32463	.2796221	.1905833	9.804067	.9136332	.3941655
Stddev	.24867	.0006260	.0019985	.047102	.0068562	.0012472
%RSD	.8779315	.2238795	1.048615	.4804347	.7504275	.3164135
#1	28.03752	.2799649	.1901144	9.751683	.9214085	.3934136
#2	28.46413	.2800019	.1927746	9.817589	.9110355	.3934777
#3	28.47222	.2788996	.1888610	9.842930	.9084554	.3956051

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-04A Acquired: 5/21/2025 21:42:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6530287	.2042422	F 28.07233	5.883444	12.68165	.1612315
Stddev	.0010348	.0000918	.22754	.009993	.01249	.0013826
%RSD	.1584639	.0449559	.8105632	.1698477	.0985178	.8575116
#1	.6521538	.2041382	27.82347	5.873391	12.67094	.1599289
#2	.6541710	.2042766	28.26974	5.893375	12.67862	.1610836
#3	.6527614	.2043119	28.12379	5.883566	12.69537	.1626822

Elem	Sr4077
Units	ppm
Avg	.3214061
Stddev	.0003757
%RSD	.1168822
#1	.3217907
#2	.3210400
#3	.3213876

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2721.912	63971.87	18481.84	2459.664	4016.696
Stddev	14.190	370.26	80.58	21.133	10.838
%RSD	.5213344	.5787914	.4359992	.8591713	.2698262
#1	2731.440	64392.07	18389.48	2473.659	4023.444
#2	2728.692	63693.41	18518.20	2435.355	4022.450
#3	2705.603	63830.14	18537.83	2469.978	4004.195

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-05 Acquired: 5/21/2025 21:46:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003594	-.004464	-.001331	.0014213	.0026153	.0072066	-.003717
Stddev	.001515	.001045	.000978	.0030979	.0019252	.0026869	.000601
%RSD	42.15284	23.40140	73.51799	217.9662	73.61157	37.28396	16.15882
#1	-.001967	-.004075	-.001960	-.002084	.0004555	.0041186	-.003677
#2	-.004965	-.003669	-.001828	.003793	.0041511	.0084910	-.003138
#3	-.003850	-.005647	-.000204	.002555	.0032394	.0090103	-.004337

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000098	-.000196	.4612558	-.000011	-.000008	.0018421	.0069886
Stddev	.000006	.000063	.0045806	.000154	.000200	.0001954	.0037827
%RSD	6.112303	32.19684	.9930726	1372.124	2542.471	10.60625	54.12723
#1	-.000105	-.000165	.4657044	-.000006	-.000092	.0019401	.0112688
#2	-.000097	-.000154	.4565537	.000140	.000220	.0016171	.0040946
#3	-.000093	-.000268	.4615095	-.000168	-.000151	.0019690	.0056022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0319773	.0058197	-.000065	.0000491	-.043176	.0014829	.0158540
Stddev	.0001159	.0099778	.000040	.0002366	.002348	.0003771	.0001658
%RSD	.3623904	171.4489	61.15016	481.9251	5.437317	25.43002	1.045938
#1	.0320331	-.005645	-.000065	.0001369	-.040808	.0015036	.0157865
#2	.0318441	.010566	-.000106	.0002292	-.045503	.0018492	.0160430
#3	.0320548	.012538	-.000026	-.000219	-.043216	.0010959	.0157326

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0675257	.0067425	.0001599	-.001843	-.000804	.0125604	.0084516
Stddev	.0069014	.0000770	.0001150	.000622	.000700	.0052288	.0007251
%RSD	10.22040	1.141768	71.92561	33.73875	87.08185	41.62938	8.579436
#1	.0746018	.0068314	.0002074	-.001577	.000003	.0173440	.0088608
#2	.0608134	.0066997	.0000288	-.002554	-.001248	.0133588	.0076143
#3	.0671620	.0066964	.0002436	-.001398	-.001167	.0069783	.0088795

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: Q2072-05 Acquired: 5/21/2025 21:46:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0519971	-.001566	.0001591
Stddev	.0033080	.001018	.0000840
%RSD	6.361856	64.97483	52.79223
#1	.0493009	-.000461	.0000851
#2	.0510022	-.002464	.0002504
#3	.0556884	-.001775	.0001419

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2936.180	69372.65	18614.84	2704.442	4492.318
Stddev	10.199	141.55	30.04	28.599	18.854
%RSD	.3473393	.2040475	.1613937	1.057490	.4196896
#1	2927.513	69209.20	18589.50	2671.627	4477.984
#2	2933.610	69453.82	18606.99	2717.638	4485.295
#3	2947.418	69454.95	18648.03	2724.060	4513.675

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV10 Acquired: 5/21/2025 21:50:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.862544	4.830693	4.870325	4.861540	4.861114	9.685680	9.422137
Stddev	.010626	.020202	.008166	.018653	.005356	.028855	.043298
%RSD	.2185346	.4182086	.1676629	.3836862	.1101791	.2979138	.4595334
#1	4.850445	4.830996	4.862829	4.840769	4.857696	9.716521	9.456386
#2	4.870362	4.810341	4.879027	4.876860	4.858359	9.681178	9.373469
#3	4.866825	4.850743	4.869121	4.866992	4.867286	9.659341	9.436555

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2594453	2.429954	24.17858	.9868950	2.425088	1.228055	4.728177
Stddev	.0018116	.004164	.07846	.0041365	.002739	.003197	.015197
%RSD	.6982637	.1713781	.3245093	.4191437	.1129538	.2603337	.3214080
#1	.2608736	2.425152	24.26277	.9908576	2.422017	1.224677	4.740520
#2	.2600547	2.432584	24.16547	.9872233	2.427280	1.231033	4.711204
#3	.2574075	2.432124	24.10750	.9826041	2.425967	1.228457	4.732807

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.418481	24.49831	2.428974	1.233379	22.51812	2.420998	2.466417
Stddev	.010094	.06561	.004172	.003887	.08174	.005423	.004010
%RSD	.4173807	.2678268	.1717552	.3151197	.3629992	.2240135	.1625911
#1	2.429244	24.55603	2.424191	1.235331	22.52437	2.420761	2.470698
#2	2.416975	24.51195	2.430864	1.235904	22.43343	2.426536	2.462748
#3	2.409224	24.42695	2.431865	1.228904	22.59656	2.415697	2.465806

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.78004	5.120786	4.900190	4.861039	4.799688	4.709471	4.996736
Stddev	.08718	.051698	.013598	.010140	.015679	.031724	.009936
%RSD	.3827105	1.009567	.2775073	.2085925	.3266591	.6736276	.1988574
#1	22.73230	5.159738	4.884928	4.849726	4.815113	4.685470	4.987201
#2	22.72715	5.140486	4.911019	4.869308	4.800183	4.697506	4.995978
#3	22.88066	5.062135	4.904622	4.864082	4.783767	4.745438	5.007030

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCV10 Acquired: 5/21/2025 21:50:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.800680	4.698654	4.800784
Stddev	.010477	.010430	.061794
%RSD	.2182467	.2219783	1.287172
#1	4.812754	4.709298	4.861851
#2	4.793980	4.698211	4.738287
#3	4.795306	4.688452	4.802213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2772.903	64750.78	17510.10	2514.938	4088.244
Stddev	9.739	95.51	99.13	1.003	9.764
%RSD	.3512329	.1475095	.5661388	.0398862	.2388298
#1	2784.077	64683.93	17421.57	2516.088	4098.782
#2	2768.411	64860.17	17491.54	2514.484	4086.447
#3	2766.219	64708.23	17617.20	2514.243	4079.504

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB10 Acquired: 5/21/2025 21:54:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004541	-.001678	-.000804	-.003491	.0012197	.0010614	-.003268
Stddev	.0012185	.000514	.001762	.005035	.0009480	.0028937	.000756
%RSD	268.3142	30.63390	219.2407	144.2228	77.72436	272.6361	23.12451
#1	.0005298	-.001548	.001161	-.001080	.0019912	-.001244	-.003112
#2	-.000800	-.002244	-.002245	-.009277	.0001614	.000120	-.004089
#3	.001633	-.001241	-.001327	-.000115	.0015065	.004309	-.002602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000419	.0000130	-.003460	.0000850	.0003744	.0005672	.0027484
Stddev	.0000458	.0000736	.002864	.0001681	.0000316	.0001344	.0069097
%RSD	109.4458	567.3335	82.77275	197.7263	8.440780	23.69798	251.4092
#1	-.000001	.0000884	-.005628	-.000074	.0003497	.0006400	-.001094
#2	.000090	.0000092	-.004540	.000069	.0004100	.0006496	.010725
#3	.000037	-.000059	-.000213	.000261	.0003634	.0004121	-.001386

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000102	-.005942	.0002132	.0002280	-.115021	.0009759	.0000581
Stddev	.000019	.012551	.0004715	.0001538	.006785	.0005975	.0002264
%RSD	18.58961	211.2303	221.2135	67.43385	5.898682	61.22600	389.7782
#1	-.000121	-.020286	-.000223	.0000698	-.110125	.0012696	.0002443
#2	-.000103	.003022	.000148	.0003769	-.122766	.0013697	.0001239
#3	-.000083	-.000562	.000714	.0002374	-.112172	.0002884	-.000194

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.050132	.0077131	.0006117	-.001129	.0002904	.0013269	-.002167
Stddev	.011903	.0003266	.0001683	.001158	.0002107	.0023145	.001945
%RSD	23.74375	4.234556	27.52056	102.5525	72.55664	174.4352	89.72861
#1	-.059600	.0077605	.0004918	-.001683	.0000995	.0038344	-.000749
#2	-.054028	.0080135	.0008041	.000202	.0005165	-.000728	-.001369
#3	-.036769	.0073654	.0005391	-.001907	.0002551	.000874	-.004384

Reviewed By:jaswal
On:5/22/2025 2:52:47 PM
Inst Id :P4
LB :LB135868

Sample Name: CCB10 Acquired: 5/21/2025 21:54:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002079	.0000591	.0002710
Stddev	.002353	.0008459	.0000210
%RSD	113.1576	1432.217	7.743672
#1	.000172	-.000109	.0002901
#2	-.004522	-.000690	.0002486
#3	-.001888	.000977	.0002743

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2939.991	67624.10	18138.47	2661.864	4462.673
Stddev	9.066	74.89	186.41	4.019	9.857
%RSD	.3083629	.1107381	1.027699	.1509915	.2208776
#1	2933.933	67707.56	17929.37	2662.443	4456.702
#2	2935.627	67562.78	18198.80	2665.563	4457.266
#3	2950.414	67601.96	18287.24	2657.587	4474.050

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2484.32	2500	99.4	.560586	90 - 110	P	05/22/2025	15:00	LB135892
	Antimony	1014	1000	101.4	.165630	90 - 110	P	05/22/2025	15:00	LB135892
	Arsenic	1037.29	1000	103.7	.039153	90 - 110	P	05/22/2025	15:00	LB135892
	Barium	520.738	520	100.1	.127081	90 - 110	P	05/22/2025	15:00	LB135892
	Beryllium	476.54	510	93.4	.453064	90 - 110	P	05/22/2025	15:00	LB135892
	Cadmium	516.281	510	101.2	.353611	90 - 110	P	05/22/2025	15:00	LB135892
	Calcium	10005.7	10000	100.1	.186579	90 - 110	P	05/22/2025	15:00	LB135892
	Chromium	531.688	520	102.2	.129607	90 - 110	P	05/22/2025	15:00	LB135892
	Cobalt	519.776	520	100	.200266	90 - 110	P	05/22/2025	15:00	LB135892
	Copper	540.091	510	105.9	.092765	90 - 110	P	05/22/2025	15:00	LB135892
	Iron	10889.8	10000	108.9	.565953	90 - 110	P	05/22/2025	15:00	LB135892
	Lead	999.785	1000	100	.375700	90 - 110	P	05/22/2025	15:00	LB135892
	Magnesium	5834.18	6000	97.2	.873120	90 - 110	P	05/22/2025	15:00	LB135892
	Manganese	515.211	520	99.1	.178751	90 - 110	P	05/22/2025	15:00	LB135892
	Nickel	522.096	530	98.5	.203056	90 - 110	P	05/22/2025	15:00	LB135892
	Potassium	10323.3	9900	104.3	.540080	90 - 110	P	05/22/2025	15:00	LB135892
	Selenium	1065.59	1000	106.6	.706703	90 - 110	P	05/22/2025	15:00	LB135892
	Silver	268.068	250	107.2	.528631	90 - 110	P	05/22/2025	15:00	LB135892
	Sodium	10542.6	10000	105.4	.244304	90 - 110	P	05/22/2025	15:00	LB135892
	Thallium	1071.85	1000	107.2	.406915	90 - 110	P	05/22/2025	15:00	LB135892
	Vanadium	497.516	500	99.5	.174105	90 - 110	P	05/22/2025	15:00	LB135892
	Zinc	1055.69	1000	105.6	.128370	90 - 110	P	05/22/2025	15:00	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	115.016	100	115	7.85720	80 - 120	P	05/22/2025	15:16	LB135892
	Antimony	53.5142	50	107	1.94447	80 - 120	P	05/22/2025	15:16	LB135892
	Arsenic	17.5601	20	87.8	9.60725	80 - 120	P	05/22/2025	15:16	LB135892
	Barium	105.493	100	105.5	.806365	80 - 120	P	05/22/2025	15:16	LB135892
	Beryllium	5.9777	6	99.6	1.02226	80 - 120	P	05/22/2025	15:16	LB135892
	Cadmium	6.2427	6	104	.607099	80 - 120	P	05/22/2025	15:16	LB135892
	Calcium	2098.34	2000	104.9	.652631	80 - 120	P	05/22/2025	15:16	LB135892
	Chromium	9.8636	10	98.6	1.37523	80 - 120	P	05/22/2025	15:16	LB135892
	Cobalt	30.4972	30	101.7	.574439	80 - 120	P	05/22/2025	15:16	LB135892
	Copper	23.9088	20	119.5	.890623	80 - 120	P	05/22/2025	15:16	LB135892
	Iron	112.669	100	112.7	3.39400	80 - 120	P	05/22/2025	15:16	LB135892
	Lead	11.1449	12	92.9	10.6988	80 - 120	P	05/22/2025	15:16	LB135892
	Magnesium	2173.54	2000	108.7	.258333	80 - 120	P	05/22/2025	15:16	LB135892
	Manganese	21.6882	20	108.4	.931824	80 - 120	P	05/22/2025	15:16	LB135892
	Nickel	40.7503	40	101.9	.789078	80 - 120	P	05/22/2025	15:16	LB135892
	Potassium	2081.11	2000	104.1	.792683	80 - 120	P	05/22/2025	15:16	LB135892
	Selenium	18.3947	20	92	9.93021	80 - 120	P	05/22/2025	15:16	LB135892
	Silver	9.7399	10	97.4	.889314	80 - 120	P	05/22/2025	15:16	LB135892
	Sodium	2115.81	2000	105.8	.289132	80 - 120	P	05/22/2025	15:16	LB135892
	Thallium	40.8364	40	102.1	2.60932	80 - 120	P	05/22/2025	15:16	LB135892
	Vanadium	42.4657	40	106.2	.799915	80 - 120	P	05/22/2025	15:16	LB135892
	Zinc	45.3938	40	113.5	1.38476	80 - 120	P	05/22/2025	15:16	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9516.91	10000	95.2	.144110	90 - 110	P	05/22/2025	15:51	LB135892
	Antimony	4888.84	5000	97.8	.169119	90 - 110	P	05/22/2025	15:51	LB135892
	Arsenic	4832.08	5000	96.6	.130646	90 - 110	P	05/22/2025	15:51	LB135892
	Barium	10002.7	10000	100	.589587	90 - 110	P	05/22/2025	15:51	LB135892
	Beryllium	226.783	250	90.7	.179102	90 - 110	P	05/22/2025	15:51	LB135892
	Cadmium	2369.45	2500	94.8	.284654	90 - 110	P	05/22/2025	15:51	LB135892
	Calcium	23956.8	25000	95.8	.108233	90 - 110	P	05/22/2025	15:51	LB135892
	Chromium	961.569	1000	96.2	.074622	90 - 110	P	05/22/2025	15:51	LB135892
	Cobalt	2377.05	2500	95.1	.124433	90 - 110	P	05/22/2025	15:51	LB135892
	Copper	1224.82	1250	98	.193506	90 - 110	P	05/22/2025	15:51	LB135892
	Iron	5074.17	5000	101.5	.432415	90 - 110	P	05/22/2025	15:51	LB135892
	Lead	4779.8	5000	95.6	.237441	90 - 110	P	05/22/2025	15:51	LB135892
	Magnesium	23450.8	25000	93.8	.247988	90 - 110	P	05/22/2025	15:51	LB135892
	Manganese	2383.93	2500	95.4	.106786	90 - 110	P	05/22/2025	15:51	LB135892
	Nickel	2383.2	2500	95.3	.197168	90 - 110	P	05/22/2025	15:51	LB135892
	Potassium	24874.6	25000	99.5	.385963	90 - 110	P	05/22/2025	15:51	LB135892
	Selenium	4871.31	5000	97.4	.312762	90 - 110	P	05/22/2025	15:51	LB135892
	Silver	1213.91	1250	97.1	.104781	90 - 110	P	05/22/2025	15:51	LB135892
	Sodium	25346	25000	101.4	.441936	90 - 110	P	05/22/2025	15:51	LB135892
	Thallium	4883.32	5000	97.7	.705760	90 - 110	P	05/22/2025	15:51	LB135892
	Vanadium	2426.18	2500	97	.302627	90 - 110	P	05/22/2025	15:51	LB135892
	Zinc	2433.71	2500	97.3	.150792	90 - 110	P	05/22/2025	15:51	LB135892
CCV02	Aluminum	9603.69	10000	96	.158775	90 - 110	P	05/22/2025	16:38	LB135892
	Antimony	4843.97	5000	96.9	.318573	90 - 110	P	05/22/2025	16:38	LB135892
	Arsenic	4823.25	5000	96.5	.303532	90 - 110	P	05/22/2025	16:38	LB135892
	Barium	9365.78	10000	93.7	.898055	90 - 110	P	05/22/2025	16:38	LB135892
	Beryllium	247.626	250	99.1	.550684	90 - 110	P	05/22/2025	16:38	LB135892
	Cadmium	2367	2500	94.7	.145749	90 - 110	P	05/22/2025	16:38	LB135892
	Calcium	23686.6	25000	94.7	.222739	90 - 110	P	05/22/2025	16:38	LB135892
	Chromium	960.891	1000	96.1	.332505	90 - 110	P	05/22/2025	16:38	LB135892
	Cobalt	2362.95	2500	94.5	.104442	90 - 110	P	05/22/2025	16:38	LB135892
	Copper	1217.27	1250	97.4	.253973	90 - 110	P	05/22/2025	16:38	LB135892
	Iron	4679.01	5000	93.6	.459120	90 - 110	P	05/22/2025	16:38	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Lead	4766.82	5000	95.3	.133008	90 - 110	P	05/22/2025	16:38	LB135892
	Magnesium	23725.6	25000	94.9	.196003	90 - 110	P	05/22/2025	16:38	LB135892
	Manganese	2392.53	2500	95.7	.1113958	90 - 110	P	05/22/2025	16:38	LB135892
	Nickel	2374.42	2500	95	.176541	90 - 110	P	05/22/2025	16:38	LB135892
	Potassium	23489.5	25000	94	.4611898	90 - 110	P	05/22/2025	16:38	LB135892
	Selenium	4846.7	5000	96.9	.365406	90 - 110	P	05/22/2025	16:38	LB135892
	Silver	1204.55	1250	96.4	.305880	90 - 110	P	05/22/2025	16:38	LB135892
	Sodium	23348	25000	93.4	.633272	90 - 110	P	05/22/2025	16:38	LB135892
	Thallium	4850.99	5000	97	1.12254	90 - 110	P	05/22/2025	16:38	LB135892
	Vanadium	2383.6	2500	95.3	.135035	90 - 110	P	05/22/2025	16:38	LB135892
	Zinc	2425.86	2500	97	.403478	90 - 110	P	05/22/2025	16:38	LB135892
CCV03	Aluminum	9205.62	10000	92.1	.037495	90 - 110	P	05/22/2025	17:28	LB135892
	Antimony	4656.88	5000	93.1	.709178	90 - 110	P	05/22/2025	17:28	LB135892
	Arsenic	4674.43	5000	93.5	.554224	90 - 110	P	05/22/2025	17:28	LB135892
	Barium	9344.34	10000	93.4	.362180	90 - 110	P	05/22/2025	17:28	LB135892
	Beryllium	234.871	250	93.9	.498393	90 - 110	P	05/22/2025	17:28	LB135892
	Cadmium	2337.47	2500	93.5	.170353	90 - 110	P	05/22/2025	17:28	LB135892
	Calcium	23315.7	25000	93.3	.419148	90 - 110	P	05/22/2025	17:28	LB135892
	Chromium	954.862	1000	95.5	2.70753	90 - 110	P	05/22/2025	17:28	LB135892
	Cobalt	2328.16	2500	93.1	.143361	90 - 110	P	05/22/2025	17:28	LB135892
	Copper	1175.74	1250	94.1	.320323	90 - 110	P	05/22/2025	17:28	LB135892
	Iron	4761.56	5000	95.2	2.18219	90 - 110	P	05/22/2025	17:28	LB135892
	Lead	4675.41	5000	93.5	.202317	90 - 110	P	05/22/2025	17:28	LB135892
	Magnesium	23289.2	25000	93.2	.168650	90 - 110	P	05/22/2025	17:28	LB135892
	Manganese	2338.76	2500	93.6	.218433	90 - 110	P	05/22/2025	17:28	LB135892
	Nickel	2332.11	2500	93.3	.202512	90 - 110	P	05/22/2025	17:28	LB135892
	Potassium	23213.9	25000	92.9	2.20252	90 - 110	P	05/22/2025	17:28	LB135892
	Selenium	4683.05	5000	93.7	.621888	90 - 110	P	05/22/2025	17:28	LB135892
	Silver	1174.61	1250	94	2.68794	90 - 110	P	05/22/2025	17:28	LB135892
	Sodium	23278.8	25000	93.1	2.41444	90 - 110	P	05/22/2025	17:28	LB135892
	Thallium	4713.31	5000	94.3	1.15106	90 - 110	P	05/22/2025	17:28	LB135892
	Vanadium	2327.95	2500	93.1	.123638	90 - 110	P	05/22/2025	17:28	LB135892
	Zinc	2349.72	2500	94	2.91360	90 - 110	P	05/22/2025	17:28	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Aluminum	9973.02	10000	99.7	.348939	90 - 110	P	05/22/2025	19:08	LB135892
	Antimony	4920.36	5000	98.4	1.50436	90 - 110	P	05/22/2025	19:08	LB135892
	Arsenic	4982.57	5000	99.7	1.20996	90 - 110	P	05/22/2025	19:08	LB135892
	Barium	10145.1	10000	101.5	.354915	90 - 110	P	05/22/2025	19:08	LB135892
	Beryllium	257.532	250	103	.900204	90 - 110	P	05/22/2025	19:08	LB135892
	Cadmium	2424.19	2500	97	.243551	90 - 110	P	05/22/2025	19:08	LB135892
	Calcium	25193.6	25000	100.8	.303798	90 - 110	P	05/22/2025	19:08	LB135892
	Chromium	996.038	1000	99.6	.145648	90 - 110	P	05/22/2025	19:08	LB135892
	Cobalt	2435.53	2500	97.4	.396624	90 - 110	P	05/22/2025	19:08	LB135892
	Copper	1246.95	1250	99.8	.903087	90 - 110	P	05/22/2025	19:08	LB135892
	Iron	4881.68	5000	97.6	.469275	90 - 110	P	05/22/2025	19:08	LB135892
	Lead	4828.51	5000	96.6	.266167	90 - 110	P	05/22/2025	19:08	LB135892
	Magnesium	24777.2	25000	99.1	.388040	90 - 110	P	05/22/2025	19:08	LB135892
	Manganese	2453.82	2500	98.2	.358260	90 - 110	P	05/22/2025	19:08	LB135892
	Nickel	2437	2500	97.5	.334066	90 - 110	P	05/22/2025	19:08	LB135892
	Potassium	24045.3	25000	96.2	1.04631	90 - 110	P	05/22/2025	19:08	LB135892
	Selenium	4984.93	5000	99.7	1.38785	90 - 110	P	05/22/2025	19:08	LB135892
	Silver	1247.97	1250	99.8	.267503	90 - 110	P	05/22/2025	19:08	LB135892
	Sodium	24502.1	25000	98	1.13470	90 - 110	P	05/22/2025	19:08	LB135892
	Thallium	4732.97	5000	94.7	.930231	90 - 110	P	05/22/2025	19:08	LB135892
	Vanadium	2492.35	2500	99.7	.164906	90 - 110	P	05/22/2025	19:08	LB135892
	Zinc	2517.07	2500	100.7	.191905	90 - 110	P	05/22/2025	19:08	LB135892

Reviewed By:
On:
Inst Id :P4
LB :LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	6.0068	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Antimony	-0.616	+/-50.0	U	50.0	P	05/22/2025	15:20	LB135892
	Arsenic	-2.027	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Barium	-0.773	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Beryllium	-0.038	+/-6.0	U	6.0	P	05/22/2025	15:20	LB135892
	Cadmium	0.0562	+/-6.0	U	6.0	P	05/22/2025	15:20	LB135892
	Calcium	5.8418	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Chromium	-0.061	+/-10.0	U	10.0	P	05/22/2025	15:20	LB135892
	Cobalt	0.1464	+/-30.0	U	30.0	P	05/22/2025	15:20	LB135892
	Copper	-0.131	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Iron	23.2749	+/-100	U	100	P	05/22/2025	15:20	LB135892
	Lead	-0.32	+/-12.0	U	12.0	P	05/22/2025	15:20	LB135892
	Magnesium	16.3339	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Manganese	0.0113	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Nickel	0.0782	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Potassium	-34.514	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Selenium	-4.723	+/-20.0	U	20.0	P	05/22/2025	15:20	LB135892
	Silver	-0.457	+/-10.0	U	10.0	P	05/22/2025	15:20	LB135892
	Sodium	-27.969	+/-2000	U	2000	P	05/22/2025	15:20	LB135892
	Thallium	-2.01	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Vanadium	0.4277	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892
	Zinc	1.1518	+/-40.0	U	40.0	P	05/22/2025	15:20	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	10.6194	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Antimony	-0.918	+/-50.0	U	50.0	P	05/22/2025	15:55	LB135892
	Arsenic	-3.773	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Barium	1.5053	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Beryllium	0.022	+/-6.0	U	6.0	P	05/22/2025	15:55	LB135892
	Cadmium	0.2132	+/-6.0	U	6.0	P	05/22/2025	15:55	LB135892
	Calcium	11.915	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Chromium	-0.025	+/-10.0	U	10.0	P	05/22/2025	15:55	LB135892
	Cobalt	0.3897	+/-30.0	U	30.0	P	05/22/2025	15:55	LB135892
	Copper	-0.112	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Iron	13.1599	+/-100	U	100	P	05/22/2025	15:55	LB135892
	Lead	0.1461	+/-12.0	U	12.0	P	05/22/2025	15:55	LB135892
	Magnesium	10.4967	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Manganese	0.8648	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Nickel	0.1898	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Potassium	-34.528	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Selenium	-0.684	+/-20.0	U	20.0	P	05/22/2025	15:55	LB135892
	Silver	-0.201	+/-10.0	U	10.0	P	05/22/2025	15:55	LB135892
	Sodium	-50.405	+/-2000	U	2000	P	05/22/2025	15:55	LB135892
	Thallium	-2.117	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Vanadium	0.5338	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
	Zinc	8.8837	+/-40.0	U	40.0	P	05/22/2025	15:55	LB135892
CCB02	Aluminum	4.0945	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Antimony	1.8558	+/-50.0	U	50.0	P	05/22/2025	16:43	LB135892
	Arsenic	-3.309	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Barium	1.3808	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Beryllium	0.0353	+/-6.0	U	6.0	P	05/22/2025	16:43	LB135892
	Cadmium	0.2282	+/-6.0	U	6.0	P	05/22/2025	16:43	LB135892
	Calcium	9.2239	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Chromium	0.0734	+/-10.0	U	10.0	P	05/22/2025	16:43	LB135892
	Cobalt	0.3766	+/-30.0	U	30.0	P	05/22/2025	16:43	LB135892
	Copper	0.5694	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Iron	15.3904	+/-100	U	100	P	05/22/2025	16:43	LB135892
	Lead	-0.08	+/-12.0	U	12.0	P	05/22/2025	16:43	LB135892
	Magnesium	17.3676	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Manganese	0.8649	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892
	Nickel	0.2963	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Potassium	-8.361	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Selenium	-3.2	+/-20.0	U	20.0	P	05/22/2025	16:43	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	-0.216	+/-10.0	U	10.0	P	05/22/2025	16:43	LB135892
	Sodium	-50.334	+/-2000	U	2000	P	05/22/2025	16:43	LB135892
	Thallium	0.2711	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Vanadium	0.454	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
	Zinc	3.7726	+/-40.0	U	40.0	P	05/22/2025	16:43	LB135892
CCB03	Aluminum	4.8017	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Antimony	0.8512	+/-50.0	U	50.0	P	05/22/2025	17:32	LB135892
	Arsenic	-1.14	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Barium	2.7316	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Beryllium	0.0412	+/-6.0	U	6.0	P	05/22/2025	17:32	LB135892
	Cadmium	0.1642	+/-6.0	U	6.0	P	05/22/2025	17:32	LB135892
	Calcium	17.6152	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Chromium	0.2924	+/-10.0	U	10.0	P	05/22/2025	17:32	LB135892
	Cobalt	0.4636	+/-30.0	U	30.0	P	05/22/2025	17:32	LB135892
	Copper	0.3962	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Iron	14.2225	+/-100	U	100	P	05/22/2025	17:32	LB135892
	Lead	-0.314	+/-12.0	U	12.0	P	05/22/2025	17:32	LB135892
	Magnesium	19.7636	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Manganese	1.0767	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Nickel	0.1957	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Potassium	44.5313	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Selenium	-2.9	+/-20.0	U	20.0	P	05/22/2025	17:32	LB135892
	Silver	-0.26	+/-10.0	U	10.0	P	05/22/2025	17:32	LB135892
	Sodium	71.1816	+/-2000	U	2000	P	05/22/2025	17:32	LB135892
	Thallium	-0.864	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Vanadium	0.9508	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
	Zinc	8.3958	+/-40.0	U	40.0	P	05/22/2025	17:32	LB135892
CCB04	Aluminum	2.3178	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Antimony	-0.334	+/-50.0	U	50.0	P	05/22/2025	19:12	LB135892
	Arsenic	-3.056	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Barium	2.3129	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Beryllium	0.0413	+/-6.0	U	6.0	P	05/22/2025	19:12	LB135892
	Cadmium	0.1651	+/-6.0	U	6.0	P	05/22/2025	19:12	LB135892
	Calcium	-6.629	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Chromium	0.3013	+/-10.0	U	10.0	P	05/22/2025	19:12	LB135892
	Cobalt	0.2367	+/-30.0	U	30.0	P	05/22/2025	19:12	LB135892
	Copper	0.3037	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Iron	0.7132	+/-100	U	100	P	05/22/2025	19:12	LB135892
	Lead	-0.179	+/-12.0	U	12.0	P	05/22/2025	19:12	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	17.4604	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Manganese	-0.121	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Nickel	0.2757	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Potassium	-18.692	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Selenium	-4.528	+/-20.0	U	20.0	P	05/22/2025	19:12	LB135892
	Silver	-0.307	+/-10.0	U	10.0	P	05/22/2025	19:12	LB135892
	Sodium	-5.513	+/-2000	U	2000	P	05/22/2025	19:12	LB135892
	Thallium	-1.45	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Vanadium	-0.398	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892
	Zinc	-0.428	+/-40.0	U	40.0	P	05/22/2025	19:12	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB168106BL		**SOLID**		**Batch Number:**	**PB168106**		**Prep Date:**	**05/21/2025**	
	Aluminum	0.463	<5	U	5	P	05/22/2025	16:33	LB135892
	Antimony	0.014	<2.5	U	2.5	P	05/22/2025	16:33	LB135892
	Arsenic	0.246	<1	U	1	P	05/22/2025	16:33	LB135892
	Barium	0.034	<5	U	5	P	05/22/2025	16:33	LB135892
	Beryllium	0.001	<0.3	U	0.3	P	05/22/2025	16:33	LB135892
	Cadmium	0.003	<0.3	U	0.3	P	05/22/2025	16:33	LB135892
	Calcium	0.081	<100	U	100	P	05/22/2025	16:33	LB135892
	Chromium	0.001	<0.5	U	0.5	P	05/22/2025	16:33	LB135892
	Cobalt	0.01	<1.5	U	1.5	P	05/22/2025	16:33	LB135892
	Copper	0.001	<1	U	1	P	05/22/2025	16:33	LB135892
	Iron	0.408	<5	U	5	P	05/22/2025	16:33	LB135892
	Lead	0.014	<0.6	U	0.6	P	05/22/2025	16:33	LB135892
	Magnesium	0.788	<100	U	100	P	05/22/2025	16:33	LB135892
	Manganese	0.014	<1	U	1	P	05/22/2025	16:33	LB135892
	Nickel	0.002	<2	U	2	P	05/22/2025	16:33	LB135892
	Potassium	2.13	<100	U	100	P	05/22/2025	16:33	LB135892
	Selenium	0.228	<1	U	1	P	05/22/2025	16:33	LB135892
	Silver	0.026	<0.5	U	0.5	P	05/22/2025	16:33	LB135892
	Sodium	3.39	<100	U	100	P	05/22/2025	16:33	LB135892
	Thallium	0.01	<2	U	2	P	05/22/2025	16:33	LB135892
	Vanadium	0.009	<2	U	2	P	05/22/2025	16:33	LB135892
	Zinc	0.089	<2	U	2	P	05/22/2025	16:33	LB135892

