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

DATA PACKAGE

METALS

PROJECT NAME : RFP 905

WESTON SOLUTIONS, INC.

1090 King Georges Post Road

Suite 201

Edison, NJ - 08837-3703

Phone No: 732-585-4410

ORDER ID : Q1664

ATTENTION : Smita Sumbaly

Laboratory Certification ID # 20012

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Cover Page

Order ID : Q1664

Project ID : RFP 905

Client : Weston Solutions, Inc.

Lab Sample Number	Client Sample Number
Q1664-01	P001-BBDGA-001-01
Q1664-02	P001-BBDGA-001-01MS
Q1664-03	P001-BBDGA-001-01MSD
Q1664-04	P001-BBDGA-001-01
Q1664-05	P001-BBDGA-001-01MS
Q1664-06	P001-BBDGA-001-01MSD
Q1664-07	P001-BBDGA-001-02
Q1664-08	P001-BBDGA-001-02
Q1664-09	P001-BBDGA-002-01
Q1664-10	P001-BBDGA-002-01
Q1664-11	P001-BBDGA-003-01
Q1664-12	P001-BBDGA-003-01
Q1664-13	P001-BBDGA-004-01
Q1664-14	P001-BBDGA-004-01
Q1664-15	P001-BBDGA-005-01
Q1664-16	P001-BBDGA-005-01
Q1664-17	P001-BBDGA-006-01
Q1664-18	P001-BBDGA-006-01
Q1664-19	P001-BBDGA-007-01
Q1664-20	P001-BBDGA-007-01
Q1664-21	P001-BBDGA-008-01
Q1664-22	P001-BBDGA-008-01

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 : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 11:24 am, Apr 08, 2025

Date: 4/8/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions, Inc.
Project Name: RFP 905
Project # N/A
Chemtech Project # Q1664
Test Name: SPLP Mercury,SPLP ICP Metals

A. Number of Samples and Date of Receipt:
22 Solid samples were received on 03/27/2025.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, EPH, Mercury, Metals ICP-TAL, METALS TAL+CN, PCB, Pesticide-TCL, SPLP BNA, SPLP Cyanide, SPLP Extraction, SPLP ICP Metals, SPLP Mercury, SPLP PCB, SPLP Pesticide, SPLP VOA, SPLP ZHE Ext, SVOC-TCL BNA -20 and VOC-TCLVOA-10. This data package contains results for SPLP Mercury,SPLP ICP Metals.

C. Analytical Techniques:
The analysis of SPLP ICP Metals was based on method 6010D, digestion based on method 3050 (soils). The analysis of SPLP Mercury was based on method 7470A and digestion was based on method 7471B (soils).

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (P001-BBDGA-001-01MS) analysis met criteria for all samples except for Copper due to matrix interference.
The Matrix Spike Duplicate(P001-BBDGA-001-01MSD) analysis met criteria for all samples except for Copper due to matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:

Calculation for ICP-AES Water Sample:

$$\text{Concentration or Result } (\mu g/L) = C \times \frac{Vf}{Vi} \times DF \times 1000$$

Where,

C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Calculation for Hg Water Sample:

Concentration or Result (µg/L) = C x DF
Where,

C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

F. Additional Comments:

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature APPROVED
By Nimisha Pandya, QA/QC Supervisor at 11:24 am, Apr 08, 2025

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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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1664 MATRIX: Water

METHOD: 6010D,7470A

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS:

QA REVIEW

REVIEWED
By Sohil Jodhani, QA/QC Director at 10:53 am, Apr 08, 2025

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1664

	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: SOHIL JODHANI **Date:** 04/08/2025

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LAB CHRONICLE

OrderID:	Q1664	**OrderDate:**	3/27/2025 10:47:00 AM
Client:	Weston Solutions, Inc.	**Project:**	RFP 905
Contact:	Smita Sumbaly	**Location:**	I31,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1664-01	**P001-BBDGA-001-01**	**SOIL**			**03/26/25**			**03/27/25**
			Mercury	7471B		03/31/25	03/31/25	
			Metals ICP-TAL	6010D		03/28/25	03/31/25	
Q1664-04	**P001-BBDGA-001-01**	**Water**			**03/26/25**			**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25	
			SPLP Mercury	7470A		04/01/25	04/01/25	
Q1664-07	**P001-BBDGA-001-02**	**SOIL**			**03/26/25**			**03/27/25**
			Mercury	7471B		03/31/25	03/31/25	
			Metals ICP-TAL	6010D		03/28/25	03/31/25	
Q1664-08	**P001-BBDGA-001-02**	**Water**			**03/26/25**			**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25	
			SPLP Mercury	7470A		04/01/25	04/01/25	
Q1664-09	**P001-BBDGA-002-01**	**SOIL**			**03/26/25**			**03/27/25**
			Mercury	7471B		03/31/25	03/31/25	
			Metals ICP-TAL	6010D		03/28/25	03/31/25	
Q1664-10	**P001-BBDGA-002-01**	**Water**			**03/26/25**			**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25	
			SPLP Mercury	7470A		04/01/25	04/01/25	
Q1664-11	**P001-BBDGA-003-01**	**SOIL**			**03/26/25**			**03/27/25**
			Mercury	7471B		03/31/25	03/31/25	
			Metals ICP-TAL	6010D		03/28/25	03/31/25	
Q1664-12	**P001-BBDGA-003-01**	**Water**			**03/26/25**			**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25	
			SPLP Mercury	7470A		04/01/25	04/01/25	
Q1664-13	**P001-BBDGA-004-01**	**SOIL**			**03/26/25**			**03/27/25**

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LAB CHRONICLE

			Mercury	7471B		03/31/25	03/31/25
			Metals ICP-TAL	6010D		03/28/25	03/31/25
Q1664-14	**P001-BBDGA-004-01**	**Water**			**03/26/25**		**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25
			SPLP Mercury	7470A		04/01/25	04/01/25
Q1664-15	**P001-BBDGA-005-01**	**SOIL**			**03/26/25**		**03/27/25**
			Mercury	7471B		03/31/25	03/31/25
			Metals ICP-TAL	6010D		03/28/25	03/31/25
Q1664-16	**P001-BBDGA-005-01**	**Water**			**03/26/25**		**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25
			SPLP Mercury	7470A		04/01/25	04/01/25
Q1664-17	**P001-BBDGA-006-01**	**SOIL**			**03/26/25**		**03/27/25**
			Mercury	7471B		03/31/25	03/31/25
			Metals ICP-TAL	6010D		03/28/25	03/31/25
Q1664-18	**P001-BBDGA-006-01**	**Water**			**03/26/25**		**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25
			SPLP Mercury	7470A		04/01/25	04/01/25
Q1664-19	**P001-BBDGA-007-01**	**SOIL**			**03/26/25**		**03/27/25**
			Mercury	7471B		03/31/25	03/31/25
			Metals ICP-TAL	6010D		03/28/25	03/31/25
Q1664-20	**P001-BBDGA-007-01**	**Water**			**03/26/25**		**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25
			SPLP Mercury	7470A		04/01/25	04/01/25
Q1664-21	**P001-BBDGA-008-01**	**SOIL**			**03/26/25**		**03/27/25**
			Mercury	7471B		03/31/25	03/31/25
			Metals ICP-TAL	6010D		03/28/25	03/31/25
Q1664-22	**P001-BBDGA-008-01**	**Water**			**03/26/25**		**03/27/25**
			SPLP ICP Metals	6010D		03/31/25	04/01/25
			SPLP Mercury	7470A		04/01/25	04/01/25

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Hit Summary Sheet
SW-846

SDG No.: Q1664 **Order ID:** Q1664

Client: Weston Solutions, Inc. **Project ID:** RFP 905

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : P001-BBDGA-001-01								
Q1664-04	P001-BBDGA-001-01	Water	Aluminum	5040		28.3	50.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Barium	109		6.28	50.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Beryllium	1.22	J	0.13	3.00	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Calcium	463000		33.0	1000	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Chromium	21.9		0.66	5.00	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Cobalt	54.4		0.50	15.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Copper	323		7.07	10.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Iron	60100		18.5	50.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Lead	4.13	J	3.51	6.00	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Magnesium	51300		39.4	1000	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Manganese	6990		1.46	10.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Nickel	63.4		0.85	20.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Potassium	1340		685	1000	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Sodium	16600		237	1000	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Vanadium	73.0		3.06	20.0	ug/L
Q1664-04	P001-BBDGA-001-01	Water	Zinc	474		1.75	20.0	ug/L
Client ID : P001-BBDGA-001-02								
Q1664-08	P001-BBDGA-001-02	Water	Aluminum	751		28.3	50.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Barium	136		6.28	50.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Calcium	118000		33.0	1000	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Chromium	1.47	J	0.66	5.00	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Cobalt	1.13	J	0.50	15.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Iron	1460		18.5	50.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Magnesium	12300		39.4	1000	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Manganese	987		1.46	10.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Nickel	2.74	J	0.85	20.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Potassium	745	J	685	1000	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Sodium	11100		237	1000	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Vanadium	7.90	J	3.06	20.0	ug/L
Q1664-08	P001-BBDGA-001-02	Water	Zinc	42.6		1.75	20.0	ug/L
Client ID : P001-BBDGA-002-01								
Q1664-10	P001-BBDGA-002-01	Water	Barium	134		6.28	50.0	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Calcium	127000		33.0	1000	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Magnesium	4920		39.4	1000	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Manganese	807		1.46	10.0	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Potassium	833	J	685	1000	ug/L

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Hit Summary Sheet
SW-846

SDG No.: Q1664 **Order ID:** Q1664

Client: Weston Solutions, Inc. **Project ID:** RFP 905

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Q1664-10	P001-BBDGA-002-01	Water	Sodium	24000		237	1000	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Vanadium	6.50	J	3.06	20.0	ug/L
Q1664-10	P001-BBDGA-002-01	Water	Zinc	36.9		1.75	20.0	ug/L
Client ID :	**P001-BBDGA-003-01**							
Q1664-12	P001-BBDGA-003-01	Water	Barium	88.1		6.28	50.0	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Calcium	122000		33.0	1000	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Magnesium	4530		39.4	1000	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Manganese	798		1.46	10.0	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Potassium	727	J	685	1000	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Sodium	22400		237	1000	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Vanadium	5.37	J	3.06	20.0	ug/L
Q1664-12	P001-BBDGA-003-01	Water	Zinc	56.8		1.75	20.0	ug/L
Client ID :	**P001-BBDGA-004-01**							
Q1664-14	P001-BBDGA-004-01	Water	Aluminum	272		28.3	50.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Barium	109		6.28	50.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Cadmium	0.14	J	0.094	3.00	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Calcium	120000		33.0	1000	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Cobalt	1.05	J	0.50	15.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Iron	346		18.5	50.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Magnesium	6500		39.4	1000	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Manganese	1790		1.46	10.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Nickel	3.17	J	0.85	20.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Potassium	1020		685	1000	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Sodium	12700		237	1000	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Vanadium	4.37	J	3.06	20.0	ug/L
Q1664-14	P001-BBDGA-004-01	Water	Zinc	70.8		1.75	20.0	ug/L
Client ID :	**P001-BBDGA-005-01**							
Q1664-16	P001-BBDGA-005-01	Water	Barium	148		6.28	50.0	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Cadmium	0.16	J	0.094	3.00	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Calcium	122000		33.0	1000	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Iron	19.2	J	18.5	50.0	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Magnesium	6470		39.4	1000	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Manganese	1050		1.46	10.0	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Nickel	1.15	J	0.85	20.0	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Potassium	959	J	685	1000	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Sodium	29100		237	1000	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Vanadium	7.04	J	3.06	20.0	ug/L
Q1664-16	P001-BBDGA-005-01	Water	Zinc	63.0		1.75	20.0	ug/L

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Hit Summary Sheet
SW-846

SDG No.: Q1664 **Order ID:** Q1664

Client: Weston Solutions, Inc. **Project ID:** RFP 905

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : P001-BBDGA-006-01								
Q1664-18	P001-BBDGA-006-01	Water	Barium	92.0		6.28	50.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Calcium	157000		33.0	1000	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Cobalt	1.20	J	0.50	15.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Iron	78.8		18.5	50.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Magnesium	6150		39.4	1000	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Manganese	1410		1.46	10.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Nickel	3.22	J	0.85	20.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Potassium	1220		685	1000	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Sodium	29600		237	1000	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Vanadium	5.37	J	3.06	20.0	ug/L
Q1664-18	P001-BBDGA-006-01	Water	Zinc	71.0		1.75	20.0	ug/L
Client ID : P001-BBDGA-007-01								
Q1664-20	P001-BBDGA-007-01	Water	Barium	75.9		6.28	50.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Cadmium	0.19	J	0.094	3.00	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Calcium	104000		33.0	1000	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Cobalt	1.29	J	0.50	15.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Iron	45.4	J	18.5	50.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Magnesium	8520		39.4	1000	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Manganese	1070		1.46	10.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Nickel	3.67	J	0.85	20.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Potassium	1030		685	1000	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Sodium	10500		237	1000	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Vanadium	6.43	J	3.06	20.0	ug/L
Q1664-20	P001-BBDGA-007-01	Water	Zinc	27.9		1.75	20.0	ug/L
Client ID : P001-BBDGA-008-01								
Q1664-22	P001-BBDGA-008-01	Water	Barium	53.4		6.28	50.0	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Calcium	111000		33.0	1000	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Iron	39.6	J	18.5	50.0	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Magnesium	5550		39.4	1000	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Manganese	388		1.46	10.0	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Potassium	915	J	685	1000	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Sodium	27400		237	1000	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Vanadium	9.12	J	3.06	20.0	ug/L
Q1664-22	P001-BBDGA-008-01	Water	Zinc	16.3	J	1.75	20.0	ug/L

SAMPLE DATA

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-001-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5040		1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-39-3	Barium	109		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-41-7	Beryllium	1.22	J	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-70-2	Calcium	463000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-47-3	Chromium	21.9		1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-48-4	Cobalt	54.4		1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-50-8	Copper	323	N	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7439-89-6	Iron	60100		1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7439-92-1	Lead	4.13	J	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7439-95-4	Magnesium	51300		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7439-96-5	Manganese	6990		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 11:52	SW7470A	
7440-02-0	Nickel	63.4		1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-09-7	Potassium	1340		1	685	1000	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-23-5	Sodium	16600		1	237	1000	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-62-2	Vanadium	73.0		1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010
7440-66-6	Zinc	474		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 16:01	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-001-02	SDG No.:	Q1664
Lab Sample ID:	Q1664-08	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	751		1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-39-3	Barium	136		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-70-2	Calcium	118000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-47-3	Chromium	1.47	J	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-48-4	Cobalt	1.13	J	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7439-89-6	Iron	1460		1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7439-95-4	Magnesium	12300		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7439-96-5	Manganese	987		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:06	SW7470A	
7440-02-0	Nickel	2.74	J	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-09-7	Potassium	745	J	1	685	1000	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-23-5	Sodium	11100		1	237	1000	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-62-2	Vanadium	7.90	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010
7440-66-6	Zinc	42.6		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 16:39	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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J = Estimated Value
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OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-002-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-10	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-39-3	Barium	134		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-70-2	Calcium	127000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-48-4	Cobalt	0.50	U	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7439-89-6	Iron	18.5	U	1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7439-95-4	Magnesium	4920		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7439-96-5	Manganese	807		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:08	SW7470A	
7440-02-0	Nickel	0.85	U	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-09-7	Potassium	833	J	1	685	1000	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-23-5	Sodium	24000		1	237	1000	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-62-2	Vanadium	6.50	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010
7440-66-6	Zinc	36.9		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 16:43	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

U = Not Detected
LOQ = Limit of Quantitation
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Q = indicates LCS control criteria did not meet requirements

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Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-003-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-12	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-39-3	Barium	88.1		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-70-2	Calcium	122000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-48-4	Cobalt	0.50	U	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7439-89-6	Iron	18.5	U	1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7439-95-4	Magnesium	4530		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7439-96-5	Manganese	798		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:10	SW7470A	
7440-02-0	Nickel	0.85	U	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-09-7	Potassium	727	J	1	685	1000	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-23-5	Sodium	22400		1	237	1000	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-62-2	Vanadium	5.37	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010
7440-66-6	Zinc	56.8		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 16:47	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-004-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-14	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	272		1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-39-3	Barium	109		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-43-9	Cadmium	0.14	J	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-70-2	Calcium	120000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-48-4	Cobalt	1.05	J	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7439-89-6	Iron	346		1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7439-95-4	Magnesium	6500		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7439-96-5	Manganese	1790		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:12	SW7470A	
7440-02-0	Nickel	3.17	J	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-09-7	Potassium	1020		1	685	1000	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-23-5	Sodium	12700		1	237	1000	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-62-2	Vanadium	4.37	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010
7440-66-6	Zinc	70.8		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 16:52	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-005-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-16	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-39-3	Barium	148		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-43-9	Cadmium	0.16	J	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-70-2	Calcium	122000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-48-4	Cobalt	0.50	U	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7439-89-6	Iron	19.2	J	1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7439-95-4	Magnesium	6470		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7439-96-5	Manganese	1050		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:15	SW7470A	
7440-02-0	Nickel	1.15	J	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-09-7	Potassium	959	J	1	685	1000	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-23-5	Sodium	29100		1	237	1000	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-62-2	Vanadium	7.04	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010
7440-66-6	Zinc	63.0		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 17:04	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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
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N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-006-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-18	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-39-3	Barium	92.0		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-70-2	Calcium	157000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-48-4	Cobalt	1.20	J	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7439-89-6	Iron	78.8		1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7439-95-4	Magnesium	6150		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7439-96-5	Manganese	1410		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:17	SW7470A	
7440-02-0	Nickel	3.22	J	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-09-7	Potassium	1220		1	685	1000	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-23-5	Sodium	29600		1	237	1000	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-62-2	Vanadium	5.37	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010
7440-66-6	Zinc	71.0		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 17:09	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-007-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-20	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-39-3	Barium	75.9		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-43-9	Cadmium	0.19	J	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-70-2	Calcium	104000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-48-4	Cobalt	1.29	J	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7439-89-6	Iron	45.4	J	1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7439-95-4	Magnesium	8520		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7439-96-5	Manganese	1070		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:19	SW7470A	
7440-02-0	Nickel	3.67	J	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-09-7	Potassium	1030		1	685	1000	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-23-5	Sodium	10500		1	237	1000	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-62-2	Vanadium	6.43	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010
7440-66-6	Zinc	27.9		1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 17:13	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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

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Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	03/26/25
Project:	RFP 905	Date Received:	03/27/25
Client Sample ID:	P001-BBDGA-008-01	SDG No.:	Q1664
Lab Sample ID:	Q1664-22	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	28.3	U	1	28.3	50.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-36-0	Antimony	2.06	U	1	2.06	25.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-38-2	Arsenic	3.48	U	1	3.48	10.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-39-3	Barium	53.4		1	6.28	50.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-41-7	Beryllium	0.13	U	1	0.13	3.00	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-43-9	Cadmium	0.094	U	1	0.094	3.00	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-70-2	Calcium	111000		1	33.0	1000	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-47-3	Chromium	0.66	U	1	0.66	5.00	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-48-4	Cobalt	0.50	U	1	0.50	15.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-50-8	Copper	7.07	UN	1	7.07	10.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7439-89-6	Iron	39.6	J	1	18.5	50.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7439-92-1	Lead	3.51	U	1	3.51	6.00	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7439-95-4	Magnesium	5550		1	39.4	1000	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7439-96-5	Manganese	388		1	1.46	10.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7439-97-6	Mercury	0.076	U	1	0.076	0.20	ug/L	04/01/25 07:30	04/01/25 12:22	SW7470A	
7440-02-0	Nickel	0.85	U	1	0.85	20.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-09-7	Potassium	915	J	1	685	1000	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7782-49-2	Selenium	5.88	U	1	5.88	10.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-22-4	Silver	0.58	U	1	0.58	5.00	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-23-5	Sodium	27400		1	237	1000	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-28-0	Thallium	2.32	U	1	2.32	20.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-62-2	Vanadium	9.12	J	1	3.06	20.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010
7440-66-6	Zinc	16.3	J	1	1.75	20.0	ug/L	03/31/25 12:30	04/01/25 17:17	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	SPLP ICP Metals				

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
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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: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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
ICV68	Mercury	3.92	4.0	98	90 - 110	CV	04/01/2025	10:51	LB135246

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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
CCV07	Mercury	4.99	5.0	100	90 - 110	CV	04/01/2025	10:59	LB135246
CCV08	Mercury	5.07	5.0	101	90 - 110	CV	04/01/2025	11:29	LB135246
CCV09	Mercury	4.81	5.0	96	90 - 110	CV	04/01/2025	12:01	LB135246
CCV10	Mercury	4.64	5.0	93	90 - 110	CV	04/01/2025	12:24	LB135246
CCV11	Mercury	4.87	5.0	97	90 - 110	CV	04/01/2025	13:02	LB135246

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	10:57	LB135255
	Antimony	1010	1000	101	90 - 110	P	04/01/2025	10:57	LB135255
	Arsenic	996	1000	100	90 - 110	P	04/01/2025	10:57	LB135255
	Barium	484	520	93	90 - 110	P	04/01/2025	10:57	LB135255
	Beryllium	491	510	96	90 - 110	P	04/01/2025	10:57	LB135255
	Cadmium	494	510	97	90 - 110	P	04/01/2025	10:57	LB135255
	Calcium	9700	10000	97	90 - 110	P	04/01/2025	10:57	LB135255
	Chromium	519	520	100	90 - 110	P	04/01/2025	10:57	LB135255
	Cobalt	502	520	96	90 - 110	P	04/01/2025	10:57	LB135255
	Copper	521	510	102	90 - 110	P	04/01/2025	10:57	LB135255
	Iron	9910	10000	99	90 - 110	P	04/01/2025	10:57	LB135255
	Lead	979	1000	98	90 - 110	P	04/01/2025	10:57	LB135255
	Magnesium	5690	6000	95	90 - 110	P	04/01/2025	10:57	LB135255
	Manganese	490	520	94	90 - 110	P	04/01/2025	10:57	LB135255
	Nickel	507	530	96	90 - 110	P	04/01/2025	10:57	LB135255
	Potassium	9620	9900	97	90 - 110	P	04/01/2025	10:57	LB135255
	Selenium	1030	1000	103	90 - 110	P	04/01/2025	10:57	LB135255
	Silver	252	250	101	90 - 110	P	04/01/2025	10:57	LB135255
	Sodium	9360	10000	94	90 - 110	P	04/01/2025	10:57	LB135255
	Thallium	1040	1000	104	90 - 110	P	04/01/2025	10:57	LB135255
	Vanadium	481	500	96	90 - 110	P	04/01/2025	10:57	LB135255
	Zinc	1010	1000	101	90 - 110	P	04/01/2025	10:57	LB135255

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	97.1	100	97	80 - 120	P	04/01/2025	11:15	LB135255
	Antimony	53.4	50.0	107	80 - 120	P	04/01/2025	11:15	LB135255
	Arsenic	21.1	20.0	106	80 - 120	P	04/01/2025	11:15	LB135255
	Barium	85.7	100	86	80 - 120	P	04/01/2025	11:15	LB135255
	Beryllium	5.74	6.0	96	80 - 120	P	04/01/2025	11:15	LB135255
	Cadmium	5.75	6.0	96	80 - 120	P	04/01/2025	11:15	LB135255
	Calcium	1920	2000	96	80 - 120	P	04/01/2025	11:15	LB135255
	Chromium	9.96	10.0	100	80 - 120	P	04/01/2025	11:15	LB135255
	Cobalt	28.7	30.0	96	80 - 120	P	04/01/2025	11:15	LB135255
	Copper	22.6	20.0	113	80 - 120	P	04/01/2025	11:15	LB135255
	Iron	97.2	100	97	80 - 120	P	04/01/2025	11:15	LB135255
	Lead	11.7	12.0	98	80 - 120	P	04/01/2025	11:15	LB135255
	Magnesium	2000	2000	100	80 - 120	P	04/01/2025	11:15	LB135255
	Manganese	20.3	20.0	101	80 - 120	P	04/01/2025	11:15	LB135255
	Nickel	38.8	40.0	97	80 - 120	P	04/01/2025	11:15	LB135255
	Potassium	1830	2000	91	80 - 120	P	04/01/2025	11:15	LB135255
	Selenium	21.8	20.0	109	80 - 120	P	04/01/2025	11:15	LB135255
	Silver	10.6	10.0	106	80 - 120	P	04/01/2025	11:15	LB135255
	Sodium	1770	2000	89	80 - 120	P	04/01/2025	11:15	LB135255
	Thallium	40.6	40.0	102	80 - 120	P	04/01/2025	11:15	LB135255
	Vanadium	38.5	40.0	96	80 - 120	P	04/01/2025	11:15	LB135255
	Zinc	44.4	40.0	111	80 - 120	P	04/01/2025	11:15	LB135255

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	9840	10000	98	90 - 110	P	04/01/2025	11:50	LB135255
	Antimony	5100	5000	102	90 - 110	P	04/01/2025	11:50	LB135255
	Arsenic	5030	5000	101	90 - 110	P	04/01/2025	11:50	LB135255
	Barium	9720	10000	97	90 - 110	P	04/01/2025	11:50	LB135255
	Beryllium	243	250	97	90 - 110	P	04/01/2025	11:50	LB135255
	Cadmium	2440	2500	98	90 - 110	P	04/01/2025	11:50	LB135255
	Calcium	23900	25000	96	90 - 110	P	04/01/2025	11:50	LB135255
	Chromium	1010	1000	101	90 - 110	P	04/01/2025	11:50	LB135255
	Cobalt	2440	2500	98	90 - 110	P	04/01/2025	11:50	LB135255
	Copper	1260	1250	101	90 - 110	P	04/01/2025	11:50	LB135255
	Iron	4890	5000	98	90 - 110	P	04/01/2025	11:50	LB135255
	Lead	4950	5000	99	90 - 110	P	04/01/2025	11:50	LB135255
	Magnesium	23600	25000	94	90 - 110	P	04/01/2025	11:50	LB135255
	Manganese	2390	2500	95	90 - 110	P	04/01/2025	11:50	LB135255
	Nickel	2460	2500	98	90 - 110	P	04/01/2025	11:50	LB135255
	Potassium	24900	25000	100	90 - 110	P	04/01/2025	11:50	LB135255
	Selenium	5090	5000	102	90 - 110	P	04/01/2025	11:50	LB135255
	Silver	1260	1250	100	90 - 110	P	04/01/2025	11:50	LB135255
	Sodium	24500	25000	98	90 - 110	P	04/01/2025	11:50	LB135255
	Thallium	5110	5000	102	90 - 110	P	04/01/2025	11:50	LB135255
	Vanadium	2440	2500	98	90 - 110	P	04/01/2025	11:50	LB135255
	Zinc	2540	2500	102	90 - 110	P	04/01/2025	11:50	LB135255
CCV02	Aluminum	9790	10000	98	90 - 110	P	04/01/2025	12:43	LB135255
	Antimony	5200	5000	104	90 - 110	P	04/01/2025	12:43	LB135255
	Arsenic	5090	5000	102	90 - 110	P	04/01/2025	12:43	LB135255
	Barium	9360	10000	94	90 - 110	P	04/01/2025	12:43	LB135255
	Beryllium	238	250	95	90 - 110	P	04/01/2025	12:43	LB135255
	Cadmium	2420	2500	97	90 - 110	P	04/01/2025	12:43	LB135255
	Calcium	23600	25000	94	90 - 110	P	04/01/2025	12:43	LB135255
	Chromium	1010	1000	101	90 - 110	P	04/01/2025	12:43	LB135255
	Cobalt	2410	2500	96	90 - 110	P	04/01/2025	12:43	LB135255
	Copper	1250	1250	100	90 - 110	P	04/01/2025	12:43	LB135255
	Iron	4850	5000	97	90 - 110	P	04/01/2025	12:43	LB135255
	Lead	4950	5000	99	90 - 110	P	04/01/2025	12:43	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	23100	25000	92	90 - 110	P	04/01/2025	12:43	LB135255
	Manganese	2340	2500	94	90 - 110	P	04/01/2025	12:43	LB135255
	Nickel	2460	2500	98	90 - 110	P	04/01/2025	12:43	LB135255
	Potassium	25100	25000	100	90 - 110	P	04/01/2025	12:43	LB135255
	Selenium	5180	5000	104	90 - 110	P	04/01/2025	12:43	LB135255
	Silver	1240	1250	99	90 - 110	P	04/01/2025	12:43	LB135255
	Sodium	24100	25000	96	90 - 110	P	04/01/2025	12:43	LB135255
	Thallium	5110	5000	102	90 - 110	P	04/01/2025	12:43	LB135255
	Vanadium	2410	2500	96	90 - 110	P	04/01/2025	12:43	LB135255
	Zinc	2520	2500	101	90 - 110	P	04/01/2025	12:43	LB135255
CCV03	Aluminum	10000	10000	100	90 - 110	P	04/01/2025	13:35	LB135255
	Antimony	5390	5000	108	90 - 110	P	04/01/2025	13:35	LB135255
	Arsenic	5260	5000	105	90 - 110	P	04/01/2025	13:35	LB135255
	Barium	9580	10000	96	90 - 110	P	04/01/2025	13:35	LB135255
	Beryllium	242	250	97	90 - 110	P	04/01/2025	13:35	LB135255
	Cadmium	2460	2500	98	90 - 110	P	04/01/2025	13:35	LB135255
	Calcium	23800	25000	95	90 - 110	P	04/01/2025	13:35	LB135255
	Chromium	1020	1000	102	90 - 110	P	04/01/2025	13:35	LB135255
	Cobalt	2450	2500	98	90 - 110	P	04/01/2025	13:35	LB135255
	Copper	1290	1250	103	90 - 110	P	04/01/2025	13:35	LB135255
	Iron	4960	5000	99	90 - 110	P	04/01/2025	13:35	LB135255
	Lead	5050	5000	101	90 - 110	P	04/01/2025	13:35	LB135255
	Magnesium	23100	25000	92	90 - 110	P	04/01/2025	13:35	LB135255
	Manganese	2570	2500	103	90 - 110	P	04/01/2025	13:35	LB135255
	Nickel	2510	2500	100	90 - 110	P	04/01/2025	13:35	LB135255
	Potassium	25300	25000	101	90 - 110	P	04/01/2025	13:35	LB135255
	Selenium	5390	5000	108	90 - 110	P	04/01/2025	13:35	LB135255
	Silver	1270	1250	102	90 - 110	P	04/01/2025	13:35	LB135255
	Sodium	24600	25000	98	90 - 110	P	04/01/2025	13:35	LB135255
	Thallium	5300	5000	106	90 - 110	P	04/01/2025	13:35	LB135255
	Vanadium	2460	2500	98	90 - 110	P	04/01/2025	13:35	LB135255
	Zinc	2570	2500	103	90 - 110	P	04/01/2025	13:35	LB135255
CCV04	Aluminum	9860	10000	99	90 - 110	P	04/01/2025	14:31	LB135255
	Antimony	5310	5000	106	90 - 110	P	04/01/2025	14:31	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	5180	5000	104	90 - 110	P	04/01/2025	14:31	LB135255
	Barium	9490	10000	95	90 - 110	P	04/01/2025	14:31	LB135255
	Beryllium	242	250	97	90 - 110	P	04/01/2025	14:31	LB135255
	Cadmium	2440	2500	98	90 - 110	P	04/01/2025	14:31	LB135255
	Calcium	23700	25000	95	90 - 110	P	04/01/2025	14:31	LB135255
	Chromium	1020	1000	102	90 - 110	P	04/01/2025	14:31	LB135255
	Cobalt	2430	2500	97	90 - 110	P	04/01/2025	14:31	LB135255
	Copper	1270	1250	102	90 - 110	P	04/01/2025	14:31	LB135255
	Iron	4860	5000	97	90 - 110	P	04/01/2025	14:31	LB135255
	Lead	5020	5000	100	90 - 110	P	04/01/2025	14:31	LB135255
	Magnesium	22900	25000	92	90 - 110	P	04/01/2025	14:31	LB135255
	Manganese	2560	2500	102	90 - 110	P	04/01/2025	14:31	LB135255
	Nickel	2490	2500	100	90 - 110	P	04/01/2025	14:31	LB135255
	Potassium	24900	25000	100	90 - 110	P	04/01/2025	14:31	LB135255
	Selenium	5300	5000	106	90 - 110	P	04/01/2025	14:31	LB135255
	Silver	1260	1250	100	90 - 110	P	04/01/2025	14:31	LB135255
	Sodium	24500	25000	98	90 - 110	P	04/01/2025	14:31	LB135255
	Thallium	5210	5000	104	90 - 110	P	04/01/2025	14:31	LB135255
	Vanadium	2440	2500	98	90 - 110	P	04/01/2025	14:31	LB135255
	Zinc	2540	2500	102	90 - 110	P	04/01/2025	14:31	LB135255
CCV05	Aluminum	9760	10000	98	90 - 110	P	04/01/2025	15:23	LB135255
	Antimony	5200	5000	104	90 - 110	P	04/01/2025	15:23	LB135255
	Arsenic	5090	5000	102	90 - 110	P	04/01/2025	15:23	LB135255
	Barium	9500	10000	95	90 - 110	P	04/01/2025	15:23	LB135255
	Beryllium	241	250	96	90 - 110	P	04/01/2025	15:23	LB135255
	Cadmium	2420	2500	97	90 - 110	P	04/01/2025	15:23	LB135255
	Calcium	23600	25000	94	90 - 110	P	04/01/2025	15:23	LB135255
	Chromium	995	1000	100	90 - 110	P	04/01/2025	15:23	LB135255
	Cobalt	2410	2500	96	90 - 110	P	04/01/2025	15:23	LB135255
	Copper	1250	1250	100	90 - 110	P	04/01/2025	15:23	LB135255
	Iron	4710	5000	94	90 - 110	P	04/01/2025	15:23	LB135255
	Lead	4970	5000	99	90 - 110	P	04/01/2025	15:23	LB135255
	Magnesium	22800	25000	91	90 - 110	P	04/01/2025	15:23	LB135255
	Manganese	2540	2500	102	90 - 110	P	04/01/2025	15:23	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	2460	2500	98	90 - 110	P	04/01/2025	15:23	LB135255
	Potassium	24000	25000	96	90 - 110	P	04/01/2025	15:23	LB135255
	Selenium	5210	5000	104	90 - 110	P	04/01/2025	15:23	LB135255
	Silver	1220	1250	98	90 - 110	P	04/01/2025	15:23	LB135255
	Sodium	23300	25000	93	90 - 110	P	04/01/2025	15:23	LB135255
	Thallium	5130	5000	103	90 - 110	P	04/01/2025	15:23	LB135255
	Vanadium	2420	2500	97	90 - 110	P	04/01/2025	15:23	LB135255
	Zinc	2470	2500	99	90 - 110	P	04/01/2025	15:23	LB135255
CCV06	Aluminum	9810	10000	98	90 - 110	P	04/01/2025	15:52	LB135255
	Antimony	5170	5000	104	90 - 110	P	04/01/2025	15:52	LB135255
	Arsenic	5070	5000	101	90 - 110	P	04/01/2025	15:52	LB135255
	Barium	9450	10000	94	90 - 110	P	04/01/2025	15:52	LB135255
	Beryllium	242	250	97	90 - 110	P	04/01/2025	15:52	LB135255
	Cadmium	2420	2500	97	90 - 110	P	04/01/2025	15:52	LB135255
	Calcium	23700	25000	95	90 - 110	P	04/01/2025	15:52	LB135255
	Chromium	1000	1000	100	90 - 110	P	04/01/2025	15:52	LB135255
	Cobalt	2400	2500	96	90 - 110	P	04/01/2025	15:52	LB135255
	Copper	1250	1250	100	90 - 110	P	04/01/2025	15:52	LB135255
	Iron	4740	5000	95	90 - 110	P	04/01/2025	15:52	LB135255
	Lead	4960	5000	99	90 - 110	P	04/01/2025	15:52	LB135255
	Magnesium	22700	25000	91	90 - 110	P	04/01/2025	15:52	LB135255
	Manganese	2540	2500	101	90 - 110	P	04/01/2025	15:52	LB135255
	Nickel	2460	2500	98	90 - 110	P	04/01/2025	15:52	LB135255
	Potassium	24000	25000	96	90 - 110	P	04/01/2025	15:52	LB135255
	Selenium	5180	5000	104	90 - 110	P	04/01/2025	15:52	LB135255
	Silver	1230	1250	98	90 - 110	P	04/01/2025	15:52	LB135255
	Sodium	23500	25000	94	90 - 110	P	04/01/2025	15:52	LB135255
	Thallium	5120	5000	102	90 - 110	P	04/01/2025	15:52	LB135255
	Vanadium	2410	2500	96	90 - 110	P	04/01/2025	15:52	LB135255
	Zinc	2480	2500	99	90 - 110	P	04/01/2025	15:52	LB135255
CCV07	Aluminum	9820	10000	98	90 - 110	P	04/01/2025	16:56	LB135255
	Antimony	5170	5000	103	90 - 110	P	04/01/2025	16:56	LB135255
	Arsenic	5060	5000	101	90 - 110	P	04/01/2025	16:56	LB135255
	Barium	9420	10000	94	90 - 110	P	04/01/2025	16:56	LB135255

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Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	248	250	99	90 - 110	P	04/01/2025	16:56	LB135255
	Cadmium	2420	2500	97	90 - 110	P	04/01/2025	16:56	LB135255
	Calcium	23600	25000	95	90 - 110	P	04/01/2025	16:56	LB135255
	Chromium	1010	1000	101	90 - 110	P	04/01/2025	16:56	LB135255
	Cobalt	2400	2500	96	90 - 110	P	04/01/2025	16:56	LB135255
	Copper	1250	1250	100	90 - 110	P	04/01/2025	16:56	LB135255
	Iron	4800	5000	96	90 - 110	P	04/01/2025	16:56	LB135255
	Lead	4970	5000	99	90 - 110	P	04/01/2025	16:56	LB135255
	Magnesium	22900	25000	92	90 - 110	P	04/01/2025	16:56	LB135255
	Manganese	2570	2500	103	90 - 110	P	04/01/2025	16:56	LB135255
	Nickel	2470	2500	99	90 - 110	P	04/01/2025	16:56	LB135255
	Potassium	24100	25000	96	90 - 110	P	04/01/2025	16:56	LB135255
	Selenium	5160	5000	103	90 - 110	P	04/01/2025	16:56	LB135255
	Silver	1250	1250	100	90 - 110	P	04/01/2025	16:56	LB135255
	Sodium	23700	25000	95	90 - 110	P	04/01/2025	16:56	LB135255
	Thallium	5010	5000	100	90 - 110	P	04/01/2025	16:56	LB135255
	Vanadium	2410	2500	96	90 - 110	P	04/01/2025	16:56	LB135255
	Zinc	2520	2500	101	90 - 110	P	04/01/2025	16:56	LB135255
CCV08	Aluminum	9900	10000	99	90 - 110	P	04/01/2025	17:41	LB135255
	Antimony	5280	5000	106	90 - 110	P	04/01/2025	17:41	LB135255
	Arsenic	5170	5000	103	90 - 110	P	04/01/2025	17:41	LB135255
	Barium	9630	10000	96	90 - 110	P	04/01/2025	17:41	LB135255
	Beryllium	241	250	96	90 - 110	P	04/01/2025	17:41	LB135255
	Cadmium	2460	2500	98	90 - 110	P	04/01/2025	17:41	LB135255
	Calcium	23800	25000	95	90 - 110	P	04/01/2025	17:41	LB135255
	Chromium	1020	1000	102	90 - 110	P	04/01/2025	17:41	LB135255
	Cobalt	2440	2500	98	90 - 110	P	04/01/2025	17:41	LB135255
	Copper	1290	1250	103	90 - 110	P	04/01/2025	17:41	LB135255
	Iron	4940	5000	99	90 - 110	P	04/01/2025	17:41	LB135255
	Lead	5040	5000	101	90 - 110	P	04/01/2025	17:41	LB135255
	Magnesium	22800	25000	91	90 - 110	P	04/01/2025	17:41	LB135255
	Manganese	2260	2500	90	90 - 110	P	04/01/2025	17:41	LB135255
	Nickel	2500	2500	100	90 - 110	P	04/01/2025	17:41	LB135255
	Potassium	25400	25000	102	90 - 110	P	04/01/2025	17:41	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	5280	5000	106	90 - 110	P	04/01/2025	17:41	LB135255
	Silver	1260	1250	101	90 - 110	P	04/01/2025	17:41	LB135255
	Sodium	25000	25000	100	90 - 110	P	04/01/2025	17:41	LB135255
	Thallium	5110	5000	102	90 - 110	P	04/01/2025	17:41	LB135255
	Vanadium	2440	2500	98	90 - 110	P	04/01/2025	17:41	LB135255
	Zinc	2530	2500	101	90 - 110	P	04/01/2025	17:41	LB135255

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	0.24	0.2	118	40 - 160	CV	04/01/2025	11:03	LB135246
CRI01	Aluminum	94.5	100	94	40 - 160	P	04/01/2025	11:28	LB135255
	Antimony	52.0	50.0	104	40 - 160	P	04/01/2025	11:28	LB135255
	Arsenic	20.3	20.0	101	40 - 160	P	04/01/2025	11:28	LB135255
	Barium	87.8	100	88	40 - 160	P	04/01/2025	11:28	LB135255
	Beryllium	5.78	6.0	96	40 - 160	P	04/01/2025	11:28	LB135255
	Cadmium	5.60	6.0	93	40 - 160	P	04/01/2025	11:28	LB135255
	Calcium	1950	2000	98	40 - 160	P	04/01/2025	11:28	LB135255
	Chromium	9.89	10.0	99	40 - 160	P	04/01/2025	11:28	LB135255
	Cobalt	28.5	30.0	95	40 - 160	P	04/01/2025	11:28	LB135255
	Copper	22.6	20.0	113	40 - 160	P	04/01/2025	11:28	LB135255
	Iron	100	100	100	40 - 160	P	04/01/2025	11:28	LB135255
	Lead	11.7	12.0	98	40 - 160	P	04/01/2025	11:28	LB135255
	Magnesium	2030	2000	102	40 - 160	P	04/01/2025	11:28	LB135255
	Manganese	20.8	20.0	104	40 - 160	P	04/01/2025	11:28	LB135255
	Nickel	38.5	40.0	96	40 - 160	P	04/01/2025	11:28	LB135255
	Potassium	1780	2000	89	40 - 160	P	04/01/2025	11:28	LB135255
	Selenium	19.7	20.0	98	40 - 160	P	04/01/2025	11:28	LB135255
	Silver	10.3	10.0	103	40 - 160	P	04/01/2025	11:28	LB135255
	Sodium	1760	2000	88	40 - 160	P	04/01/2025	11:28	LB135255
	Thallium	41.2	40.0	103	40 - 160	P	04/01/2025	11:28	LB135255
	Vanadium	37.8	40.0	94	40 - 160	P	04/01/2025	11:28	LB135255
	Zinc	43.7	40.0	109	40 - 160	P	04/01/2025	11:28	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB68	Mercury	0.086	+/-0.20	J	0.20	CV	04/01/2025	10:56	LB135246

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Mercury	0.20	+/-0.20	U	0.20	CV	04/01/2025	11:01	LB135246
CCB08	Mercury	0.20	+/-0.20	U	0.20	CV	04/01/2025	11:31	LB135246
CCB09	Mercury	0.20	+/-0.20	U	0.20	CV	04/01/2025	12:03	LB135246
CCB10	Mercury	0.20	+/-0.20	U	0.20	CV	04/01/2025	12:26	LB135246
CCB11	Mercury	0.20	+/-0.20	U	0.20	CV	04/01/2025	13:05	LB135246

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	11:19	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	11:19	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	11:19	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	11:19	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	11:19	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	11:19	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	11:19	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	11:19	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	11:19	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	11:19	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	11:19	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	11:19	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	11:19	LB135255
	Manganese	20.0	+/-20.0	U	20.0	P	04/01/2025	11:19	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	11:19	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	11:19	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	11:19	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	11:19	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	11:19	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	11:19	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	11:19	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	11:19	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	11:54	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	11:54	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	11:54	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	11:54	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	11:54	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	11:54	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	11:54	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	11:54	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	11:54	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	11:54	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	11:54	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	11:54	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	11:54	LB135255
	Manganese	20.0	+/-20.0	U	20.0	P	04/01/2025	11:54	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	11:54	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	11:54	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	11:54	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	11:54	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	11:54	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	11:54	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	11:54	LB135255
	Zinc	4.96	+/-40.0	J	40.0	P	04/01/2025	11:54	LB135255
CCB02	Aluminum	100	+/-100	U	100	P	04/01/2025	12:48	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	12:48	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	12:48	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	12:48	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	12:48	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	12:48	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	12:48	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	12:48	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	12:48	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	12:48	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	12:48	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	12:48	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	12:48	LB135255
	Manganese	3.15	+/-20.0	J	20.0	P	04/01/2025	12:48	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	12:48	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	12:48	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	12:48	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	12:48	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	12:48	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	12:48	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	12:48	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	12:48	LB135255
CCB03	Aluminum	100	+/-100	U	100	P	04/01/2025	13:39	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	13:39	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	13:39	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	13:39	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	13:39	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	13:39	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	13:39	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	13:39	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	13:39	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	13:39	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	13:39	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	13:39	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	13:39	LB135255
	Manganese	3.45	+/-20.0	J	20.0	P	04/01/2025	13:39	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	13:39	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	13:39	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	13:39	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	13:39	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	13:39	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	13:39	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	13:39	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	13:39	LB135255
CCB04	Aluminum	100	+/-100	U	100	P	04/01/2025	14:36	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	14:36	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	14:36	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	14:36	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	14:36	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	14:36	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	14:36	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	14:36	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	14:36	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	14:36	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	14:36	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	14:36	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	14:36	LB135255
	Manganese	3.14	+/-20.0	J	20.0	P	04/01/2025	14:36	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	14:36	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	14:36	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	14:36	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	14:36	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	14:36	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	14:36	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	14:36	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	14:36	LB135255
CCB05	Aluminum	100	+/-100	U	100	P	04/01/2025	15:28	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	15:28	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	15:28	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	15:28	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	15:28	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	15:28	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	15:28	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	15:28	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	15:28	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	15:28	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	15:28	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	15:28	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	15:28	LB135255
	Manganese	3.54	+/-20.0	J	20.0	P	04/01/2025	15:28	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	15:28	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	15:28	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	15:28	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	15:28	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	15:28	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	15:28	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	15:28	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	15:28	LB135255
CCB06	Aluminum	100	+/-100	U	100	P	04/01/2025	15:56	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	15:56	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	15:56	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	15:56	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	15:56	LB135255
	Cadmium	0.20	+/-6.00	J	6.00	P	04/01/2025	15:56	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	15:56	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	15:56	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	15:56	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	15:56	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	15:56	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	15:56	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	15:56	LB135255
	Manganese	3.23	+/-20.0	J	20.0	P	04/01/2025	15:56	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	15:56	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	15:56	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	15:56	LB135255
	Silver	1.20	+/-10.0	J	10.0	P	04/01/2025	15:56	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	15:56	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	15:56	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	15:56	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	15:56	LB135255
CCB07	Aluminum	100	+/-100	U	100	P	04/01/2025	17:00	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	17:00	LB135255
	Arsenic	20.0	+/-20.0	U	20.0	P	04/01/2025	17:00	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	17:00	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	17:00	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	17:00	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	17:00	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	17:00	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	17:00	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	17:00	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	17:00	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	17:00	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	17:00	LB135255
	Manganese	3.61	+/-20.0	J	20.0	P	04/01/2025	17:00	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	17:00	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	17:00	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	17:00	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	17:00	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	17:00	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	17:00	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	17:00	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	17:00	LB135255
CCB08	Aluminum	100	+/-100	U	100	P	04/01/2025	17:50	LB135255
	Antimony	50.0	+/-50.0	U	50.0	P	04/01/2025	17:50	LB135255