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB168113BL		**WATER**		**Batch Number:**	**PB168113**		**Prep Date:**	**05/21/2025**	
	Aluminum	87.9	<500	J	500	P	05/22/2025	16:25	LB135892
	Antimony	4.49	<250	U	250	P	05/22/2025	16:25	LB135892
	Arsenic	25.4	<100	U	100	P	05/22/2025	16:25	LB135892
	Barium	3.12	<500	U	500	P	05/22/2025	16:25	LB135892
	Beryllium	0.051	<30	U	30	P	05/22/2025	16:25	LB135892
	Cadmium	0.406	<30	U	30	P	05/22/2025	16:25	LB135892
	Calcium	7.47	<10000	U	10000	P	05/22/2025	16:25	LB135892
	Chromium	0.6	<50	U	50	P	05/22/2025	16:25	LB135892
	Cobalt	1.49	<150	U	150	P	05/22/2025	16:25	LB135892
	Copper	0.717	<100	U	100	P	05/22/2025	16:25	LB135892
	Iron	189	<500	J	500	P	05/22/2025	16:25	LB135892
	Lead	1.44	<60	U	60	P	05/22/2025	16:25	LB135892
	Magnesium	70.1	<10000	U	10000	P	05/22/2025	16:25	LB135892
	Manganese	2.83	<100	U	100	P	05/22/2025	16:25	LB135892
	Nickel	1.3	<200	U	200	P	05/22/2025	16:25	LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: LB135892 **SDG No.:** LB135892

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
	Potassium	136	<10000	U	10000	P	05/22/2025	16:25	LB135892
	Selenium	11.1	<100	U	100	P	05/22/2025	16:25	LB135892
	Silver	1.02	<50	U	50	P	05/22/2025	16:25	LB135892
	Sodium	363	<10000	U	10000	P	05/22/2025	16:25	LB135892
	Thallium	5.14	<200	U	200	P	05/22/2025	16:25	LB135892
	Vanadium	8.32	<200	U	200	P	05/22/2025	16:25	LB135892
	Zinc	1.52	<200	U	200	P	05/22/2025	16:25	LB135892
PB168117BL		**SOLID**		**Batch Number:**	**PB168117**		**Prep Date:**	**05/21/2025**	
	Aluminum	0.261	<5	U	5	P	05/22/2025	16:53	LB135892
	Antimony	0.024	<2.5	U	2.5	P	05/22/2025	16:53	LB135892
	Arsenic	0.091	<1	U	1	P	05/22/2025	16:53	LB135892
	Barium	0.11	<5	U	5	P	05/22/2025	16:53	LB135892
	Beryllium	0	<0.3	U	0.3	P	05/22/2025	16:53	LB135892
	Cadmium	0	<0.3	U	0.3	P	05/22/2025	16:53	LB135892
	Calcium	0.11	<100	U	100	P	05/22/2025	16:53	LB135892
	Chromium	0.006	<0.5	U	0.5	P	05/22/2025	16:53	LB135892
	Cobalt	0	<1.5	U	1.5	P	05/22/2025	16:53	LB135892
	Copper	0.001	<1	U	1	P	05/22/2025	16:53	LB135892
	Iron	0.396	<5	U	5	P	05/22/2025	16:53	LB135892
	Lead	0.042	<0.6	U	0.6	P	05/22/2025	16:53	LB135892
	Magnesium	1.01	<100	U	100	P	05/22/2025	16:53	LB135892
	Manganese	0.006	<1	U	1	P	05/22/2025	16:53	LB135892
	Nickel	0.018	<2	U	2	P	05/22/2025	16:53	LB135892
	Potassium	2.59	<100	U	100	P	05/22/2025	16:53	LB135892
	Selenium	0.108	<1	U	1	P	05/22/2025	16:53	LB135892
	Silver	0.043	<0.5	U	0.5	P	05/22/2025	16:53	LB135892
	Sodium	3.69	<100	U	100	P	05/22/2025	16:53	LB135892
	Thallium	0.014	<2	U	2	P	05/22/2025	16:53	LB135892
	Vanadium	0.037	<2	U	2	P	05/22/2025	16:53	LB135892
	Zinc	0.012	<2	U	2	P	05/22/2025	16:53	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

ICS Source: **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	267000	255000	104.7	216000 - 294000%	05/22/2025	15:34	LB135892
	Antimony	-3.61				05/22/2025	15:34	LB135892
	Arsenic	1.77				05/22/2025	15:34	LB135892
	Barium	7.57	6	126.2	-94 - 106%	05/22/2025	15:34	LB135892
	Beryllium	0.616				05/22/2025	15:34	LB135892
	Cadmium	-0.109	1	10.9	-5 - 7%	05/22/2025	15:34	LB135892
	Calcium	257000	245000	104.9	208000 - 282000%	05/22/2025	15:34	LB135892
	Chromium	59.5	52	114.4	42 - 62%	05/22/2025	15:34	LB135892
	Cobalt	1.57				05/22/2025	15:34	LB135892
	Copper	1.51	2	75.5	-18 - 22%	05/22/2025	15:34	LB135892
	Iron	107000	101000	105.9	85600 - 116500%	05/22/2025	15:34	LB135892
	Lead	5.66				05/22/2025	15:34	LB135892
	Magnesium	274000	255000	107.5	216000 - 294000%	05/22/2025	15:34	LB135892
	Manganese	14.6	7	208.6	-13 - 27%	05/22/2025	15:34	LB135892
	Nickel	2.35	2	117.5	-38 - 42%	05/22/2025	15:34	LB135892
	Potassium	-12.1				05/22/2025	15:34	LB135892
	Selenium	4.71				05/22/2025	15:34	LB135892
	Silver	-1.36				05/22/2025	15:34	LB135892
	Sodium	14.1				05/22/2025	15:34	LB135892
	Thallium	9.78				05/22/2025	15:34	LB135892
	Vanadium	3.74				05/22/2025	15:34	LB135892
	Zinc	3.58				05/22/2025	15:34	LB135892
ICSAB01	Aluminum	239000	247000	96.8	209000 - 285000%	05/22/2025	15:39	LB135892
	Antimony	594	618	96.1	525 - 711%	05/22/2025	15:39	LB135892
	Arsenic	107	104	102.9	88.4 - 120%	05/22/2025	15:39	LB135892
	Barium	505	537	94	437 - 637%	05/22/2025	15:39	LB135892
	Beryllium	477	495	96.4	420 - 570%	05/22/2025	15:39	LB135892
	Cadmium	965	972	99.3	826 - 1120%	05/22/2025	15:39	LB135892
	Calcium	232000	235000	98.7	199000 - 271000%	05/22/2025	15:39	LB135892
	Chromium	554	542	102.2	460 - 624%	05/22/2025	15:39	LB135892
	Cobalt	489	476	102.7	404 - 548%	05/22/2025	15:39	LB135892
	Copper	489	511	95.7	434 - 588%	05/22/2025	15:39	LB135892
	Iron	101000	99300	101.7	84400 - 114500%	05/22/2025	15:39	LB135892
	Lead	51.7	49	105.5	37 - 61%	05/22/2025	15:39	LB135892
	Magnesium	247000	248000	99.6	210000 - 286000%	05/22/2025	15:39	LB135892
	Manganese	498	507	98.2	430 - 584%	05/22/2025	15:39	LB135892
	Nickel	969	954	101.6	810 - 1100%	05/22/2025	15:39	LB135892
	Potassium	14.2				05/22/2025	15:39	LB135892
	Selenium	56	46	121.7	26 - 66%	05/22/2025	15:39	LB135892
	Silver	222	201	110.4	170 - 232%	05/22/2025	15:39	LB135892
	Sodium	-3.31				05/22/2025	15:39	LB135892
	Thallium	112	108	103.7	68 - 148%	05/22/2025	15:39	LB135892
	Vanadium	483	491	98.4	417 - 565%	05/22/2025	15:39	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

ICS Source: **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSAB01	Zinc	1030	952	108.2	809 - 1095%	05/22/2025	15:39	LB135892
ICSABDL	Aluminum	239000	247000	96.8	209000 - 285000%	05/22/2025	15:47	LB135892
	Antimony	519	618	84	525 - 711%	05/22/2025	15:47	LB135892
	Arsenic	32.2	104	31	88.4 - 120%	05/22/2025	15:47	LB135892
	Barium	494	537	92	437 - 637%	05/22/2025	15:47	LB135892
	Beryllium	462	495	93.3	420 - 570%	05/22/2025	15:47	LB135892
	Cadmium	960	972	98.8	826 - 1120%	05/22/2025	15:47	LB135892
	Calcium	238000	235000	101.3	199000 - 271000%	05/22/2025	15:47	LB135892
	Chromium	550	542	101.5	460 - 624%	05/22/2025	15:47	LB135892
	Cobalt	482	476	101.3	404 - 548%	05/22/2025	15:47	LB135892
	Copper	518	511	101.4	434 - 588%	05/22/2025	15:47	LB135892
	Iron	106000	99300	106.7	84400 - 114500%	05/22/2025	15:47	LB135892
	Lead	34.7	49	70.8	37 - 61%	05/22/2025	15:47	LB135892
	Magnesium	240000	248000	96.8	210000 - 286000%	05/22/2025	15:47	LB135892
	Manganese	501	507	98.8	430 - 584%	05/22/2025	15:47	LB135892
	Nickel	972	954	101.9	810 - 1100%	05/22/2025	15:47	LB135892
	Potassium	-949				05/22/2025	15:47	LB135892
	Selenium	-20.1	46	43.7	26 - 66%	05/22/2025	15:47	LB135892
	Silver	202	201	100.5	170 - 232%	05/22/2025	15:47	LB135892
	Sodium	-912				05/22/2025	15:47	LB135892
	Thallium	70.6	108	65.4	68 - 148%	05/22/2025	15:47	LB135892
	Vanadium	474	491	96.5	417 - 565%	05/22/2025	15:47	LB135892
	Zinc	1150	952	120.8	809 - 1095%	05/22/2025	15:47	LB135892
ICSADL	Aluminum	245000	255000	96.1	216000 - 294000%	05/22/2025	15:43	LB135892
	Antimony	-5.96				05/22/2025	15:43	LB135892
	Arsenic	-71.8				05/22/2025	15:43	LB135892
	Barium	-11	6	183.3	-94 - 106%	05/22/2025	15:43	LB135892
	Beryllium	1.81				05/22/2025	15:43	LB135892
	Cadmium	-0.08	1	8	-5 - 7%	05/22/2025	15:43	LB135892
	Calcium	242000	245000	98.8	208000 - 282000%	05/22/2025	15:43	LB135892
	Chromium	40.8	52	78.5	42 - 62%	05/22/2025	15:43	LB135892
	Cobalt	3.86				05/22/2025	15:43	LB135892
	Copper	3.35	2	167.5	-18 - 22%	05/22/2025	15:43	LB135892
	Iron	104000	101000	103	85600 - 116500%	05/22/2025	15:43	LB135892
	Lead	-20.5				05/22/2025	15:43	LB135892
	Magnesium	245000	255000	96.1	216000 - 294000%	05/22/2025	15:43	LB135892
	Manganese	10.73	7	153.3	-13 - 27%	05/22/2025	15:43	LB135892
	Nickel	5.01	2	250.5	-38 - 42%	05/22/2025	15:43	LB135892
	Potassium	-946				05/22/2025	15:43	LB135892
	Selenium	-107				05/22/2025	15:43	LB135892
	Silver	-5.1				05/22/2025	15:43	LB135892
	Sodium	-1050				05/22/2025	15:43	LB135892
	Thallium	-7.2				05/22/2025	15:43	LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

ICS Source: **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSADL	Vanadium	8.47				05/22/2025	15:43	LB135892
	Zinc	2.92				05/22/2025	15:43	LB135892

Reviewed By:
On:
Inst Id :P4
LB :LB135892

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Silver	10.0705	10.0	100.7	65 - 135	P	05/22/2025	15:30	LB135892
	Aluminum	113.197	100	113.2	65 - 135	P	05/22/2025	15:30	LB135892
	Arsenic	19.6749	20.0	98.4	65 - 135	P	05/22/2025	15:30	LB135892
	Barium	108.711	100	108.7	65 - 135	P	05/22/2025	15:30	LB135892
	Beryllium	6.2476	6.0	104.1	65 - 135	P	05/22/2025	15:30	LB135892
	Calcium	2172.53	2000	108.6	65 - 135	P	05/22/2025	15:30	LB135892
	Cadmium	6.1989	6.0	103.3	65 - 135	P	05/22/2025	15:30	LB135892
	Cobalt	31.2748	30.0	104.2	65 - 135	P	05/22/2025	15:30	LB135892
	Chromium	10.5332	10.0	105.3	65 - 135	P	05/22/2025	15:30	LB135892
	Copper	23.5082	20.0	117.5	65 - 135	P	05/22/2025	15:30	LB135892
	Iron	113.986	100	114	65 - 135	P	05/22/2025	15:30	LB135892
	Potassium	2081.61	2000	104.1	65 - 135	P	05/22/2025	15:30	LB135892
	Magnesium	2275.23	2000	113.8	65 - 135	P	05/22/2025	15:30	LB135892
	Manganese	22.0627	20.0	110.3	65 - 135	P	05/22/2025	15:30	LB135892
	Sodium	2088.23	2000	104.4	65 - 135	P	05/22/2025	15:30	LB135892
	Nickel	41.3965	40.0	103.5	65 - 135	P	05/22/2025	15:30	LB135892
	Lead	12.1189	12.0	101	65 - 135	P	05/22/2025	15:30	LB135892
	Antimony	53.4392	50.0	106.9	65 - 135	P	05/22/2025	15:30	LB135892
	Selenium	15.3833	20.0	76.9	65 - 135	P	05/22/2025	15:30	LB135892
	Thallium	41.1208	40.0	102.8	65 - 135	P	05/22/2025	15:30	LB135892
	Vanadium	43.9156	40.0	109.8	65 - 135	P	05/22/2025	15:30	LB135892
	Zinc	46.0307	40.0	115.1	65 - 135	P	05/22/2025	15:30	LB135892

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A4-04-C	SDG No.:	LB135892
Lab Sample ID:	Q2078-03	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	1430		1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	2.87	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-40.2	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	599		1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.57	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.444	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	930000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	0.921	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-1.16	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	22.7	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	590		1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	2.29	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	125	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	146		1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	24.5	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	53100		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-26.1	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-4.16	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.78e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-23.4	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	9.49	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	21.8	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A4-05-C	SDG No.:	LB135892
Lab Sample ID:	Q2078-07	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	1400		1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-8.78	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-35	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	470	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.54	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.18	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	849000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	14.8	J	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	0.171	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	13.8	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	232	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	2.92	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	197	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	23.5	U	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	26.2	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	39700		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-26	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-0.845	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.91e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-29.7	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	11.9	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	15.6	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A1-06A-C	SDG No.:	LB135892
Lab Sample ID:	Q2078-11	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	1430		1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-2.92	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-30.3	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	482	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.505	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.17	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	1.03e+006		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	6.83	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	0.465	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	28.4	J	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	345	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	3.23	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	183	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	68.4	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	24.2	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	46000		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-6.69	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-3.12	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	2.05e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-27.1	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	8.57	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	19.8	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A1-07A-C	SDG No.:	LB135892
Lab Sample ID:	Q2078-15	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	64.5	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	3.95	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-37	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	255	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.56	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.267	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	909000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	15.8	J	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-0.775	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	35.9	J	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	237	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	3.49	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	1080	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	16.9	U	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	22.3	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	26600		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-18.2	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-2.09	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.77e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-36.7	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	50.8	J	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	15.3	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/14/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A4-06-C	SDG No.:	LB135892
Lab Sample ID:	Q2078-19	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	183	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-2.67	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-48.5	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	271	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.265	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.059	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	986000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	9	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	0.229	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	12.1	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	187	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	4.2	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	1470	J	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	80.5	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	14.8	U	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	28100		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-10.04	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-3.39	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.97e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-16.9	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	56.1	J	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	16.9	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A2-01-C	SDG No.:	LB135892
Lab Sample ID:	Q2079-03	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	1200		1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-2.62	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-28.5	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	415	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.44	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.25	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	907000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	7.1	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-0.21	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	24.8	J	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	238	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	7.02	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	246	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	88.5	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	22.2	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	38400		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-20.6	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-3.61	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.7e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-29	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	7.98	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	18.1	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A2-02-C	SDG No.:	LB135892
Lab Sample ID:	Q2079-07	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	305	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-6.42	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-31.2	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	279	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.605	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.141	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	812000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	5.8	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	0.406	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	13.5	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	212	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	3.34	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	851	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	33.5	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	15.7	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	22700		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-19	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-3.06	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.65e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-13.5	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	38.7	J	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	20.8	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/13/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	WC-A2-03-C	SDG No.:	LB135892
Lab Sample ID:	Q2079-11	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	638		1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-1.39	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-48.2	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	328	J	1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.55	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.479	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	860000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	6.4	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-0.505	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	14	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	354	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	4.3	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	586	U	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	97.7	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	17.3	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	28300		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-27.9	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-1.98	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.76e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-31.6	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	26.5	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	24.5	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/19/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	PL-HRH-COMP-01	SDG No.:	LB135892
Lab Sample ID:	Q2080-01	Matrix:	Solid
Level (low/med):	low	% Solid:	86.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	9940		1	0.84	4.02	5.03	mg/Kg	05/20/2025	05/22/2025	6010D
7440-36-0	Antimony	-0.088	U	1	0.22	0.628	2.51	mg/Kg	05/20/2025	05/22/2025	6010D
7440-38-2	Arsenic	5.09		1	0.19	0.804	1.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-39-3	Barium	86.8		1	0.73	1.26	5.03	mg/Kg	05/20/2025	05/22/2025	6010D
7440-41-7	Beryllium	0.776		1	0.025	0.075	0.302	mg/Kg	05/20/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.097	J	1	0.024	0.075	0.302	mg/Kg	05/20/2025	05/22/2025	6010D
7440-70-2	Calcium	906		1	11	25.1	101	mg/Kg	05/20/2025	05/22/2025	6010D
7440-47-3	Chromium	18.4		1	0.047	0.126	0.503	mg/Kg	05/20/2025	05/22/2025	6010D
7440-48-4	Cobalt	10.05		1	0.10	0.377	1.51	mg/Kg	05/20/2025	05/22/2025	6010D
7440-50-8	Copper	9.77		1	0.22	0.804	1.01	mg/Kg	05/20/2025	05/22/2025	6010D
7439-89-6	Iron	22500		1	4.0	4.02	5.03	mg/Kg	05/20/2025	05/22/2025	6010D
7439-92-1	Lead	23.7		1	0.13	0.483	0.603	mg/Kg	05/20/2025	05/22/2025	6010D
7439-95-4	Magnesium	3360		1	12	25.1	101	mg/Kg	05/20/2025	05/22/2025	6010D
7439-96-5	Manganese	615		1	0.14	0.251	1.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-02-0	Nickel	18.9		1	0.13	0.503	2.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-09-7	Potassium	858		1	28	80.4	101	mg/Kg	05/20/2025	05/22/2025	6010D
7782-49-2	Selenium	2.06		1	0.26	0.804	1.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-22-4	Silver	0.136	J	1	0.12	0.251	0.503	mg/Kg	05/20/2025	05/22/2025	6010D
7440-23-5	Sodium	98.7	J	1	18	80.4	101	mg/Kg	05/20/2025	05/22/2025	6010D
7440-28-0	Thallium	1.68	J	1	0.23	1.01	2.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-62-2	Vanadium	24.9		1	0.25	1.01	2.01	mg/Kg	05/20/2025	05/22/2025	6010D
7440-66-6	Zinc	53		1	0.23	0.503	2.01	mg/Kg	05/20/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/19/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/19/2025 12:00:00 AM
Client Sample ID:	OR-640-COMP-66	SDG No.:	LB135892
Lab Sample ID:	Q2084-05	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	206	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	1.41	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-36.8	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	775		1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.025	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.366	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	25300		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	3.86	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-1.12	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	26.1	J	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	151	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	-1.35	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	5480	J	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	154		1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	7.29	U	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	4320	U	1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	5.13	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-1.92	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.57e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-25.9	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	-2.12	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	131	J	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	NB-07-05202025	SDG No.:	LB135892
Lab Sample ID:	Q2087-01	Matrix:	Solid
Level (low/med):	low	% Solid:	91.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	7660		1	0.83	3.96	4.95	mg/Kg	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	0.154	U	1	0.22	0.619	2.48	mg/Kg	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	3.08		1	0.19	0.792	0.99	mg/Kg	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	34.4		1	0.72	1.24	4.95	mg/Kg	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	0.311		1	0.025	0.074	0.297	mg/Kg	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.112	J	1	0.024	0.074	0.297	mg/Kg	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	23100		1	11	24.8	99	mg/Kg	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	13.2		1	0.047	0.124	0.495	mg/Kg	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	3.94		1	0.099	0.371	1.49	mg/Kg	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	28.3		1	0.22	0.792	0.99	mg/Kg	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	11000		1	4.0	3.96	4.95	mg/Kg	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	19.4		1	0.13	0.475	0.594	mg/Kg	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	2990		1	12	24.8	99	mg/Kg	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	135		1	0.14	0.248	0.99	mg/Kg	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	9.99		1	0.13	0.495	1.98	mg/Kg	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	682		1	27	79.2	99	mg/Kg	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	0.844	J	1	0.26	0.792	0.99	mg/Kg	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	0.039	U	1	0.12	0.248	0.495	mg/Kg	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	313		1	18	79.2	99	mg/Kg	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	0.757	J	1	0.23	0.99	1.98	mg/Kg	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	29.3		1	0.25	0.99	1.98	mg/Kg	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	57.7		1	0.23	0.495	1.98	mg/Kg	05/21/2025	05/22/2025	6010D

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	NB-08-05202025	SDG No.:	LB135892
Lab Sample ID:	Q2087-03	Matrix:	Solid
Level (low/med):	low	% Solid:	95

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	621		1	0.80	3.83	4.78	mg/Kg	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	0.049	U	1	0.21	0.598	2.39	mg/Kg	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	0.505	J	1	0.18	0.766	0.957	mg/Kg	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	3.74	J	1	0.70	1.2	4.78	mg/Kg	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	0.083	J	1	0.024	0.072	0.287	mg/Kg	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.072	J	1	0.023	0.072	0.287	mg/Kg	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	13700		1	11	23.9	95.7	mg/Kg	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	3.42		1	0.045	0.12	0.478	mg/Kg	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	0.992	J	1	0.096	0.359	1.44	mg/Kg	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	1.78		1	0.21	0.766	0.957	mg/Kg	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	2840		1	3.8	3.83	4.78	mg/Kg	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	1.62		1	0.12	0.459	0.574	mg/Kg	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	8060		1	12	23.9	95.7	mg/Kg	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	33.1		1	0.13	0.239	0.957	mg/Kg	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	1.89	J	1	0.12	0.478	1.91	mg/Kg	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	119		1	27	76.6	95.7	mg/Kg	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-0.159	U	1	0.25	0.766	0.957	mg/Kg	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-0.002	U	1	0.12	0.239	0.478	mg/Kg	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	25.1	J	1	17	76.6	95.7	mg/Kg	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	0.126	U	1	0.22	0.957	1.91	mg/Kg	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	3.57		1	0.24	0.957	1.91	mg/Kg	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	5		1	0.22	0.478	1.91	mg/Kg	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	VNJ-202	SDG No.:	LB135892
Lab Sample ID:	Q2092-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	403	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	-9.59	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-27.7	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	1100		1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	1.84	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	3.95	J	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	34500		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	106		1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	31	J	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	113		1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	870		1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	13.5	J	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	8740	J	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	8590		1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	76.8	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	9430	J	1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	7.95	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-0.855	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.55e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-31.1	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	0.793	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	677		1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	SOIL-DRUM	SDG No.:	LB135892
Lab Sample ID:	Q2093-02	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	415	J	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	5.26	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-33.4	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	521		1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.325	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	6.65	J	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	170000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	18.2	J	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	1.51	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	708		1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	359	J	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	49.4	J	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	26300		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	2830		1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	20.6	J	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	12300		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	0.421	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	1.33	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.54e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-17.8	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	7.23	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	2690		1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	COMP-1	SDG No.:	LB135892
Lab Sample ID:	Q2094-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	-176	U	1	57	400	500	ug/L	05/21/2025	05/22/2025	6010D
7440-36-0	Antimony	11.4	U	1	34	62.5	250	ug/L	05/21/2025	05/22/2025	6010D
7440-38-2	Arsenic	-33.4	U	1	26	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-39-3	Barium	705		1	73	125	500	ug/L	05/21/2025	05/22/2025	6010D
7440-41-7	Beryllium	-0.515	U	1	2.8	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-43-9	Cadmium	0.483	U	1	2.5	7.5	30	ug/L	05/21/2025	05/22/2025	6010D
7440-70-2	Calcium	739000		1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-47-3	Chromium	3.07	U	1	11	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-48-4	Cobalt	-1.86	U	1	11	37.5	150	ug/L	05/21/2025	05/22/2025	6010D
7440-50-8	Copper	7.28	U	1	23	80	100	ug/L	05/21/2025	05/22/2025	6010D
7439-89-6	Iron	111	U	1	120	400	500	ug/L	05/21/2025	05/22/2025	6010D
7439-92-1	Lead	8.45	U	1	12	48	60	ug/L	05/21/2025	05/22/2025	6010D
7439-95-4	Magnesium	7310	J	1	1200	2500	10000	ug/L	05/21/2025	05/22/2025	6010D
7439-96-5	Manganese	35.5	J	1	30	75	100	ug/L	05/21/2025	05/22/2025	6010D
7440-02-0	Nickel	2.54	U	1	15	50	200	ug/L	05/21/2025	05/22/2025	6010D
7440-09-7	Potassium	22700		1	4600	8000	10000	ug/L	05/21/2025	05/22/2025	6010D
7782-49-2	Selenium	-45.4	U	1	48	80	100	ug/L	05/21/2025	05/22/2025	6010D
7440-22-4	Silver	-2.98	U	1	8.1	25	50	ug/L	05/21/2025	05/22/2025	6010D
7440-23-5	Sodium	1.51e+006		1	4300	5000	10000	ug/L	05/21/2025	05/22/2025	6010D
7440-28-0	Thallium	-27.3	U	1	22	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-62-2	Vanadium	14.3	U	1	31	100	200	ug/L	05/21/2025	05/22/2025	6010D
7440-66-6	Zinc	20.5	U	1	83	75	200	ug/L	05/21/2025	05/22/2025	6010D

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Report of Analysis

Client:		Date Collected:	5/20/2025 12:00:00 AM
Project:	LB135892	Date Received:	5/20/2025 12:00:00 AM
Client Sample ID:	COMP-1	SDG No.:	LB135892
Lab Sample ID:	Q2094-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:					

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168106BS							
Aluminum	mg/Kg	100	94		94	80 - 120	P
Antimony	mg/Kg	40	38.2		95.5	80 - 120	P
Arsenic	mg/Kg	40	38		95	80 - 120	P
Barium	mg/Kg	10	9.63		96.3	80 - 120	P
Beryllium	mg/Kg	10	9.09		90.9	80 - 120	P
Cadmium	mg/Kg	10	9.53		95.3	80 - 120	P
Calcium	mg/Kg	50	47.5	J	95	80 - 120	P
Chromium	mg/Kg	20	19.4		97	80 - 120	P
Cobalt	mg/Kg	10	9.5		95	80 - 120	P
Copper	mg/Kg	15	15		100	80 - 120	P
Iron	mg/Kg	150	156		104	80 - 120	P
Lead	mg/Kg	50	46.5		93	80 - 120	P
Magnesium	mg/Kg	100	93	J	93	80 - 120	P
Manganese	mg/Kg	10	9.66		96.6	80 - 120	P
Nickel	mg/Kg	25	24		96	80 - 120	P
Potassium	mg/Kg	500	490		98	80 - 120	P
Selenium	mg/Kg	100	96.2		96.2	80 - 120	P
Silver	mg/Kg	3.8	3.57		93.9	80 - 120	P
Sodium	mg/Kg	150	161		107.3	80 - 120	P
Thallium	mg/Kg	100	95.5		95.5	80 - 120	P
Vanadium	mg/Kg	15	14.4		96	80 - 120	P
Zinc	mg/Kg	10	10.09		100.9	80 - 120	P

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168113BS							
Aluminum	ug/L	10000	9390		93.9	80 - 120	P
Antimony	ug/L	4000	3800		95	80 - 120	P
Arsenic	ug/L	4000	3770		94.3	80 - 120	P
Barium	ug/L	1000	974		97.4	80 - 120	P
Beryllium	ug/L	1000	949		94.9	80 - 120	P
Cadmium	ug/L	1000	955		95.5	80 - 120	P
Calcium	ug/L	5000	4890	J	97.8	80 - 120	P
Chromium	ug/L	2000	1990		99.5	80 - 120	P
Cobalt	ug/L	1000	952		95.2	80 - 120	P
Copper	ug/L	1500	1490		99.3	80 - 120	P
Iron	ug/L	15000	15400		102.7	80 - 120	P
Lead	ug/L	5000	4670		93.4	80 - 120	P
Magnesium	ug/L	10000	9520	J	95.2	80 - 120	P
Manganese	ug/L	1000	978		97.8	80 - 120	P
Nickel	ug/L	2500	2400		96	80 - 120	P
Potassium	ug/L	50000	47700		95.4	80 - 120	P
Selenium	ug/L	10000	9550		95.5	80 - 120	P
Silver	ug/L	380	358		94.2	80 - 120	P
Sodium	ug/L	15000	16200		108	80 - 120	P
Thallium	ug/L	10000	9590		95.9	80 - 120	P
Vanadium	ug/L	1500	1460		97.3	80 - 120	P
Zinc	ug/L	1000	1000		100	80 - 120	P

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB168117BS							
Aluminum	mg/Kg	100	93.5		93.5	80 - 120	P
Antimony	mg/Kg	40	38.1		95.3	80 - 120	P
Arsenic	mg/Kg	40	38.1		95.3	80 - 120	P
Barium	mg/Kg	10	9.58		95.8	80 - 120	P
Beryllium	mg/Kg	10	9.02		90.2	80 - 120	P
Cadmium	mg/Kg	10	9.34		93.4	80 - 120	P
Calcium	mg/Kg	50	47.6	J	95.2	80 - 120	P
Chromium	mg/Kg	20	19.1		95.5	80 - 120	P
Cobalt	mg/Kg	10	9.4		94	80 - 120	P
Copper	mg/Kg	15	15.1		100.7	80 - 120	P
Iron	mg/Kg	150	151		100.7	80 - 120	P
Lead	mg/Kg	50	45.5		91	80 - 120	P
Magnesium	mg/Kg	100	91.4	J	91.4	80 - 120	P
Manganese	mg/Kg	10	9.54		95.4	80 - 120	P
Nickel	mg/Kg	25	23.7		94.8	80 - 120	P
Potassium	mg/Kg	500	479		95.8	80 - 120	P
Selenium	mg/Kg	100	96.5		96.5	80 - 120	P
Silver	mg/Kg	3.8	3.53		92.9	80 - 120	P
Sodium	mg/Kg	150	163		108.7	80 - 120	P
Thallium	mg/Kg	100	95		95	80 - 120	P
Vanadium	mg/Kg	15	14.2		94.7	80 - 120	P
Zinc	mg/Kg	10	9.92		99.2	80 - 120	P

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

metals
- 5a -
MATRIX SPIKE SUMMARY

client: LB135892 **level:** low **sdg no.:** LB135892

contract: **lab code:** CHEM **case no.:** LB135892 **sas no.:** LB135892

matrix: Solid **sample id:** Q2080-01 **client id:** PL-HRH-COMP-01MS

Percent Solids for Sample: 86.5 **Spiked ID:** Q2080-01MS **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11400		9940		110	1374		P
Antimony	mg/Kg	75 - 125	15.4		2.51	U	42.8	36	N	P
Arsenic	mg/Kg	75 - 125	40.6		5.09		42.8	83		P
Barium	mg/Kg	75 - 125	94.4		86.8		10.7	71		P
Beryllium	mg/Kg	75 - 125	9.99		0.776		10.7	86		P
Cadmium	mg/Kg	75 - 125	10.21		0.097	J	10.7	95		P
Calcium	mg/Kg	75 - 125	987		906		53.5	151		P
Chromium	mg/Kg	75 - 125	37.1		18.4		21.4	87		P
Cobalt	mg/Kg	75 - 125	20.9		10.05		10.7	102		P
Copper	mg/Kg	75 - 125	23.8		9.77		16.1	87		P
Iron	mg/Kg	75 - 125	21000		22500		160	-974		P
Lead	mg/Kg	75 - 125	74.3		23.7		53.5	95		P
Magnesium	mg/Kg	75 - 125	4060		3360		110	639		P
Manganese	mg/Kg	75 - 125	620		615		10.7	51		P
Nickel	mg/Kg	75 - 125	46.3		18.9		26.8	102		P
Potassium	mg/Kg	75 - 125	1450		858		540	109		P
Selenium	mg/Kg	75 - 125	84.7		2.06		110	75		P
Silver	mg/Kg	75 - 125	3.49		0.136	J	4	84		P
Sodium	mg/Kg	75 - 125	253		98.7	J	160	97		P
Thallium	mg/Kg	75 - 125	97.3		1.68	J	110	87		P
Vanadium	mg/Kg	75 - 125	38.3		24.9		16.1	83		P
Zinc	mg/Kg	75 - 125	68.6		53		10.7	146		P

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB135892 **level:** low **sdg no.:** LB135892

contract: **lab code:** CHEM **case no.:** LB135892 **sas no.:** LB135892

matrix: Solid **sample id:** Q2080-01 **client id:** PL-HRH-COMP-01MSD

Percent Solids for Sample: 86.5 **Spiked ID:** Q2080-01MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	11300		9940		98.4	1413		P
Antimony	mg/Kg	75 - 125	14.5		2.51	U	39.4	36.8	N	P
Arsenic	mg/Kg	75 - 125	37.1		5.09		39.4	81		P
Barium	mg/Kg	75 - 125	96.8		86.8		9.8	102		P
Beryllium	mg/Kg	75 - 125	8.28		0.776		9.8	77		P
Cadmium	mg/Kg	75 - 125	9.13		0.097	J	9.8	92		P
Calcium	mg/Kg	75 - 125	957		906		49.2	104		P
Chromium	mg/Kg	75 - 125	35.6		18.4		19.7	87		P
Cobalt	mg/Kg	75 - 125	20.8		10.05		9.8	109		P
Copper	mg/Kg	75 - 125	22.2		9.77		14.8	84		P
Iron	mg/Kg	75 - 125	23300		22500		150	538		P
Lead	mg/Kg	75 - 125	69.7		23.7		49.2	94		P
Magnesium	mg/Kg	75 - 125	4070		3360		98.4	727		P
Manganese	mg/Kg	75 - 125	564		615		9.8	-519		P
Nickel	mg/Kg	75 - 125	45.6		18.9		24.6	109		P
Potassium	mg/Kg	75 - 125	1560		858		490	144	N	P
Selenium	mg/Kg	75 - 125	77.6		2.06		98.4	77		P
Silver	mg/Kg	75 - 125	3.56		0.136	J	3.7	92		P
Sodium	mg/Kg	75 - 125	261		98.7	J	150	108		P
Thallium	mg/Kg	75 - 125	91.3		1.68	J	98.4	91		P
Vanadium	mg/Kg	75 - 125	36.5		24.9		14.8	78		P
Zinc	mg/Kg	75 - 125	69.2		53		9.8	165		P

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB135892 **Level:** LOW **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Matrix: Solid **Sample ID:** Q2080-01 **Client ID:** PL-HRH-COMP-01DUP

Percent Solids for Sample: 86.5 **Duplicate ID** Q2080-01DUP **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	9940		9540		4		P
Antimony	mg/Kg	20	2.51	U	-0.194	U			P
Arsenic	mg/Kg	20	5.09		2.98		52	*	P
Barium	mg/Kg	20	86.8		84.4		3		P
Beryllium	mg/Kg	20	0.776		0.634		20		P
Cadmium	mg/Kg	20	0.097	J	-0.021	U	200.0		P
Calcium	mg/Kg	20	906		875		3		P
Chromium	mg/Kg	20	18.4		12.9		35	*	P
Cobalt	mg/Kg	20	10.05		9.33		7		P
Copper	mg/Kg	20	9.77		8.49		14		P
Iron	mg/Kg	20	22500		13800		48	*	P
Lead	mg/Kg	20	23.7		21.4		10		P
Magnesium	mg/Kg	20	3360		3430		2		P
Manganese	mg/Kg	20	615		579		6		P
Nickel	mg/Kg	20	18.9		17.7		7		P
Potassium	mg/Kg	20	858		876		2		P
Selenium	mg/Kg	20	2.06		1.08	J	62		P
Silver	mg/Kg	20	0.136	J	0.157	J	14		P
Sodium	mg/Kg	20	98.7	J	93.9	J	5		P
Thallium	mg/Kg	20	1.68	J	0.77	J	74		P
Vanadium	mg/Kg	20	24.9		16.5		41	*	P
Zinc	mg/Kg	20	53		53		0		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB135892 **Level:** LOW **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Case No.:** LB135892 **SAS No.:** LB135892

Matrix: Solid **Sample ID:** Q2080-01MS **Client ID:** PL-HRH-COMP-01MSD

Percent Solids for Sample: 86.5 **Duplicate ID** Q2080-01MSD **Percent Solids for Spike Sample:** 86.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	11400		11300		1		P
Antimony	mg/Kg	20	15.4		14.5		6		P
Arsenic	mg/Kg	20	40.6		37.1		9		P
Barium	mg/Kg	20	94.4		96.8		3		P
Beryllium	mg/Kg	20	9.99		8.28		19		P
Cadmium	mg/Kg	20	10.21		9.13		11		P
Calcium	mg/Kg	20	987		957		3		P
Chromium	mg/Kg	20	37.1		35.6		4		P
Cobalt	mg/Kg	20	20.9		20.8		0		P
Copper	mg/Kg	20	23.8		22.2		7		P
Iron	mg/Kg	20	21000		23300		10		P
Lead	mg/Kg	20	74.3		69.7		6		P
Magnesium	mg/Kg	20	4060		4070		0		P
Manganese	mg/Kg	20	620		564		9		P
Nickel	mg/Kg	20	46.3		45.6		2		P
Potassium	mg/Kg	20	1450		1560		7		P
Selenium	mg/Kg	20	84.7		77.6		9		P
Silver	mg/Kg	20	3.49		3.56		2		P
Sodium	mg/Kg	20	253		261		3		P
Thallium	mg/Kg	20	97.3		91.3		6		P
Vanadium	mg/Kg	20	38.3		36.5		5		P
Zinc	mg/Kg	20	68.6		69.2		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

PL-HRH-COMP-01L

Lab Name: Chemtech Consulting Group **Contract:**

Lab Code: CHEM **Lb No.:** **Lab Sample ID :** Q2080-01L **SDG No.:** LB135892

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	9940		10700		-8		P
Antimony	2.51	U	0.029	U			P
Arsenic	5.09		4.51	J	11		P
Barium	86.8		92.6		-7		P
Beryllium	0.776		0.913	J	-18		P
Cadmium	0.097	J	-0.346	U	100.0		P
Calcium	906		1010		-12		P
Chromium	18.4		20		-9		P
Cobalt	10.05		9.78		3		P
Copper	9.77		11.6		-19		P
Iron	22500		23800		-6		P
Lead	23.7		23.5		1		P
Magnesium	3360		3730		-11		P
Manganese	615		682		-11		P
Nickel	18.9		18.7		1		P
Potassium	858		840		2		P
Selenium	2.06		2.19	J	-6		P
Silver	0.136	J	-0.105	U	100.0		P
Sodium	98.7	J	88.5	U	100.0		P
Thallium	1.68	J	1.6	J	5		P
Vanadium	24.9		27.7		-11		P
Zinc	53		58.6		-10		P

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Method:**

Case No.: LB135892 **SAS No.:** LB135892

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168087**						
Q2080-01	PL-HRH-COMP-01	SAM	SOLID	05/22/2025	2.30	100.0	86.50
Q2080-01DUP	PL-HRH-COMP-01DUP	DUP	SOLID	05/22/2025	2.11	100.0	86.50
Q2080-01MS	PL-HRH-COMP-01MS	MS	SOLID	05/22/2025	2.16	100.0	86.50
Q2080-01MSD	PL-HRH-COMP-01MSD	MSD	SOLID	05/22/2025	2.35	100.0	86.50

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Method:**

Case No.: LB135892 **SAS No.:** LB135892

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168106**						
PB168106BL	PB168106BL	MB	SOLID	05/22/2025	2.00	100.0	100.00
PB168106BS	PB168106BS	LCS	SOLID	05/22/2025	2.00	100.0	100.00
Q2087-01	NB-07-05202025	SAM	SOLID	05/22/2025	2.20	100.0	91.80
Q2087-03	NB-08-05202025	SAM	SOLID	05/22/2025	2.20	100.0	95.00

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Method:**

Case No.: LB135892 **SAS No.:** LB135892

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168113**						
PB168113BL	PB168113BL	MB	WATER	05/22/2025	5.0	25.0	
PB168113BS	PB168113BS	LCS	WATER	05/22/2025	5.0	25.0	
Q2078-03	WC-A4-04-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2078-07	WC-A4-05-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2078-11	WC-A1-06A-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2078-15	WC-A1-07A-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2078-19	WC-A4-06-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2079-03	WC-A2-01-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2079-07	WC-A2-02-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2079-11	WC-A2-03-C	SAM	WATER	05/22/2025	5.0	25.0	
Q2084-05	OR-640-COMP-66	SAM	WATER	05/22/2025	5.0	25.0	
Q2092-02	VNJ-202	SAM	WATER	05/22/2025	5.0	25.0	
Q2093-02	SOIL-DRUM	SAM	WATER	05/22/2025	5.0	25.0	
Q2094-06	COMP-1	SAM	WATER	05/22/2025	5.0	25.0	

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Reviewed By:
On:
Inst Id :P4
LB :LB135892

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: LB135892 **SDG No.:** LB135892

Contract: **Lab Code:** CHEM **Method:**

Case No.: LB135892 **SAS No.:** LB135892

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB168117**						
PB168117BL	PB168117BL	MB	SOLID	05/22/2025	2.00	100.0	100.00
PB168117BS	PB168117BS	LCS	SOLID	05/22/2025	2.00	100.0	100.00

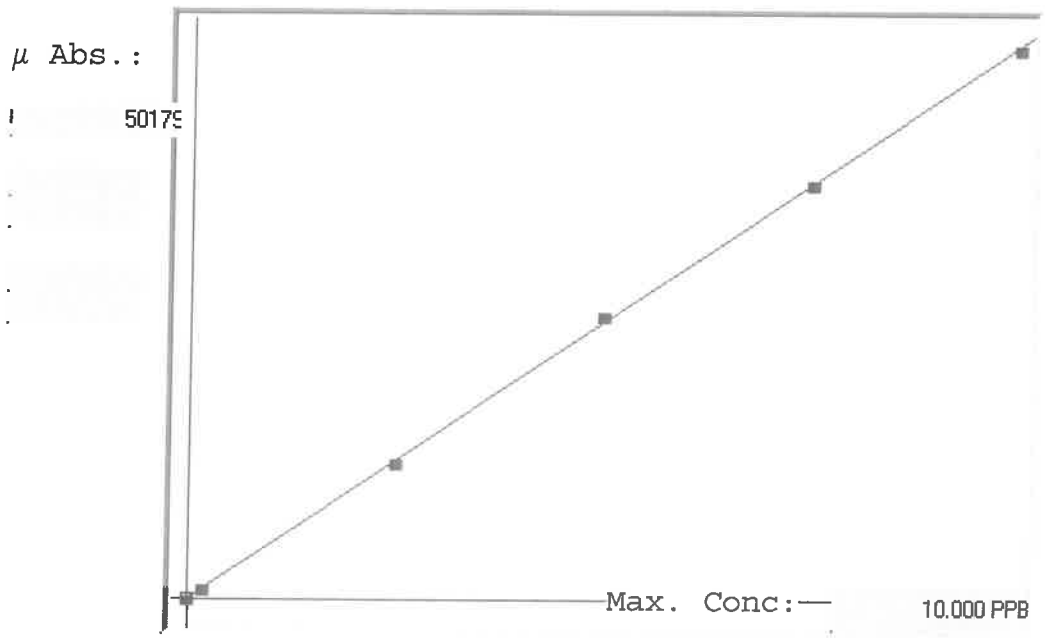
Reviewed By:jaswal
On:5/20/2025 5:34:50 PM
Inst Id :CV1
LB :LB135837

LB135837

7471B

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 1.9839e-004

C= -3.3196e-004

Rho= 0.9998888

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	% D
0.0	0.000	-0.013	-0.013	-65	0.000	-65					-13
0.2	0.200	0.174	-0.026	881	0.0 %	881					-1
2.5	2.500	2.478	-0.022	12491	0.0 %	12491					2
5.0	5.000	5.121	0.121	25813	0.0 %	25813					0
7.5	7.500	7.485	-0.015	37731	0.0 %	37731					0
10.0	10.000	9.955	-0.045	50179	0.0 %	50179					

Reviewed By:jaswal
On:5/20/2025 5:34:50 PM
Inst Id :CV1
LB :LB135837

LB135837 INSTUMENT ID : CV1

Method: 7471B Operator: Admin Date of Analysis: 20 May 2025 12:40:19

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	50	-65	-	0.0000	7471B	PPB	20 May 2025 12:43:40	S	Std
0.2 - 1	502	881	-	0.2000	7471B	PPB	20 May 2025 12:45:57	S	Std
2.5 - 1	52.5	12491	-	2.5000	7471B	PPB	20 May 2025 12:48:15	S	Std
5.0 - 1	55	25813	-	5.0000	7471B	PPB	20 May 2025 12:50:32	S	Std
7.5 - 1	57.5	37731	-	7.5000	7471B	PPB	20 May 2025 12:52:51	S	Std
10.0 - 1	510	50179	-	10.0000	7471B	PPB	20 May 2025 12:55:12	S	Std
ICV12 - 1	ICV12	20138	3.9949		-7471B	PPB	20 May 2025 12:58:31	U	SMPL
ICB12 - 1	ICB12	-278	-0.0555		-7471B	PPB	20 May 2025 13:00:46	U	SMPL
CCV45 - 1	CCV45	24685	4.8970		-7471B	PPB	20 May 2025 13:03:04	U	SMPL
CCB45 - 1	CCB45	-327	-0.0652		-7471B	PPB	20 May 2025 13:05:19	U	SMPL
CRA - 1	CRA	937	0.1856		-7471B	PPB	20 May 2025 13:07:39	U	SMPL
HighStd - 1	HighStd	49997	9.9188		-7471B	PPB	20 May 2025 13:09:54	U	SMPL
ChkStd - 1	ChkStd	34271	6.7988		-7471B	PPB	20 May 2025 13:12:09	U	SMPL
PB168089BL - 1	PBS	-84	-0.0170		-7471B	PPB	20 May 2025 13:17:23	U	SMPL
PB168089BS - 1	LCSS	20185	4.0043		-7471B	PPB	20 May 2025 13:19:38	U	SMPL
Q2052-01 - 1	TP-B	5530	1.0968		-7471B	PPB	20 May 2025 13:21:55	U	SMPL
Q2052-01DUP - 1	TP-BDUP	4819	0.9557		-7471B	PPB	20 May 2025 13:24:14	U	SMPL
Q2052-01MS - 1	TP-BMS	27069	5.3700		-7471B	PPB	20 May 2025 13:26:34	U	SMPL
Q2052-01MSD - 1	TP-BMSD	25608	5.0801		-7471B	PPB	20 May 2025 13:28:52	U	SMPL
Q2055-01 - 1	OR-02-051525	533	0.1054		-7471B	PPB	20 May 2025 13:31:13	U	SMPL
CCV46 - 1	CCV46	23846	4.7306		-7471B	PPB	20 May 2025 13:33:36	U	SMPL
CCB46 - 1	CCB46	-384	-0.0765		-7471B	PPB	20 May 2025 13:35:51	U	SMPL
Q2057-01 - 1	MH-L	330	0.0651		-7471B	PPB	20 May 2025 13:38:12	U	SMPL
Q2062-01 - 1	L1-WC-1	1329	0.2633		-7471B	PPB	20 May 2025 13:40:27	U	SMPL
Q2062-05 - 1	L1-WC-2	2213	0.4387		-7471B	PPB	20 May 2025 13:42:43	U	SMPL
Q2062-09 - 1	L1-WC-3	5568	1.1043		-7471B	PPB	20 May 2025 13:45:03	U	SMPL
Q2062-13 - 1	L1-WC-4	1155	0.2288		-7471B	PPB	20 May 2025 13:47:20	U	SMPL
Q2062-17 - 1	L1-WC-5	2931	0.5812		-7471B	PPB	20 May 2025 13:49:41	U	SMPL
Q2062-21 - 1	L1-WC-6	6767	1.3422		-7471B	PPB	20 May 2025 13:51:57	U	SMPL
Q2068-01 - 1	LAW-25-0075	424	0.0838		-7471B	PPB	20 May 2025 13:54:15	U	SMPL
PB168090BL - 1	PB168090BL	-106	-0.0214		-7471B	PPB	20 May 2025 13:56:35	U	SMPL
PB168090BS - 1	PB168090BS	20217	4.0106		-7471B	PPB	20 May 2025 13:58:53	U	SMPL
CCV47 - 1	CCV47	24196	4.8000		-7471B	PPB	20 May 2025 14:01:09	U	SMPL
CCB47 - 1	CCB47	-364	-0.0725		-7471B	PPB	20 May 2025 14:03:28	U	SMPL
Q2071-01 - 1	L1-WC-7	782	0.1548		-7471B	PPB	20 May 2025 14:05:47	U	SMPL
Q2071-05 - 1	L1-WC-8	4600	0.9123		-7471B	PPB	20 May 2025 14:08:06	U	SMPL
Q2071-09 - 1	L1-WC-9	4196	0.8321		-7471B	PPB	20 May 2025 14:10:37	U	SMPL
Q2071-13 - 1	L2-WC-5	2509	0.4974		-7471B	PPB	20 May 2025 14:13:02	U	SMPL
Q2071-17 - 1	L2-WC-6	1998	0.3961		-7471B	PPB	20 May 2025 14:15:25	U	SMPL
Q2074-01 - 1	TP-12	974	0.1929		-7471B	PPB	20 May 2025 14:17:47	U	SMPL
Q2074-02 - 1	TP-7	729	0.1443		-7471B	PPB	20 May 2025 14:20:07	U	SMPL
Q2074-03 - 1	TP-15	4097	0.8125		-7471B	PPB	20 May 2025 14:22:24	U	SMPL
Q2074-04 - 1	TP-20	2399	0.4756		-7471B	PPB	20 May 2025 14:24:45	U	SMPL
Q2074-05 - 1	TP-38	64	0.0124		-7471B	PPB	20 May 2025 14:27:02	U	SMPL
CCV48 - 1	CCV48	24723	4.9046		-7471B	PPB	20 May 2025 14:29:18	U	SMPL
CCB48 - 1	CCB48	-327	-0.0652		-7471B	PPB	20 May 2025 14:31:34	U	SMPL
Q2074-06 - 1	TP-19	3355	0.6653		-7471B	PPB	20 May 2025 14:33:54	U	SMPL
Q2074-07 - 1	TP-40	2102	0.4167		-7471B	PPB	20 May 2025 14:36:10	U	SMPL
Q2074-08 - 1	TP-18	1838	0.3643		-7471B	PPB	20 May 2025 14:38:27	U	SMPL
Q2074-08DUP - 1	TP-18DUP	1508	0.2988		-7471B	PPB	20 May 2025 14:40:43	U	SMPL
Q2074-08MS - 1	TP-18MS	18439	3.6579		-7471B	PPB	20 May 2025 14:42:59	U	SMPL
Q2074-08MSD - 1	TP-18MSD	21097	4.1852		-7471B	PPB	20 May 2025 14:45:16	U	SMPL
Q2080-01 - 1	PL-HRH-COMP-01	3497	0.6935		-7471B	PPB	20 May 2025 14:47:35	U	SMPL
Q2080-07 - 1	PL-HRH-COMP-02	4176	0.8282		-7471B	PPB	20 May 2025 14:49:55	U	SMPL
CCV49 - 1	CCV49	26028	5.1635		-7471B	PPB	20 May 2025 14:52:13	U	SMPL
CCB49 - 1	CCB49	-364	-0.0725		-7471B	PPB	20 May 2025 14:54:30	U	SMPL
Q2052-01LX5 - 1		1114	0.2207		-7471B	PPB	20 May 2025 14:56:50	U	SMPL
Q2052-01A - 1		25803	5.1188		-7471B	PPB	20 May 2025 14:59:05	U	SMPL
Q2074-08LX5 - 1		25	0.0046		-7471B	PPB	20 May 2025 15:01:21	U	SMPL
Q2074-08A - 1		21061	4.1780		-7471B	PPB	20 May 2025 15:03:41	U	SMPL
CCV50 - 1	CCV50	25892	5.1365		-7471B	PPB	20 May 2025 15:05:57	U	SMPL
CCB50 - 1	CCB50	-301	-0.0600		-7471B	PPB	20 May 2025 15:08:18	U	SMPL

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB168087

SOP ID : M3050B-Digestion-20

SDG No : N/A

Start Digest Date: 05/20/2025 **Time :** 12:15 **Temp :** 96 °C

Matrix : SOIL

End Digest Date: 05/20/2025 **Time :** 14:20 **Temp :** 96 °C

Pippete ID: ICP A

Digestion tube ID: M6054

Balance ID : M SC-2

Block thermometer ID: MET-DIG. #3

Filter paper ID : N/A

Dig Technician Signature: SKB.

pH Strip ID : N/A

Supervisor Signature: JPP

Hood ID : #3

Temp : **1.** 96°C **2.** N/A

Block ID: **1.** HOT BLOCK #3 **2.** N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6005
LFS-2	1.00	M6016
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	5.00	M6158
1:1 HNO3	10.00	MP84041
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6151
PTFE Boiling Stones	N/A	M5581
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#3 CELL#35 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
05/20/25 15:20	SKB. met dig	JPP / Met lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB168087