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	04/01/2025	17:50	LB135255
	Barium	100	+/-100	U	100	P	04/01/2025	17:50	LB135255
	Beryllium	6.00	+/-6.00	U	6.00	P	04/01/2025	17:50	LB135255
	Cadmium	6.00	+/-6.00	U	6.00	P	04/01/2025	17:50	LB135255
	Calcium	2000	+/-2000	U	2000	P	04/01/2025	17:50	LB135255
	Chromium	10.0	+/-10.0	U	10.0	P	04/01/2025	17:50	LB135255
	Cobalt	30.0	+/-30.0	U	30.0	P	04/01/2025	17:50	LB135255
	Copper	20.0	+/-20.0	U	20.0	P	04/01/2025	17:50	LB135255
	Iron	100	+/-100	U	100	P	04/01/2025	17:50	LB135255
	Lead	12.0	+/-12.0	U	12.0	P	04/01/2025	17:50	LB135255
	Magnesium	2000	+/-2000	U	2000	P	04/01/2025	17:50	LB135255
	Manganese	20.0	+/-20.0	U	20.0	P	04/01/2025	17:50	LB135255
	Nickel	40.0	+/-40.0	U	40.0	P	04/01/2025	17:50	LB135255
	Potassium	2000	+/-2000	U	2000	P	04/01/2025	17:50	LB135255
	Selenium	20.0	+/-20.0	U	20.0	P	04/01/2025	17:50	LB135255
	Silver	10.0	+/-10.0	U	10.0	P	04/01/2025	17:50	LB135255
	Sodium	2000	+/-2000	U	2000	P	04/01/2025	17:50	LB135255
	Thallium	40.0	+/-40.0	U	40.0	P	04/01/2025	17:50	LB135255
	Vanadium	40.0	+/-40.0	U	40.0	P	04/01/2025	17:50	LB135255
	Zinc	40.0	+/-40.0	U	40.0	P	04/01/2025	17:50	LB135255

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167415BL		**WATER**		**Batch Number:**	**PB167415**		**Prep Date:**	**04/01/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	04/01/2025	11:43	LB135246

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167415TB		**WATER**		**Batch Number:**	**PB167415**		**Prep Date:**	**04/01/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	04/01/2025	12:28	LB135246

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167392BL		**WATER**		**Batch Number:**	**PB167392**		**Prep Date:**	**03/31/2025**	
	Aluminum	50.0	<50.0	U	50.0	P	04/01/2025	17:22	LB135255
	Antimony	25.0	<25.0	U	25.0	P	04/01/2025	17:22	LB135255
	Arsenic	10.0	<10.0	U	10.0	P	04/01/2025	17:22	LB135255
	Barium	50.0	<50.0	U	50.0	P	04/01/2025	17:22	LB135255
	Beryllium	3.00	<3.00	U	3.00	P	04/01/2025	17:22	LB135255
	Cadmium	3.00	<3.00	U	3.00	P	04/01/2025	17:22	LB135255
	Calcium	1000	<1000	U	1000	P	04/01/2025	17:22	LB135255
	Chromium	5.00	<5.00	U	5.00	P	04/01/2025	17:22	LB135255
	Cobalt	15.0	<15.0	U	15.0	P	04/01/2025	17:22	LB135255
	Copper	10.0	<10.0	U	10.0	P	04/01/2025	17:22	LB135255
	Iron	50.0	<50.0	U	50.0	P	04/01/2025	17:22	LB135255
	Lead	6.00	<6.00	U	6.00	P	04/01/2025	17:22	LB135255
	Magnesium	1000	<1000	U	1000	P	04/01/2025	17:22	LB135255
	Manganese	1.68	<10.0	J	10.0	P	04/01/2025	17:22	LB135255
	Nickel	20.0	<20.0	U	20.0	P	04/01/2025	17:22	LB135255
	Potassium	1000	<1000	U	1000	P	04/01/2025	17:22	LB135255
	Selenium	10.0	<10.0	U	10.0	P	04/01/2025	17:22	LB135255
	Silver	5.00	<5.00	U	5.00	P	04/01/2025	17:22	LB135255
	Sodium	1000	<1000	U	1000	P	04/01/2025	17:22	LB135255
	Thallium	20.0	<20.0	U	20.0	P	04/01/2025	17:22	LB135255
	Vanadium	20.0	<20.0	U	20.0	P	04/01/2025	17:22	LB135255
	Zinc	20.0	<20.0	U	20.0	P	04/01/2025	17:22	LB135255

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167392TB		**WATER**		**Batch Number:**	**PB167392**		**Prep Date:**	**03/31/2025**	
	Aluminum	50.0	<50.0	U	50.0	P	04/01/2025	15:36	LB135255
	Antimony	25.0	<25.0	U	25.0	P	04/01/2025	15:36	LB135255
	Arsenic	10.0	<10.0	U	10.0	P	04/01/2025	15:36	LB135255
	Barium	50.0	<50.0	U	50.0	P	04/01/2025	15:36	LB135255
	Beryllium	3.00	<3.00	U	3.00	P	04/01/2025	15:36	LB135255
	Cadmium	3.00	<3.00	U	3.00	P	04/01/2025	15:36	LB135255
	Calcium	1000	<1000	U	1000	P	04/01/2025	15:36	LB135255
	Chromium	5.00	<5.00	U	5.00	P	04/01/2025	15:36	LB135255
	Cobalt	15.0	<15.0	U	15.0	P	04/01/2025	15:36	LB135255
	Copper	10.0	<10.0	U	10.0	P	04/01/2025	15:36	LB135255
	Iron	50.0	<50.0	U	50.0	P	04/01/2025	15:36	LB135255
	Lead	6.00	<6.00	U	6.00	P	04/01/2025	15:36	LB135255
	Magnesium	1000	<1000	U	1000	P	04/01/2025	15:36	LB135255
	Manganese	10.0	<10.0	U	10.0	P	04/01/2025	15:36	LB135255
	Nickel	20.0	<20.0	U	20.0	P	04/01/2025	15:36	LB135255

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Metals
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PREPARATION BLANK SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Instrument: P4

Potassium	1000	<1000	U	1000	P	04/01/2025	15:36	LB135255
Selenium	10.0	<10.0	U	10.0	P	04/01/2025	15:36	LB135255
Silver	5.00	<5.00	U	5.00	P	04/01/2025	15:36	LB135255
Sodium	1000	<1000	U	1000	P	04/01/2025	15:36	LB135255
Thallium	20.0	<20.0	U	20.0	P	04/01/2025	15:36	LB135255
Vanadium	20.0	<20.0	U	20.0	P	04/01/2025	15:36	LB135255
Zinc	20.0	<20.0	U	20.0	P	04/01/2025	15:36	LB135255

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	242000	255000	95	216000	294000	04/01/2025	11:33	LB135255
	Antimony	-2.91			-50	50	04/01/2025	11:33	LB135255
	Arsenic	5.31			-20	20	04/01/2025	11:33	LB135255
	Barium	-1.42	6.0	24	-94	106	04/01/2025	11:33	LB135255
	Beryllium	1.24			-6	6	04/01/2025	11:33	LB135255
	Cadmium	-3.22	1.0	322	-5	7	04/01/2025	11:33	LB135255
	Calcium	224000	245000	91	208000	282000	04/01/2025	11:33	LB135255
	Chromium	56.8	52.0	109	42	62	04/01/2025	11:33	LB135255
	Cobalt	1.51			-30	30	04/01/2025	11:33	LB135255
	Copper	9.77	2.0	488	-18	22	04/01/2025	11:33	LB135255
	Iron	98900	101000	98	85600	116500	04/01/2025	11:33	LB135255
	Lead	5.78			-12	12	04/01/2025	11:33	LB135255
	Magnesium	240000	255000	94	216000	294000	04/01/2025	11:33	LB135255
	Manganese	0.56	7.0	8	-13	27	04/01/2025	11:33	LB135255
	Nickel	1.86	2.0	93	-38	42	04/01/2025	11:33	LB135255
	Potassium	-101			0	0	04/01/2025	11:33	LB135255
	Selenium	-13.6			-20	20	04/01/2025	11:33	LB135255
	Silver	-0.17			-10	10	04/01/2025	11:33	LB135255
	Sodium	-24.3			0	0	04/01/2025	11:33	LB135255
	Thallium	7.49			-40	40	04/01/2025	11:33	LB135255
	Vanadium	1.49			-40	40	04/01/2025	11:33	LB135255
	Zinc	4.63			-40	40	04/01/2025	11:33	LB135255
ICSAB01	Aluminum	246000	247000	100	209000	285000	04/01/2025	11:37	LB135255
	Antimony	659	618	107	525	711	04/01/2025	11:37	LB135255
	Arsenic	113	104	109	88.4	120	04/01/2025	11:37	LB135255
	Barium	460	537	86	437	637	04/01/2025	11:37	LB135255
	Beryllium	490	495	99	420	570	04/01/2025	11:37	LB135255
	Cadmium	989	972	102	826	1120	04/01/2025	11:37	LB135255
	Calcium	223000	235000	95	199000	271000	04/01/2025	11:37	LB135255
	Chromium	574	542	106	460	624	04/01/2025	11:37	LB135255
	Cobalt	503	476	106	404	548	04/01/2025	11:37	LB135255
	Copper	510	511	100	434	588	04/01/2025	11:37	LB135255
	Iron	96900	99300	98	84400	114500	04/01/2025	11:37	LB135255
	Lead	55.4	49.0	113	37	61	04/01/2025	11:37	LB135255
	Magnesium	239000	248000	96	210000	286000	04/01/2025	11:37	LB135255
	Manganese	466	507	92	430	584	04/01/2025	11:37	LB135255
	Nickel	1000	954	105	810	1100	04/01/2025	11:37	LB135255
	Potassium	-104			0	0	04/01/2025	11:37	LB135255
	Selenium	39.8	46.0	86	26	66	04/01/2025	11:37	LB135255
	Silver	194	201	96	170	232	04/01/2025	11:37	LB135255
	Sodium	-9.42			0	0	04/01/2025	11:37	LB135255
	Thallium	101	108	94	68	148	04/01/2025	11:37	LB135255

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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	476	491	97	417	565	04/01/2025	11:37	LB135255
	Zinc	1090	952	114	809	1095	04/01/2025	11:37	LB135255

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: Weston Solutions, Inc. **level:** low **sdg no.:** Q1664

contract: ROYF02 **lab code:** CHEM **case no.:** Q1664 **sas no.:** Q1664

matrix: Water **sample id:** Q1664-04 **client id:** P001-BBDGA-001-01MS

Percent Solids for Sample: NA **Spiked ID:** Q1664-05 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	8280		5040		1000	324		P
Antimony	ug/L	75 - 125	408		25.0	U	400	102		P
Arsenic	ug/L	75 - 125	399		10.0	U	400	100		P
Barium	ug/L	75 - 125	199		109		100	90		P
Beryllium	ug/L	75 - 125	86.9		1.22	J	100	86		P
Cadmium	ug/L	75 - 125	96.5		3.00	U	100	96		P
Calcium	ug/L	75 - 125	506000		463000		500	8472		P
Chromium	ug/L	75 - 125	210		21.9		200	94		P
Cobalt	ug/L	75 - 125	162		54.4		100	108		P
Copper	ug/L	75 - 125	771		323		150	298	N	P
Iron	ug/L	75 - 125	67900		60100		1500	520		P
Lead	ug/L	75 - 125	469		4.13	J	500	93		P
Magnesium	ug/L	75 - 125	56400		51300		1000	510		P
Manganese	ug/L	75 - 125	7920		6990		100	936		P
Mercury	ug/L	75 - 125	3.61		0.20	U	4.0	90		CV
Nickel	ug/L	75 - 125	321		63.4		250	103		P
Potassium	ug/L	75 - 125	6920		1340		5000	112		P
Selenium	ug/L	75 - 125	1000		10.0	U	1000	100		P
Silver	ug/L	75 - 125	36.4		5.00	U	37.5	97		P
Sodium	ug/L	75 - 125	20700		16600		1500	269		P
Thallium	ug/L	75 - 125	926		20.0	U	1000	93		P
Vanadium	ug/L	75 - 125	214		73.0		150	94		P
Zinc	ug/L	75 - 125	710		474		100	236		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: Weston Solutions, Inc. **level:** low **sdg no.:** Q1664

contract: ROYF02 **lab code:** CHEM **case no.:** Q1664 **sas no.:** Q1664

matrix: Water **sample id:** Q1664-04 **client id:** P001-BBDGA-001-01MSD

Percent Solids for Sample: NA **Spiked ID:** Q1664-06 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	7760		5040		1000	272		P
Antimony	ug/L	75 - 125	387		25.0	U	400	97		P
Arsenic	ug/L	75 - 125	376		10.0	U	400	94		P
Barium	ug/L	75 - 125	187		109		100	78		P
Beryllium	ug/L	75 - 125	80.2		1.22	J	100	79		P
Cadmium	ug/L	75 - 125	89.6		3.00	U	100	90		P
Calcium	ug/L	75 - 125	475000		463000		500	2315		P
Chromium	ug/L	75 - 125	196		21.9		200	87		P
Cobalt	ug/L	75 - 125	151		54.4		100	97		P
Copper	ug/L	75 - 125	736		323		150	275	N	P
Iron	ug/L	75 - 125	64600		60100		1500	295		P
Lead	ug/L	75 - 125	436		4.13	J	500	86		P
Magnesium	ug/L	75 - 125	52600		51300		1000	129		P
Manganese	ug/L	75 - 125	7460		6990		100	470		P
Mercury	ug/L	75 - 125	3.48		0.20	U	4.0	87		CV
Nickel	ug/L	75 - 125	300		63.4		250	95		P
Potassium	ug/L	75 - 125	6550		1340		5000	104		P
Selenium	ug/L	75 - 125	953		10.0	U	1000	95		P
Silver	ug/L	75 - 125	34.4		5.00	U	37.5	92		P
Sodium	ug/L	75 - 125	19800		16600		1500	209		P
Thallium	ug/L	75 - 125	858		20.0	U	1000	86		P
Vanadium	ug/L	75 - 125	200		73.0		150	84		P
Zinc	ug/L	75 - 125	669		474		100	195		P

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POST DIGEST SPIKE SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Matrix: Water **Level:** LOW **Client ID:** P001-BBDGA-001-01A

Sample ID: Q1664-04 **Spiked ID:** Q1664-04A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/L	75 - 125	443		323		150	80		P

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions, Inc. **Level:** LOW **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Matrix: Water **Sample ID:** Q1664-04 **Client ID:** P001-BBDGA-001-01DUP

Percent Solids for Sample: NA **Duplicate ID** Q1664-04DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	5040		4840		4		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	109		105		4		P
Beryllium	ug/L	20	1.22	J	1.26	J	3		P
Cadmium	ug/L	20	3.00	U	3.00	U			P
Calcium	ug/L	20	463000		450000		3		P
Chromium	ug/L	20	21.9		21.2		3		P
Cobalt	ug/L	20	54.4		52.6		3		P
Copper	ug/L	20	323		313		3		P
Iron	ug/L	20	60100		58000		4		P
Lead	ug/L	20	4.13	J	6.00	U	200.0		P
Magnesium	ug/L	20	51300		49700		3		P
Manganese	ug/L	20	6990		6730		4		P
Mercury	ug/L	20	0.20	U	0.076	J	200.0		CV
Nickel	ug/L	20	63.4		60.7		4		P
Potassium	ug/L	20	1340		1240		8		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	16600		15900		4		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	73.0		70.5		3		P
Zinc	ug/L	20	474		457		4		P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Weston Solutions, Inc. **Level:** LOW **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Matrix: Water **Sample ID:** Q1664-05 **Client ID:** P001-BBDGA-001-01MSD

Percent Solids for Sample: NA **Duplicate ID** Q1664-06 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	8280		7760		6		P
Antimony	ug/L	20	408		387		5		P
Arsenic	ug/L	20	399		376		6		P
Barium	ug/L	20	199		187		6		P
Beryllium	ug/L	20	86.9		80.2		8		P
Cadmium	ug/L	20	96.5		89.6		7		P
Calcium	ug/L	20	506000		475000		6		P
Chromium	ug/L	20	210		196		7		P
Cobalt	ug/L	20	162		151		7		P
Copper	ug/L	20	771		736		5		P
Iron	ug/L	20	67900		64600		5		P
Lead	ug/L	20	469		436		7		P
Magnesium	ug/L	20	56400		52600		7		P
Manganese	ug/L	20	7920		7460		6		P
Mercury	ug/L	20	3.61		3.48		4		CV
Nickel	ug/L	20	321		300		7		P
Potassium	ug/L	20	6920		6550		5		P
Selenium	ug/L	20	1000		953		5		P
Silver	ug/L	20	36.4		34.4		6		P
Sodium	ug/L	20	20700		19800		4		P
Thallium	ug/L	20	926		858		8		P
Vanadium	ug/L	20	214		200		7		P
Zinc	ug/L	20	710		669		6		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167392BS							
Aluminum	ug/L	1000	948		95	80 - 120	P
Antimony	ug/L	400	411		103	80 - 120	P
Arsenic	ug/L	400	388		97	80 - 120	P
Barium	ug/L	100	85.6		86	80 - 120	P
Beryllium	ug/L	100	96.8		97	80 - 120	P
Cadmium	ug/L	100	93.4		93	80 - 120	P
Calcium	ug/L	500	487	J	97	80 - 120	P
Chromium	ug/L	200	203		102	80 - 120	P
Cobalt	ug/L	100	94.0		94	80 - 120	P
Copper	ug/L	150	153		102	80 - 120	P
Iron	ug/L	1500	1390		93	80 - 120	P
Lead	ug/L	500	475		95	80 - 120	P
Magnesium	ug/L	1000	883	J	88	80 - 120	P
Manganese	ug/L	100	102		102	80 - 120	P
Nickel	ug/L	250	242		97	80 - 120	P
Potassium	ug/L	5000	4520		90	80 - 120	P
Selenium	ug/L	1000	999		100	80 - 120	P
Silver	ug/L	37.5	37.3		100	80 - 120	P
Sodium	ug/L	1500	1300		87	80 - 120	P
Thallium	ug/L	1000	987		99	80 - 120	P
Vanadium	ug/L	150	140		93	80 - 120	P
Zinc	ug/L	100	100		100	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167415BS							
Mercury	ug/L	4.0	3.75		94	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

P001-BBDGA-001-01L

Lab Name: Chemtech Consulting Group **Contract:** ROYF02

Lab Code: CHEM **Lb No.:** lb135255 **Lab Sample ID :** Q1664-04L **SDG No.:** Q1664

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	5040		5370		6		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	109		99.8	J	9		P
Beryllium	1.22	J	1.37	J	12		P
Cadmium	3.00	U	15.0	U			P
Calcium	463000		521000		13		P
Chromium	21.9		23.7	J	8		P
Cobalt	54.4		54.8	J	1		P
Copper	323		374		16		P
Iron	60100		65100		8		P
Lead	4.13	J	30.0	U	100.0		P
Magnesium	51300		56200		10		P
Manganese	6990		7800		12		P
Mercury	0.20	U	1.00	U			CV
Nickel	63.4		64.3	J	1		P
Potassium	1340		5000	U	100.0		P
Selenium	10.0	U	50.0	U			P
Silver	5.00	U	25.0	U			P
Sodium	16600		15800		5		P
Thallium	20.0	U	100	U			P
Vanadium	73.0		79.7	J	9		P
Zinc	474		511		8		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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

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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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

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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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

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ICP INTERELEMENT CORRECTION FACTORS

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Case No.:** Q1664 **SAS No.:** Q1664

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

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Metals
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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Method:**

Case No.: Q1664 **SAS No.:** Q1664

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167392**						
PB167392BL	PB167392BL	MB	WATER	03/31/2025	50.0	25.0	
PB167392BS	PB167392BS	LCS	WATER	03/31/2025	50.0	25.0	
PB167392TB	PB167392TB	MB	WATER	03/31/2025	50.0	25.0	
Q1664-04	P001-BBDGA-001-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-04DUP	P001-BBDGA-001-01DUP	DUP	WATER	03/31/2025	50.0	25.0	
Q1664-05	P001-BBDGA-001-01MS	MS	WATER	03/31/2025	50.0	25.0	
Q1664-06	P001-BBDGA-001-01MSD	MSD	WATER	03/31/2025	50.0	25.0	
Q1664-08	P001-BBDGA-001-02	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-10	P001-BBDGA-002-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-12	P001-BBDGA-003-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-14	P001-BBDGA-004-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-16	P001-BBDGA-005-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-18	P001-BBDGA-006-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-20	P001-BBDGA-007-01	SAM	WATER	03/31/2025	50.0	25.0	
Q1664-22	P001-BBDGA-008-01	SAM	WATER	03/31/2025	50.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: Weston Solutions, Inc. **SDG No.:** Q1664

Contract: ROYF02 **Lab Code:** CHEM **Method:**

Case No.: Q1664 **SAS No.:** Q1664

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167415**						
PB167415BL	PB167415BL	MB	WATER	04/01/2025	30.0	30.0	
PB167415BS	PB167415BS	LCS	WATER	04/01/2025	30.0	30.0	
PB167415TB	PB167415TB	MB	WATER	04/01/2025	30.0	30.0	
Q1664-04	P001-BBDGA-001-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-04DUP	P001-BBDGA-001-01DUP	DUP	WATER	04/01/2025	30.0	30.0	
Q1664-05	P001-BBDGA-001-01MS	MS	WATER	04/01/2025	30.0	30.0	
Q1664-06	P001-BBDGA-001-01MSD	MSD	WATER	04/01/2025	30.0	30.0	
Q1664-08	P001-BBDGA-001-02	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-10	P001-BBDGA-002-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-12	P001-BBDGA-003-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-14	P001-BBDGA-004-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-16	P001-BBDGA-005-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-18	P001-BBDGA-006-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-20	P001-BBDGA-007-01	SAM	WATER	04/01/2025	30.0	30.0	
Q1664-22	P001-BBDGA-008-01	SAM	WATER	04/01/2025	30.0	30.0	

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metals
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ANALYSIS RUN LOG

Client: Weston Solutions, Inc. **Contract:** ROYF02

Lab code: CHEM **Case no.:** Q1664 **Sas no.:** Q1664 **Sdg no.:** Q1664

Instrument id number: **Method:** **Run number:** LB135246

Start date: 04/01/2025 **End date:** 04/01/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1024	HG
S0.2	S0.2	1	1031	HG
S2.5	S2.5	1	1033	HG
S5	S5	1	1035	HG
S7.5	S7.5	1	1041	HG
S10	S10	1	1043	HG
ICV68	ICV68	1	1051	HG
ICB68	ICB68	1	1056	HG
CCV07	CCV07	1	1059	HG
CCB07	CCB07	1	1101	HG
CRA	CRA	1	1103	HG
CCV08	CCV08	1	1129	HG
CCB08	CCB08	1	1131	HG
PB167415BL	PB167415BL	1	1143	HG
PB167415BS	PB167415BS	1	1145	HG
Q1664-04	P001-BBDGA-001-01	1	1152	HG
Q1664-04DUP	P001-BBDGA-001-01DUP	1	1154	HG
Q1664-05	P001-BBDGA-001-01MS	1	1157	HG
Q1664-06	P001-BBDGA-001-01MSD	1	1159	HG
CCV09	CCV09	1	1201	HG
CCB09	CCB09	1	1203	HG
Q1664-08	P001-BBDGA-001-02	1	1206	HG
Q1664-10	P001-BBDGA-002-01	1	1208	HG
Q1664-12	P001-BBDGA-003-01	1	1210	HG
Q1664-14	P001-BBDGA-004-01	1	1212	HG
Q1664-16	P001-BBDGA-005-01	1	1215	HG
Q1664-18	P001-BBDGA-006-01	1	1217	HG
Q1664-20	P001-BBDGA-007-01	1	1219	HG
Q1664-22	P001-BBDGA-008-01	1	1222	HG
CCV10	CCV10	1	1224	HG
CCB10	CCB10	1	1226	HG
PB167415TB	PB167415TB	1	1228	HG
Q1664-04L	P001-BBDGA-001-01L	5	1237	HG
CCV11	CCV11	1	1302	HG
CCB11	CCB11	1	1305	HG