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
PB168087BL	PBS087	N/A	2.00	100	Colorless	Colorless	Fine	N/A	N/A	1
PB168087BS	LCS087	N/A	2.00	100	Colorless	Colorless	Fine	N/A	M6005,M6016	2
Q2068-01	LAW-25-0075	N/A	2.12	100	Brown	Yellow	Medium	N/A	N/A	3
Q2070-01	CONCRETE-PAD-05162025	N/A	2.36	100	Brown	Yellow	Medium	N/A	N/A	4
Q2071-01	L1-WC-7	N/A	2.14	100	Brown	Yellow	Medium	N/A	N/A	5
Q2071-05	L1-WC-8	N/A	2.13	100	Brown	Yellow	Medium	N/A	N/A	6
Q2071-09	L1-WC-9	N/A	2.36	100	Brown	Yellow	Medium	N/A	N/A	7
Q2071-13	L2-WC-5	N/A	2.36	100	Brown	Yellow	Medium	N/A	N/A	8
Q2071-17	L2-WC-6	N/A	2.35	100	Brown	Yellow	Medium	N/A	N/A	9
Q2074-01	TP-12	N/A	2.37	100	Brown	Yellow	Medium	N/A	N/A	10
Q2074-02	TP-7	N/A	2.22	100	Brown	Yellow	Medium	N/A	N/A	11
Q2074-03	TP-15	N/A	2.19	100	Brown	Yellow	Medium	N/A	N/A	12
Q2074-04	TP-20	N/A	2.24	100	Brown	Yellow	Medium	N/A	N/A	13
Q2074-05	TP-38	N/A	2.19	100	Brown	Yellow	Medium	N/A	N/A	14
Q2074-06	TP-19	N/A	2.38	100	Brown	Yellow	Medium	N/A	N/A	15
Q2074-07	TP-40	N/A	2.15	100	Brown	Yellow	Medium	N/A	N/A	16
Q2074-08	TP-18	N/A	2.09	100	Brown	Yellow	Medium	N/A	N/A	17
Q2080-01	PL-HRH-COMP-01	N/A	2.30	100	Brown	Yellow	Medium	N/A	N/A	18
Q2080-01MS	PL-HRH-COMP-01MS	N/A	2.16	100	Brown	Yellow	Medium	N/A	M6005,M6016	20
Q2080-01MSD	PL-HRH-COMP-01MSD	N/A	2.35	100	Brown	Yellow	Medium	N/A	M6005,M6016	21
Q2080-01DUP	PL-HRH-COMP-01DUP	N/A	2.11	100	Brown	Yellow	Medium	N/A	N/A	19
Q2080-07	PL-HRH-COMP-02	N/A	2.40	100	Brown	Yellow	Medium	N/A	N/A	22
Q2084-01	OR-640-COMP-66	N/A	2.20	100	Brown	Yellow	Medium	N/A	N/A	23

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB168087 **WorkList ID :** 189631 **Department :** Digestion **Date :** 05-20-2025 09:31:54

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2068-01	LAW-25-0075	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L31	05/16/2025	6010D
Q2070-01	CONCRETE-PAD-05162025	Solid	Metals Group3	Cool 4 deg C	PSEG03	L51	05/16/2025	6010D
Q2071-01	L1-WC-7	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/16/2025	6010D
Q2071-05	L1-WC-8	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/16/2025	6010D
Q2071-09	L1-WC-9	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/16/2025	6010D
Q2071-13	L2-WC-5	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/16/2025	6010D
Q2071-17	L2-WC-6	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/16/2025	6010D
Q2074-01	TP-12	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-02	TP-7	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-03	TP-15	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-04	TP-20	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-05	TP-38	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-06	TP-19	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-07	TP-40	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2074-08	TP-18	Solid	Metals ICP-TAL	Cool 4 deg C	CAMP02	L31	05/16/2025	6010D
Q2080-01	PL-HRH-COMP-01	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L31	05/19/2025	6010D
Q2080-07	PL-HRH-COMP-02	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L31	05/19/2025	6010D
Q2084-01	OR-640-COMP-06	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	L41	05/19/2025	6010D

Date/Time 05/20/25 9:50

Raw Sample Received by: SB. met dig

Raw Sample Relinquished by:

Date/Time 05/20/25 10:50

Raw Sample Received by:

Raw Sample Relinquished by: SB met dig

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/20/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 05/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:22
Out Date: 05/20/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135825

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1984-19	OU4-TB01-050725	1	1.00	1.00	2.00	2.00	100.0	T.B.
Q2074-01	TP-12	2	1.18	10.28	11.46	9.76	83.5	
Q2074-02	TP-7	3	1.18	10.15	11.33	10.18	88.7	
Q2074-03	TP-15	4	1.13	10.33	11.46	10.12	87.0	
Q2074-04	TP-20	5	1.12	10.65	11.77	10.1	84.3	
Q2074-05	TP-38	6	1.18	10.19	11.37	9.53	81.9	
Q2074-06	TP-19	7	1.16	10.12	11.28	9.85	85.9	
Q2074-07	TP-40	8	1.14	9.89	11.03	9.96	89.2	
Q2074-08	TP-18	9	1.15	10.16	11.31	9.07	78.0	
Q2075-01	SS-10	10	1.16	10.56	11.72	9.59	79.8	
Q2075-02	SS-910	11	1.17	10.05	11.22	9.34	81.3	
Q2075-03	SS-11	12	1.18	10.51	11.69	10.37	87.4	
Q2075-04	Q2075-03MS	13	1.18	10.51	11.69	10.37	87.4	
Q2075-05	Q2075-03MSD	14	1.18	10.51	11.69	10.37	87.4	
Q2075-06	SS-MW1-11.5	15	1.14	10.00	11.14	10.24	91.0	
Q2076-01	OILY-DEBRIS	16	1.00	1.00	2.00	2.00	100.0	oily-debris
Q2080-01	PL-HRH-COMP-01	17	1.13	10.62	11.75	10.32	86.5	
Q2080-02	PL-HRH-VOC-01	18	1.17	10.22	11.39	9.6	82.5	
Q2080-03	PL-HRH-01	19	1.12	10.77	11.89	10.16	83.9	
Q2080-04	PL-HRH-02	20	1.16	10.40	11.56	9.82	83.3	
Q2080-05	PL-HRH-03	21	1.15	10.00	11.15	9.43	82.8	
Q2080-07	PL-HRH-COMP-02	22	1.19	10.46	11.65	9.62	80.6	
Q2080-08	PL-HRH-VOC-02	23	1.14	10.76	11.9	9.8	80.5	
Q2080-09	PL-HRH-04	24	1.16	10.70	11.86	9.55	78.4	
Q2080-10	PL-HRH-05	25	1.19	10.43	11.62	9.52	79.9	
Q2080-11	PL-HRH-06	26	1.13	10.74	11.87	10.2	84.5	
Q2081-01	CAULK	27	1.00	1.00	2.00	2.00	100.0	caluk

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/20/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 05/19/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:22
Out Date: 05/20/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135825

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB 135825

WorkList Name : %1-051925 **WorkList ID :** 189586 **Department :** Wet-Chemistry **Date :** 05-19-2025 08:23:15

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1984-19	OU4-TB01-050725	Solid	Percent Solids	Cool 4 deg C	NOBI03	L41	05/07/2025	Chemtech -SO
Q2074-01	TP-12	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-02	TP-7	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-03	TP-15	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-04	TP-20	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-05	TP-38	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-06	TP-19	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-07	TP-40	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2074-08	TP-18	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2075-01	SS-10	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/16/2025	Chemtech -SO
Q2075-02	SS-910	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/15/2025	Chemtech -SO
Q2075-03	SS-11	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/15/2025	Chemtech -SO
Q2075-04	Q2075-03MS	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/15/2025	Chemtech -SO
Q2075-05	Q2075-03MSD	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/15/2025	Chemtech -SO
Q2075-06	SS-MW1-11.5	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/15/2025	Chemtech -SO
Q2076-01	OILY-DEBRIS	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/16/2025	Chemtech -SO
Q2080-01	PL-HRH-COMP-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-02	PL-HRH-VOC-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-03	PL-HRH-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-04	PL-HRH-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-05	PL-HRH-03	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO

Date/Time 05-19-25 15:35

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 05-19-25 17:15

Raw Sample Received by:

Raw Sample Relinquished by:

WORKLIST(Hardcopy Internal Chain)

VB 135825

WorkList Name : %1-051925 **WorkList ID :** 189586 **Department :** Wet-Chemistry **Date :** 05-19-2025 08:23:15

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2080-07	PL-HRH-COMP-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-08	PL-HRH-VOC-02	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-09	PL-HRH-04	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-10	PL-HRH-05	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2080-11	PL-HRH-06	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/19/2025	Chemtech -SO
Q2081-01	CAULK	Solid	Percent Solids	Cool 4 deg C	ATCE02	L31	05/19/2025	Chemtech -SO

Date/Time 05.19.25 15:35

Raw Sample Received by: JP (4°C)

Raw Sample Relinquished by:

Date/Time 05.19.25 17:15

Raw Sample Received by:

Raw Sample Relinquished by: JP 4°C

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135837

Review By	MOHAN	Review On	5/20/2025 5:33:01 PM
Supervise By	jaswal	Supervise On	5/20/2025 5:34:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP85701,MP85702,MP85703,MP85704,MP85705,MP85706
ICV Standard	MP85707
CCV Standard	MP85709
ICSA Standard	
CRI Standard	MP85711
LCS Standard	
Chk Standard	MP85708,MP85710,MP85712,MP85714

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/20/25 12:43		MOHAN	OK
2	S0.2	S0.2	CAL2	05/20/25 12:45		MOHAN	OK
3	S2.5	S2.5	CAL3	05/20/25 12:48		MOHAN	OK
4	S5	S5	CAL4	05/20/25 12:50		MOHAN	OK
5	S7.5	S7.5	CAL5	05/20/25 12:52		MOHAN	OK
6	S10	S10	CAL6	05/20/25 12:55		MOHAN	OK
7	ICV12	ICV12	ICV	05/20/25 12:58		MOHAN	OK
8	ICB12	ICB12	ICB	05/20/25 13:00		MOHAN	OK
9	CCV45	CCV45	CCV	05/20/25 13:03		MOHAN	OK
10	CCB45	CCB45	CCB	05/20/25 13:05		MOHAN	OK
11	CRA	CRA	CRDL	05/20/25 13:07		MOHAN	OK
12	HighStd	HighStd	HIGH STD	05/20/25 13:09		MOHAN	OK
13	ChkStd	ChkStd	SAM	05/20/25 13:12		MOHAN	OK
14	PB168089BL	PB168089BL	MB	05/20/25 13:17		MOHAN	OK
15	PB168089BS	PB168089BS	LCS	05/20/25 13:19		MOHAN	OK
16	Q2052-01	TP-B	SAM	05/20/25 13:21		MOHAN	OK
17	Q2052-01DUP	TP-BDUP	DUP	05/20/25 13:24		MOHAN	OK
18	Q2052-01MS	TP-BMS	MS	05/20/25 13:26		MOHAN	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135837

Review By	MOHAN	Review On	5/20/2025 5:33:01 PM
Supervise By	jaswal	Supervise On	5/20/2025 5:34:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP85701,MP85702,MP85703,MP85704,MP85705,MP85706
ICV Standard	MP85707
CCV Standard	MP85709
ICSA Standard	
CRI Standard	MP85711
LCS Standard	
Chk Standard	MP85708,MP85710,MP85712,MP85714

19	Q2052-01MSD	TP-BMSD	MSD	05/20/25 13:28		MOHAN	OK
20	Q2055-01	OR-02-051525	SAM	05/20/25 13:31		MOHAN	OK
21	CCV46	CCV46	CCV	05/20/25 13:33		MOHAN	OK
22	CCB46	CCB46	CCB	05/20/25 13:35		MOHAN	OK
23	Q2057-01	MH-L	SAM	05/20/25 13:38		MOHAN	OK
24	Q2062-01	L1-WC-1	SAM	05/20/25 13:40		MOHAN	OK
25	Q2062-05	L1-WC-2	SAM	05/20/25 13:42		MOHAN	OK
26	Q2062-09	L1-WC-3	SAM	05/20/25 13:45		MOHAN	OK
27	Q2062-13	L1-WC-4	SAM	05/20/25 13:47		MOHAN	OK
28	Q2062-17	L1-WC-5	SAM	05/20/25 13:49		MOHAN	OK
29	Q2062-21	L1-WC-6	SAM	05/20/25 13:51		MOHAN	OK
30	Q2068-01	LAW-25-0075	SAM	05/20/25 13:54		MOHAN	OK
31	PB168090BL	PB168090BL	MB	05/20/25 13:56		MOHAN	OK
32	PB168090BS	PB168090BS	LCS	05/20/25 13:58		MOHAN	OK
33	CCV47	CCV47	CCV	05/20/25 14:01		MOHAN	OK
34	CCB47	CCB47	CCB	05/20/25 14:03		MOHAN	OK
35	Q2071-01	L1-WC-7	SAM	05/20/25 14:05		MOHAN	OK
36	Q2071-05	L1-WC-8	SAM	05/20/25 14:08		MOHAN	OK
37	Q2071-09	L1-WC-9	SAM	05/20/25 14:10		MOHAN	OK
38	Q2071-13	L2-WC-5	SAM	05/20/25 14:13		MOHAN	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135837

Review By	MOHAN	Review On	5/20/2025 5:33:01 PM
Supervise By	jaswal	Supervise On	5/20/2025 5:34:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP85701,MP85702,MP85703,MP85704,MP85705,MP85706
ICV Standard	MP85707
CCV Standard	MP85709
ICSA Standard	
CRI Standard	MP85711
LCS Standard	
Chk Standard	MP85708,MP85710,MP85712,MP85714

39	Q2071-17	L2-WC-6	SAM	05/20/25 14:15		MOHAN	OK
40	Q2074-01	TP-12	SAM	05/20/25 14:17		MOHAN	OK
41	Q2074-02	TP-7	SAM	05/20/25 14:20		MOHAN	OK
42	Q2074-03	TP-15	SAM	05/20/25 14:22		MOHAN	OK
43	Q2074-04	TP-20	SAM	05/20/25 14:24		MOHAN	OK
44	Q2074-05	TP-38	SAM	05/20/25 14:27		MOHAN	OK
45	CCV48	CCV48	CCV	05/20/25 14:29		MOHAN	OK
46	CCB48	CCB48	CCB	05/20/25 14:31		MOHAN	OK
47	Q2074-06	TP-19	SAM	05/20/25 14:33		MOHAN	OK
48	Q2074-07	TP-40	SAM	05/20/25 14:36		MOHAN	OK
49	Q2074-08	TP-18	SAM	05/20/25 14:38		MOHAN	OK
50	Q2074-08DUP	TP-18DUP	DUP	05/20/25 14:40		MOHAN	OK
51	Q2074-08MS	TP-18MS	MS	05/20/25 14:42		MOHAN	OK
52	Q2074-08MSD	TP-18MSD	MSD	05/20/25 14:45		MOHAN	OK
53	Q2080-01	PL-HRH-COMP-01	SAM	05/20/25 14:47		MOHAN	OK
54	Q2080-07	PL-HRH-COMP-02	SAM	05/20/25 14:49		MOHAN	OK
55	CCV49	CCV49	CCV	05/20/25 14:52		MOHAN	OK
56	CCB49	CCB49	CCB	05/20/25 14:54		MOHAN	OK
57	Q2052-01L	TP-BL	SD	05/20/25 14:56		MOHAN	OK
58	Q2052-01A	TP-BA	PS	05/20/25 14:59		MOHAN	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135837

Review By	MOHAN	Review On	5/20/2025 5:33:01 PM
Supervise By	jaswal	Supervise On	5/20/2025 5:34:50 PM

STD. NAME	STD REF.#
ICAL Standard	MP85701,MP85702,MP85703,MP85704,MP85705,MP85706
ICV Standard	MP85707
CCV Standard	MP85709
ICSA Standard	
CRI Standard	MP85711
LCS Standard	
Chk Standard	MP85708,MP85710,MP85712,MP85714

59	Q2074-08L	TP-18L	SD	05/20/25 15:01		MOHAN	OK
60	Q2074-08A	TP-18A	PS	05/20/25 15:03		MOHAN	OK
61	CCV50	CCV50	CCV	05/20/25 15:05		MOHAN	OK
62	CCB50	CCB50	CCB	05/20/25 15:08		MOHAN	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/21/25 12:05		Kareem	OK
2	S1	S1	CAL2	05/21/25 12:09		Kareem	OK
3	S2	S2	CAL3	05/21/25 12:13		Kareem	OK
4	S3	S3	CAL4	05/21/25 12:17		Kareem	OK
5	S4	S4	CAL5	05/21/25 12:22		Kareem	OK
6	S5	S5	CAL6	05/21/25 12:26		Kareem	OK
7	ICV01	ICV01	ICV	05/21/25 13:19		Kareem	OK
8	LLICV01	LLICV01	LLICV	05/21/25 13:29		Kareem	OK
9	ICB01	ICB01	ICB	05/21/25 13:36		Kareem	OK
10	CRI01	CRI01	CRDL	05/21/25 13:43		Kareem	OK
11	ICSA01	ICSA01	ICSA	05/21/25 13:52		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	05/21/25 13:56		Kareem	OK
13	ICSADL	ICSADL	ICSA	05/21/25 14:00		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	05/21/25 14:05		Kareem	OK
15	CCV01	CCV01	CCV	05/21/25 14:09		Kareem	OK
16	CCB01	CCB01	CCB	05/21/25 14:13		Kareem	OK
17	Q2068-01	LAW-25-0075	SAM	05/21/25 14:17		Kareem	OK
18	Q2067-01	303-PPR-FRAC	SAM	05/21/25 14:22		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

19	Q2068-03DL	LAW-25-0074DL	SAM	05/21/25 14:26		Kareem	OK
20	Q2065-01	VACTRUCK-728068	SAM	05/21/25 14:30	Ca High	Kareem	Dilution
21	Q2090-01	001-WILLETS-PT-BL	SAM	05/21/25 14:35		Kareem	OK
22	Q2090-02	002-35TH-AVE(APR)	SAM	05/21/25 14:39		Kareem	OK
23	Q2090-02DUP	002-35TH-AVE(APR)[	DUP	05/21/25 14:44		Kareem	OK
24	Q2090-02L	002-35TH-AVE(APR)L	SD	05/21/25 14:48		Kareem	OK
25	Q2090-02MS	002-35TH-AVE(APR)M	MS	05/21/25 14:52		Kareem	OK
26	Q2090-02MSD	002-35TH-AVE(APR)M	MSD	05/21/25 14:56		Kareem	OK
27	CCV02	CCV02	CCV	05/21/25 15:00		Kareem	OK
28	CCB02	CCB02	CCB	05/21/25 15:04		Kareem	OK
29	Q2065-01DL	VACTRUCK-728068D	SAM	05/21/25 15:09	2X For Still High	Kareem	Dilution
30	Q2090-02A	002-35TH-AVE(APR)A	PS	05/21/25 15:13		Kareem	OK
31	Q2065-01DL2	VACTRUCK-728068D	SAM	05/21/25 15:18	Bad Injection	Kareem	Not Ok
32	Q1984-05	OU4-PCS-TC-35-050	SAM	05/21/25 15:24		Kareem	OK
33	Q1984-07	OU4-TS-24-050725	SAM	05/21/25 15:28		Kareem	OK
34	Q1984-09	OU4-TS-25-050725	SAM	05/21/25 15:37		Kareem	OK
35	Q1984-11	OU4-TS-26-050725	SAM	05/21/25 15:41		Kareem	OK
36	Q1984-13	OU4-TS-27-050725	SAM	05/21/25 15:45		Kareem	OK
37	Q2065-01DL3	VACTRUCK-728068D	SAM	05/21/25 15:53	20X For Ca	Kareem	Confirms
38	Q1984-15	OU4-TS-28-050725	SAM	05/21/25 15:58		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

39	CCV03	CCV03	CCV	05/21/25 16:02		Kareem	OK
40	CCB03	CCB03	CCB	05/21/25 16:25		Kareem	OK
41	Q1984-15DUP	OU4-TS-28-050725DU	DUP	05/21/25 16:29		Kareem	OK
42	Q1984-15L	OU4-TS-28-050725L	SD	05/21/25 16:34		Kareem	OK
43	Q1984-15MS	OU4-TS-28-050725MS	MS	05/21/25 16:38		Kareem	OK
44	Q1984-15MSD	OU4-TS-28-050725MS	MSD	05/21/25 16:42		Kareem	OK
45	Q1984-15A	OU4-TS-28-050725A	PS	05/21/25 16:46		Kareem	OK
46	PB168085BL	PB168085BL	MB	05/21/25 16:51		Kareem	OK
47	PB168085BS	PB168085BS	LCS	05/21/25 17:05		Kareem	OK
48	PB168087BL	PB168087BL	MB	05/21/25 17:10		Kareem	OK
49	PB168087BS	PB168087BS	LCS	05/21/25 17:15		Kareem	OK
50	PB168086BL	PB168086BL	MB	05/21/25 17:22		Kareem	OK
51	CCV04	CCV04	CCV	05/21/25 17:27		Kareem	OK
52	CCB04	CCB04	CCB	05/21/25 17:32		Kareem	OK
53	PB168086BS	PB168086BS	LCS	05/21/25 17:37		Kareem	OK
54	PB168107BL	PB168107BL	MB	05/21/25 17:41		Kareem	OK
55	PB168107BS	PB168107BS	LCS	05/21/25 17:45		Kareem	OK
56	PB168067TB	PB168067TB	MB	05/21/25 17:49		Kareem	OK
57	Q2071-04	L1-WC-7	SAM	05/21/25 17:53		Kareem	OK
58	Q2071-08	L1-WC-8	SAM	05/21/25 17:58		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

59	Q2071-12	L1-WC-9	SAM	05/21/25 18:02		Kareem	OK
60	Q2071-16	L2-WC-5	SAM	05/21/25 18:07		Kareem	OK
61	Q2071-20	L2-WC-6	SAM	05/21/25 18:11		Kareem	OK
62	CCV05	CCV05	CCV	05/21/25 18:16		Kareem	OK
63	CCB05	CCB05	CCB	05/21/25 18:20		Kareem	OK
64	Q2080-06	PL-HRH-COMP-01	SAM	05/21/25 18:24		Kareem	OK
65	Q2080-12	PL-HRH-COMP-02	SAM	05/21/25 18:29		Kareem	OK
66	Q2080-12DUP	PL-HRH-COMP-02DU	DUP	05/21/25 18:33		Kareem	OK
67	Q2080-12L	PL-HRH-COMP-02L	SD	05/21/25 18:37		Kareem	OK
68	Q2080-12MS	PL-HRH-COMP-02MS	MS	05/21/25 18:42		Kareem	OK
69	Q2080-12MSD	PL-HRH-COMP-02MS	MSD	05/21/25 18:46		Kareem	OK
70	Q2080-12A	PL-HRH-COMP-02A	PS	05/21/25 18:50		Kareem	OK
71	Q2070-01	CONCRETE-PAD-051	SAM	05/21/25 18:54		Kareem	OK
72	Q2071-01	L1-WC-7	SAM	05/21/25 18:59		Kareem	OK
73	CCV06	CCV06	CCV	05/21/25 19:08		Kareem	OK
74	CCB06	CCB06	CCB	05/21/25 19:16		Kareem	OK
75	Q2071-05	L1-WC-8	SAM	05/21/25 19:20		Kareem	OK
76	Q2071-09	L1-WC-9	SAM	05/21/25 19:24		Kareem	OK
77	Q2071-13	L2-WC-5	SAM	05/21/25 19:28		Kareem	OK
78	Q2071-17	L2-WC-6	SAM	05/21/25 19:32		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

79	Q2074-01	TP-12	SAM	05/21/25 19:36		Kareem	OK
80	Q2074-02	TP-7	SAM	05/21/25 19:41		Kareem	OK
81	Q2074-03	TP-15	SAM	05/21/25 19:45		Kareem	OK
82	Q2074-04	TP-20	SAM	05/21/25 19:49		Kareem	OK
83	Q2074-05	TP-38	SAM	05/21/25 19:53		Kareem	OK
84	CCV07	CCV07	CCV	05/21/25 19:57		Kareem	OK
85	CCB07	CCB07	CCB	05/21/25 20:02		Kareem	OK
86	Q2074-06	TP-19	SAM	05/21/25 20:06		Kareem	OK
87	Q2074-07	TP-40	SAM	05/21/25 20:10		Kareem	OK
88	Q2074-08	TP-18	SAM	05/21/25 20:14		Kareem	OK
89	Q2080-01	PL-HRH-COMP-01	SAM	05/21/25 20:19	Qc Missing	Kareem	Not Ok
90	Q2080-07	PL-HRH-COMP-02	SAM	05/21/25 20:23		Kareem	OK
91	Q2084-01	OR-640-COMP-66	SAM	05/21/25 20:27		Kareem	OK
92	Q2084-01DUP	OR-640-COMP-66DU	DUP	05/21/25 20:31	Wrong Qc Analyzed	Kareem	Not Ok
93	Q2084-01L	OR-640-COMP-66L	SD	05/21/25 20:35	Wrong Qc Analyzed	Kareem	Not Ok
94	Q2084-01MS	OR-640-COMP-66MS	MS	05/21/25 20:39	Wrong Qc Analyzed	Kareem	Not Ok
95	CCV08	CCV08	CCV	05/21/25 20:43		Kareem	OK
96	CCB08	CCB08	CCB	05/21/25 20:48		Kareem	OK
97	Q2084-01MSD	OR-640-COMP-66MS	MSD	05/21/25 20:52	CCV09 Na Fail , Wrong Qc Analyzed	Kareem	Not Ok

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135868

Review By	Janvi	Review On	5/22/2025 2:51:30 PM
Supervise By	jaswal	Supervise On	5/22/2025 2:52:47 PM

STD. NAME	STD REF.#
ICAL Standard	MP85545,MP85552,MP85549,MP85548,MP85547,MP85546
ICV Standard	MP85553
CCV Standard	MP85556
ICSA Standard	MP85554,MP85555
CRI Standard	MP85552
LCS Standard	
Chk Standard	MP85557,MP85558

98	Q2084-01A	OR-640-COMP-66A	PS	05/21/25 20:56	CCV09 Na Fail , Wrong Qc Analyzed	Kareem	Not Ok
99	Q2072-01	MW-2	SAM	05/21/25 21:00	CCV09 Na Fail	Kareem	Not Ok
100	Q2072-02	MW-3	SAM	05/21/25 21:04	CCV09 Na Fail	Kareem	Not Ok
101	Q2072-03	MW-4	SAM	05/21/25 21:08	CCV09 Na Fail	Kareem	Not Ok
102	Q2072-04	MW-6	SAM	05/21/25 21:13	CCV09 Na Fail	Kareem	Not Ok
103	Q2072-04DUP	MW-6DUP	DUP	05/21/25 21:17	CCV09 Na Fail	Kareem	Not Ok
104	Q2072-04L	MW-6L	SD	05/21/25 21:21	CCV09 Na Fail	Kareem	Not Ok
105	Q2072-04MS	MW-6MS	MS	05/21/25 21:25	CCV09 Na Fail	Kareem	Not Ok
106	CCV09	CCV09	CCV	05/21/25 21:29	Na Fail	Kareem	OK
107	CCB09	CCB09	CCB	05/21/25 21:34		Kareem	OK
108	Q2072-04MSD	MW-6MSD	MSD	05/21/25 21:38	CCV09 Na Fail	Kareem	Not Ok
109	Q2072-04A	MW-6A	PS	05/21/25 21:42	CCV09 Na Fail	Kareem	Not Ok
110	Q2072-05	FB	SAM	05/21/25 21:46	CCV09 Na Fail	Kareem	Not Ok
111	CCV10	CCV10	CCV	05/21/25 21:50		Kareem	OK
112	CCB10	CCB10	CCB	05/21/25 21:54		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135892

Review By	Review On
Supervise By	Supervise On

STD. NAME	STD REF.#
ICAL Standard	
ICV Standard	
CCV Standard	
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	05/22/25 14:20		Jaswal	OK
2	S1	S1	CAL2	05/22/25 14:25		Jaswal	OK
3	S2	S2	CAL3	05/22/25 14:29		Jaswal	OK
4	S3	S3	CAL4	05/22/25 14:33		Jaswal	OK
5	S4	S4	CAL5	05/22/25 14:37		Jaswal	OK
6	S5	S5	CAL6	05/22/25 14:42		Jaswal	OK
7	ICV01	ICV01	ICV	05/22/25 15:00		Jaswal	OK
8	LLICV01	LLICV01	LLICV	05/22/25 15:16		Jaswal	OK
9	ICB01	ICB01	ICB	05/22/25 15:20		Jaswal	OK
10	CRI01	CRI01	CRDL	05/22/25 15:30		Jaswal	OK
11	ICSA01	ICSA01	ICSA	05/22/25 15:34		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	05/22/25 15:39		Jaswal	OK
13	ICSADL	ICSADL	ICSA	05/22/25 15:43		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	05/22/25 15:47		Jaswal	OK
15	CCV01	CCV01	CCV	05/22/25 15:51		Jaswal	OK
16	CCB01	CCB01	CCB	05/22/25 15:55		Jaswal	OK
17	Q2080-01	PL-HRH-COMP-01	SAM	05/22/25 16:00		Jaswal	OK
18	Q2080-01DUP	PL-HRH-COMP-01DU	DUP	05/22/25 16:05		Jaswal	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135892

Review By	Review On
Supervise By	Supervise On

STD. NAME	STD REF.#
ICAL Standard	
ICV Standard	
CCV Standard	
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	

19	Q2080-01L	PL-HRH-COMP-01L	SD	05/22/25 16:09		Jaswal	OK
20	Q2080-01MS	PL-HRH-COMP-01MS	MS	05/22/25 16:13		Jaswal	OK
21	Q2080-01MSD	PL-HRH-COMP-01MS	MSD	05/22/25 16:17		Jaswal	OK
22	Q2080-01A	PL-HRH-COMP-01A	PS	05/22/25 16:21		Jaswal	OK
23	PB168113BL	PB168113BL	MB	05/22/25 16:25		Jaswal	OK
24	PB168113BS	PB168113BS	LCS	05/22/25 16:29		Jaswal	OK
25	PB168106BL	PB168106BL	MB	05/22/25 16:33		Jaswal	OK
26	CCV02	CCV02	CCV	05/22/25 16:38		Jaswal	OK
27	CCB02	CCB02	CCB	05/22/25 16:43		Jaswal	OK
28	PB168106BS	PB168106BS	LCS	05/22/25 16:49		Jaswal	OK
29	PB168117BL	PB168117BL	MB	05/22/25 16:53		Jaswal	OK
30	PB168117BS	PB168117BS	LCS	05/22/25 16:57		Jaswal	OK
31	Q2078-03	WC-A4-04-C	SAM	05/22/25 17:01		Jaswal	OK
32	Q2078-07	WC-A4-05-C	SAM	05/22/25 17:06		Jaswal	OK
33	Q2078-11	WC-A1-06A-C	SAM	05/22/25 17:10		Jaswal	OK
34	Q2078-15	WC-A1-07A-C	SAM	05/22/25 17:14		Jaswal	OK
35	Q2078-19	WC-A4-06-C	SAM	05/22/25 17:19		Jaswal	OK
36	Q2079-03	WC-A2-01-C	SAM	05/22/25 17:23		Jaswal	OK
37	CCV03	CCV03	CCV	05/22/25 17:28		Jaswal	OK
38	CCB03	CCB03	CCB	05/22/25 17:32		Jaswal	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135892