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metals
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ANALYSIS RUN LOG

Client: Weston Solutions, Inc. **Contract:** ROYF02

Lab code: CHEM **Case no.:** Q1664 **Sas no.:** Q1664 **Sdg no.:** Q1664

Instrument id number: **Method:** **Run number:** LB135255

Start date: 04/01/2025 **End date:** 04/01/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1031	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	1035	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	1040	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	1044	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	1048	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	1052	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	1057	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	1115	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	1119	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	1128	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	1133	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	1137	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	1150	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	1154	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	1243	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	1248	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	1335	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	1339	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	1431	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	1436	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	1523	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	1528	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167392TB	PB167392TB	1	1536	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	1552	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	1556	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-04	P001-BBDGA-001-01	1	1601	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-04DUP	P001-BBDGA-001-01DUP	1	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-04L	P001-BBDGA-001-01L	5	1609	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-05	P001-BBDGA-001-01MS	1	1613	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-06	P001-BBDGA-001-01MSD	1	1617	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-04A	P001-BBDGA-001-01A	1	1634	Cu
Q1664-08	P001-BBDGA-001-02	1	1639	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-10	P001-BBDGA-002-01	1	1643	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-12	P001-BBDGA-003-01	1	1647	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-14	P001-BBDGA-004-01	1	1652	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	1656	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	1700	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-16	P001-BBDGA-005-01	1	1704	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-18	P001-BBDGA-006-01	1	1709	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-20	P001-BBDGA-007-01	1	1713	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
Q1664-22	P001-BBDGA-008-01	1	1717	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
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ANALYSIS RUN LOG

Client: Weston Solutions, Inc. **Contract:** ROYF02

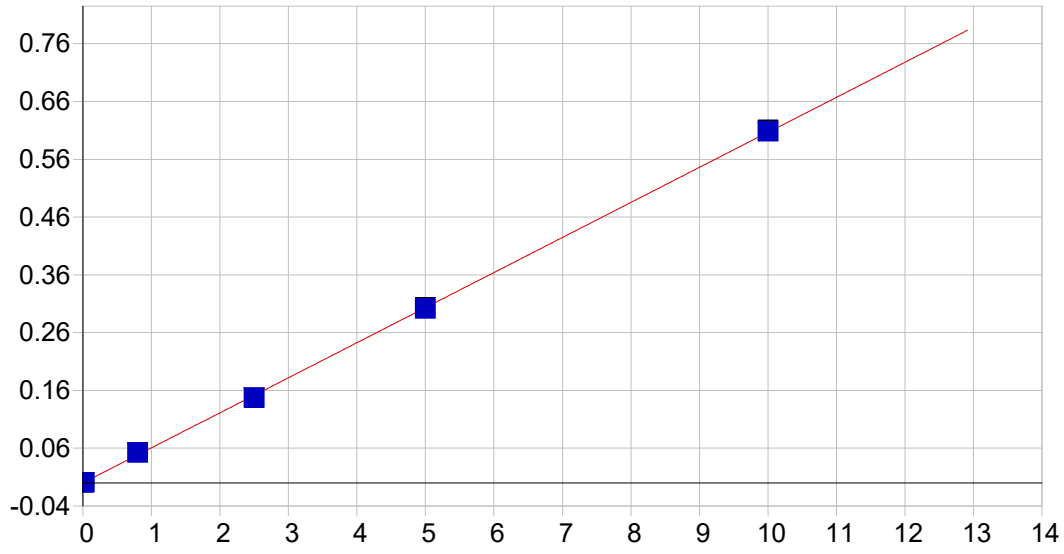
Lab code: CHEM **Case no.:** Q1664 **Sas no.:** Q1664 **Sdg no.:** Q1664

Instrument id number: **Method:** **Run number:** LB135255

Start date: 04/01/2025 **End date:** 04/01/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
PB167392BL	PB167392BL	1	1722	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB167392BS	PB167392BS	1	1726	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	1741	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	1750	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

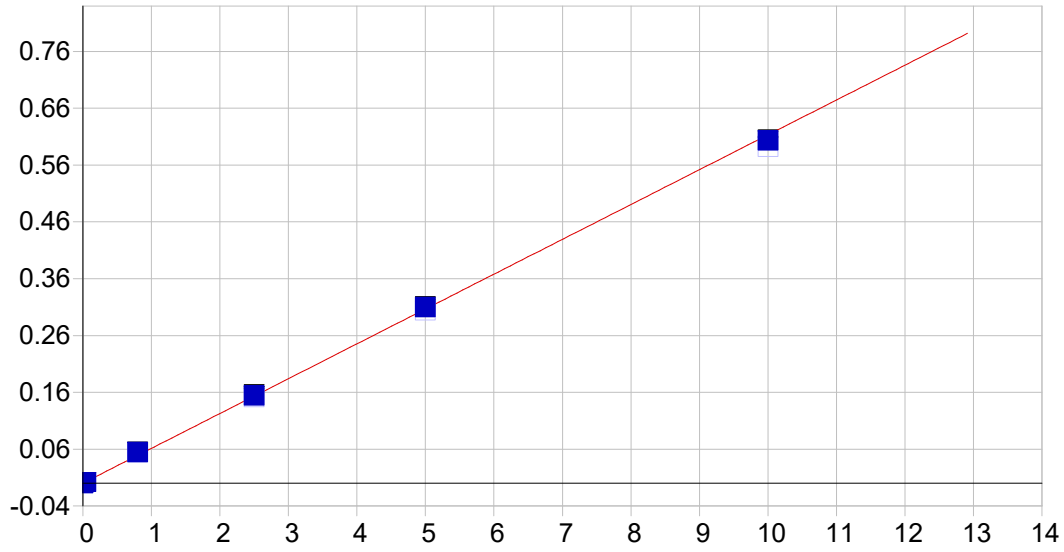


As 189.042 {479}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000070	Re-Slope:	1.000000
A1 (Gain):	0.060669	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.002655		
Predicted MQL:	0.008850		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.02000	.02052	.001	2.61	.00117	.000	1
S3	2.5000	2.4291	-.071	-2.84	.14714	.001	1
S4	5.0000	4.9752	-.025	-.496	.30144	.002	1
S5	10.000	10.033	.033	.329	.60796	.002	1
S2	.80000	.86221	.062	7.78	.05219	.000	1

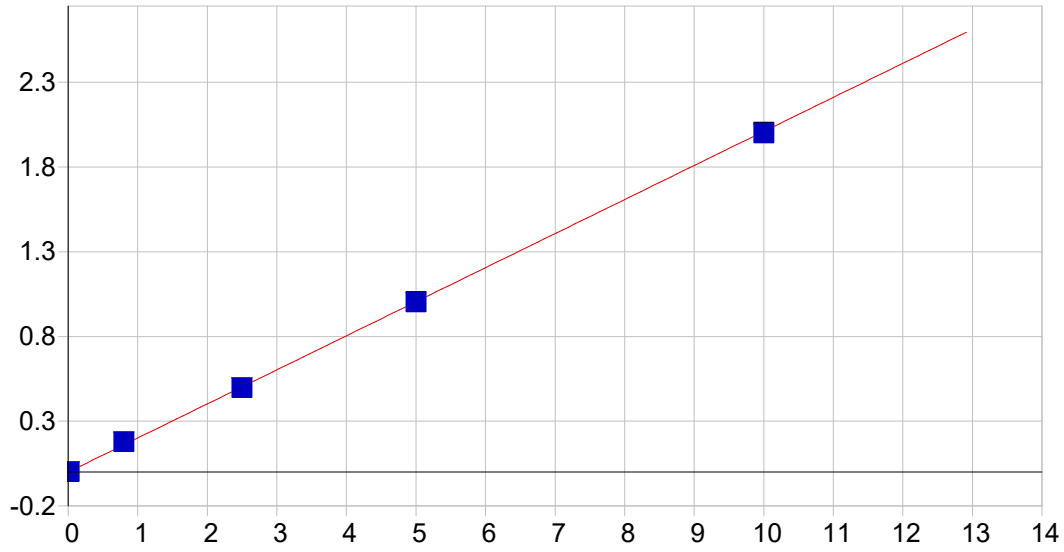


Tl 190.856 {477}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000011	Re-Slope:	1.000000
A1 (Gain):	0.061328	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999604	Status:	OK.
Std Error of Est:	0.000056		
Predicted MDL:	0.001904		
Predicted MQL:	0.006348		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00001	.000	1
S1	.04000	.04019	.000	.467	.00230	.000	1
S3	2.5000	2.5129	.013	.516	.15127	.002	1
S4	5.0000	5.0538	.054	1.08	.30428	.001	1
S5	10.000	9.8402	-.160	-1.60	.59217	.001	1
S2	.80000	.89292	.093	11.6	.05385	.000	1

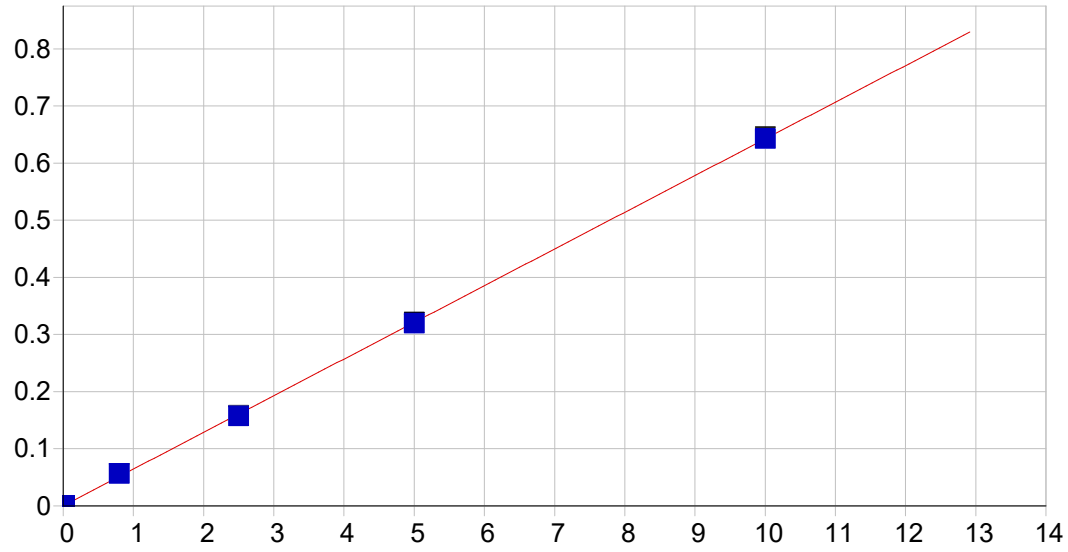


Pb 220.353 {453}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000171	Re-Slope:	1.000000
A1 (Gain):	0.201022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999733	Status:	OK.
Std Error of Est:	0.000084		
Predicted MDL:	0.001453		
Predicted MQL:	0.004843		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00017	.000	1
S1	.01200	.01103	-.001	-8.10	.00200	.000	1
S3	2.5000	2.4760	-.024	-.958	.49702	.001	1
S4	5.0000	4.9881	-.012	-.237	1.0014	.003	1
S5	10.000	9.9510	-.049	-.490	1.9980	.005	1
S2	.80000	.88576	.086	10.7	.17771	.001	1

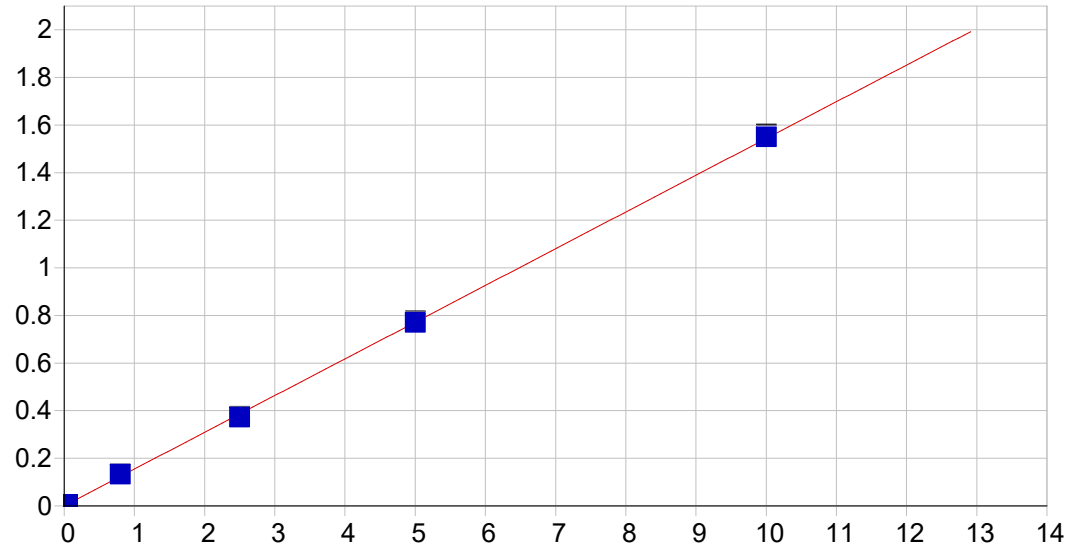


Se 196.090 {472}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000259	Re-Slope:	1.000000
A1 (Gain):	0.064216	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.003056		
Predicted MQL:	0.010187		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00026	.000	1
S1	.02000	.01976	-.000	-1.22	.00153	.000	1
S3	2.5000	2.4461	-.054	-2.16	.15728	.001	1
S4	5.0000	4.9735	-.027	-.530	.31952	.002	1
S5	10.000	10.006	.006	.064	.64260	.003	1
S2	.80000	.87427	.074	9.28	.05638	.000	1

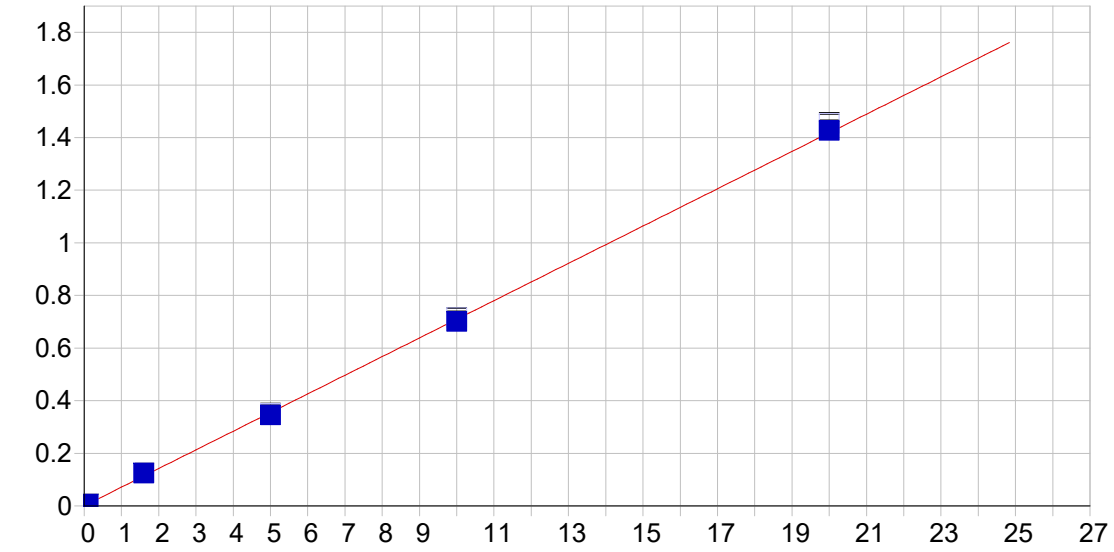


Sb 206.833 {463}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000541	Re-Slope:	1.000000
A1 (Gain):	0.154290	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999804	Status:	OK.
Std Error of Est:	0.000114		
Predicted MDL:	0.001913		
Predicted MQL:	0.006375		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00054	.000	1
S1	.05000	.04976	-.000	-.480	.00823	.000	1
S3	2.5000	2.4109	-.089	-3.57	.37356	.002	1
S4	5.0000	4.9919	-.008	-.162	.77284	.005	1
S5	10.000	10.042	.042	.418	1.5541	.008	1
S2	.80000	.85567	.056	6.96	.13290	.001	1

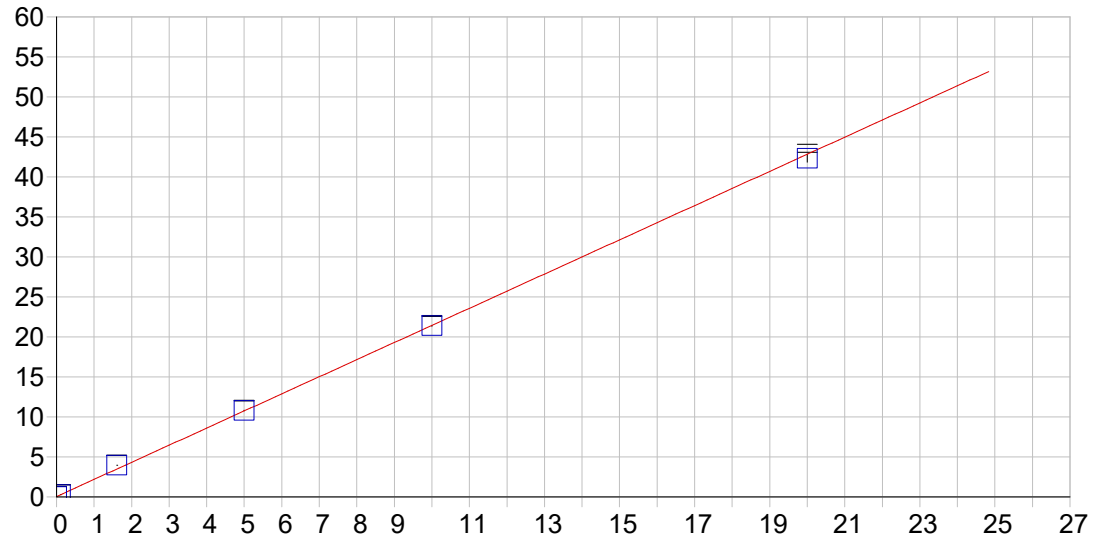


Al 396.152 { 85}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000410	Re-Slope:	1.000000
A1 (Gain):	0.070894	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999760	Status:	OK.
Std Error of Est:	0.000117		
Predicted MDL:	0.006535		
Predicted MQL:	0.021784		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00041	.000	1
S1	.10000	.09986	-.000	-.140	.00804	.000	1
S3	5.0000	4.8608	-.139	-2.78	.35189	.000	1
S4	10.000	9.8818	-.118	-1.18	.71473	.002	1
S5	20.000	20.117	.117	.586	1.4541	.003	1
S2	1.6000	1.7404	.140	8.78	.12600	.000	1

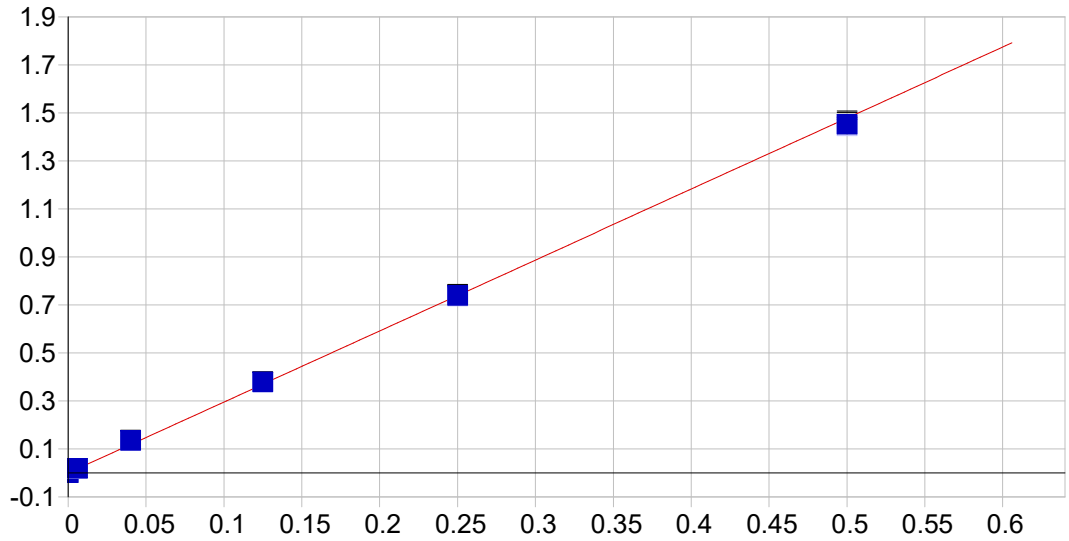


Ba 493.409 { 68}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.048346	Re-Slope:	1.000000
A1 (Gain):	2.139115	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999524	Status:	OK.
Std Error of Est:	0.004895		
Predicted MDL:	0.000810		
Predicted MQL:	0.002699		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.04831	.002	1
S1	.10000	.10162	.002	1.62	.26572	.002	1
S3	5.0000	5.0274	.027	.547	10.802	.049	1
S4	10.000	9.9742	-.026	-.258	21.384	.047	1
S5	20.000	19.770	-.230	-1.15	42.339	.494	1
S2	1.6000	1.8265	.226	14.2	3.9554	.012	1

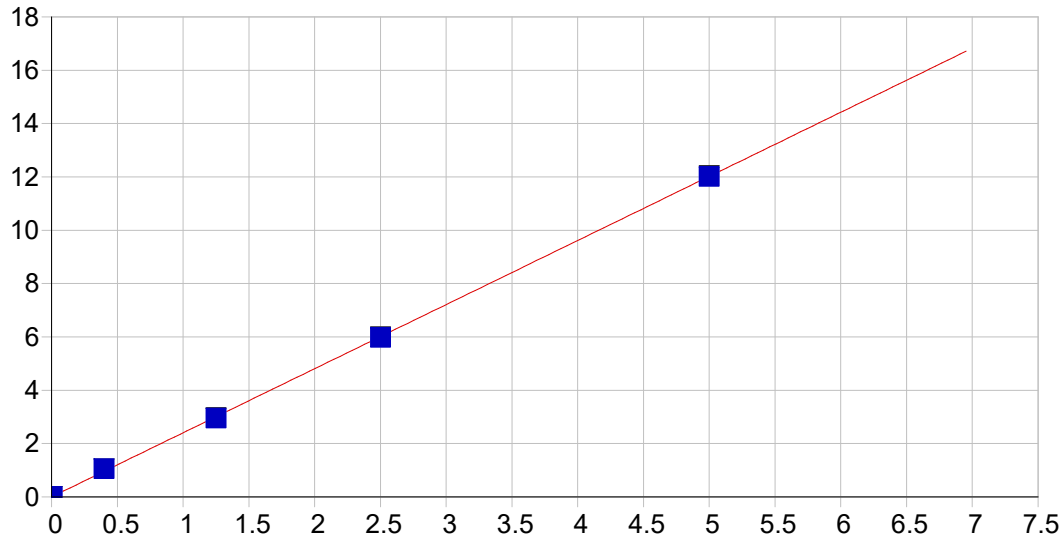


Be 234.861 {144}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000080	Re-Slope:	1.000000
A1 (Gain):	2.956940	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999432	Status:	OK.
Std Error of Est:	0.000286		
Predicted MDL:	0.000080		
Predicted MQL:	0.000268		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00008	.000	1
S1	.00600	.00615	.000	2.48	.01797	.000	1
S3	.12500	.12808	.003	2.47	.37699	.001	1
S4	.25000	.25003	.000	.010	.73592	.005	1
S5	.50000	.49109	-.009	-1.78	1.4454	.014	1
S2	.04000	.04565	.006	14.1	.13439	.001	1

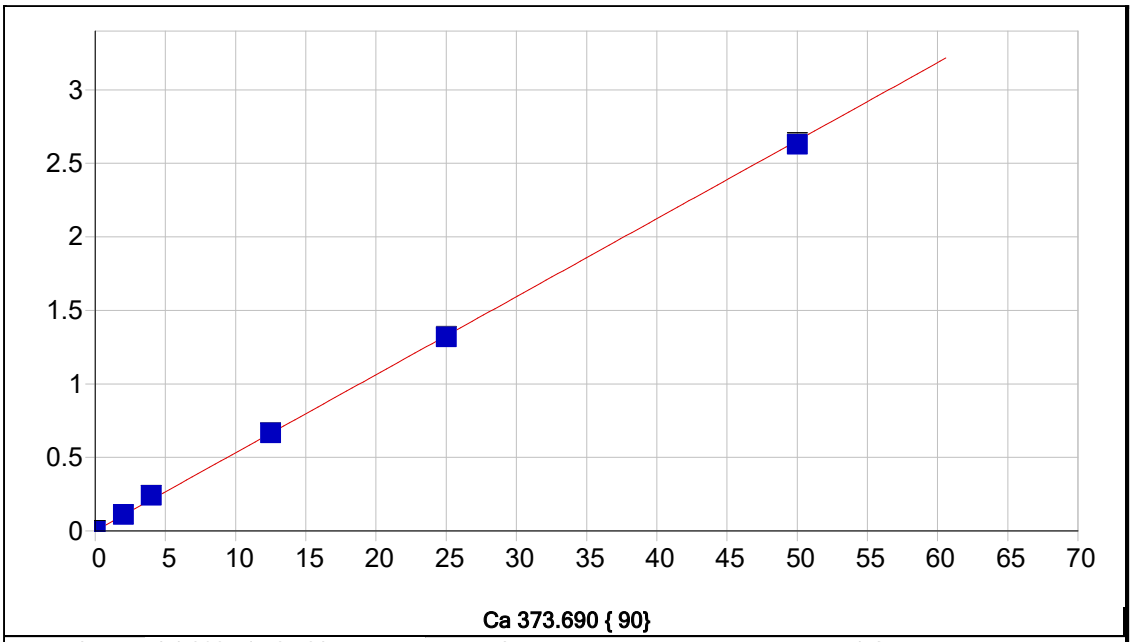


Cd 226.502 {449}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000092	Re-Slope:	1.000000
A1 (Gain):	2.403863	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999788	Status:	OK.
Std Error of Est:	0.000450		
Predicted MDL:	0.000084		
Predicted MQL:	0.000279		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.00600	.00587	-.000	-2.23	.01427	.000	1
S3	1.2500	1.2287	-.021	-1.70	2.9564	.005	1
S4	2.5000	2.4879	-.012	-.484	5.9860	.018	1
S5	5.0000	4.9962	-.004	-.075	12.021	.027	1
S2	.40000	.43726	.037	9.32	1.0521	.005	1

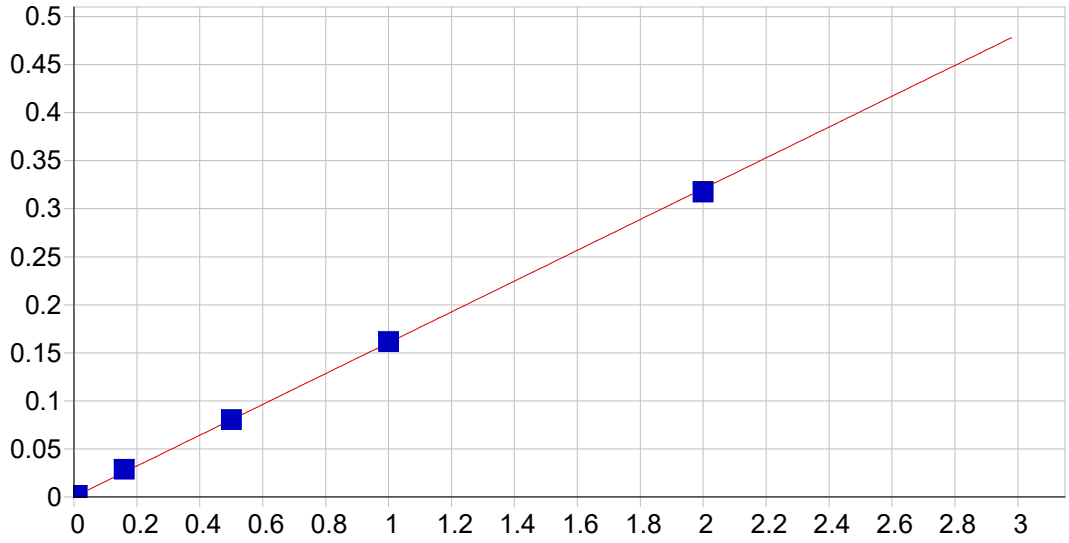


Ca 373.690 { 90}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001000	Re-Slope:	1.000000
A1 (Gain):	0.053068	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999576	Status:	OK.
Std Error of Est:	0.000818		
Predicted MDL:	0.008074		
Predicted MQL:	0.026914		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00032	-.000	.000	.00098	.000	1
S2	4.0000	4.5298	.530	13.2	.24139	.000	1
S3	12.500	12.522	.022	.174	.66550	.000	1
S4	25.000	24.820	-.180	-.720	1.3181	.006	1
S5	50.000	49.544	-.456	-.913	2.6302	.009	1
S1	2.0000	2.0848	.085	4.24	.11163	.000	1

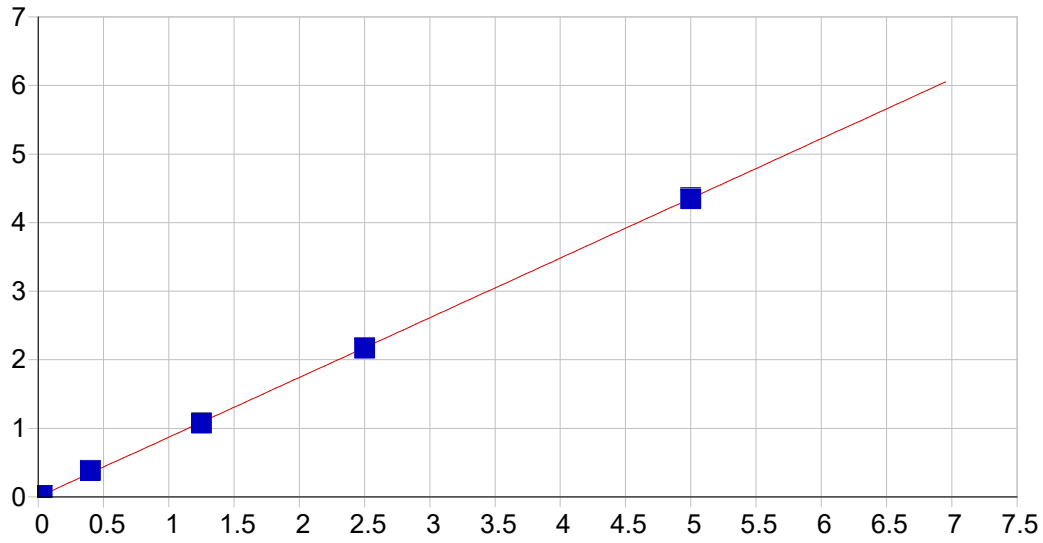


Cr 267.716 {126}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000066	Re-Slope:	1.000000
A1 (Gain):	0.160405	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999699	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.000390		
Predicted MQL:	0.001300		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00007	.000	1
S1	.01000	.00965	-.000	-3.49	.00161	.000	1
S3	.50000	.49979	-.000	-.043	.08026	.000	1
S4	1.0000	1.0069	.007	.692	.16163	.000	1
S5	2.0000	1.9763	-.024	-1.18	.31718	.001	1
S2	.16000	.17730	.017	10.8	.02851	.000	1

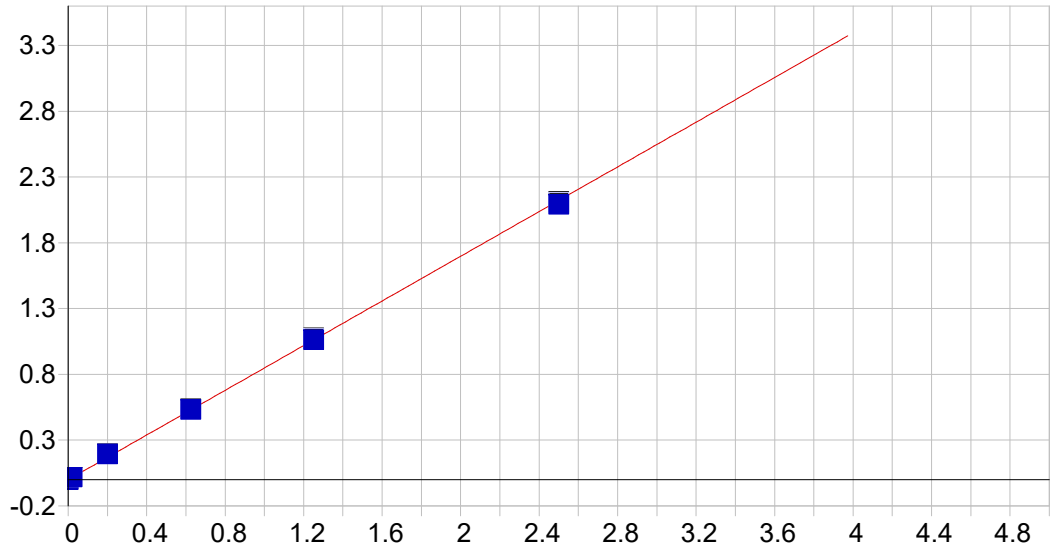


Co 228.616 {448}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000135	Re-Slope:	1.000000
A1 (Gain):	0.870717	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999762	Status:	OK.
Std Error of Est:	0.000387		
Predicted MDL:	0.000244		
Predicted MQL:	0.000814		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00013	.000	1
S1	.03000	.02958	-.000	-1.41	.02578	.000	1
S3	1.2500	1.2318	-.018	-1.46	1.0745	.003	1
S4	2.5000	2.4877	-.012	-.492	2.1699	.006	1
S5	5.0000	4.9907	-.009	-.185	4.3530	.008	1
S2	.40000	.44022	.040	10.1	.38403	.001	1

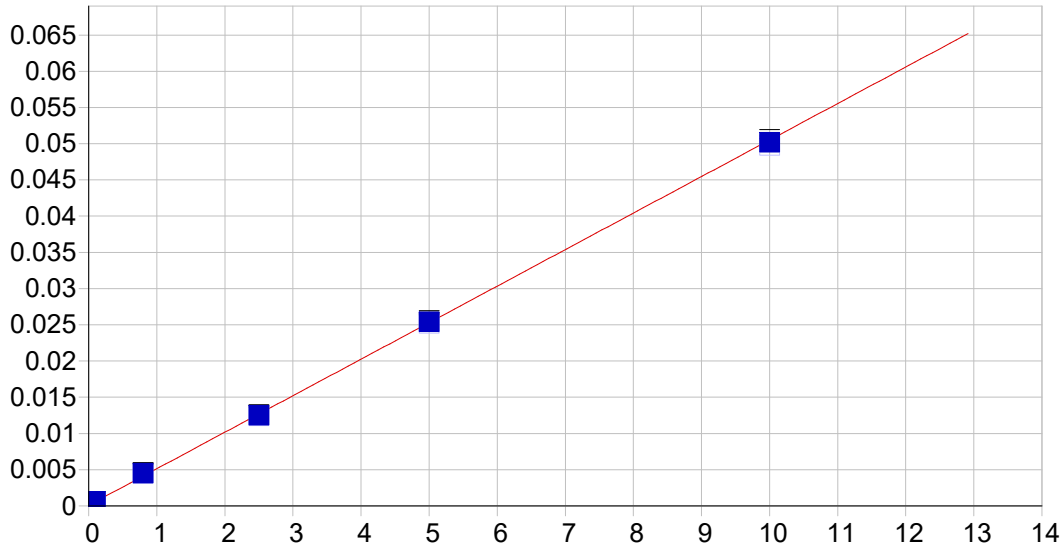


Cu 224.700 {450}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000775	Re-Slope:	1.000000
A1 (Gain):	0.849350	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999468	Status:	OK.
Std Error of Est:	0.000327		
Predicted MDL:	0.000415		
Predicted MQL:	0.001383		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00078	.000	1
S1	.02000	.02256	.003	12.8	.01855	.000	1
S3	.62500	.62727	.002	.363	.53576	.002	1
S4	1.2500	1.2534	.003	.271	1.0713	.005	1
S5	2.5000	2.4632	-.037	-1.47	2.1064	.008	1
S2	.20000	.22853	.029	14.3	.19453	.000	1

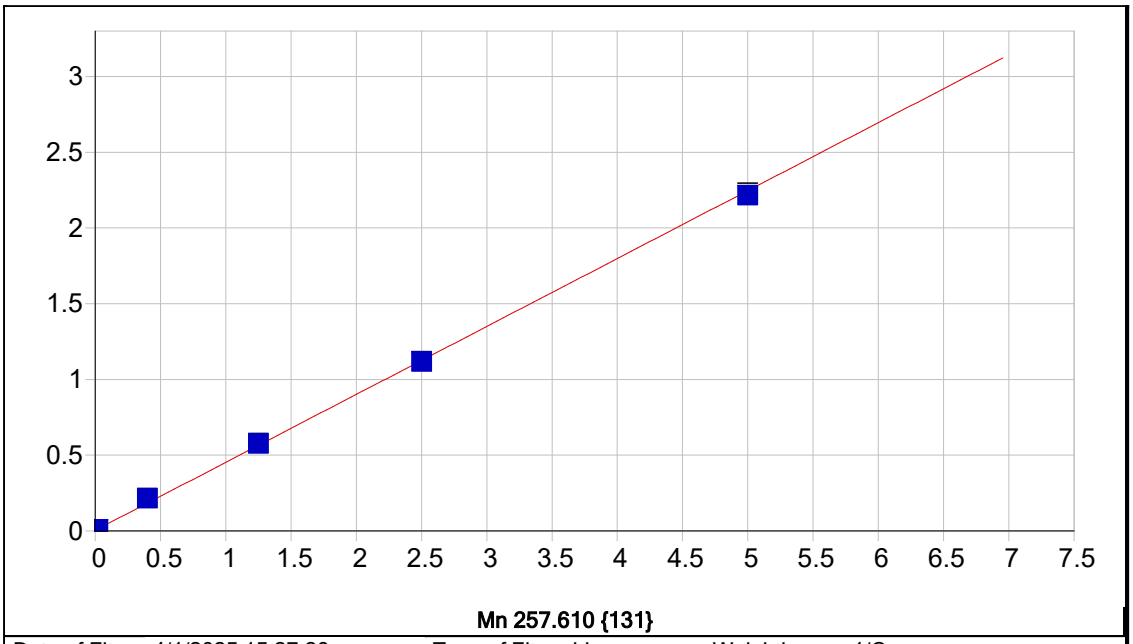


Fe 240.488 {140}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000089	Re-Slope:	1.000000
A1 (Gain):	0.005042	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999759	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.004265		
Predicted MQL:	0.014217		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00009	.000	1
S1	.10000	.10142	.001	1.42	.00059	.000	1
S3	2.5000	2.4633	-.037	-1.47	.01240	.000	1
S4	5.0000	5.0211	.021	.422	.02519	.000	1
S5	10.000	9.9359	-.064	-.641	.04975	.000	1
S2	.80000	.87821	.078	9.78	.00448	.000	1

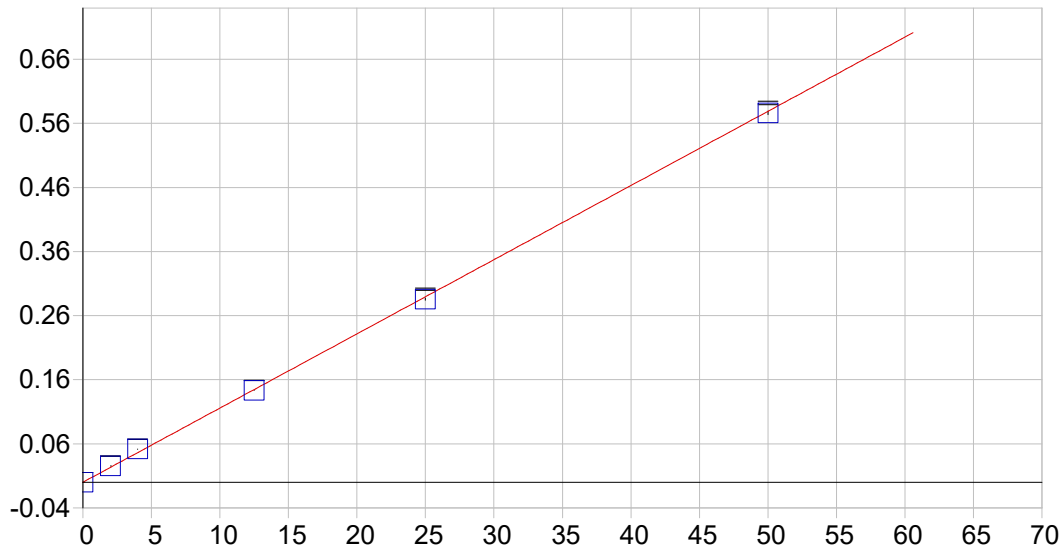


Mn 257.610 {131}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004103	Re-Slope:	1.000000
A1 (Gain):	0.448518	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999185	Status:	OK.
Std Error of Est:	0.000300		
Predicted MDL:	0.000361		
Predicted MQL:	0.001202		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00410	.000	1
S1	.02000	.01466	-.005	-26.7	.01068	.000	1
S3	1.2500	1.2746	.025	1.97	.57590	.003	1
S4	2.5000	2.4819	-.018	-.725	1.1175	.002	1
S5	5.0000	4.9298	-.070	-1.40	2.2156	.015	1
S2	.40000	.46909	.069	17.3	.21453	.001	1

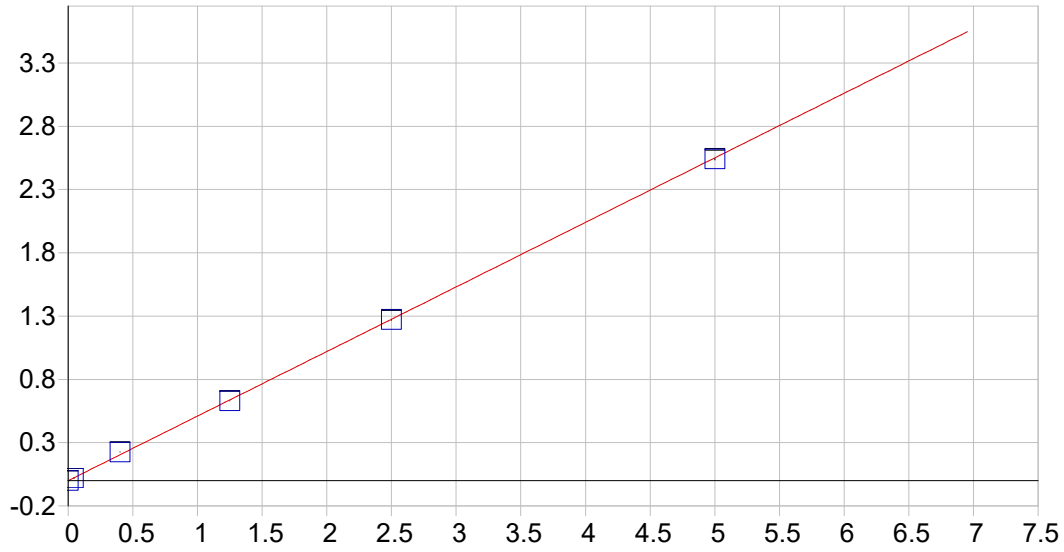


Mg 279.079 {121}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.011578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999579	Status:	OK.
Std Error of Est:	0.000178		
Predicted MDL:	0.015347		
Predicted MQL:	0.051158		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00037	-.000	.000	-.00001	.000	1
S2	4.0000	4.4716	.472	11.8	.05177	.000	1
S3	12.500	12.380	-.120	-.957	.14334	.000	1
S4	25.000	24.679	-.321	-1.28	.28573	.002	1
S5	50.000	49.785	-.215	-.429	.57642	.003	1
S1	2.0000	2.1839	.184	9.20	.02528	.000	1

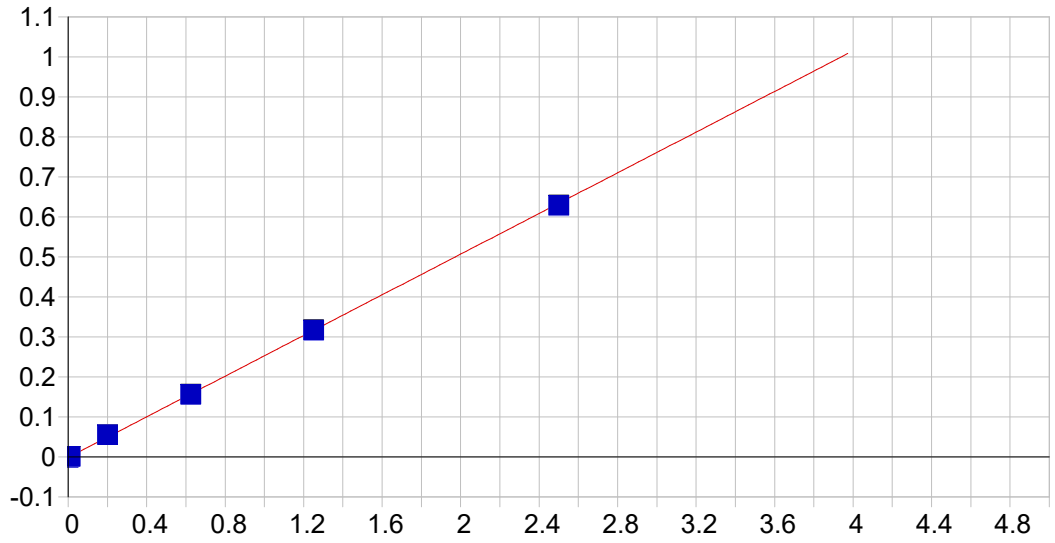


Ni 231.604 {446}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000292	Re-Slope:	1.000000
A1 (Gain):	0.510210	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999748	Status:	OK.
Std Error of Est:	0.000269		
Predicted MDL:	0.000362		
Predicted MQL:	0.001208		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00029	.000	1
S1	.04000	.03992	-.000	-.193	.02008	.000	1
S3	1.2500	1.2367	-.013	-1.07	.63066	.001	1
S4	2.5000	2.4910	-.009	-.362	1.2706	.005	1
S5	5.0000	4.9806	-.019	-.388	2.5409	.006	1
S2	.40000	.44186	.042	10.5	.22515	.001	1