Review By	Review On
Supervise By	Supervise On

STD. NAME	STD REF.#
ICAL Standard	
ICV Standard	
CCV Standard	
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	

39	Q2079-07	WC-A2-02-C	SAM	05/22/25 17:36		Jaswal	OK
40	Q2079-11	WC-A2-03-C	SAM	05/22/25 17:41		Jaswal	OK
41	Q2084-05	OR-640-COMP-66	SAM	05/22/25 17:45		Jaswal	OK
42	Q2087-01	NB-07-05202025	SAM	05/22/25 17:49		Jaswal	OK
43	Q2087-03	NB-08-05202025	SAM	05/22/25 17:54		Jaswal	OK
44	Q2014-08	MOO-25-0145	SAM	05/22/25 17:58	Prep not assing	Jaswal	Not Ok
45	Q2092-02	VNJ-202	SAM	05/22/25 18:02		Jaswal	OK
46	Q2093-02	SOIL-DRUM	SAM	05/22/25 18:07		Jaswal	OK
47	Q2094-06	COMP-1	SAM	05/22/25 18:11		Jaswal	OK
48	CCV04	CCV04	CCV	05/22/25 19:08		Jaswal	OK
49	CCB04	CCB04	CCB	05/22/25 19:12		Jaswal	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : Q2074

Test : Mercury,Metals ICP-TAL

Prepbatch ID : PB168087,PB168090,

Sequence ID/Qc Batch ID: LB135837,LB135868,LB135868,LB135892,

Standard ID :
MP84041,MP85241,MP85243,MP85545,MP85546,MP85547,MP85548,MP85549,MP85551,MP85552,MP85553,MP855
54,MP85555,MP85556,MP85557,MP85558,MP85700,MP85701,MP85702,MP85703,MP85704,MP85705,MP85706,MP
85707,MP85708,MP85709,MP85710,MP85711,MP85712,MP85713,MP85714,

Chemical ID :
M4251,M4583,M4916,M5062,M5429,M5466,M5467,M5470,M5471,M5581,M5658,M5747,M5748,M5751,M5798,M5799
,M5800,M5801,M5811,M5814,M5815,M5816,M5817,M5820,M5875,M5882,M5884,M5942,M5959,M5962,M5970,M5985
,M5997,M6005,M6016,M6021,M6023,M6028,M6030,M6032,M6058,M6076,M6077,M6125,M6126,M6127,M6128,M613
7,M6138,M6142,M6144,M6145,M6146,M6150,M6151,M6152,M6155,M6158,M6159,M6161,W3112,

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP84041	01/14/2025	07/14/2025	Eman Mughal	None	None	Sarabjit Jaswal 01/16/2025

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP85241	04/16/2025	10/16/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP85243	04/16/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/29/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4251 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85545	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6158 = Final Quantity: 2500.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP85546	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 5.00000ml of M5466 + 5.00000ml of M5471 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M5997 + 5.00000ml of M6076 + 5.00000ml of M6146 + 455.00000ml of MP85545 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85547	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85548	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of MP85546 + 75.00000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP85549	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 16.00000ml of MP85546 + 184.00000ml of MP85545 = Final Quantity: 200.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85551	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.05000ml of M6159 + 0.06000ml of M5747 + 0.10000ml of M5471 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6145 + 0.25000ml of M5466 + 0.25000ml of M6146 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5942 + 1.00000ml of M6127 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 2.00000ml of M5816 + 89.29000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP85552	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 2.00000ml of MP85551 + 98.00000ml of MP85545 = Final Quantity: 100.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85553	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5467 + 0.25000ml of M5470 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.32500ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP85554	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85545 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85555	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 0.01000ml of M5815 + 0.01000ml of M5817 + 0.10000ml of M5470 + 0.10000ml of M5970 + 0.10000ml of M6077 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.68000ml of MP85545 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP85556	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 50.00000ml of MP85545 + 50.00000ml of MP85546 = Final Quantity: 100.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85557	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6158 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP85558	05/02/2025	06/02/2025	Janvi Patel	METALS_SCALE_3 (M SC-3)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 05/07/2025

FROM 200.00000ml of M6158 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85700	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85701	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85702	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85700 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85703	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85700 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85704	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85700 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85705	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85700 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85706	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85700 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85707	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 2.50000ml of M6161 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85708	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85709	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85700 = Final Quantity: 500.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP85710	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6158 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85711	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85700 = Final Quantity: 250.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85712	05/19/2025	05/20/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 05/22/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP85700 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
887	AQUA REGIA FOR HG ON 7471A	MP85713	05/19/2025	05/20/2025	Mohan Bera	None	None	Sarabjit Jaswal 05/22/2025

FROM 150.00000ml of M6151 + 50.00000ml of M6158 = Final Quantity: 200.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP85714	05/20/2025	05/21/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 05/22/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	12/19/2018 / mohan	12/05/2018 / mohan	M4251

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Labpure	0919120 / Boiling Stones	26275770	07/07/2025	07/03/2020 / mohan	05/07/2020 / mohan	M4583

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5470

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	04/14/2025 / jaswal	03/16/2023 / jaswal	M5471

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	03/20/2026	03/20/2025 /	06/12/2023 / jaswal	M5581

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	12/21/2027	02/03/2025 / JANVI	02/22/2024 / kareem	M5997

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/30/2026	04/15/2025 / JANVI	05/14/2024 / Jaswal	M6005

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	10/30/2025	04/30/2025 / mohan	05/14/2024 / Jaswal	M6016

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	05/25/2025	11/26/2024 / Eman	11/22/2024 / Eman	M6125

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	06/20/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	07/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

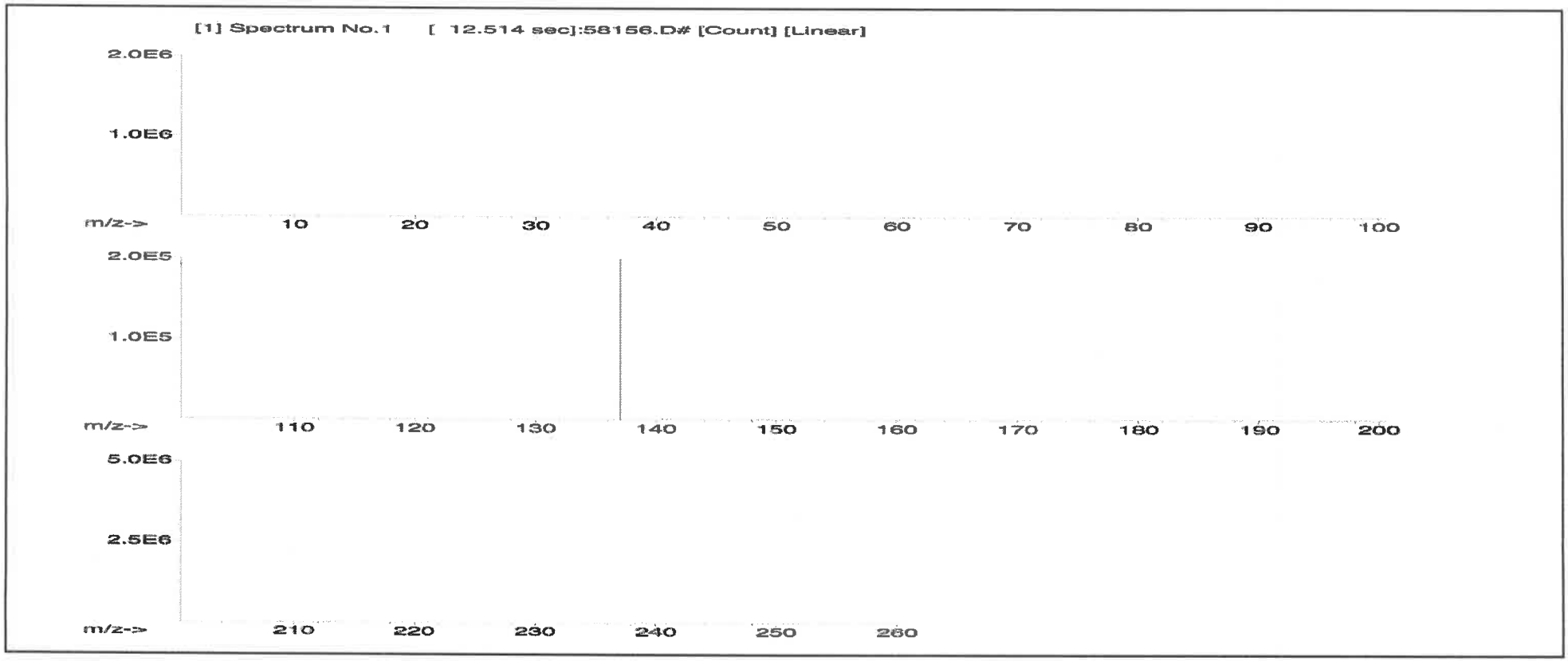
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

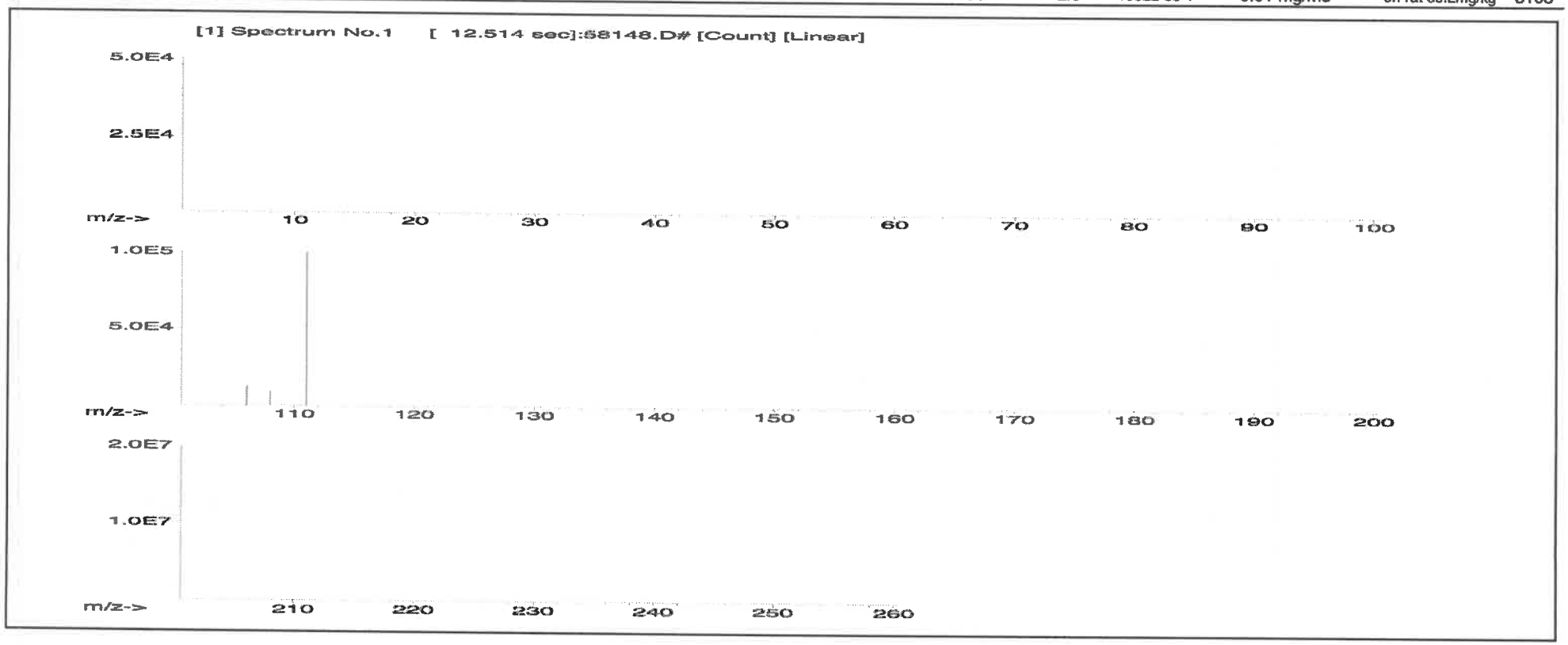
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

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
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
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
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
V	IC 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

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 27, 2022

- 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 27, 2027**

- 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

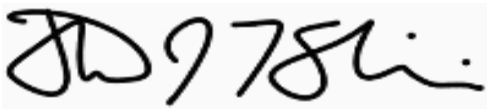
- Sealed TCT Bag Open Date: _____

- 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:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

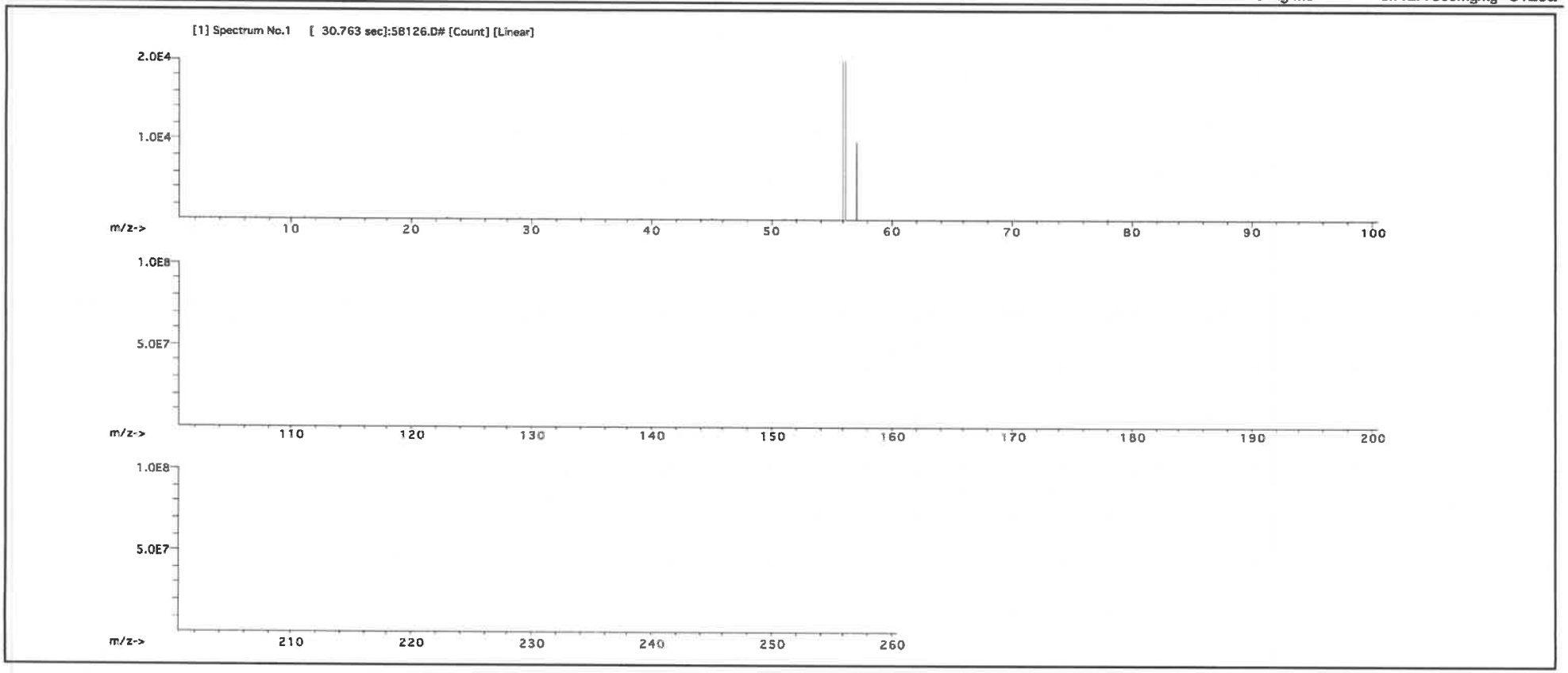
Expiration Date: 051526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
	5.0%	250.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

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).

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
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
Ce	ICP Assay	3110	090504
Ce	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
Hg	ICP Assay	3133	160921
Hg	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	Traceable to 3152A	S2-NA700842
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	IC 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

August 30, 2022

- 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 30, 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

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).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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

March 17, 2023

- 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 17, 2028

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

M4251
JB

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

M45 P3
Expd Dt. 5 7 24
MB

SAINT-GOBAIN

Manufacturer:
Saint-Gobain Performance Plastics
11 Sicho Drive
Poestenkill, NY 12140

Certificate of Conformance

Part Number/ Revision:	D1069103 0	**Customer Part Number/ Revision:**	1069103 N/A
Description:	*PTFE BOILING STONES-450 GRAMS		
Lot Number:	26275770	**Lot Quantity:**	10 EA
Date of Manufacture (MM/DD/YY)	03/23/20	**Expiration Date: (MM/DD/YY)**	N/A
Post Processing Run Number: (Refer to the attached Certificate for Additional Detail)		N/A	

We certify the material listed above confirms in full with the following specifications:

All items have been manufactured, inspected, tested, and accepted in accordance with our Quality Management system, ISO 9001-2015. Documentation substantiating this certification is kept on record per the Company's retention policy and is available for review.
All materials and processes used in manufacturing conform to the materials and/or manufacturing specifications and notes indicated on the purchase order, drawing, specifications, quality assurance requirements, or other applicable documents effective on the date of manufacture.
Saint-Gobain does not warrant the product for any particular application and it is the responsibility of the user to conduct tests that are deemed necessary to determine the suitability of the product for any particular use. Saint-Gobain's sole responsibility shall be for failure to manufacture the product in accordance with specifications and requirements of the buyer, and from defects in material and workmanship. This warranty is expressly made in lieu of any and all other warranties and Saint-Gobain's sole liability shall be to replace any product not in conformance with the specification and requirements of the buyer.

Quality Approval:	Jonathan Kimble	**Date:**	05/13/20

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 (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		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	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		0.000007	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		0.000020	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		0.000001	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		0.000009	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 HNO_3. 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% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); 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

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 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 22, 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 Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5429 R1 01/26/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

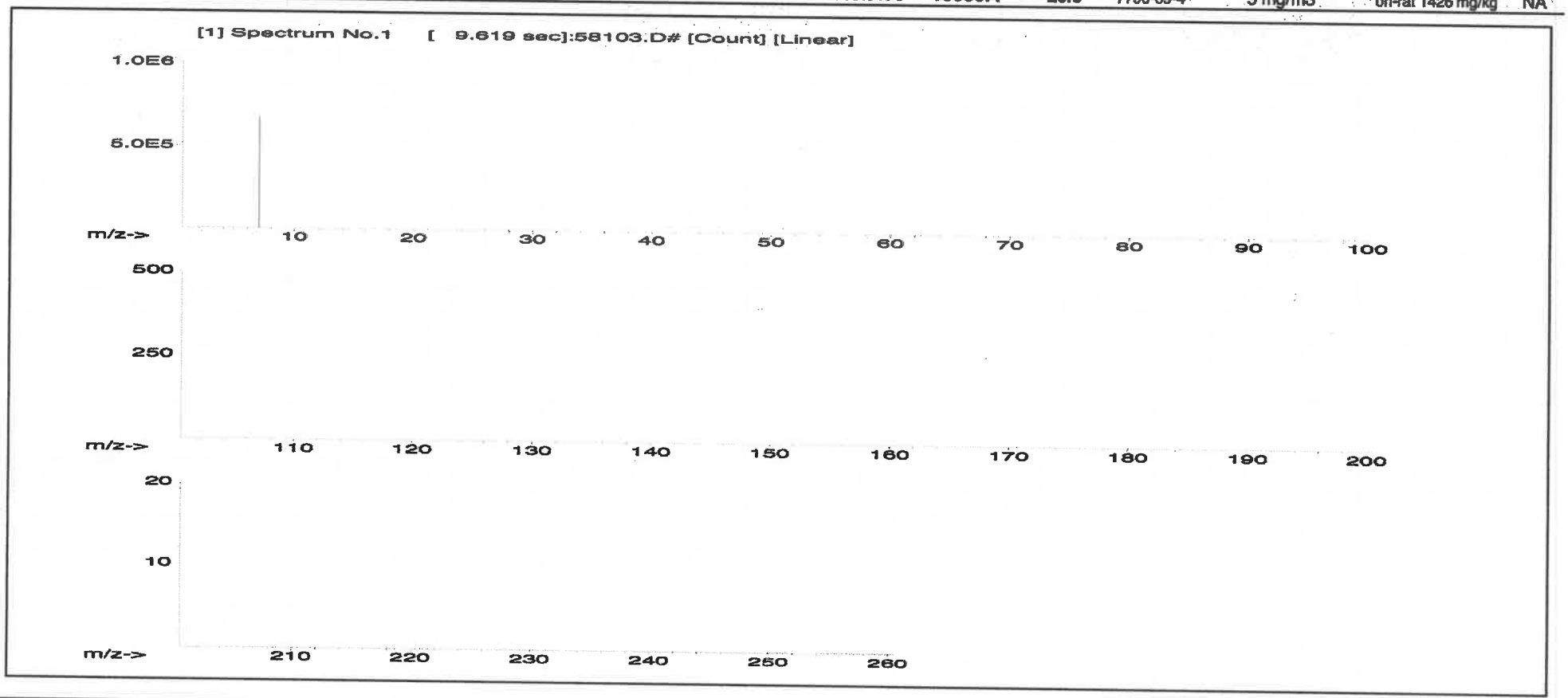
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

IN 5466
R: 03/01/23 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

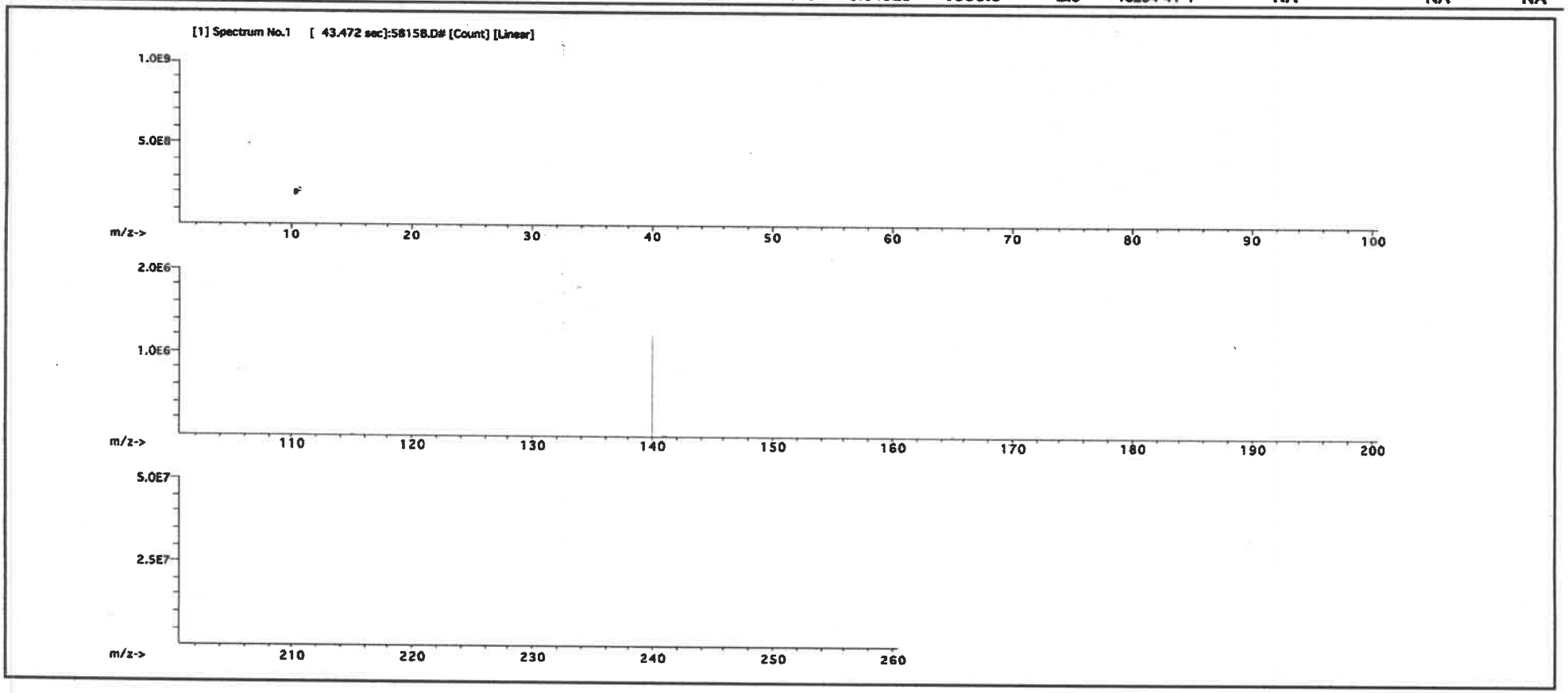
Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #	
Solvent:	20510011	Nitric Acid
2%	20.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

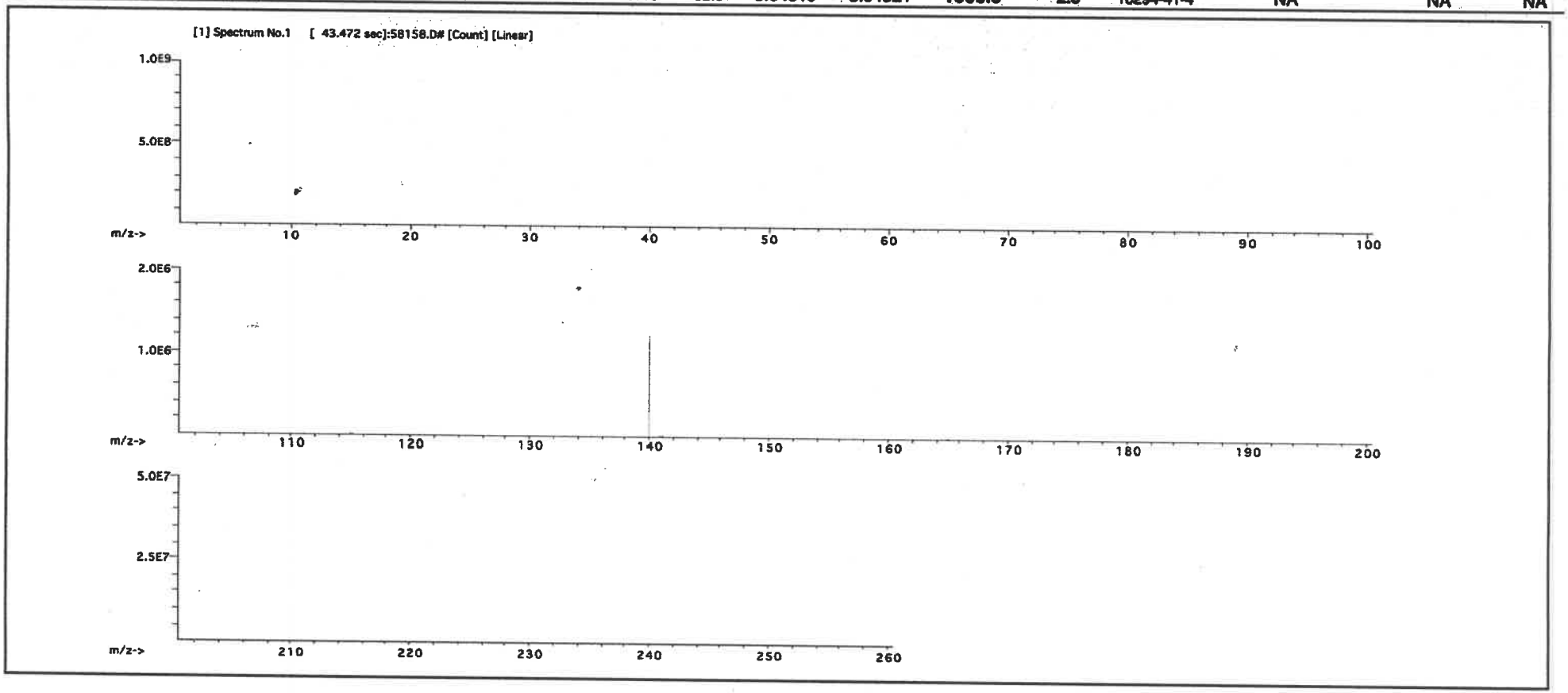
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

RD: 06/12/2023, M5581, M5582, M5583, M5584, M5585

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
CATALOG NO.	BOI5021-450L
PRODUCT DESCRIPTION:	BOILING STONES, TFE, 454GMS
QUANTITY:	10 EACH
LOT NO.	W126678
SPECIFICATION (S):	Made from Virgin PTFE Resin

We certify that we have complied with the terms and conditions of the above Purchase Order and the Part Specifications in the manufacturing of the above product.

Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-68118-BOI5021-061223

3773 NW 126th Avenue • Coral Springs, Florida 33065 • Fax (954) 344-2008 • 1-800 446-3781
Email: jensen@jenseninert.com Visit our Web Site at www.jenseninert.com

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

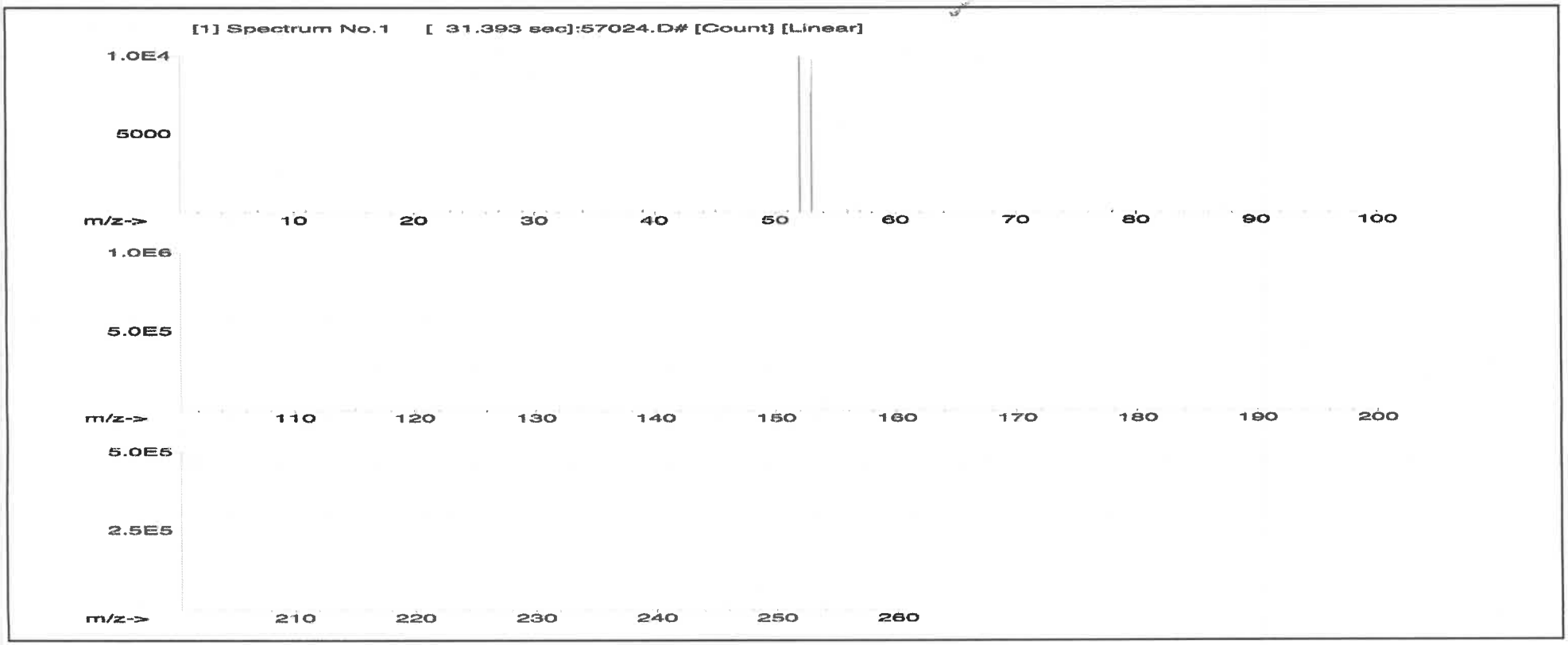
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5747

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

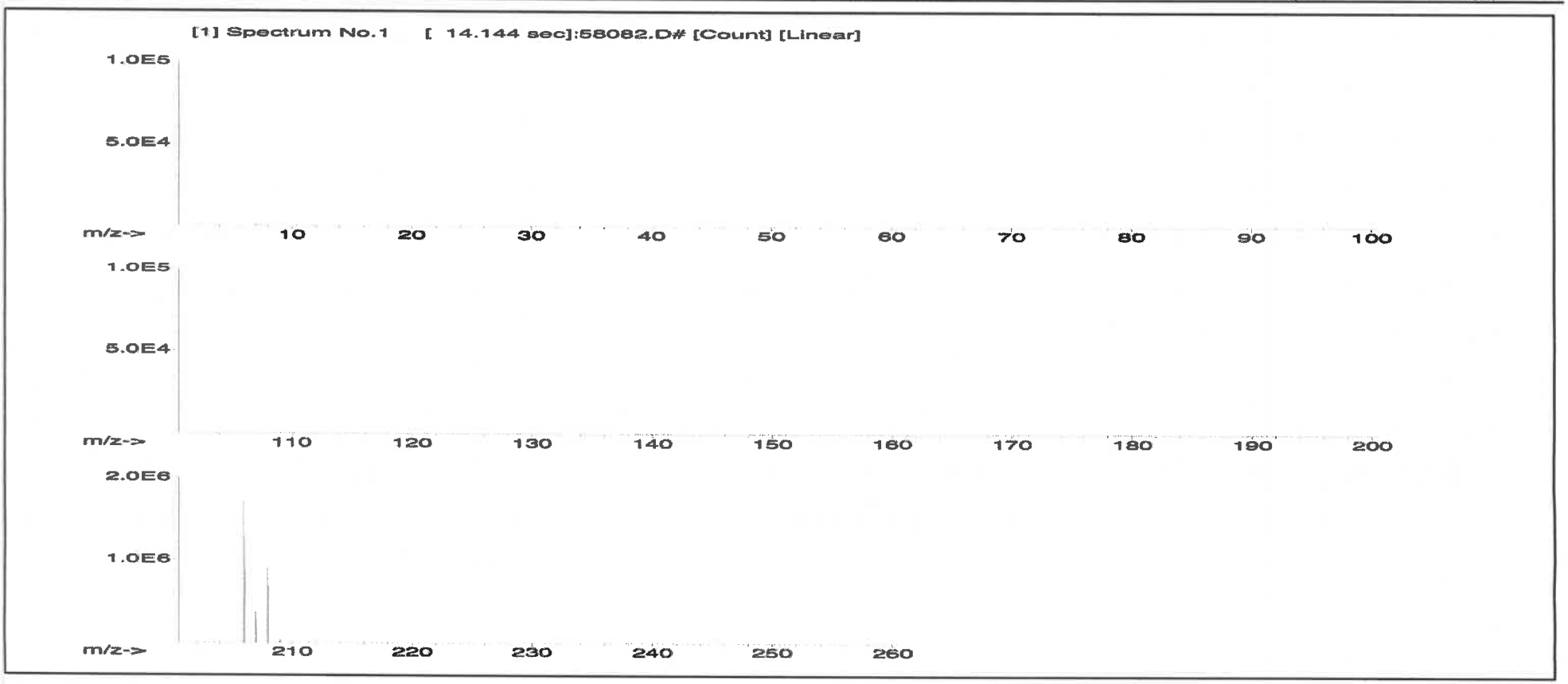
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5748

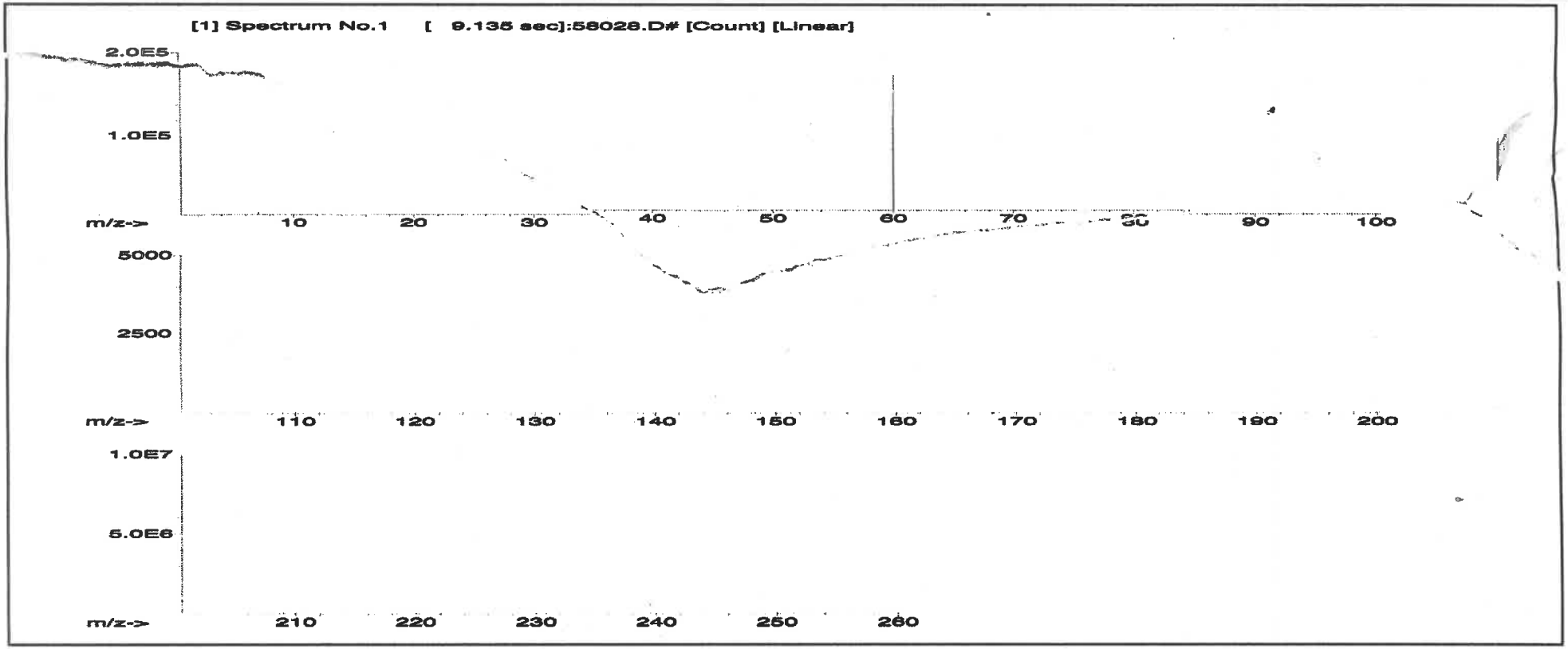
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	**2.2**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/25/23 M5751

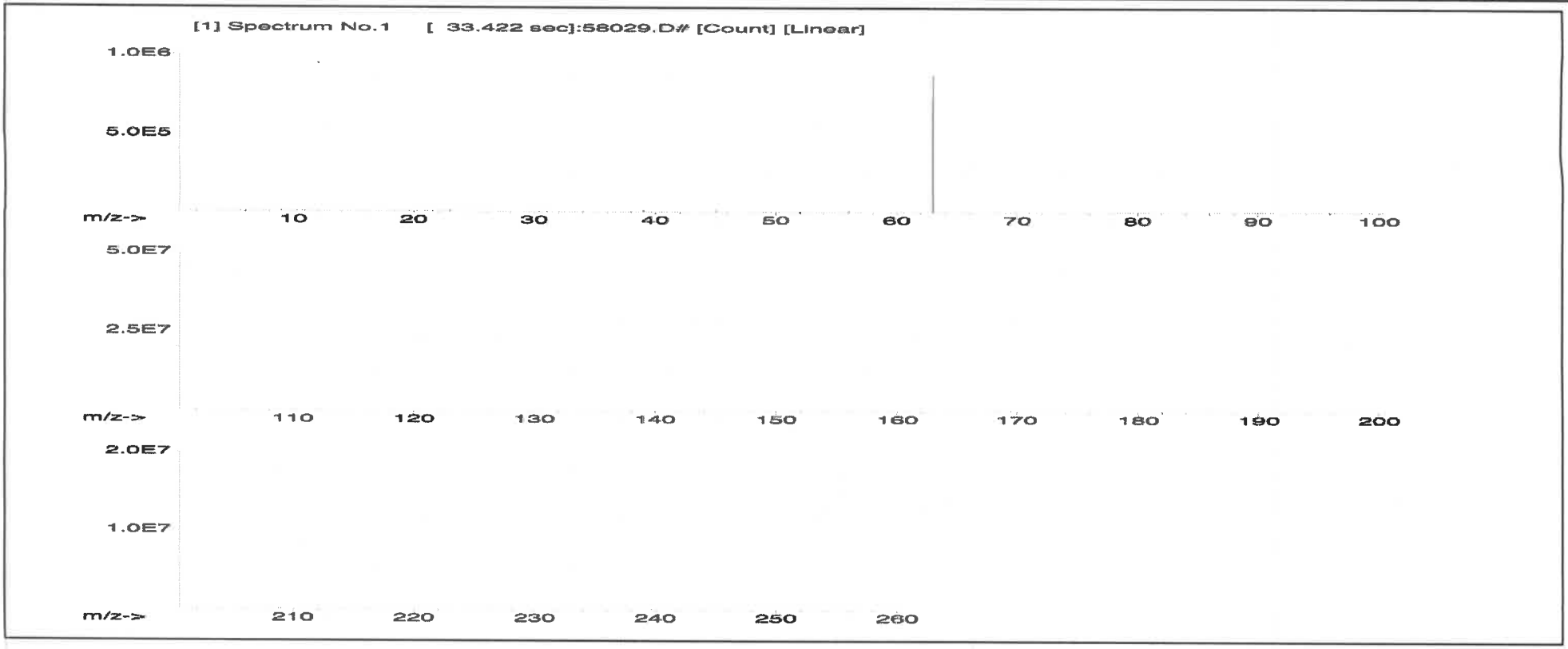
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5798

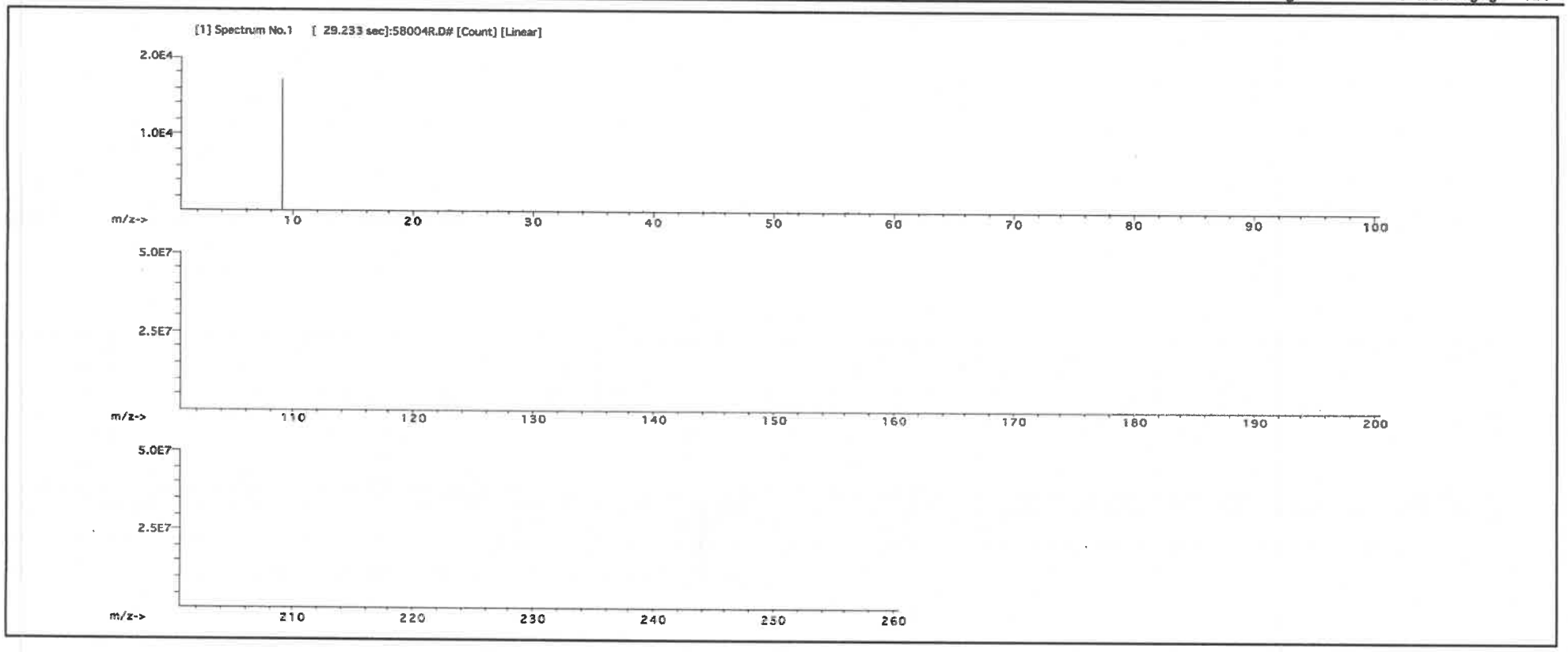
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R? 02/09/24 IV15799

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

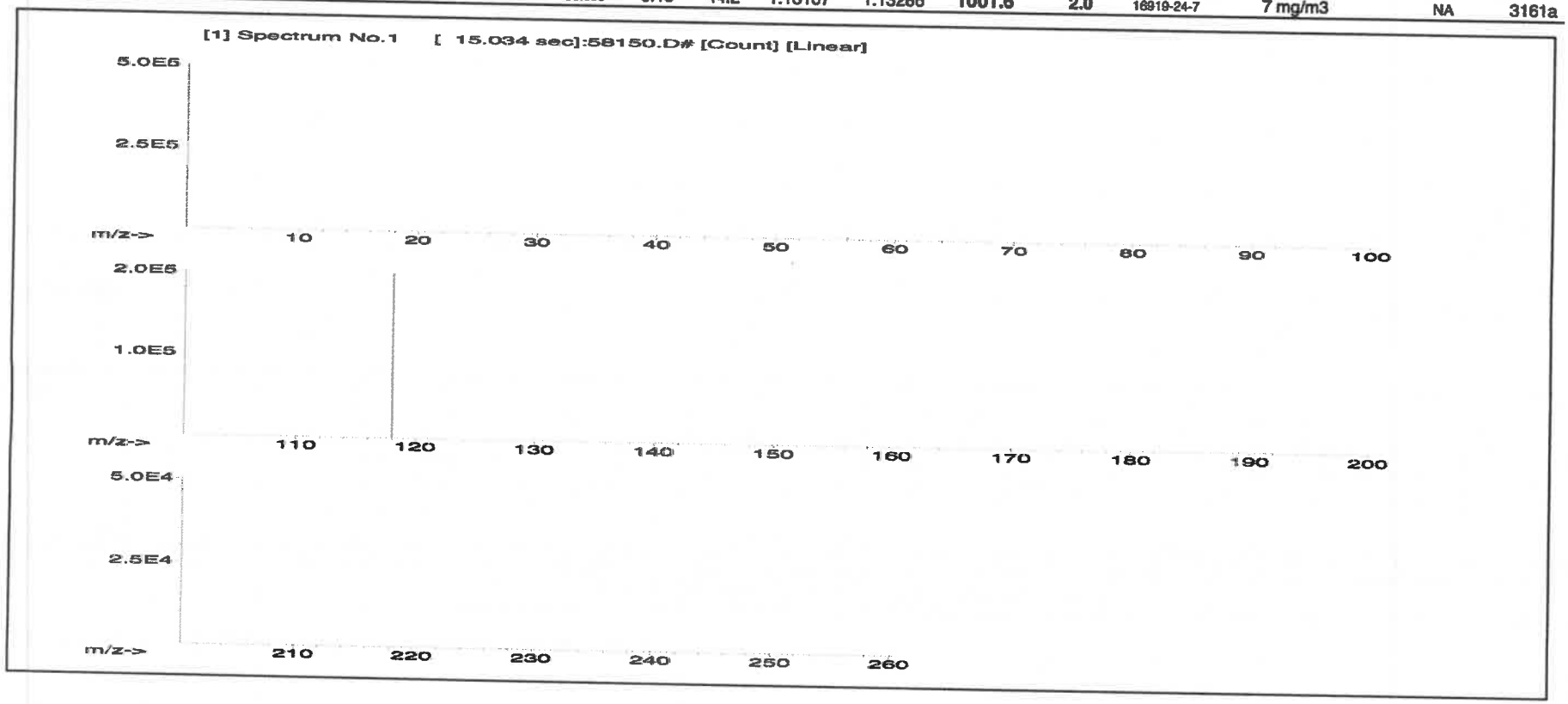
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 IM5800 BH

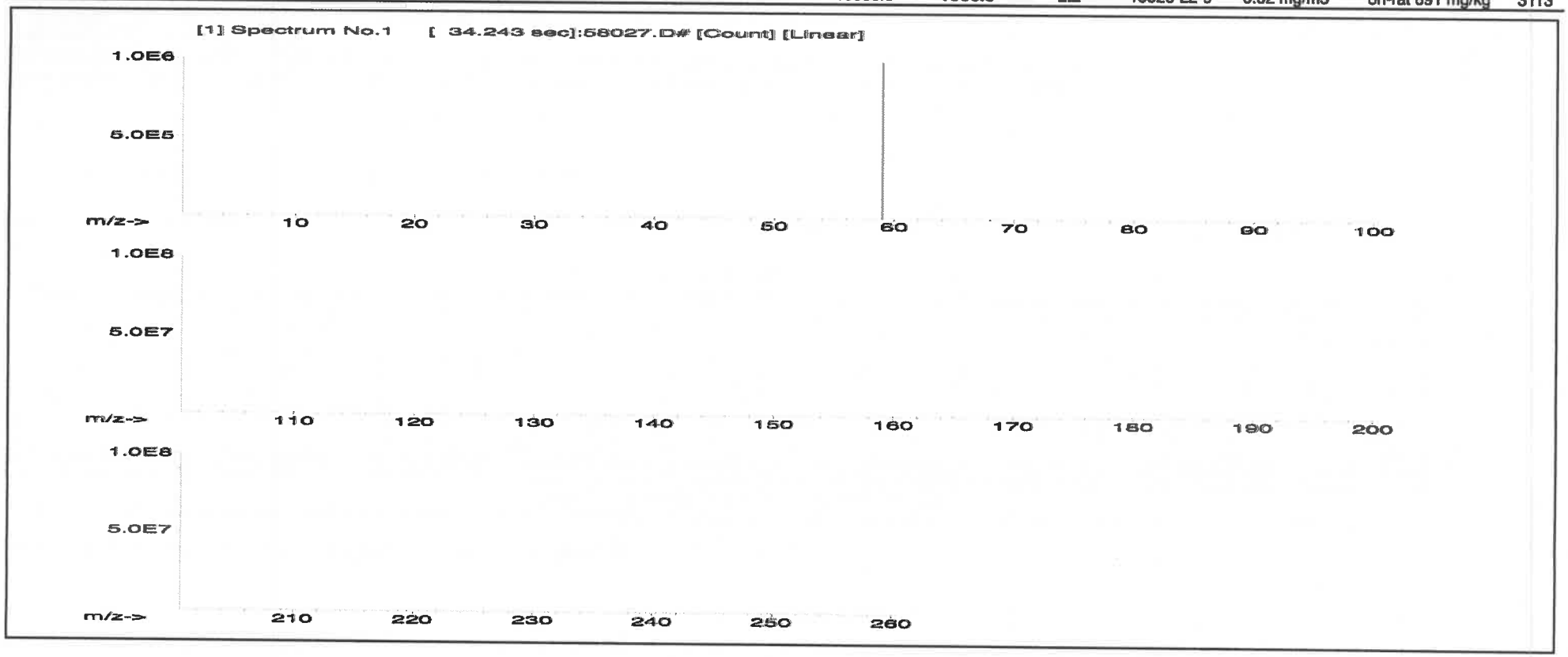
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 IM5801 BH

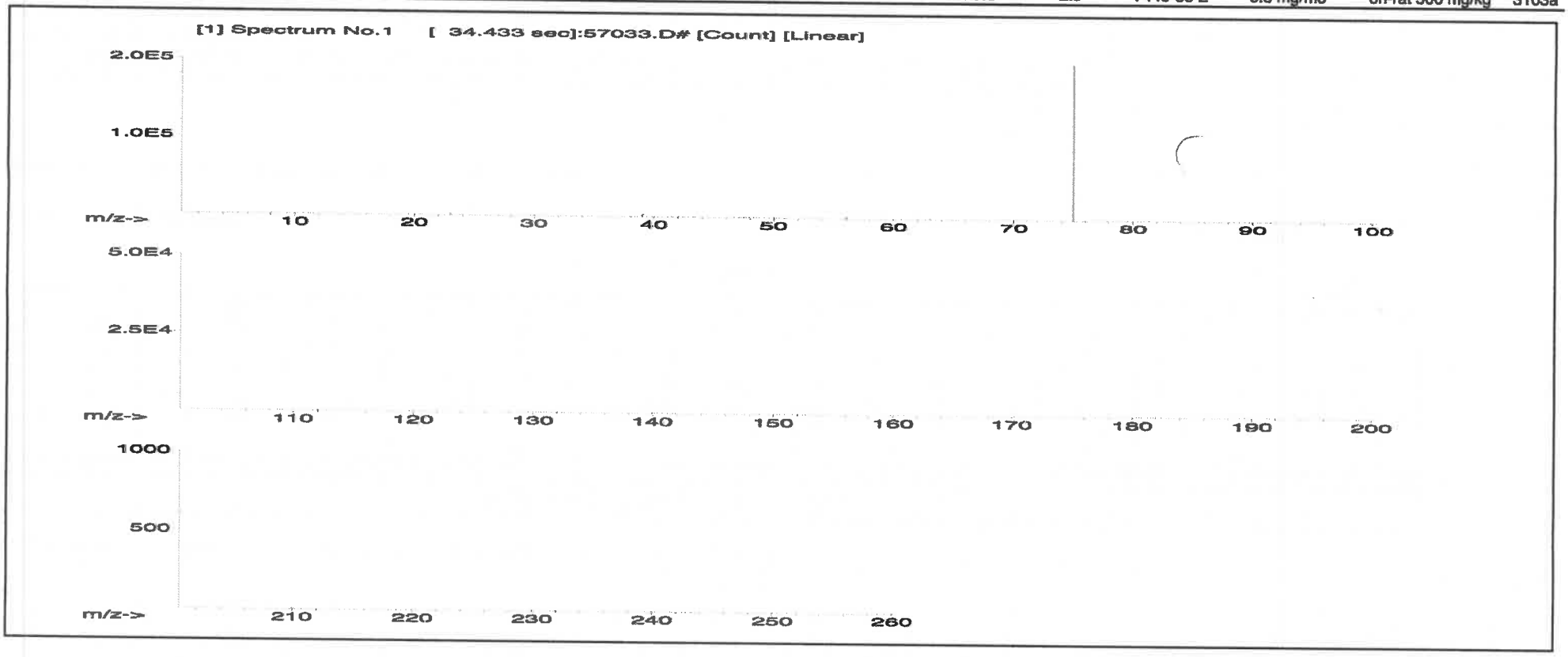
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

A: 02/09/24 M.5814

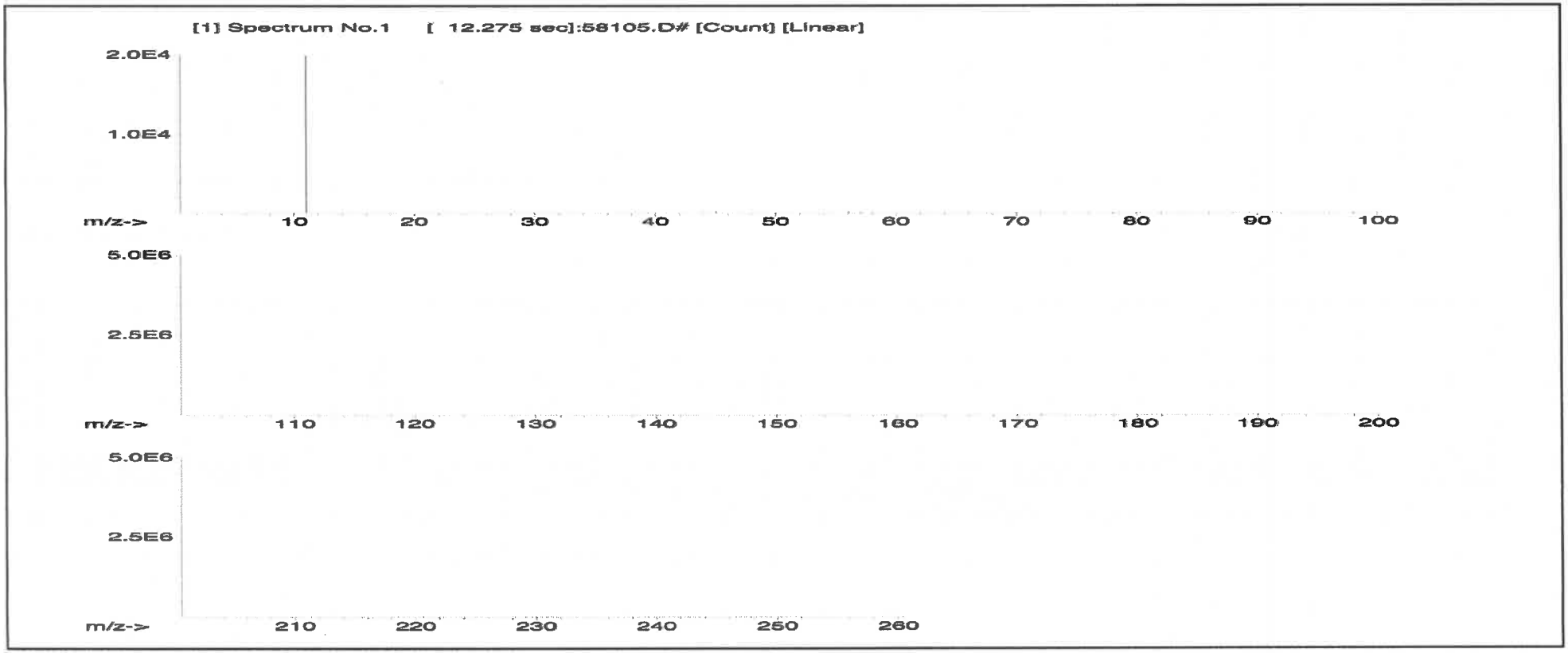
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R1 02/09/24. M58165