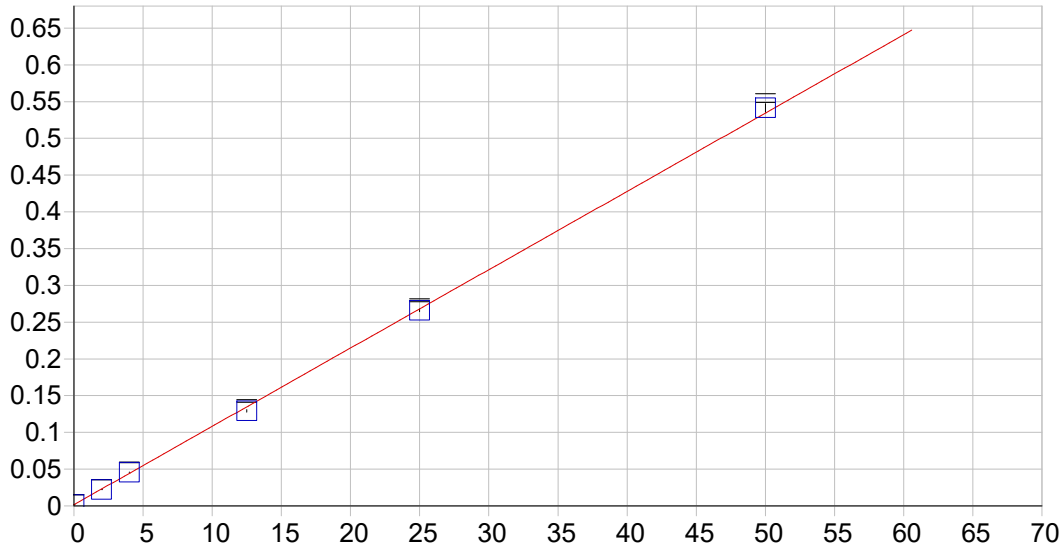


Ag 328.068 {103}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001418	Re-Slope:	1.000000
A1 (Gain):	0.254171	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999712	Status:	OK.
Std Error of Est:	0.000050		
Predicted MDL:	0.000355		
Predicted MQL:	0.001184		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00142	.000	1
S1	.01000	.01009	.000	.871	.00113	.000	1
S3	.62500	.62067	-.004	-.694	.15571	.000	1
S4	1.2500	1.2521	.002	.166	.31556	.001	1
S5	2.5000	2.4802	-.020	-.794	.62644	.001	1
S2	.20000	.22202	.022	11.0	.05481	.000	1

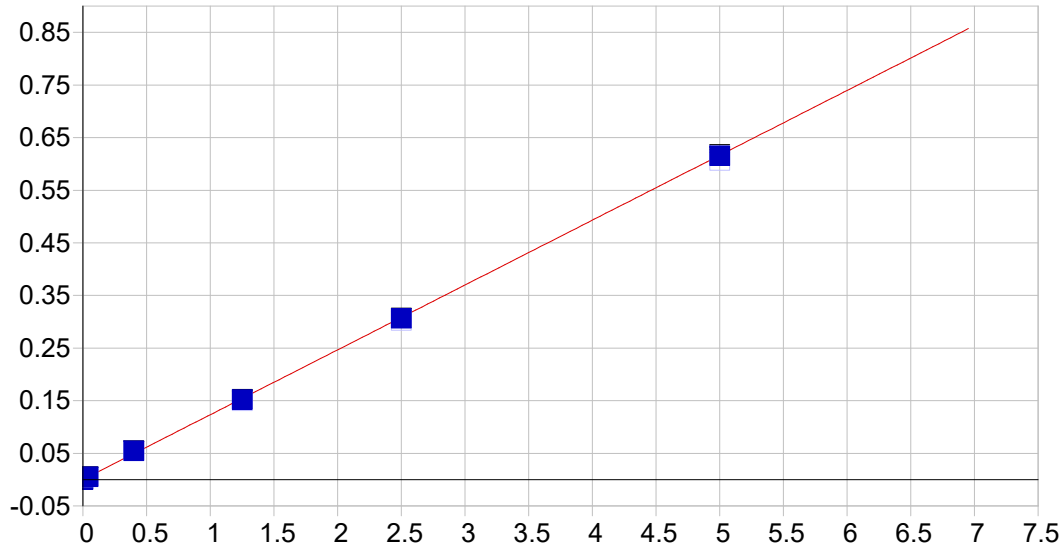


Na 589.592 { 57}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001648	Re-Slope:	1.000000
A1 (Gain):	0.010656	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999787	Status:	OK.
Std Error of Est:	0.000116		
Predicted MDL:	0.016959		
Predicted MQL:	0.056530		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00008	.000	.000	.00165	.000	1
S2	4.0000	4.1389	.139	3.47	.04575	.000	1
S3	12.500	11.974	-.526	-4.21	.12925	.002	1
S4	25.000	24.821	-.179	-.715	.26615	.002	1
S5	50.000	50.646	.646	1.29	.54135	.006	1
S1	2.0000	1.9192	-.081	-4.04	.02210	.000	1

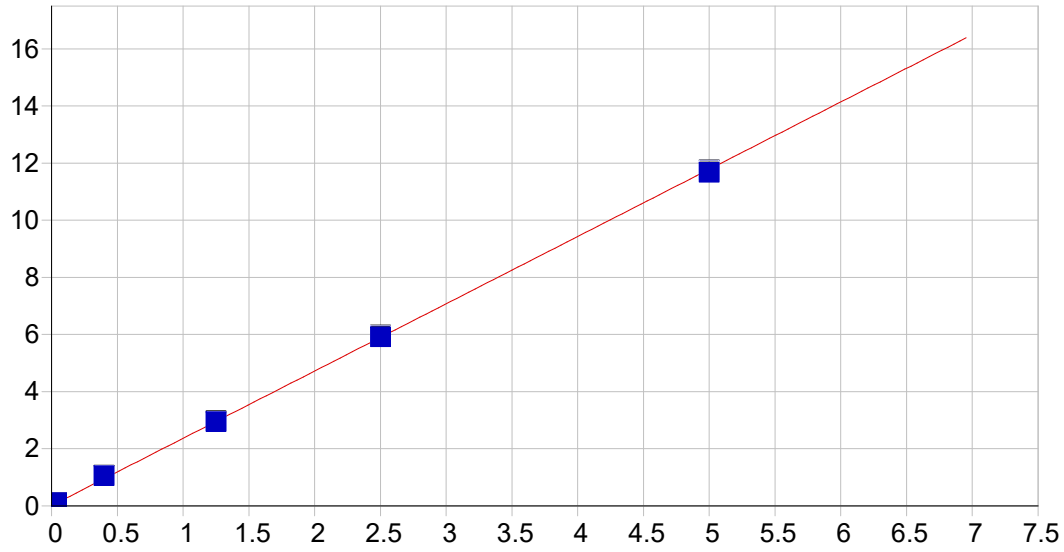


V 292.402 {115}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000081	Re-Slope:	1.000000
A1 (Gain):	0.123282	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999744	Status:	OK.
Std Error of Est:	0.000064		
Predicted MDL:	0.001598		
Predicted MQL:	0.005328		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00008	.000	1
S1	.04000	.04046	.000	1.14	.00488	.000	1
S3	1.2500	1.2325	-.018	-1.40	.14978	.001	1
S4	2.5000	2.4853	-.015	-.590	.30197	.001	1
S5	5.0000	4.9908	-.009	-.184	.60637	.003	1
S2	.40000	.44104	.041	10.3	.05373	.000	1

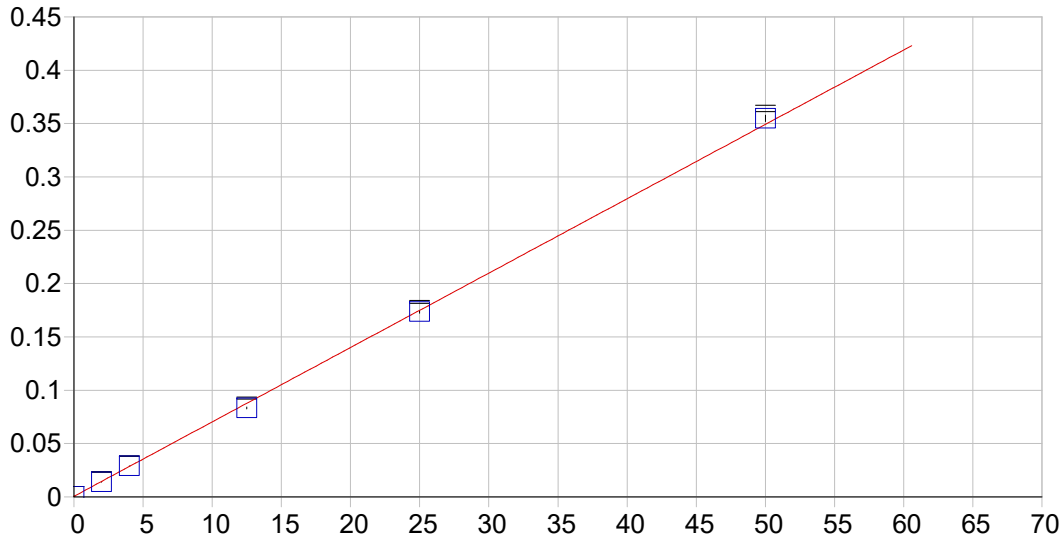


Zn 213.856 {158}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011078	Re-Slope:	1.000000
A1 (Gain):	2.355331	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999696	Status:	OK.
Std Error of Est:	0.001372		
Predicted MDL:	0.000315		
Predicted MQL:	0.001050		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.01106	.001	1
S1	.04000	.04223	.002	5.57	.11120	.000	1
S3	1.2500	1.2447	-.005	-.424	2.9632	.016	1
S4	2.5000	2.5081	.008	.323	5.9594	.027	1
S5	5.0000	4.9503	-.050	-.994	11.753	.017	1
S2	.40000	.44470	.045	11.2	1.0650	.006	1

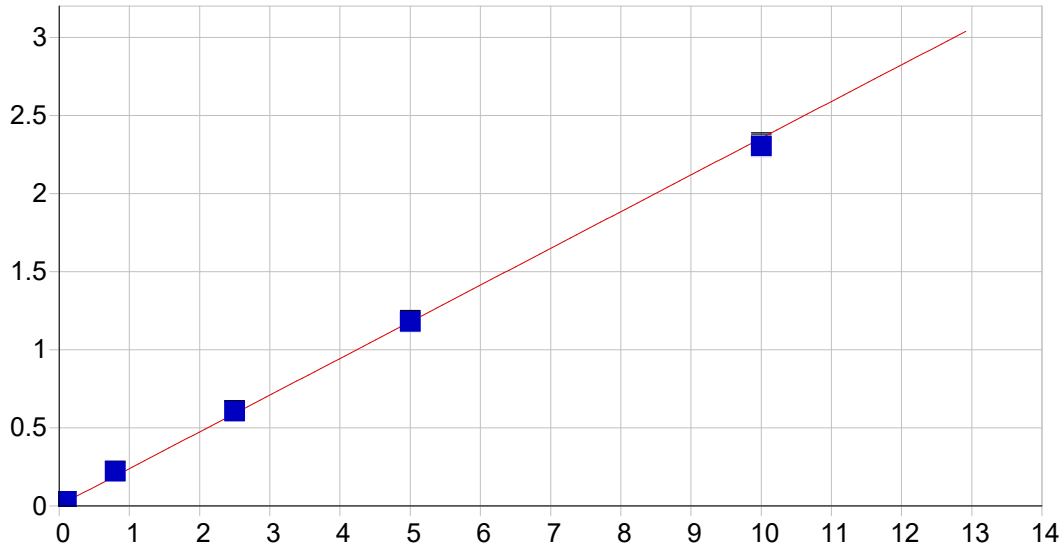


K 766.490 { 44}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000603	Re-Slope:	1.000000
A1 (Gain):	0.006973	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999738	Status:	OK.
Std Error of Est:	0.000084		
Predicted MDL:	0.027665		
Predicted MQL:	0.092216		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00011	.000	.000	.00060	.000	1
S2	4.0000	4.0704	.070	1.76	.02899	.000	1
S3	12.500	11.877	-.623	-4.98	.08342	.001	1
S4	25.000	24.813	-.187	-.747	.17362	.001	1
S5	50.000	50.807	.807	1.61	.35487	.003	1
S1	2.0000	1.9323	-.068	-3.39	.01408	.000	1

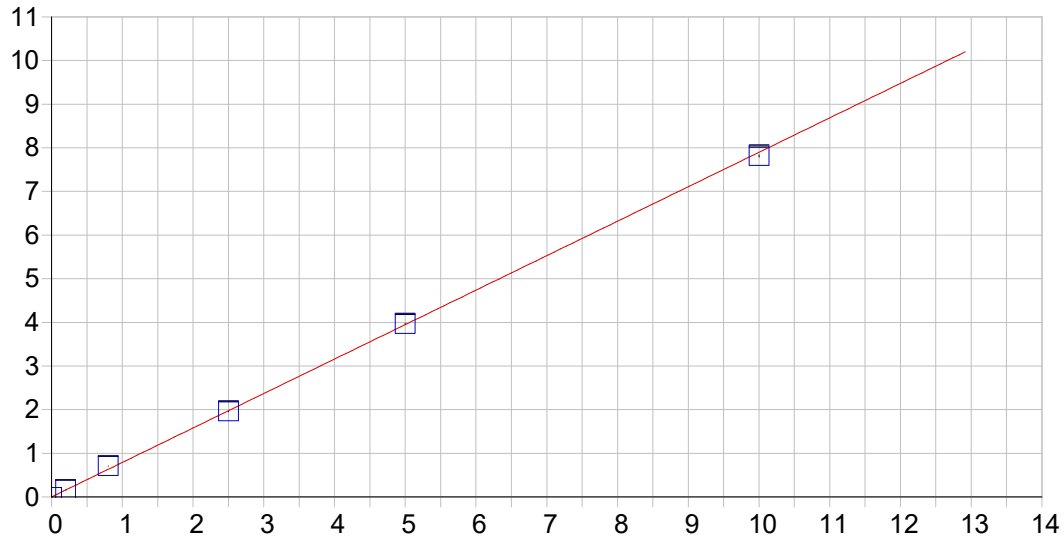


B 249.678 {135}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003614	Re-Slope:	1.000000
A1 (Gain):	0.235015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999283	Status:	OK.
Std Error of Est:	0.000466		
Predicted MDL:	0.000931		
Predicted MQL:	0.003102		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00361	.000	1
S1	.10000	.10281	.003	2.81	.02764	.000	1
S3	2.5000	2.5680	.068	2.72	.60513	.003	1
S4	5.0000	5.0090	.009	.180	1.1768	.007	1
S5	10.000	9.7936	-.206	-2.06	2.2972	.020	1
S2	.80000	.92654	.127	15.8	.22072	.002	1

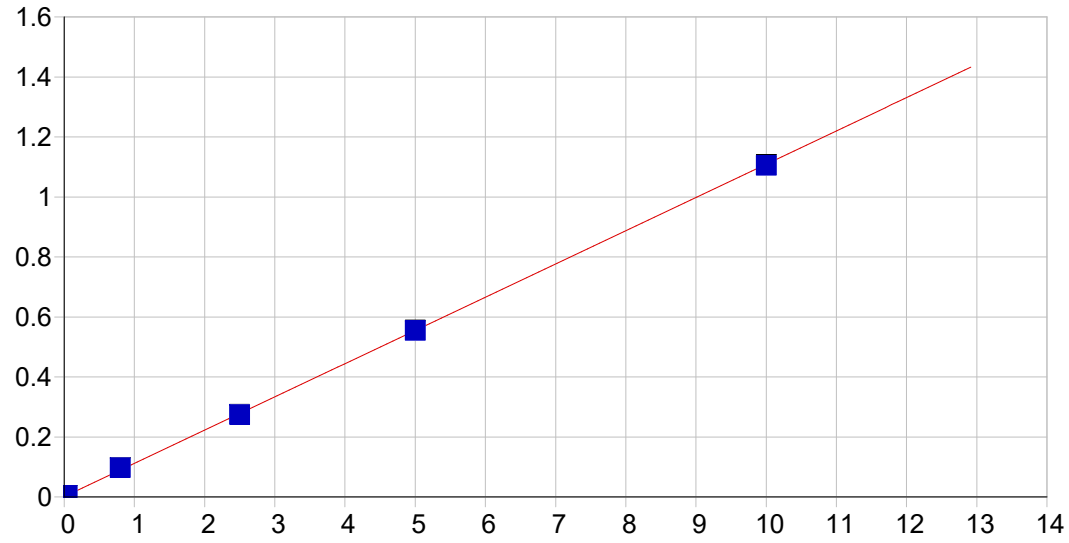


Mo 202.030 {467}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000515	Re-Slope:	1.000000
A1 (Gain):	0.789690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999651	Status:	OK.
Std Error of Est:	0.001554		
Predicted MDL:	0.000278		
Predicted MQL:	0.000926		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	.00049	.000	1
S1	.20000	.20373	.004	1.86	.16140	.000	1
S3	2.5000	2.4838	-.016	-.648	1.9619	.010	1
S4	5.0000	5.0199	.020	.399	3.9647	.014	1
S5	10.000	9.8963	-.104	-1.04	7.8155	.027	1
S2	.80000	.89628	.096	12.0	.70830	.003	1

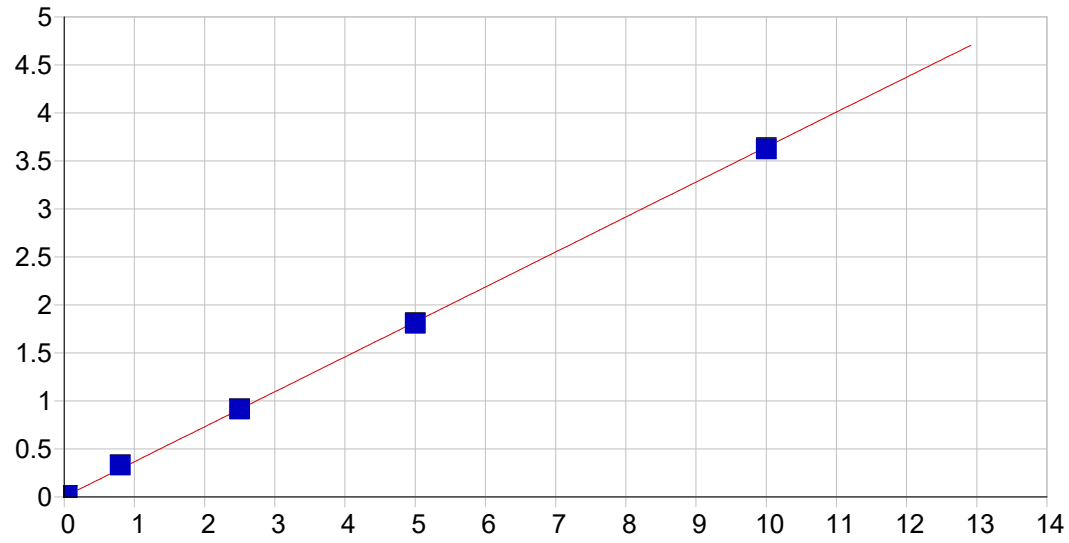


Sn 189.989 {478}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000642	Re-Slope:	1.000000
A1 (Gain):	0.110851	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999812	Status:	OK.
Std Error of Est:	0.000071		
Predicted MDL:	0.000817		
Predicted MQL:	0.002722		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00064	.000	1
S1	.04000	.04164	.002	4.09	.00525	.000	1
S3	2.5000	2.4676	-.032	-1.29	.27390	.001	1
S4	5.0000	4.9967	-.003	-.066	.55396	.001	1
S5	10.000	9.9632	-.037	-.368	1.1039	.003	1
S2	.80000	.87082	.071	8.85	.09708	.000	1

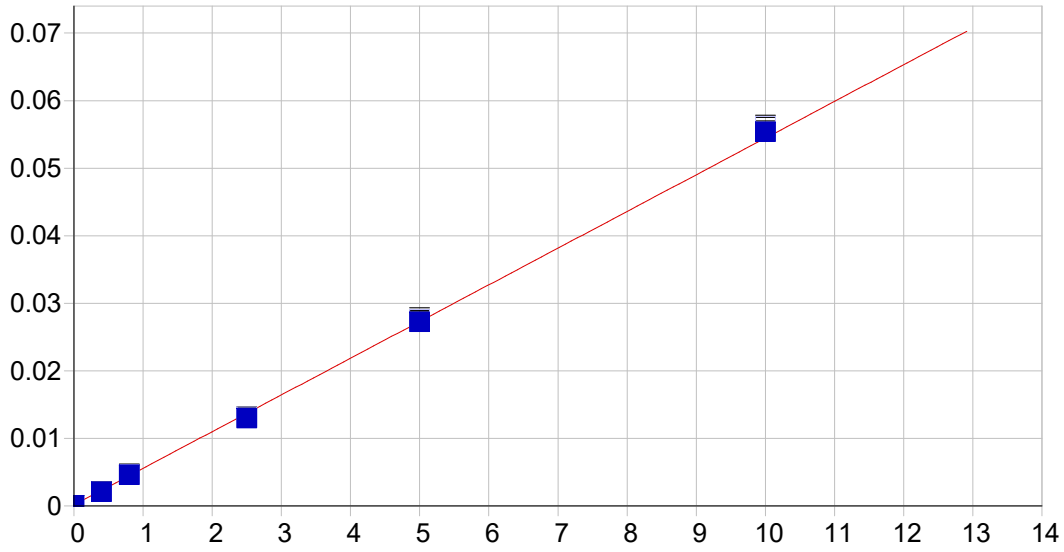


Ti 336.121 {100}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002091	Re-Slope:	1.000000
A1 (Gain):	0.364159	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.000338		
Predicted MDL:	0.000743		
Predicted MQL:	0.002477		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00209	.000	1
S1	.04000	.04059	.001	1.47	.01686	.000	1
S3	2.5000	2.4988	-.001	-.049	.91172	.003	1
S4	5.0000	4.9558	-.044	-.883	1.8061	.005	1
S5	10.000	9.9405	-.059	-.595	3.6207	.014	1
S2	.80000	.90424	.104	13.0	.33127	.000	1

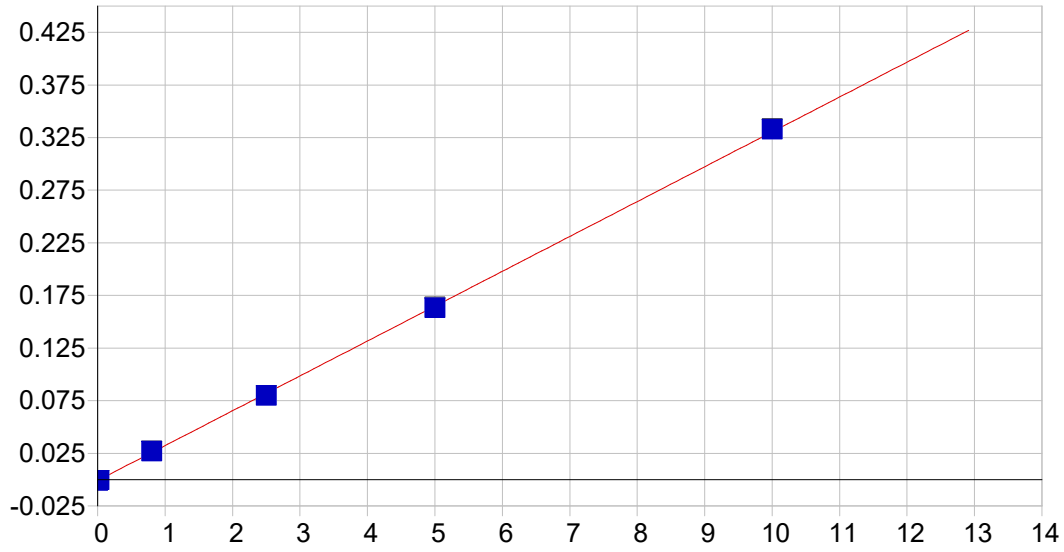


Si 288.158 {117}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000136	Re-Slope:	1.000000
A1 (Gain):	0.005432	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999588	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.007151		
Predicted MQL:	0.023835		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	.00014	.000	1
S1	.40000	.35659	-.043	-10.9	.00208	.000	1
S3	2.5000	2.3623	-.138	-5.51	.01317	.000	1
S4	5.0000	4.9867	-.013	-.265	.02763	.000	1
S5	10.000	10.173	.173	1.73	.05621	.000	1
S2	.80000	.82129	.021	2.66	.00466	.000	1

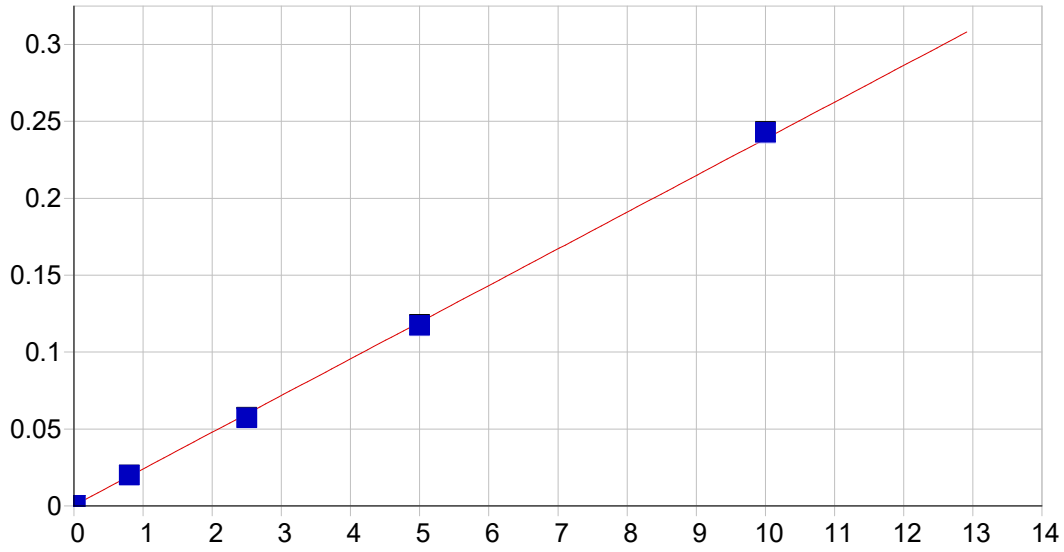


P 177.495 {490}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000862	Re-Slope:	1.000000
A1 (Gain):	0.033131	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.002873		
Predicted MQL:	0.009578		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00086	.000	1
S1	.02000	.01592	-.004	-20.4	-.00033	.000	1
S3	2.5000	2.4358	-.064	-2.57	.07982	.000	1
S4	5.0000	4.9564	-.044	-.872	.16332	.001	1
S5	10.000	10.075	.075	.748	.33287	.000	1
S2	.80000	.83714	.037	4.64	.02687	.000	1

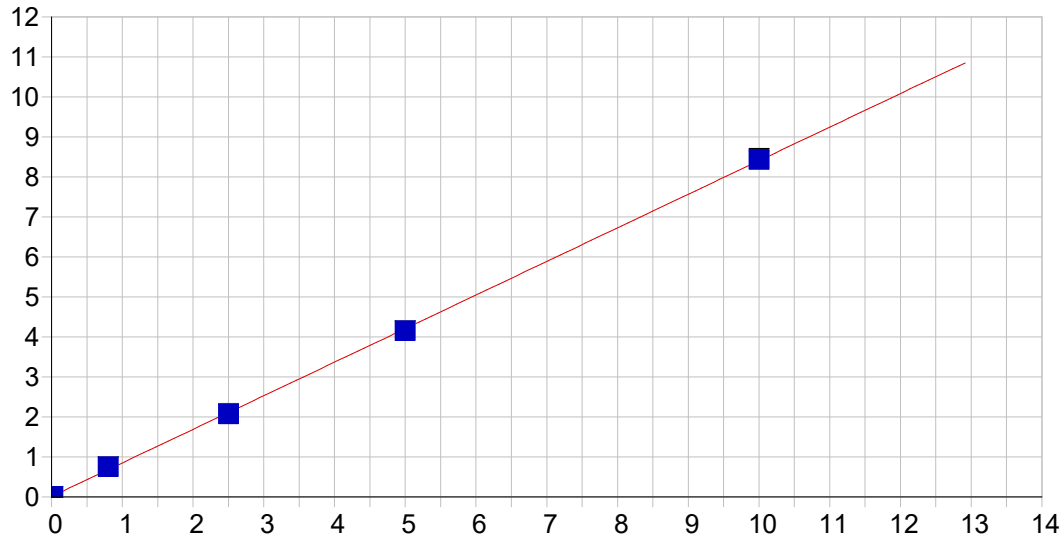


S 182.034 {485}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000237	Re-Slope:	1.000000
A1 (Gain):	0.023842	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999698	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.003573		
Predicted MQL:	0.011908		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00024	.000	1
S1	.02000	.01723	-.003	-13.8	.00063	.000	1
S3	2.5000	2.3883	-.112	-4.47	.05703	.000	1
S4	5.0000	4.9105	-.089	-1.79	.11701	.001	1
S5	10.000	10.177	.177	1.77	.24226	.001	1
S2	.80000	.82672	.027	3.34	.01990	.000	1

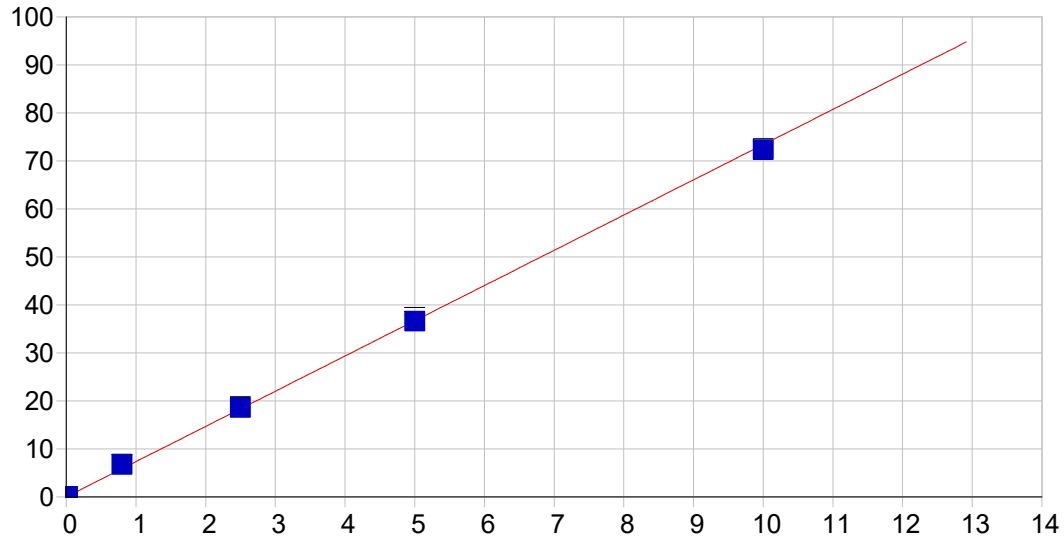


Li 670.784 { 50}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010342	Re-Slope:	1.000000
A1 (Gain):	0.839481	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999698	Status:	OK.
Std Error of Est:	0.000484		
Predicted MDL:	0.001598		
Predicted MQL:	0.005326		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01034	.001	1
S5	10.000	10.029	.029	.288	8.4335	.028	1
S4	5.0000	4.9314	-.069	-1.37	4.1523	.001	1
S3	2.5000	2.4565	-.044	-1.74	2.0735	.012	1
S1	.02000	.01805	-.002	-9.73	.02577	.001	1
S2	.80000	.88531	.085	10.7	.75388	.003	1

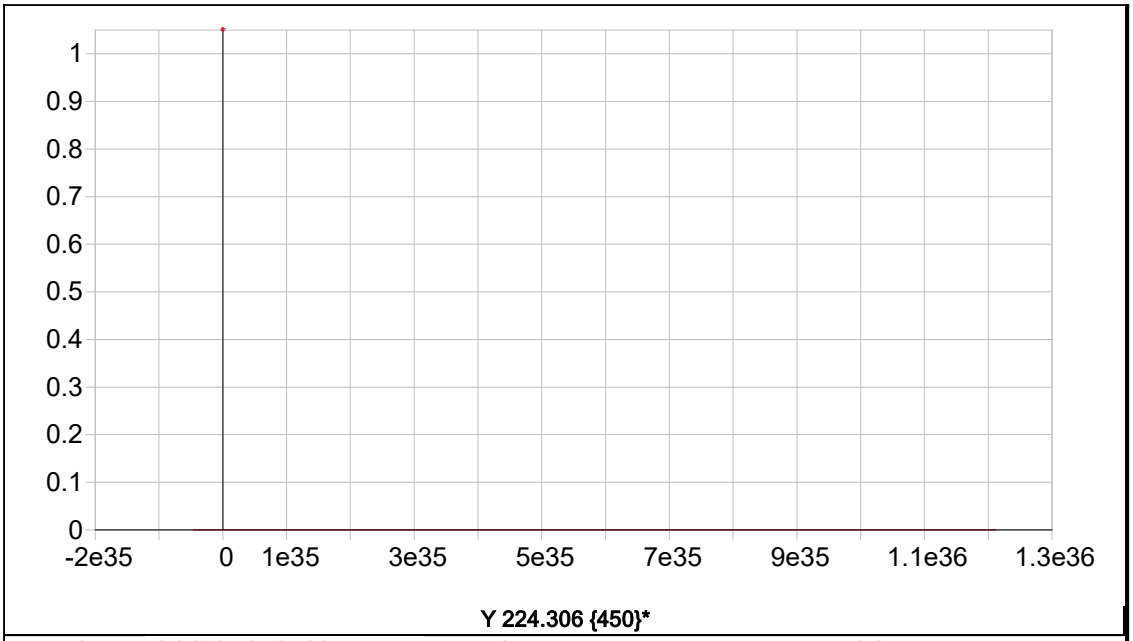


Sr 407.771 { 83}

Date of Fit:	4/1/2025 15:27:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003711	Re-Slope:	1.000000
A1 (Gain):	7.338494	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999441	Status:	OK.
Std Error of Est:	0.005755		
Predicted MDL:	0.000073		
Predicted MQL:	0.000243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00369	.001	1
S1	.02000	.02013	.000	.673	.15211	.001	1
S3	2.5000	2.5370	.037	1.48	18.637	.134	1
S4	5.0000	4.9865	-.013	-.270	36.630	.770	1
S5	10.000	9.8568	-.143	-1.43	72.402	.118	1
S2	.80000	.91962	.120	15.0	6.7575	.017	1

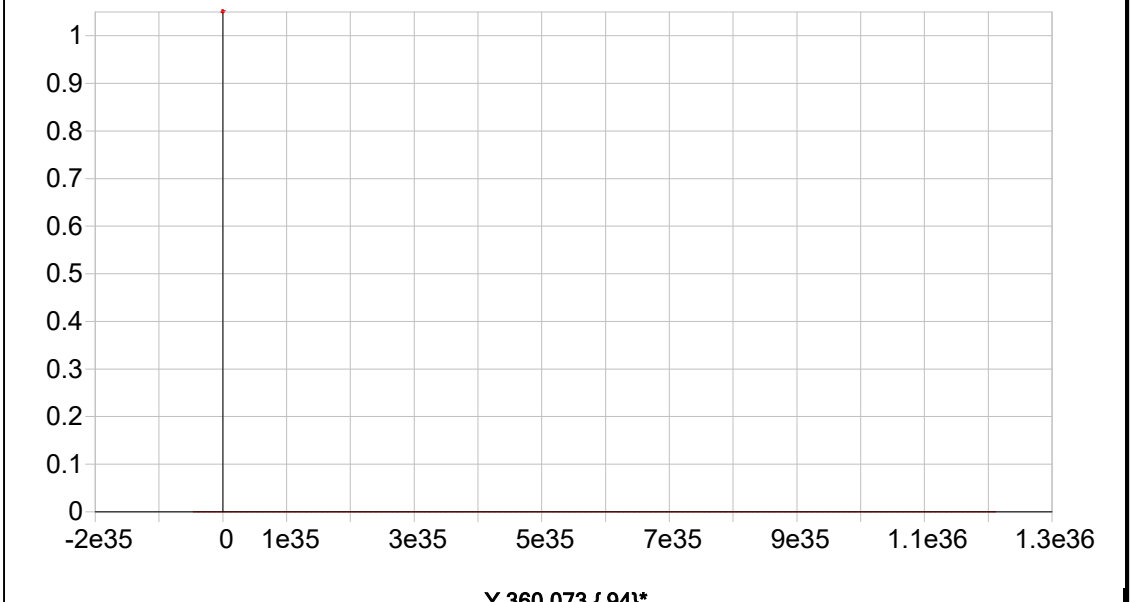


Y 224.306 {450}*

Date of Fit:	4/1/2025 15:27:26	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



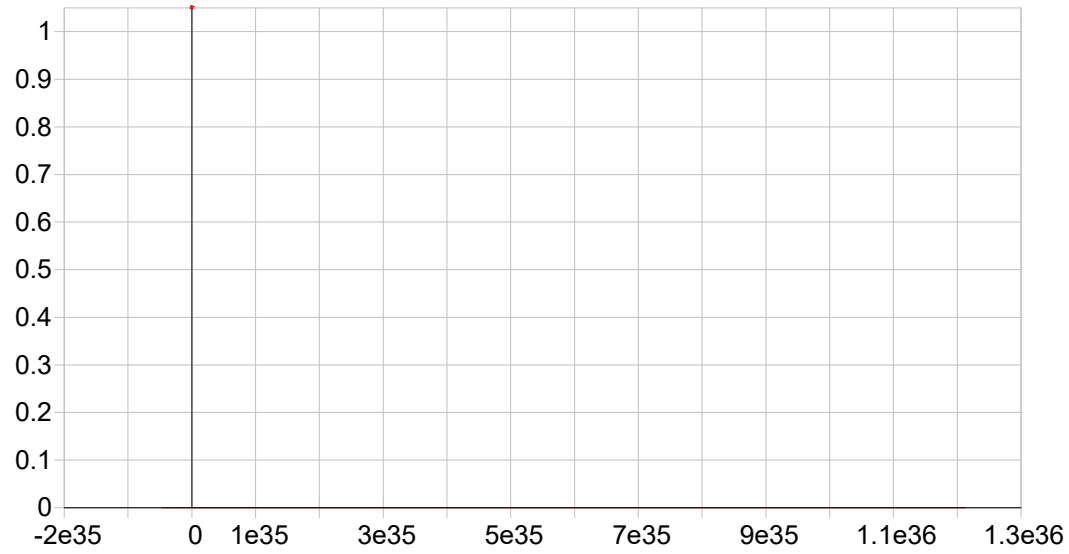
Y 360.073 { 94}*

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

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					

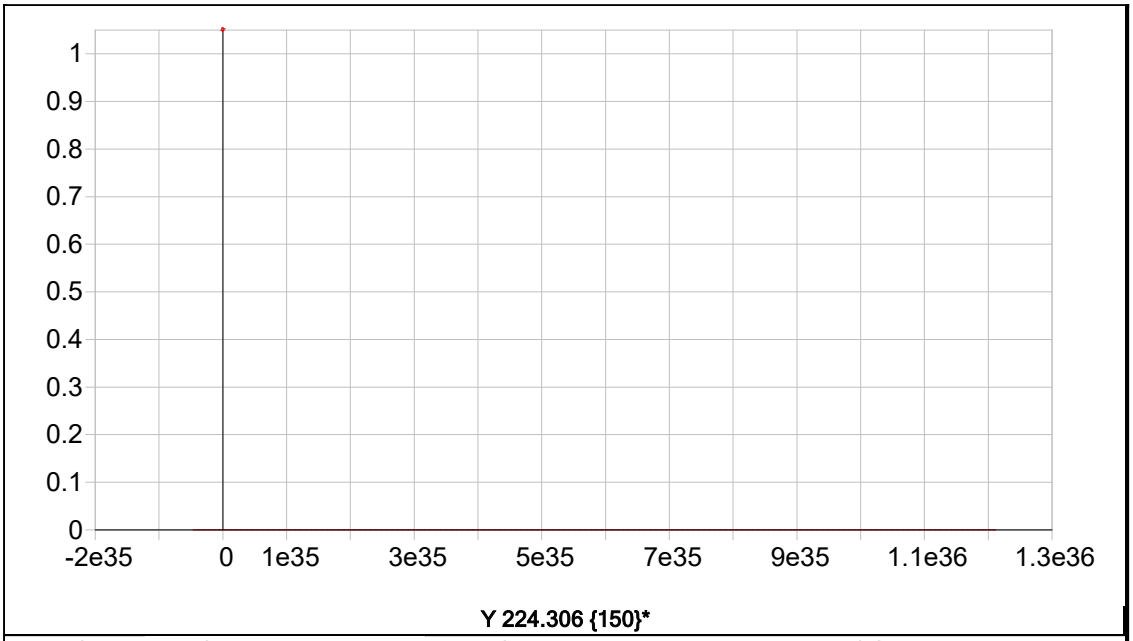
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

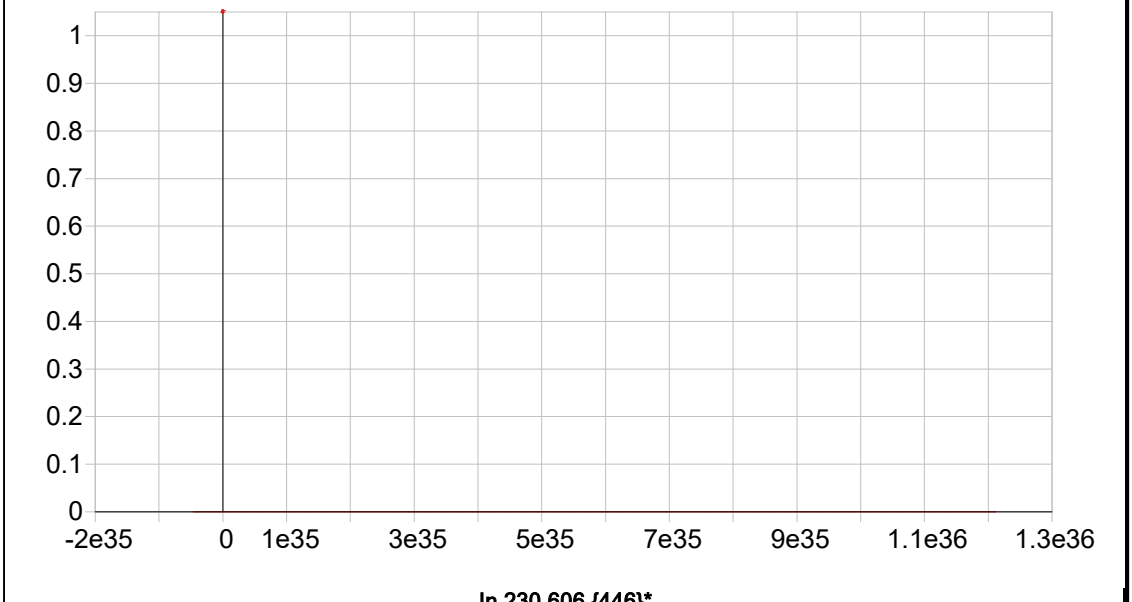
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

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:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S0 Acquired: 4/1/2025 10:31:35 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	-.00007	-.00001	-.00017	.00026	.00054	.00041	.04831	-.00008
Stddev	.00002	.00007	.00026	.00003	.00019	.00010	.00175	.00011
%RSD	35.689	594.93	155.33	9.7320	35.216	24.251	3.6188	129.24
#1	-.00006	.00006	-.00031	.00024	.00075	.00034	.04739	-.00008
#2	-.00010	-.00007	.00013	.00025	.00037	.00037	.05033	.00002
#3	-.00005	-.00003	-.00034	.00029	.00051	.00052	.04722	-.00019

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	.00009	.00098	.00007	.00013	-.00078	.00009	.00410	-.00001
Stddev	.00006	.00016	.00005	.00006	.00039	.00000	.00012	.00009
%RSD	65.395	15.948	73.453	48.245	50.168	2.4374	2.8521	801.36
#1	.00014	.00088	.00002	.00017	-.00050	.00009	.00405	-.00007
#2	.00003	.00091	.00007	.00006	-.00062	.00009	.00424	-.00005
#3	.00011	.00116	.00011	.00017	-.00123	.00009	.00403	.00009

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	-.00029	-.00142	.00165	.00008	.01106	.00060	.00361	.00049
Stddev	.00009	.00003	.00011	.00009	.00052	.00003	.00014	.00007
%RSD	32.266	2.1022	6.5994	110.15	4.6768	5.3699	3.8918	14.000
#1	-.00018	-.00145	.00160	.00018	.01047	.00061	.00345	.00057
#2	-.00034	-.00140	.00157	.00001	.01129	.00063	.00371	.00043
#3	-.00036	-.00141	.00177	.00005	.01143	.00057	.00367	.00048

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	.00064	.00209	.00014	-.00086	.00024	.01034	.00369
Stddev	.00002	.00028	.00002	.00005	.00008	.00128	.00087
%RSD	2.4383	13.526	17.655	5.7178	31.963	12.351	23.588
#1	.00064	.00241	.00016	-.00086	.00021	.00936	.00456
#2	.00066	.00199	.00012	-.00082	.00018	.01179	.00369
#3	.00063	.00187	.00013	-.00091	.00032	.00987	.00282

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S0 Acquired: 4/1/2025 10:31:35 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2593.6	79364.	14864.	2447.4	4795.6
Stddev	2.0	128.	63.	19.3	3.6
%RSD	.07870	.16121	.42505	.78820	.07441
#1	2595.7	79311.	14870.	2457.1	4795.1
#2	2593.5	79271.	14797.	2425.2	4799.4
#3	2591.6	79510.	14923.	2460.0	4792.3

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S1 Acquired: 4/1/2025 10:35:59 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	.00117	.00230	.00200	.00153	.00823	.00804	.26572	.01797
Stddev	.00006	.00002	.00016	.00022	.00003	.00017	.00250	.00008
%RSD	4.9772	1.0727	8.2518	14.077	.38987	2.0555	.94049	.46113
#1	.00111	.00227	.00215	.00137	.00824	.00822	.26856	.01789
#2	.00117	.00231	.00202	.00177	.00820	.00790	.26383	.01806
#3	.00123	.00230	.00182	.00143	.00826	.00799	.26479	.01796

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	.01427	.11163	.00161	.02578	.01855	.00059	.01068	.02528
Stddev	.00014	.00016	.00002	.00012	.00031	.00002	.00011	.00010
%RSD	1.0114	.14402	1.4560	.45528	1.6560	3.2449	1.0343	.41507
#1	.01441	.11169	.00161	.02564	.01884	.00057	.01081	.02516
#2	.01412	.11145	.00160	.02587	.01823	.00060	.01061	.02533
#3	.01427	.11176	.00164	.02582	.01858	.00061	.01063	.02535

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	.02008	.00113	.02210	.00488	.11120	.01408	.02764	.16140
Stddev	.00019	.00008	.00006	.00012	.00017	.00018	.00005	.00028
%RSD	.92461	7.1843	.27269	2.4538	.15041	1.2577	.18099	.17147
#1	.01989	.00122	.02213	.00502	.11119	.01395	.02764	.16169
#2	.02007	.00109	.02214	.00480	.11137	.01400	.02759	.16115
#3	.02026	.00107	.02203	.00483	.11104	.01428	.02769	.16135

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	.00525	.01686	.00208	-.00033	.00063	.02577	.15211
Stddev	.00004	.00011	.00004	.00002	.00005	.00109	.00103
%RSD	.68083	.67982	1.9826	7.1198	7.3933	4.2184	.67458
#1	.00524	.01698	.00204	-.00036	.00058	.02482	.15327
#2	.00529	.01686	.00212	-.00031	.00062	.02552	.15175
#3	.00523	.01675	.00207	-.00034	.00068	.02695	.15132

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S1 Acquired: 4/1/2025 10:35:59 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2589.3	76901.	14922.	2399.4	4719.6
Stddev	2.8	57.	77.	5.8	4.4
%RSD	.10782	.07438	.51850	.24099	.09285
#1	2587.0	76837.	14837.	2393.7	4714.8
#2	2592.4	76918.	14989.	2399.4	4720.6
#3	2588.5	76947.	14940.	2405.2	4723.4