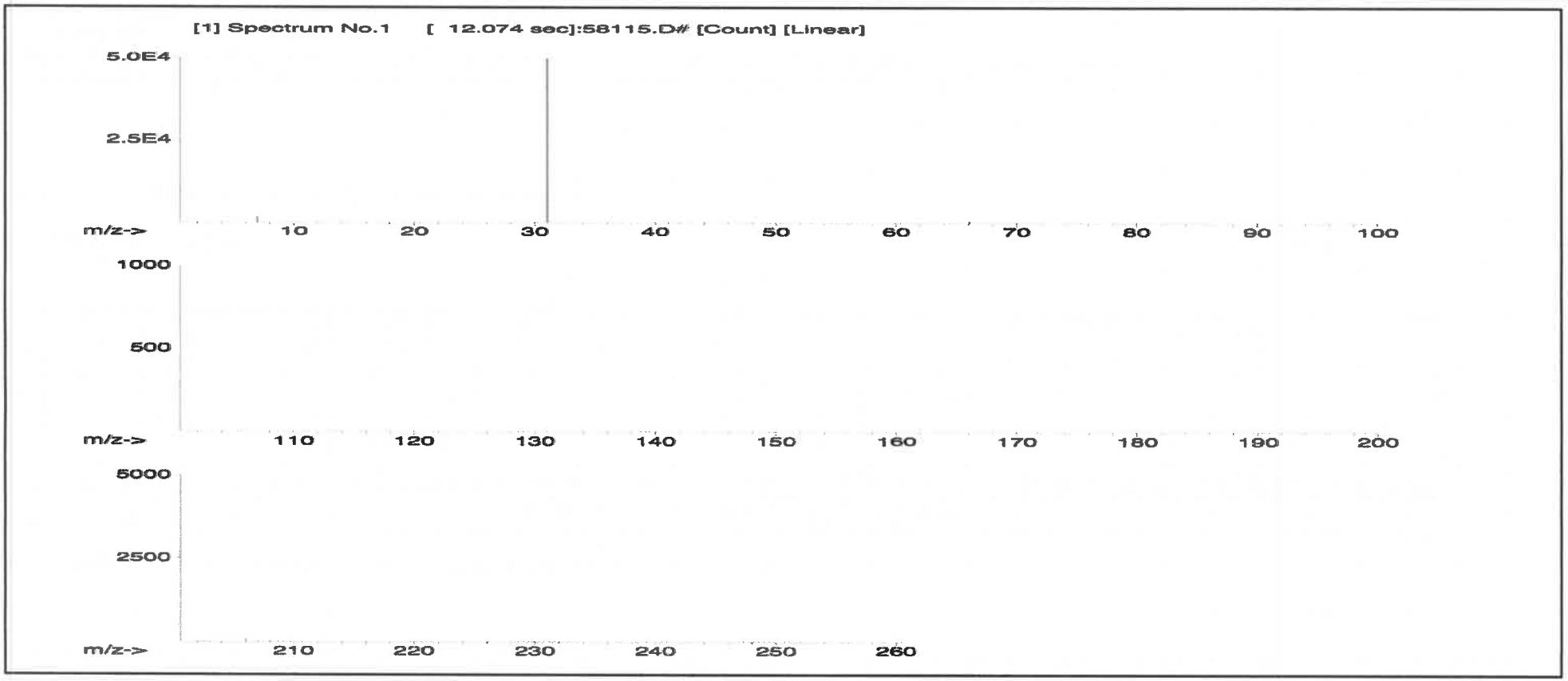
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5816

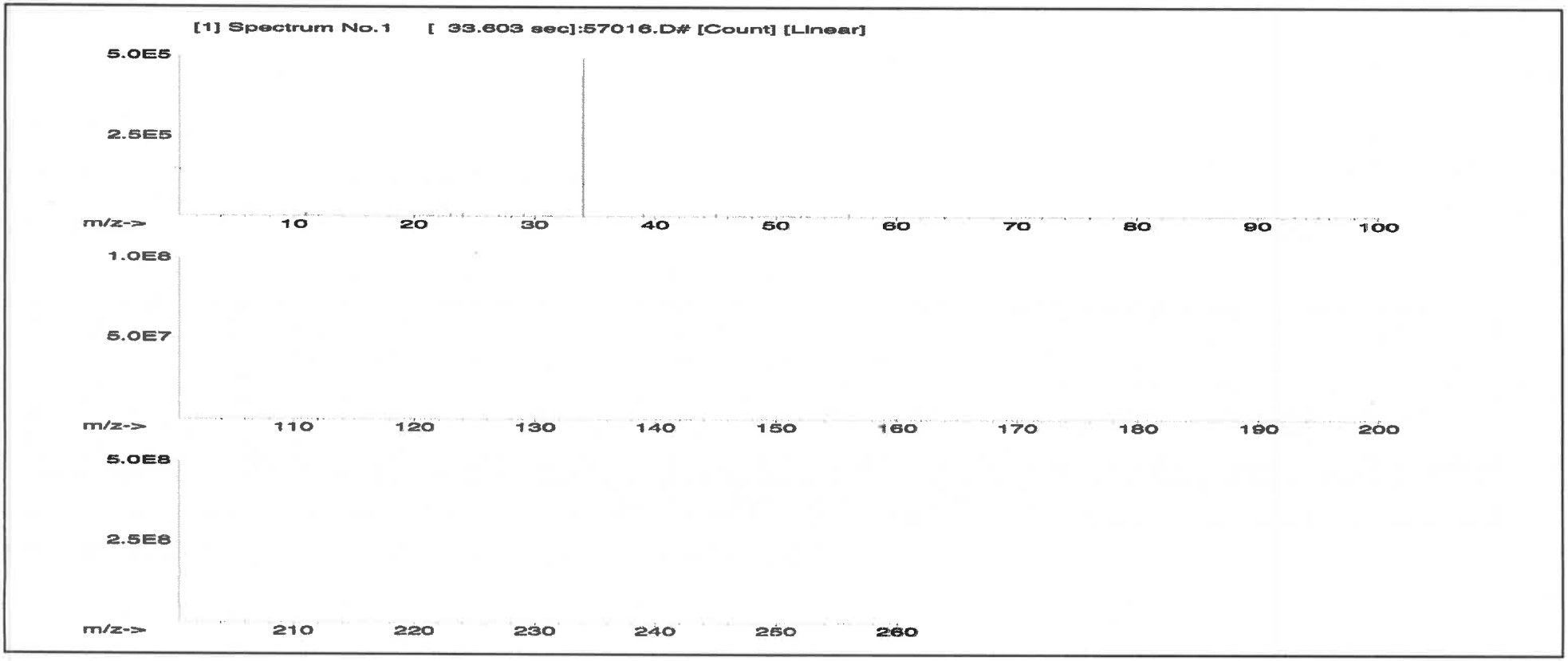
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5817

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

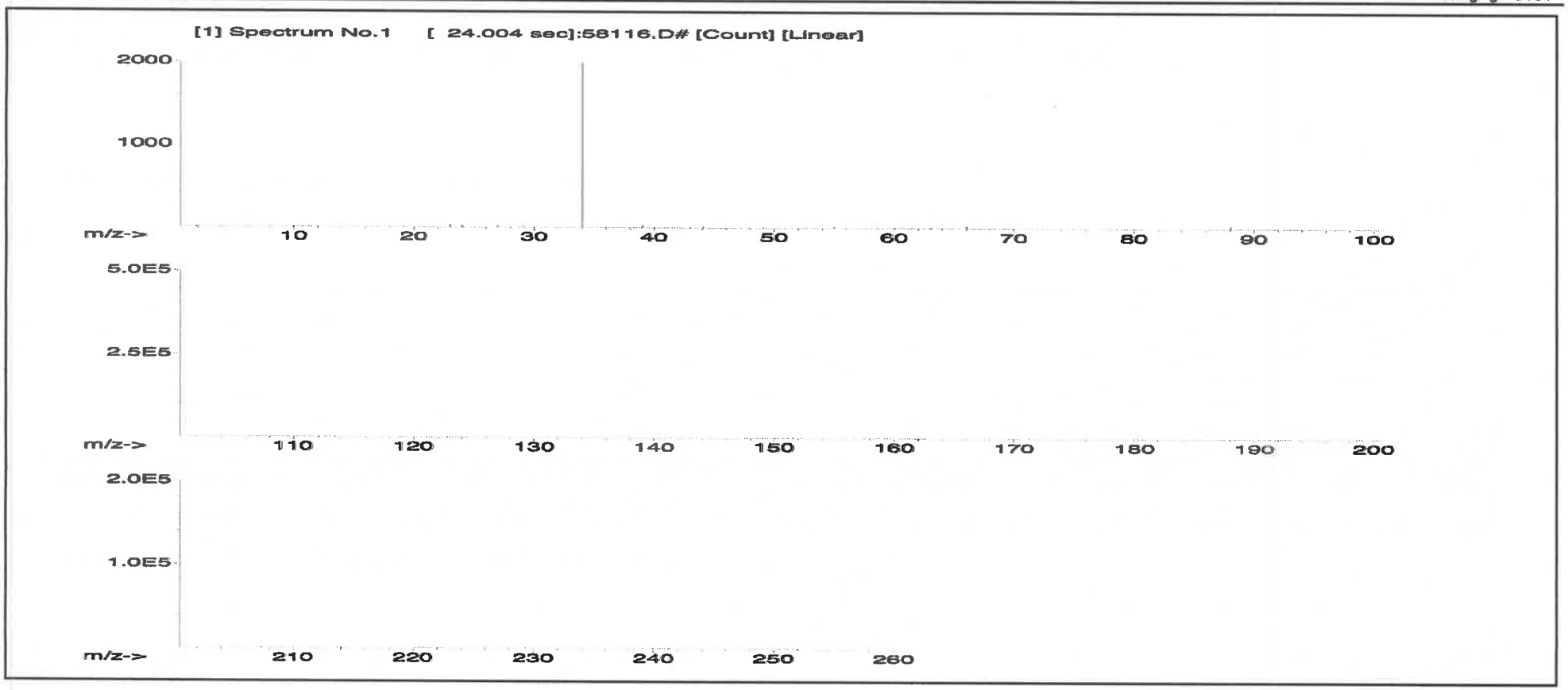
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5820

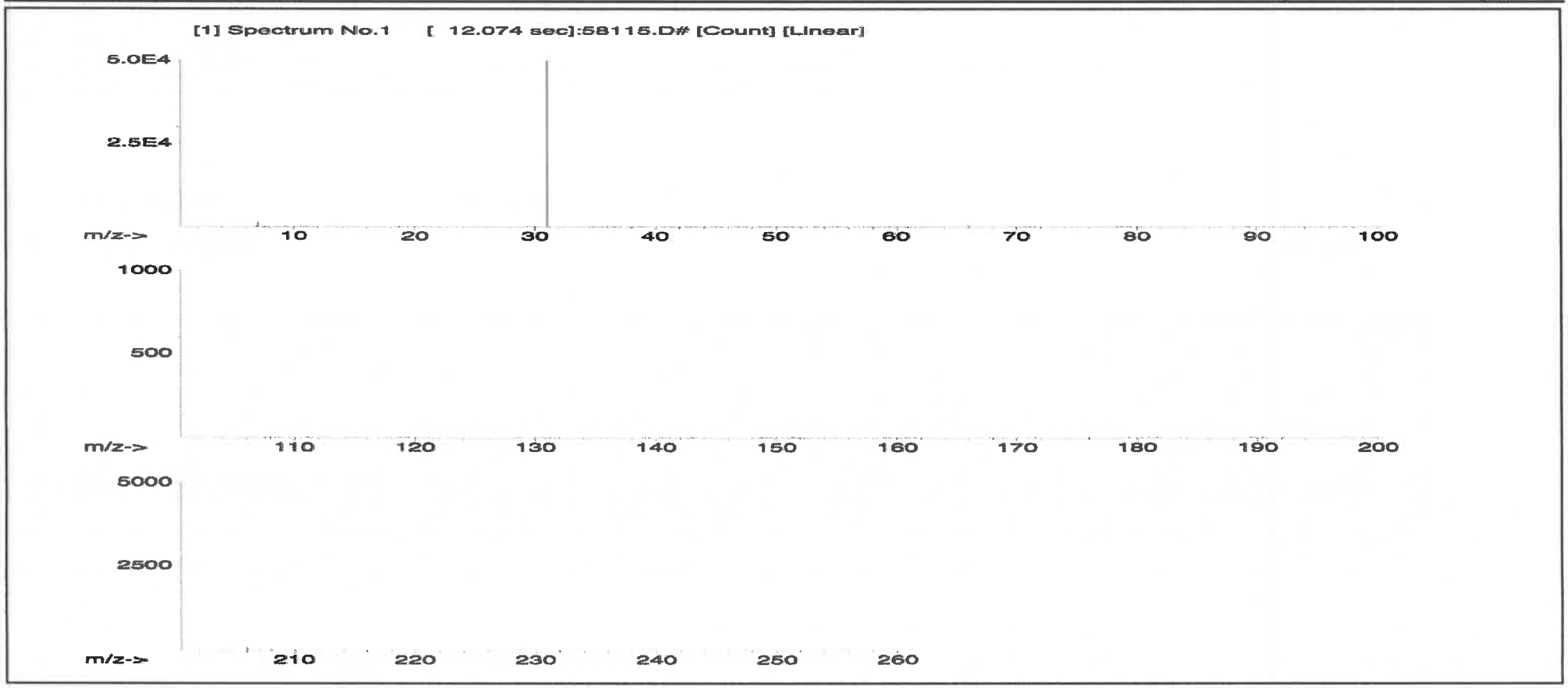
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 02/22/24 M5942

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

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 - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

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 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

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

June 17, 2022

- 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 17, 2027**

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

M5959 R: 6/14/24.

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).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 (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	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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 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 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
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

February 20, 2024

- 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 20, 2029

- 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 Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

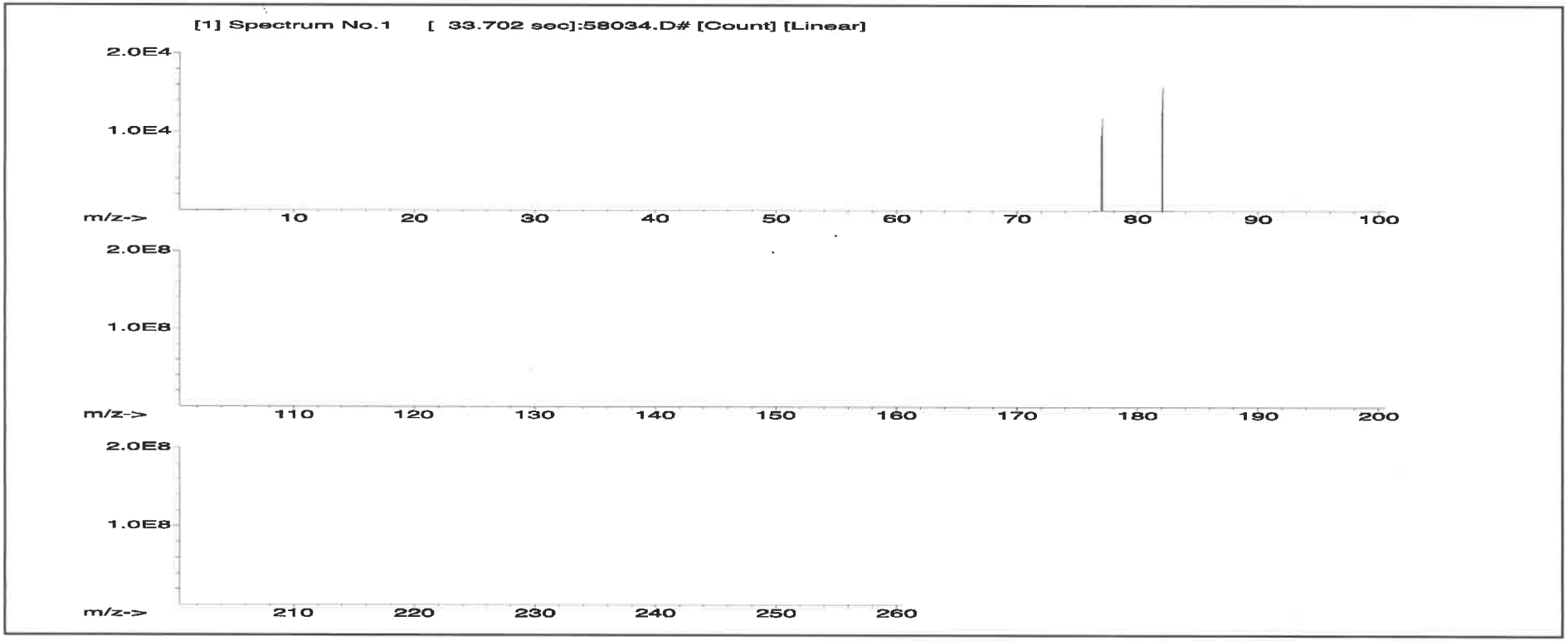
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

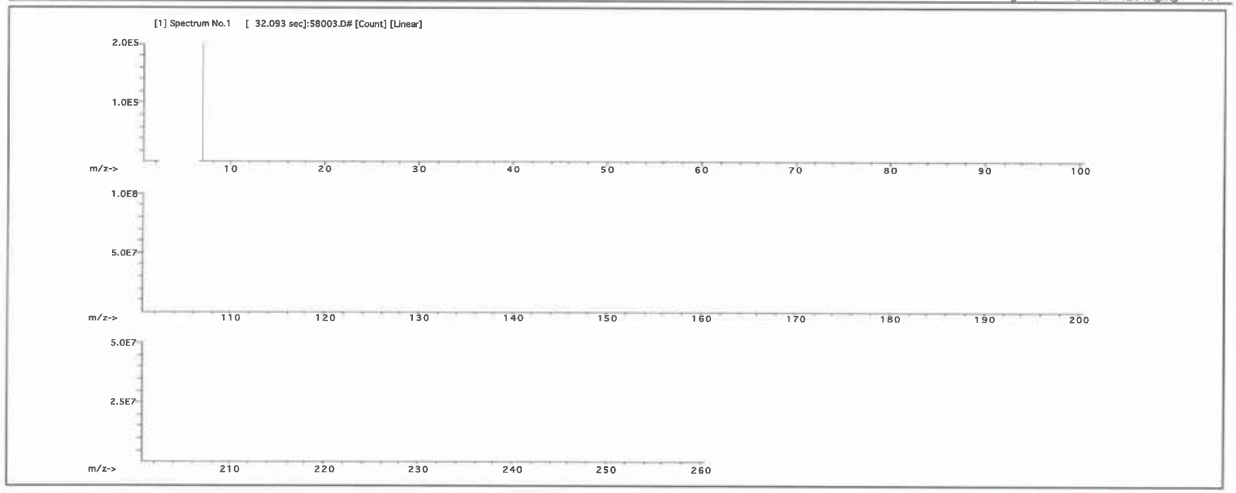
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

MS985
R: 6/14/24

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).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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 - 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 Pt0 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/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

February 21, 2023

- 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 21, 2028

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R: 2/22/24
MS-997

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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

December 21, 2022

- 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 21, 2027

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

R! 08/22/24 M6058, M6059

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO_3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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

August 12, 2024

- 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 12, 2029

- 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:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 5 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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

September 06, 2024

- 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 06, 2029

- 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:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 5 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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

September 06, 2024

- 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 06, 2029

- 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:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

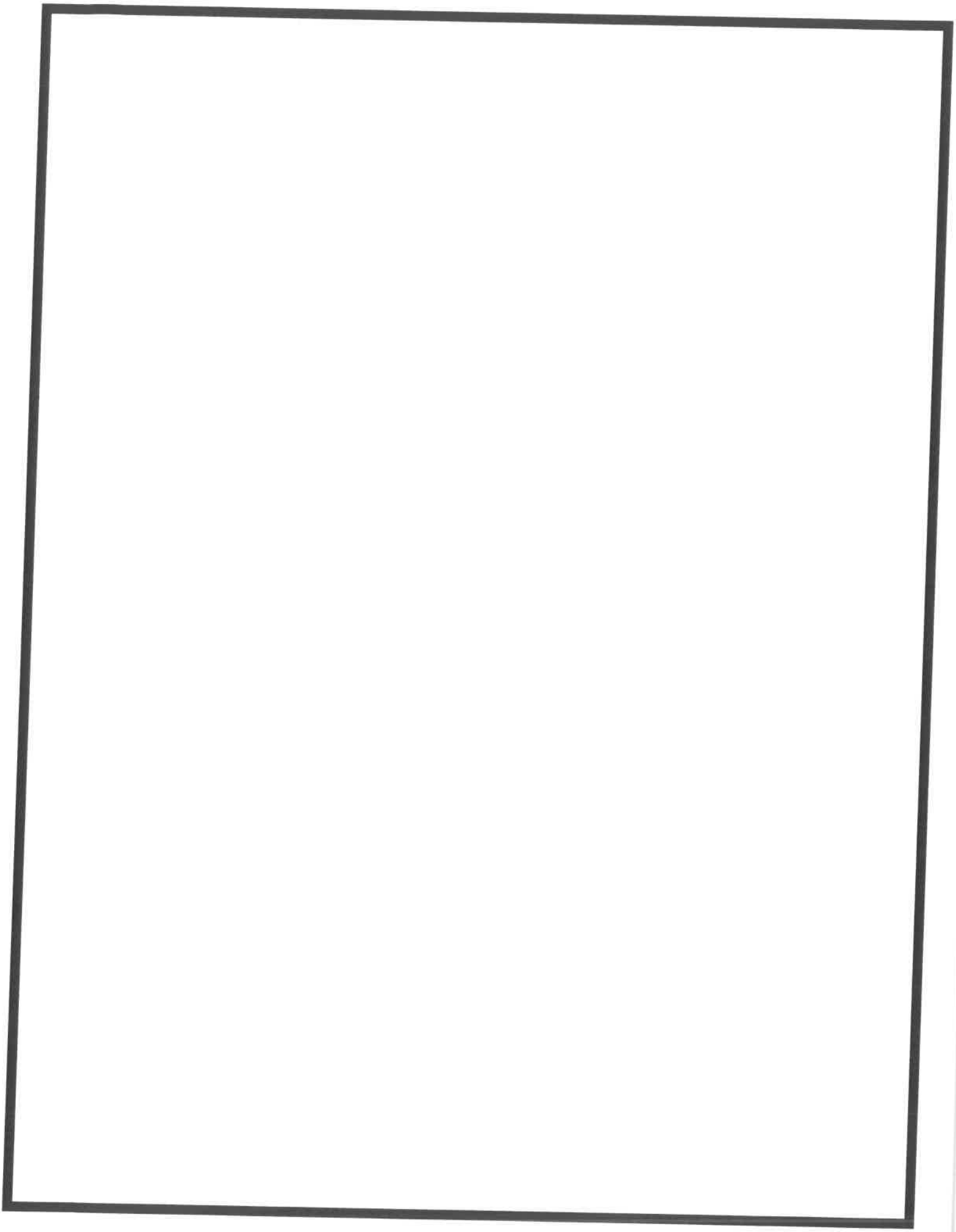
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R -> 1/13/25

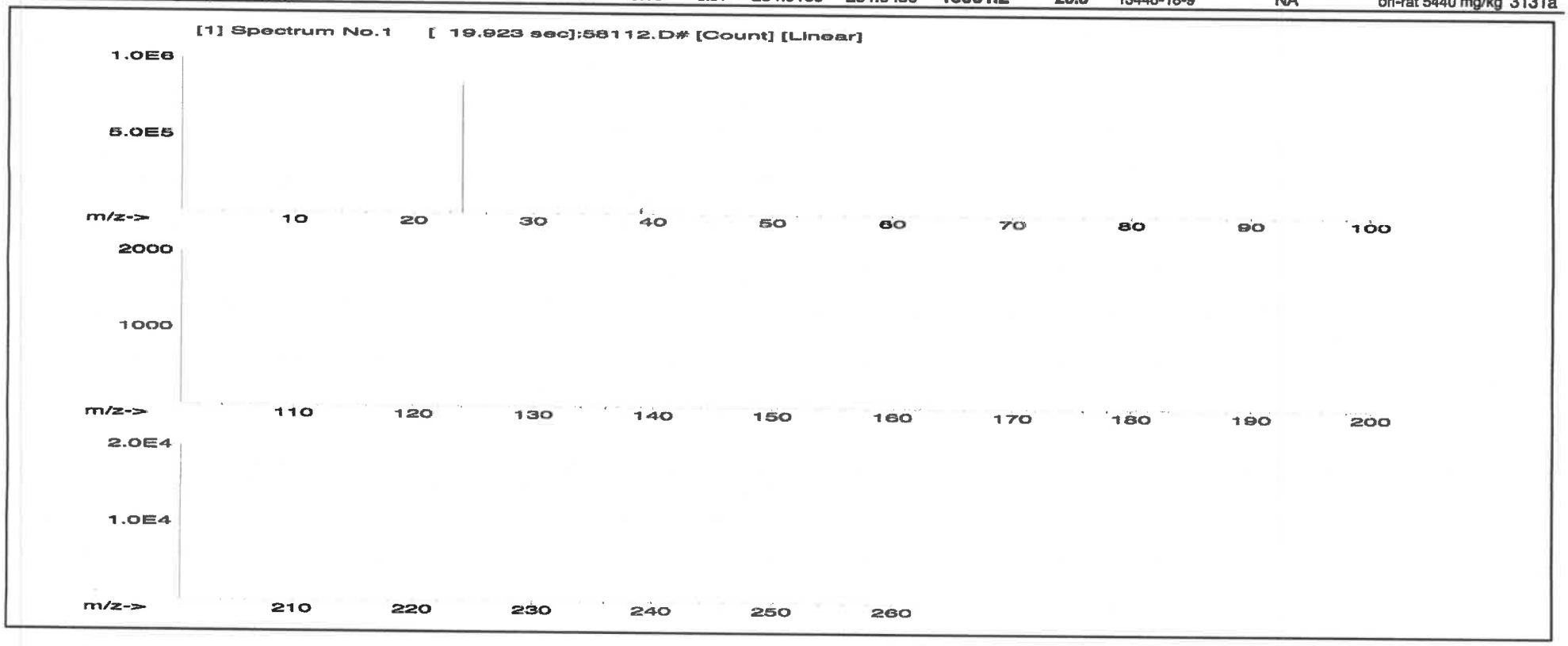
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	24012496	Nitric Acid
Lot Number:	**112124**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

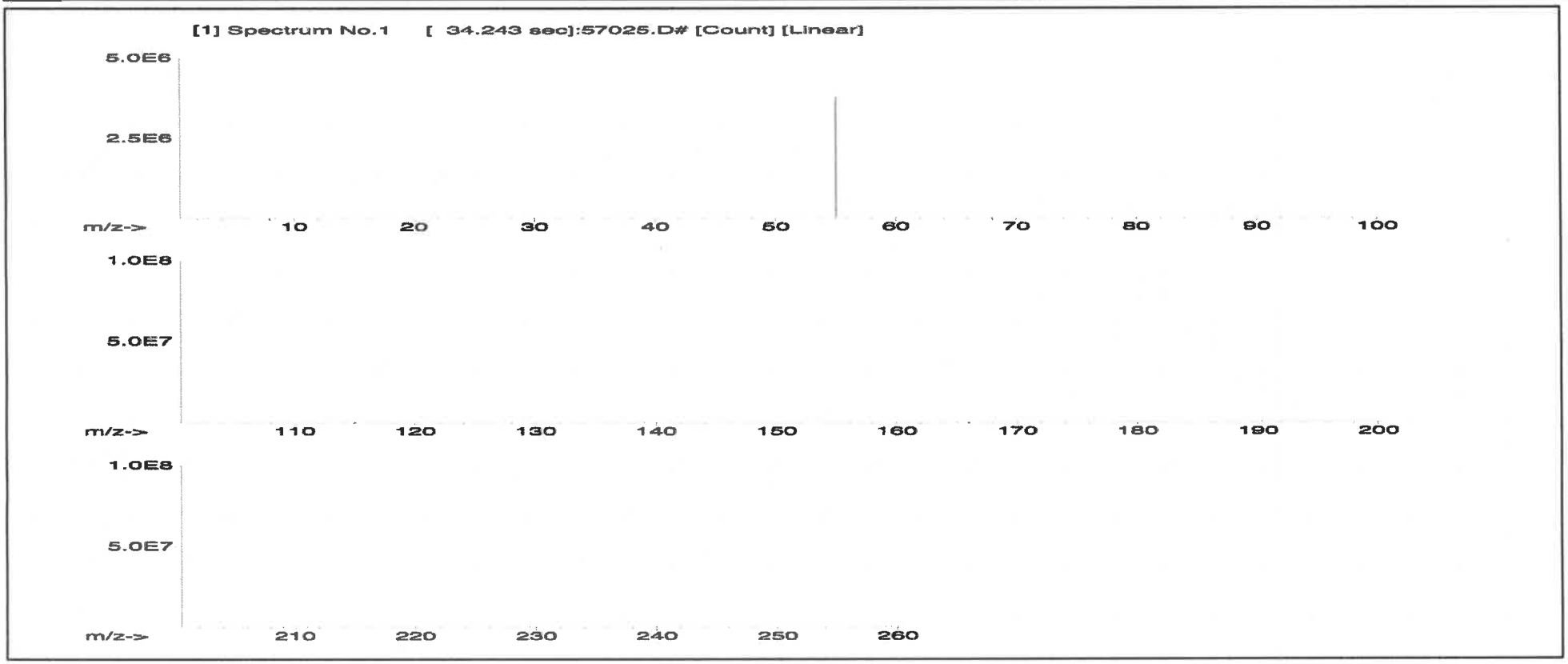
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

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).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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 (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	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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 - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

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 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

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

July 10, 2024

- 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 10, 2029**

- 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 Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

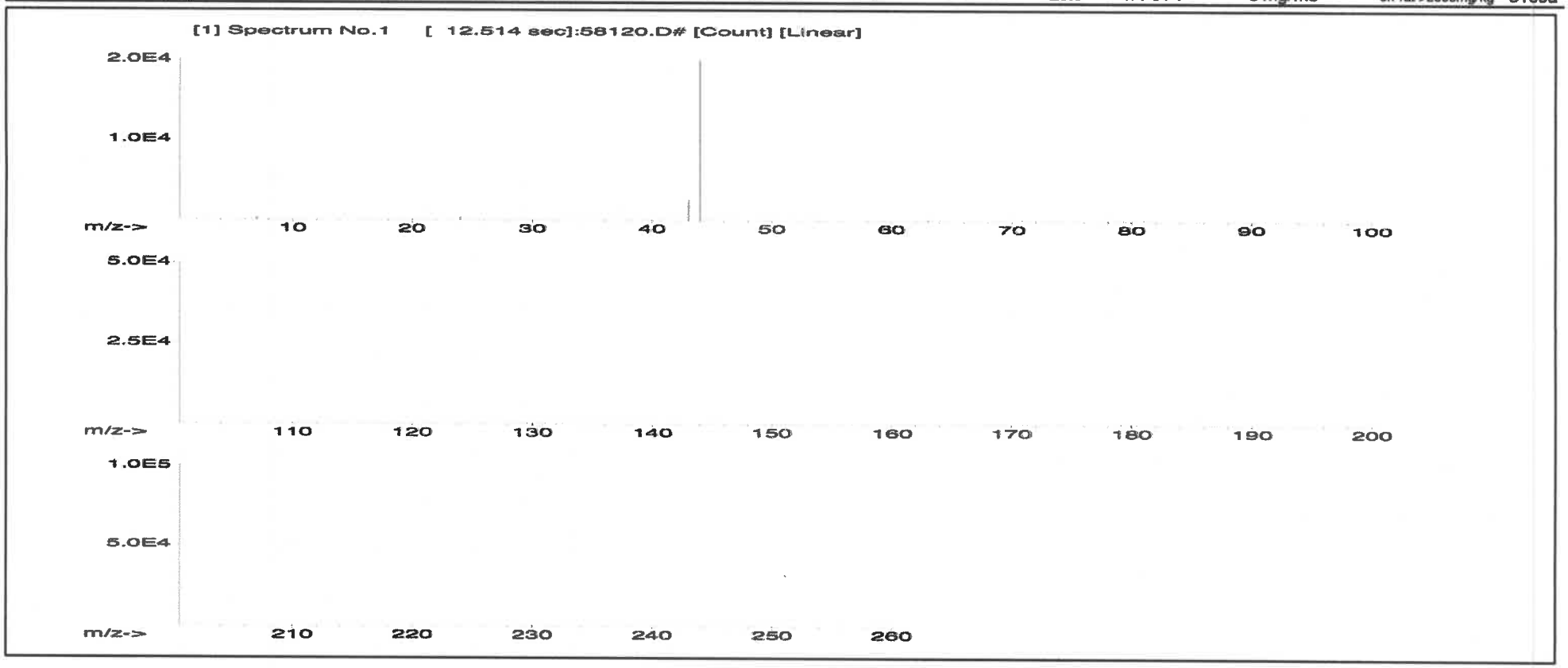
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2677	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

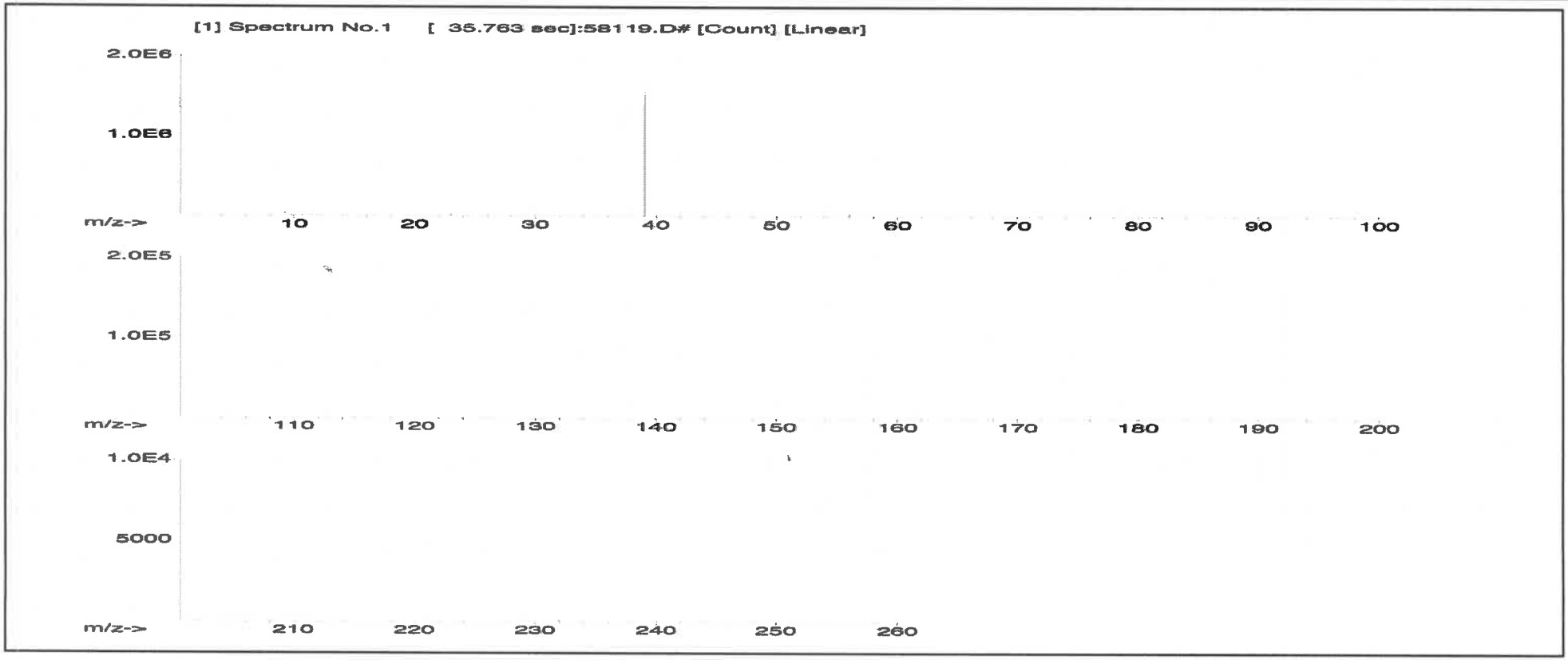
5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

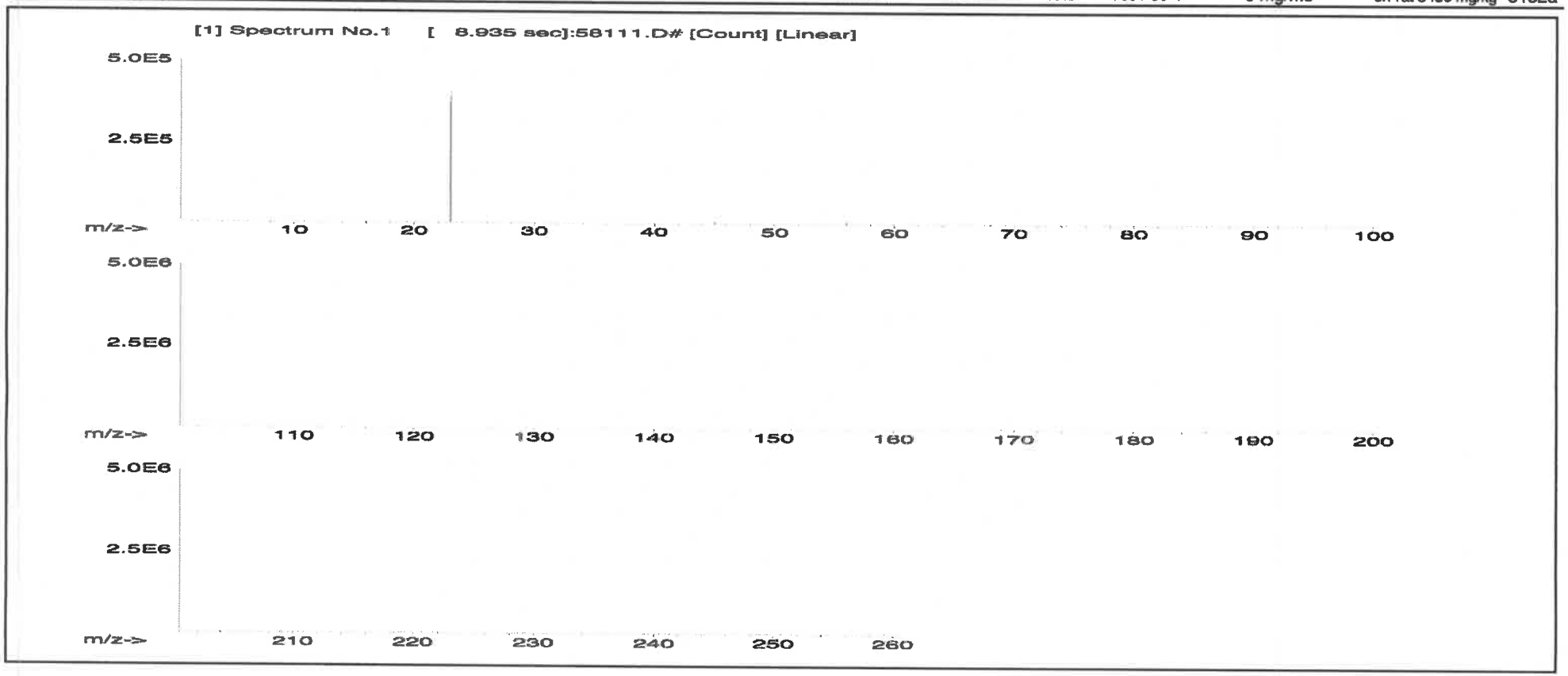
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty		

Formulated By:	Benson Chan 072424
Reviewed By:	Pedro L. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

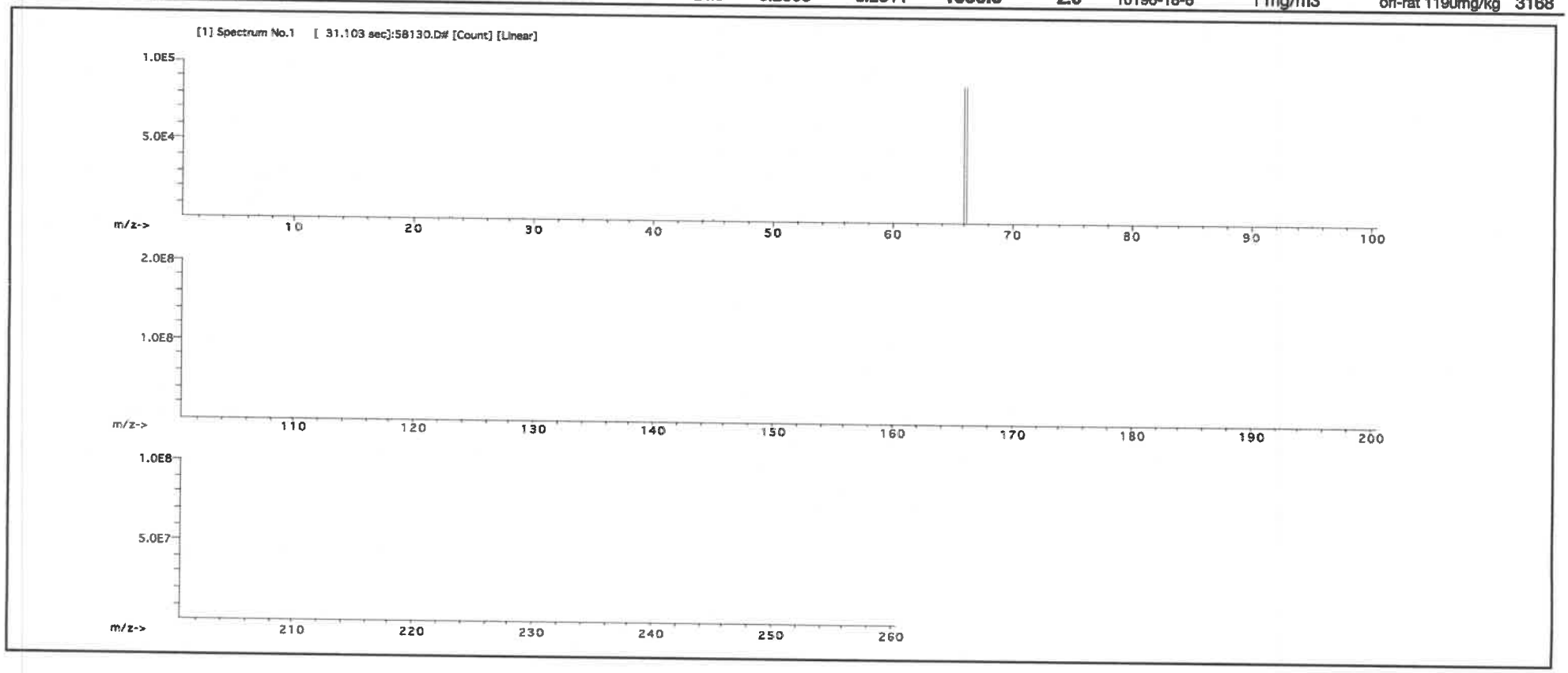
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10 Flask Uncertainty			

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

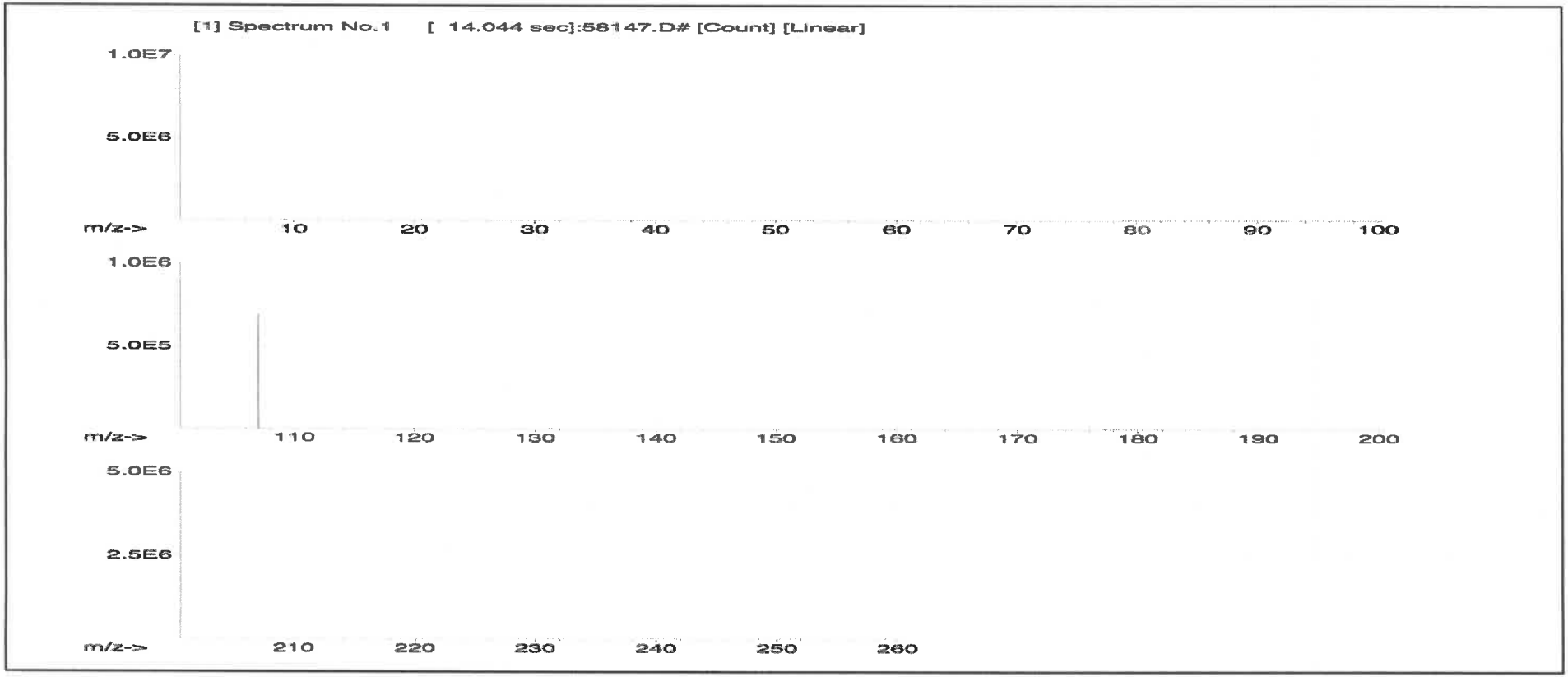
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**071724**			
Description:	**Antimony (Sb)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071727			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.26	0.058	Flask Uncertainty	

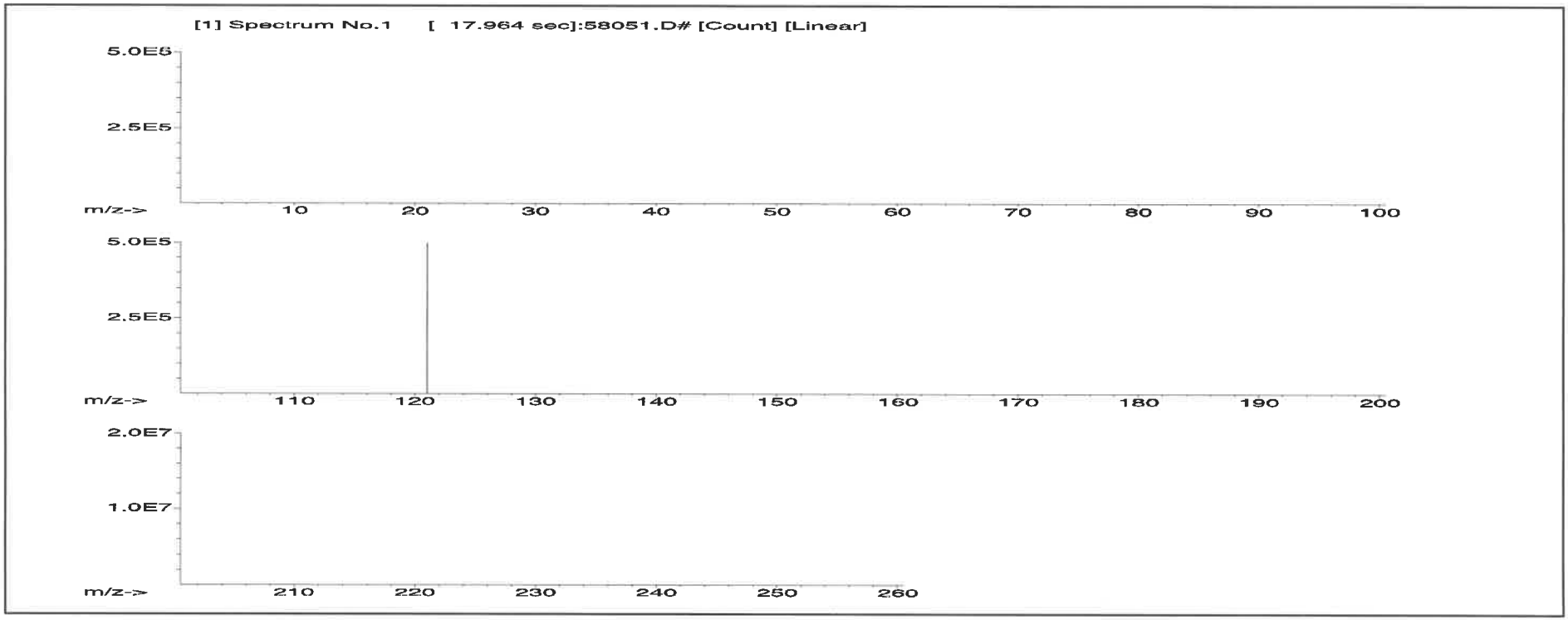
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

APTIM

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6152

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6155

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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 - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (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 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

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

March 03, 2023

- 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 03, 2028**

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

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

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

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 - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (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 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

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

March 03, 2023

- 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 03, 2028**

- 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:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R ! 8/5/24

M6023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

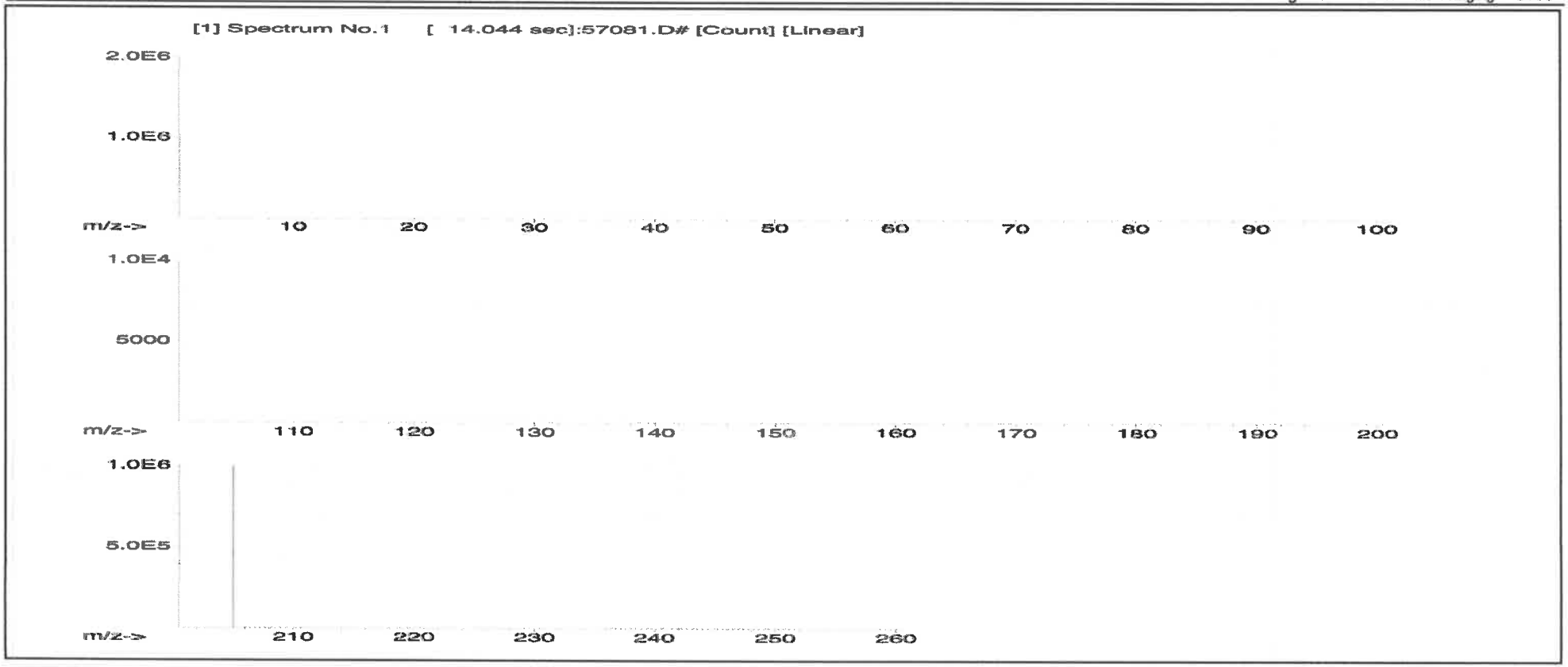
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

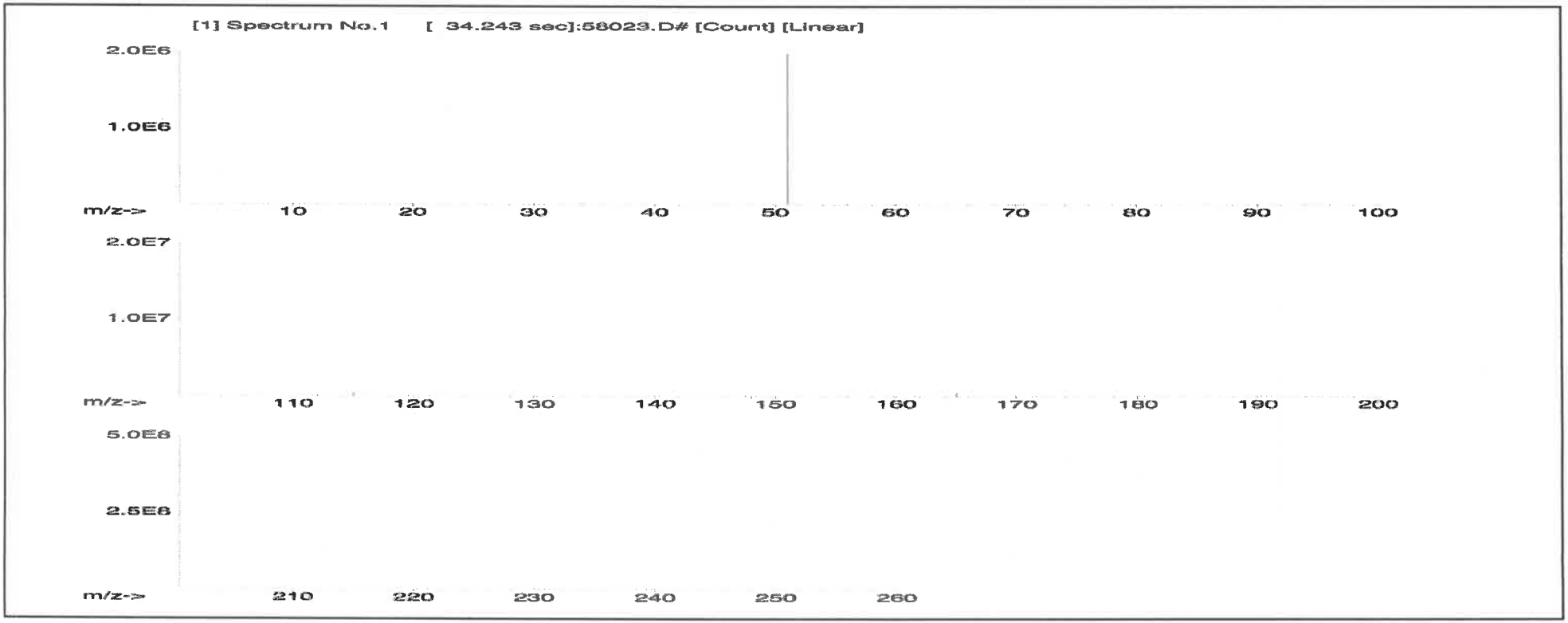
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q2074
COC Number 2047107

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: CDM SMITH
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS
PHONE: 7325904679 FAX: 7322257851

CLIENT PROJECT INFORMATION

PROJECT NAME: SOUTH RIVER WM REPLACEMENT
PROJECT NO.: LOCATION: SOUTH RIVER, NJ
PROJECT MANAGER: MARCIE ENCINAS
e-mail: ENCINASMA@CDMSMITH.COM
PHONE: 7325904679 FAX: 7322257851

CLIENT BILLING INFORMATION

BILL TO: CDM SMITH PO#:
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS PHONE: 7325904679

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☒ Level 2 (Results + QC) ☒ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ Other _____
☐ EDD FORMAT _____

ANALYSIS

1 TCL VOC
2 TCL SVOC
3 TAL METALS
4 PCB
5 PESTICIDES
6 HERBICIDES
7 DRO/GRO
8
9

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	TP-12	SOIL		X	5/15/25	0800	6	X	X	X	X	X	X	X			E
2.	TP-7	SOIL		X	5/15/25	0920	6	X	X	X	X	X	X	X			E
3.	TP-15	SOIL		X	5/15/25	1035	6	X	X	X	X	X	X	X			E
4.	TP-20	SOIL		X	5/15/25	1115	6	X	X	X	X	X	X	X			E
5.	TP-35	SOIL		X	5/15/25	1200	6	X	X	X	X	X	X	X			E
6.	TP-19	SOIL		X	5/15/25	1415	6	X	X	X	X	X	X	X			E
7.	TP-40	SOIL		X	5/15/25	1450	6	X	X	X	X	X	X	X			E
8.	TP-18	SOIL		X	5/16/25	1010	6	X	X	X	X	X	X	X			E
9.																	
10.																	

PRESERVATIVES
COMMENTS ← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	5/16/25 1500	1. 5-16-25 1500
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY SAMPLER:	DATE/TIME: 1759 5.16.25	RECEIVED BY: 3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.1 °C
Comments: _____

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other _____

Shipment Complete ☐ YES ☐ NO

Copyright © 2024

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2074 CAMP02
Client Name : CDM Smith
Client Contact : Marcie Ann Encinas
Invoice Name : CDM Smith
Invoice Contact : Marcie Ann Encinas

Order Date : 5/16/2025 3:13:00 PM
Project Name : South River WM Replacem
Receive DateTime : 5/16/2025 ~~12:00:00~~ AM
Purchase Order : 17:39

Project Mgr :
Report Type : ~~Level 1~~ NJ Reduced/
EDD Type : EXCEL NOCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2074-01	TP-12	Solid	~~05/16/2025~~ 05/15/2025	08:00	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-02	TP-7	Solid	~~05/16/2025~~ 05/15/2025	09:20	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-03	TP-15	Solid	~~05/16/2025~~ 05/15/2025	10:35	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-04	TP-20	Solid	~~05/16/~~2025 05/15/2025	11:15	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-05	TP-38	Solid	~~05/16/2025~~ 05/15/2025	12:00	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-06	TP-19	Solid	~~05/16/2025~~ 05/15/2025	14:15	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-07	TP-40	Solid	~~05/16/2025~~ 05/15/2025	14:50	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2074-08	TP-18	Solid	05/16/2025	10:10					

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2074 CAMP02
Client Name : CDM Smith
Client Contact : Marcie Ann Encinas
Invoice Name : CDM Smith
Invoice Contact : Marcie Ann Encinas

Order Date : 5/16/2025 3:13:00 PM
Project Name : South River WM Replacem
Receive DateTime : 5/16/2025 ~~12:00:00~~ AM
Purchase Order : 17:39

Project Mgr :
Report Type : ~~Level 1~~ NJ Reduced/
EDD Type : EXCEL NOCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinguished By :
Date / Time : 5/19/25 11:30

Received By :
Date / Time : 05/19/25 11:30
Storage Area : VOA Refridgerator Room