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S2 Acquired: 4/1/2025 10:40:18 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	.05219	.05385	.17771	.05638	.13290	.12600	3.9554	.13439
Stddev	.00029	.00015	.00056	.00035	.00051	.00044	.0116	.00095
%RSD	.54996	.27049	.31441	.61512	.38682	.35238	.29317	.70334
#1	.05216	.05374	.17735	.05603	.13237	.12565	3.9688	.13548
#2	.05192	.05401	.17743	.05639	.13293	.12650	3.9478	.13392
#3	.05249	.05378	.17835	.05673	.13339	.12584	3.9498	.13377

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	1.0521	.24139	.02851	.38403	.19453	.00448	.21453	.05177
Stddev	.0050	.00031	.00013	.00137	.00050	.00006	.00107	.00026
%RSD	.47686	.13017	.46271	.35602	.25586	1.3969	.49848	.49467
#1	1.0488	.24134	.02838	.38371	.19449	.00441	.21567	.05163
#2	1.0495	.24110	.02865	.38285	.19406	.00450	.21438	.05206
#3	1.0578	.24172	.02851	.38553	.19505	.00453	.21355	.05161

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	.22515	.05481	.04575	.05373	1.0650	.02899	.22072	.70830
Stddev	.00098	.00023	.00030	.00025	.0057	.00015	.00152	.00254
%RSD	.43324	.41295	.65761	.46721	.53137	.52619	.68849	.35913
#1	.22419	.05458	.04541	.05358	1.0605	.02881	.22233	.70579
#2	.22511	.05504	.04586	.05402	1.0714	.02906	.21930	.70823
#3	.22614	.05481	.04599	.05360	1.0632	.02908	.22054	.71088

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	.09708	.33127	.00466	.02687	.01990	.75388	6.7575
Stddev	.00011	.00031	.00005	.00014	.00008	.00278	.0173
%RSD	.11093	.09377	1.1629	.53053	.39673	.36861	.25609
#1	.09696	.33152	.00463	.02671	.01983	.75703	6.7771
#2	.09712	.33137	.00473	.02691	.01988	.75177	6.7444
#3	.09716	.33092	.00463	.02699	.01999	.75284	6.7510

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S2 Acquired: 4/1/2025 10:40:18 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2575.6	78685.	14868.	2421.9	4620.2
Stddev	9.4	278.	92.	13.1	17.7
%RSD	.36599	.35279	.61614	.54147	.38268
#1	2579.7	78980.	14776.	2434.6	4629.8
#2	2582.3	78645.	14959.	2408.4	4631.0
#3	2564.8	78430.	14870.	2422.7	4599.8

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S3 Acquired: 4/1/2025 10:44:23 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	.14714	.15127	.49702	.15728	.37356	.35189	10.802	.37699
Stddev	.00066	.00216	.00114	.00141	.00240	.00027	.049	.00083
%RSD	.45155	1.4249	.22913	.89376	.64365	.07612	.45218	.21896
#1	.14686	.15048	.49737	.15664	.37144	.35158	10.848	.37627
#2	.14666	.14963	.49574	.15630	.37307	.35208	10.808	.37682
#3	.14790	.15371	.49793	.15889	.37617	.35200	10.751	.37789

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	2.9564	.66550	.08026	1.0745	.53576	.01240	.57590	.14334
Stddev	.0048	.00021	.00029	.0025	.00224	.00010	.00290	.00028
%RSD	.16354	.03211	.36168	.23380	.41870	.81979	.50413	.19737
#1	2.9572	.66565	.08054	1.0749	.53411	.01250	.57834	.14301
#2	2.9513	.66526	.08027	1.0718	.53485	.01241	.57668	.14348
#3	2.9609	.66559	.07996	1.0768	.53832	.01229	.57269	.14352

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	.63066	.15571	.12925	.14978	2.9632	.08342	.60513	1.9619
Stddev	.00148	.00008	.00180	.00080	.0155	.00080	.00348	.0097
%RSD	.23399	.05371	1.3919	.53697	.52456	.96201	.57465	.49163
#1	.63065	.15573	.13112	.15070	2.9811	.08427	.60416	1.9581
#2	.62919	.15561	.12910	.14939	2.9526	.08333	.60224	1.9548
#3	.63214	.15577	.12753	.14924	2.9561	.08267	.60899	1.9729

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	.27390	.91172	.01317	.07982	.05703	2.0735	18.637
Stddev	.00080	.00331	.00001	.00012	.00046	.0124	.134
%RSD	.29104	.36271	.09498	.14843	.80572	.59691	.71956
#1	.27357	.91429	.01318	.07969	.05689	2.0870	18.658
#2	.27331	.91288	.01316	.07987	.05665	2.0709	18.494
#3	.27481	.90799	.01317	.07991	.05754	2.0627	18.760

Sample Name: S3 Acquired: 4/1/2025 10:44:23 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2528.0	75165.	14680.	2318.6	4442.6
Stddev	6.4	143.	39.	4.7	7.6
%RSD	.25141	.19072	.26743	.20469	.17138
#1	2528.5	75048.	14689.	2315.8	4438.1
#2	2534.0	75122.	14714.	2324.0	4451.4
#3	2521.4	75325.	14637.	2315.9	4438.3

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S4 Acquired: 4/1/2025 10:48:41 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	.30144	.30428	1.0014	.31952	.77284	.71473	21.384	.73592
Stddev	.00164	.00130	.0033	.00192	.00481	.00177	.047	.00497
%RSD	.54296	.42713	.32558	.60044	.62283	.24699	.21766	.67519
#1	.30014	.30568	.99888	.31804	.76876	.71665	21.430	.73814
#2	.30091	.30312	1.0003	.31883	.77160	.71318	21.337	.73023
#3	.30328	.30404	1.0051	.32169	.77815	.71435	21.385	.73940

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	5.9860	1.3181	.16163	2.1699	1.0713	.02519	1.1175	.28573
Stddev	.0177	.0056	.00036	.0061	.0054	.00019	.0024	.00174
%RSD	.29559	.42502	.22548	.27936	.50554	.75161	.21963	.60897
#1	5.9768	1.3238	.16121	2.1648	1.0670	.02502	1.1199	.28771
#2	5.9748	1.3126	.16183	2.1683	1.0696	.02539	1.1150	.28445
#3	6.0064	1.3181	.16185	2.1766	1.0774	.02515	1.1176	.28504

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	1.2706	.31556	.26615	.30197	5.9594	.17362	1.1768	3.9647
Stddev	.0049	.00073	.00201	.00070	.0267	.00139	.0074	.0138
%RSD	.38360	.23236	.75568	.23138	.44785	.79921	.62686	.34886
#1	1.2662	.31518	.26424	.30237	5.9322	.17254	1.1834	3.9536
#2	1.2698	.31641	.26825	.30117	5.9604	.17519	1.1689	3.9603
#3	1.2758	.31510	.26595	.30239	5.9855	.17313	1.1781	3.9802

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	.55396	1.8061	.02763	.16332	.11701	4.1523	36.630
Stddev	.00139	.0050	.00024	.00054	.00065	.0014	.770
%RSD	.25015	.27854	.86427	.33064	.55379	.03375	2.1019
#1	.55303	1.8085	.02738	.16288	.11646	4.1527	36.741
#2	.55331	1.8004	.02785	.16316	.11683	4.1534	35.810
#3	.55556	1.8096	.02767	.16392	.11772	4.1507	37.337

Sample Name: S4 Acquired: 4/1/2025 10:48:41 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2449.3	73284.	14851.	2185.9	4259.5
Stddev	8.9	155.	106.	8.1	11.4
%RSD	.36136	.21182	.71043	.36950	.26810
#1	2457.3	73445.	14777.	2195.3	4268.6
#2	2450.7	73135.	14972.	2181.6	4263.0
#3	2439.8	73271.	14805.	2180.9	4246.7

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S5 Acquired: 4/1/2025 10:52:55 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	.60796	.59217	1.9980	.64260	1.5541	1.4541	42.339	1.4454
Stddev	.00225	.00113	.0051	.00325	.0085	.0032	.494	.0140
%RSD	.36975	.19102	.25677	.50638	.54458	.21710	1.1658	.96642
#1	.60768	.59183	1.9970	.64202	1.5515	1.4525	42.805	1.4377
#2	.60586	.59126	1.9934	.63968	1.5473	1.4521	41.822	1.4370
#3	.61033	.59344	2.0035	.64611	1.5636	1.4578	42.391	1.4615

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	12.021	2.6302	.31718	4.3530	2.1064	.04975	2.2156	.57642
Stddev	.027	.0091	.00078	.0080	.0077	.00042	.0150	.00270
%RSD	.22693	.34671	.24443	.18449	.36705	.83714	.67847	.46787
#1	12.017	2.6324	.31733	4.3510	2.1012	.05023	2.2250	.57682
#2	11.996	2.6201	.31633	4.3462	2.1028	.04949	2.1983	.57355
#3	12.050	2.6379	.31786	4.3619	2.1153	.04954	2.2236	.57890

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	2.5409	.62644	.54135	.60637	11.753	.35487	2.2972	7.8155
Stddev	.0064	.00065	.00586	.00280	.017	.00310	.0197	.0270
%RSD	.25114	.10451	1.0824	.46104	.14168	.87493	.85551	.34596
#1	2.5392	.62696	.54778	.60723	11.757	.35810	2.2831	7.8047
#2	2.5354	.62666	.53997	.60324	11.766	.35460	2.2890	7.7955
#3	2.5479	.62570	.53630	.60863	11.734	.35191	2.3197	7.8463

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	1.1039	3.6207	.05621	.33287	.24226	8.4335	72.402
Stddev	.0029	.0142	.00015	.00029	.00056	.0275	.118
%RSD	.26201	.39274	.25859	.08612	.23191	.32609	.16347
#1	1.1040	3.6281	.05633	.33266	.24181	8.4586	72.447
#2	1.1010	3.6043	.05624	.33320	.24209	8.4041	72.491
#3	1.1068	3.6298	.05605	.33276	.24289	8.4378	72.268

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: S5 Acquired: 4/1/2025 10:52:55 Type: Cal
Method: NON EPA-6010-200.7(v2864) 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	2343.7	70973.	14476.	2064.9	3995.9
Stddev	7.8	254.	103.	8.3	9.1
%RSD	.33154	.35765	.71291	.40194	.22774
#1	2349.7	70680.	14508.	2057.0	4005.4
#2	2346.4	71108.	14560.	2064.1	3995.1
#3	2334.9	71132.	14361.	2073.5	3987.2

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICV01 Acquired: 4/1/2025 10:57:16 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.9956909	1.037487	.9792392	1.033269	1.007606	2.477515
Stddev	.0048909	.007240	.0003311	.002928	.004800	.009286
%RSD	.4912055	.6978276	.0338113	.2833808	.4763841	.3748248
#1	.9962732	1.032705	.9793006	1.036018	1.007052	2.486893
#2	.9905349	1.033939	.9788817	1.030190	1.003107	2.477327
#3	1.000265	1.045816	.9795354	1.033598	1.012659	2.468323

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4840047	.4909886	.4944476	9.695939	.5191101	.5017543
Stddev	.0014965	.0035204	.0013568	.029496	.0019287	.0010568
%RSD	.3091994	.7170002	.2744104	.3042067	.3715369	.2106279
#1	.4829010	.4934518	.4933172	9.693210	.5177004	.5011744
#2	.4857081	.4925575	.4940734	9.726704	.5183217	.5011144
#3	.4834049	.4869565	.4959522	9.667902	.5213080	.5029741

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5210568	9.912979	.4904887	5.685629	.5069492	.2522900
Stddev	.0014697	.073550	.0023745	.010035	.0012691	.0005087
%RSD	.2820675	.7419590	.4841148	.1764990	.2503435	.2016479
#1	.5210282	9.838117	.4885809	5.691998	.5061601	.2517653
#2	.5196015	9.915675	.4931481	5.690829	.5062743	.2527812
#3	.5225406	9.985143	.4897372	5.674061	.5084131	.2523236

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.362789	.4805197	1.010612	9.616631	2.339841	2.457811
Stddev	.076281	.0020931	.007171	.039704	.012574	.008859
%RSD	.8147268	.4355957	.7095246	.4128639	.5373747	.3604461
#1	9.293537	.4827950	1.013849	9.622657	2.348756	2.457019
#2	9.350277	.4786761	1.002393	9.574259	2.345307	2.449375
#3	9.444553	.4800879	1.015593	9.652977	2.325459	2.467040

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICV01 Acquired: 4/1/2025 10:57:16 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	2.384955	2.349776	F 2.150204	2.291549	2.272090	2.299787
Stddev	.007420	.004729	.008964	.020021	.007385	.005856
%RSD	.3111347	.2012352	.4169131	.8736856	.3250345	.2546415
#1	2.380456	2.348972	2.140162	2.269972	2.272012	2.293938
#2	2.380890	2.354855	2.153046	2.295152	2.264744	2.305650
#3	2.393520	2.345501	2.157402	2.309525	2.279514	2.299773

Elem	Sr4077
Units	ppm
Avg	2.371866
Stddev	.024017
%RSD	1.012570
#1	2.378918
#2	2.391567
#3	2.345113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2475.613	74406.44	15509.39	2197.699	4452.119
Stddev	3.783	177.68	98.96	21.425	5.698
%RSD	.1527947	.2387947	.6380847	.9748655	.1279893
#1	2474.255	74560.09	15457.43	2188.923	4454.363
#2	2479.887	74447.36	15447.23	2222.118	4456.353
#3	2472.696	74211.88	15623.51	2182.055	4445.640

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: LLICV01 Acquired: 4/1/2025 11:15:11 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211261	.0406100	.0117280	.0217816	.0534315	.0971112
Stddev	.0012021	.0019242	.0018715	.0013580	.0003985	.0018030
%RSD	5.690061	4.738157	15.95764	6.234819	.7457491	1.856603
#1	.0210679	.0424316	.0108967	.0211620	.0529766	.0975436
#2	.0223561	.0385975	.0104161	.0208438	.0537187	.0951314
#3	.0199541	.0408008	.0138712	.0233389	.0535992	.0986587

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0857499	.0057365	.0057474	1.921832	.0099624	.0287317
Stddev	.0002151	.0000428	.0000695	.010421	.0003586	.0001796
%RSD	.2508959	.7469554	1.210075	.5422516	3.599110	.6251597
#1	.0855572	.0057731	.0056678	1.913521	.0103764	.0287900
#2	.0857104	.0057470	.0057963	1.933524	.0097517	.0285302
#3	.0859820	.0056893	.0057781	1.918451	.0097591	.0288750

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0226115	.0971957	.0202625	2.004626	.0388339	.0106384
Stddev	.0000578	.0027304	.0005249	.009862	.0001062	.0001309
%RSD	.2556998	2.809148	2.590573	.4919400	.2735994	1.230862
#1	.0225564	.0980123	.0198668	2.008424	.0388887	.0106495
#2	.0226717	.0941502	.0200628	2.012024	.0387115	.0105023
#3	.0226063	.0994246	.0208580	1.993430	.0389016	.0107635

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.772516	.0384565	.0444454	1.826491	.0891087	.2089071
Stddev	.001940	.0009051	.0008344	.015248	.0009921	.0004190
%RSD	.1094459	2.353485	1.877328	.8348378	1.113372	.2005441
#1	1.774582	.0378486	.0434891	1.843934	.0894045	.2089411
#2	1.770734	.0380243	.0448218	1.815694	.0880024	.2084721
#3	1.772231	.0394967	.0450252	1.819843	.0899193	.2093079

Sample Name: LLICV01 Acquired: 4/1/2025 11:15:11 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0402810	.0386027	.3723597	F .0148641	.0204660	F .0154121
Stddev	.0011755	.0003787	.0044975	.0005733	.0018531	.0009873
%RSD	2.918296	.9810375	1.207829	3.856735	9.054434	6.406199
#1	.0397534	.0386496	.3748519	.0151640	.0190438	.0159229
#2	.0416279	.0382028	.3750593	.0142030	.0197925	.0142740
#3	.0394618	.0389558	.3671678	.0152251	.0225616	.0160393

Elem	Sr4077
Units	ppm
Avg	.0184785
Stddev	.0000595
%RSD	.3221982
#1	.0185198
#2	.0185054
#3	.0184102

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2472.264	74203.77	15755.48	2112.191	4664.514
Stddev	3.661	31.04	49.06	3.954	8.861
%RSD	.1480909	.0418272	.3113617	.1871852	.1899680
#1	2468.338	74239.59	15724.12	2116.503	4658.955
#2	2475.584	74186.81	15812.02	2108.737	4674.733
#3	2472.871	74184.90	15730.32	2111.333	4659.856

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICB01 Acquired: 4/1/2025 11:19:28 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0000551	-.001471	-.001330	.0005680	-.000245	-.008921	-.005589
Stddev	.0008349	.000928	.001608	.0014400	.000345	.001948	.000451
%RSD	1515.900	63.07966	120.8910	253.5255	140.7953	21.83950	8.071163
#1	-.000879	-.001530	-.000111	.0012469	-.000317	-.010108	-.006062
#2	.000315	-.002368	-.000727	.0015429	.000130	-.006672	-.005540
#3	.000729	-.000515	-.003153	-.001086	-.000548	-.009982	-.005164

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000007	-.000074	-.001551	.0001008	-.000086	.0001303	-.002938
Stddev	.000066	.000131	.005810	.0002489	.000106	.0003843	.001372
%RSD	891.1815	177.8355	374.4890	246.7827	123.1603	294.9530	46.69726
#1	-.000011	.000044	.005126	.0002969	-.000119	.0002539	-.002528
#2	.000061	-.000215	-.005450	.0001847	.000033	-.000301	-.004469
#3	-.000071	-.000050	-.004331	-.000179	-.000171	.000438	-.001819

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023566	-.007164	-.000016	.0003817	-.052521	-.000592	.0000199
Stddev	.0001276	.010312	.000246	.0003546	.005946	.001277	.0001081
%RSD	5.413995	143.9517	1553.186	92.90382	11.32121	215.7751	542.7977
#1	.0023574	-.017094	-.000275	.0004594	-.055604	-.001911	.0000549
#2	.0024838	-.007888	.000214	.0006910	-.056294	.000638	-.000101
#3	.0022286	.003492	.000014	-.000005	-.045667	-.000503	.000106

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.127996	-.010131	-.000344	-.000571	-.000086	.0122797	-.003681
Stddev	.014061	.000584	.000369	.000616	.000237	.0025826	.000918
%RSD	10.98578	5.764828	107.4644	107.8028	276.7926	21.03145	24.94336
#1	-.127601	-.009934	-.000722	-.000957	-.000166	.0096678	-.003012
#2	-.142251	-.009671	-.000325	-.000897	.000181	.0123393	-.004728
#3	-.114136	-.010788	.000016	.000139	-.000272	.0148319	-.003303

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICB01 Acquired: 4/1/2025 11:19:28 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.005481	-.004387	-.000419
Stddev	.000922	.000840	.000047
%RSD	16.82260	19.15620	11.11872
#1	-.004435	-.004290	-.000396
#2	-.005829	-.003599	-.000473
#3	-.006178	-.005271	-.000388

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2495.296	75058.65	15605.66	2156.536	4750.104
Stddev	5.446	417.24	63.19	15.631	13.116
%RSD	.2182640	.5558855	.4049428	.7248221	.2761193
#1	2491.340	75046.37	15678.63	2164.457	4744.189
#2	2501.508	74647.68	15569.14	2138.530	4765.136
#3	2493.041	75481.89	15569.20	2166.621	4740.987

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CRI01 Acquired: 4/1/2025 11:28:48 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0202814	.0411891	.0117166	.0196702	.0519838	.0944853
Stddev	.0014927	.0004778	.0006129	.0045083	.0012350	.0054263
%RSD	7.360151	1.160011	5.231296	22.91927	2.375727	5.743007
#1	.0218550	.0415028	.0117326	.0146623	.0518514	.0971576
#2	.0188853	.0414254	.0123213	.0234050	.0532796	.0980571
#3	.0201039	.0406392	.0110958	.0209434	.0508203	.0882411

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0877623	.0057792	.0056034	1.952544	.0098866	.0284575
Stddev	.0005033	.0000423	.0000902	.007693	.0004222	.0002131
%RSD	.5734766	.7320261	1.610535	.3939769	4.270211	.7489291
#1	.0883070	.0057459	.0055124	1.943811	.0094042	.0286750
#2	.0876653	.0058268	.0056928	1.955506	.0100668	.0282490
#3	.0873146	.0057649	.0056049	1.958315	.0101887	.0284484

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0225773	.1000575	.0207857	2.033180	.0384952	.0103357
Stddev	.0003204	.0029170	.0002498	.023653	.0002055	.0000555
%RSD	1.418897	2.915348	1.201577	1.163332	.5338115	.5370351
#1	.0224494	.1006703	.0206001	2.032262	.0386617	.0102831
#2	.0223408	.0968828	.0210697	2.009999	.0382656	.0103937
#3	.0229419	.1026195	.0206873	2.057277	.0385584	.0103303

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.755991	.0378193	.0437457	1.783713	.0887202	.2067380
Stddev	.024695	.0004329	.0003483	.035213	.0005495	.0006731
%RSD	1.406303	1.144771	.7961948	1.974152	.6193414	.3256077
#1	1.728276	.0382979	.0441428	1.748293	.0883929	.2069390
#2	1.775657	.0374549	.0436025	1.784129	.0884131	.2059872
#3	1.764039	.0377051	.0434919	1.818716	.0893546	.2072877

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CRI01 Acquired: 4/1/2025 11:28:48 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0403704	.0387369	.3695386	F .0137445	.0150567	.0145377
Stddev	.0007578	.0006483	.0022603	.0020138	.0042954	.0013640
%RSD	1.877034	1.673602	.6116478	14.65187	28.52793	9.382841
#1	.0395362	.0382040	.3697750	.0130430	.0104971	.0149496
#2	.0405589	.0385481	.3671694	.0121752	.0156460	.0130152
#3	.0410162	.0394587	.3716713	.0160152	.0190270	.0156483

Elem	Sr4077
Units	ppm
Avg	.0186188
Stddev	.0000855
%RSD	.4591297
#1	.0185202
#2	.0186719
#3	.0186643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2489.053	75108.87	15578.66	2167.947	4679.511
Stddev	4.213	42.80	11.06	4.693	10.729
%RSD	.1692639	.0569827	.0710080	.2164685	.2292720
#1	2488.142	75148.89	15575.04	2162.616	4677.135
#2	2493.647	75063.75	15591.08	2171.456	4691.229
#3	2485.370	75113.98	15569.86	2169.769	4670.171

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSA01 Acquired: 4/1/2025 11:33:05 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053072	.0074853	.0057770	-.013555	-.002913	241.9189
Stddev	.0057560	.0024977	.0011733	.002205	.001029	3.2245
%RSD	108.4556	33.36834	20.30903	16.26793	35.32065	1.332878
#1	.0016012	.0072229	.0068586	-.015640	-.001770	240.5892
#2	.0119383	.0101039	.0045297	-.013779	-.003205	239.5719
#3	.0023822	.0051291	.0059428	-.011247	-.003764	245.5956

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001419	.0012368	-.003220	224.1243	.0568290	.0015089
Stddev	.000529	.0000664	.000116	.7567	.0002914	.0003049
%RSD	37.28639	5.364327	3.612086	.3376403	.5128329	20.20593
#1	-.001464	.0012200	-.003232	224.0652	.0570371	.0015297
#2	-.001925	.0011805	-.003329	223.3988	.0569539	.0018028
#3	-.000869	.0013100	-.003098	224.9088	.0564959	.0011941

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097651	98.85873	.0005645	240.4681	.0018569	-.000168
Stddev	.0003008	.44081	.0002239	.8316	.0001649	.000126
%RSD	3.080652	.4458968	39.67367	.3458411	8.881413	74.83981
#1	.0099089	99.34643	.0005145	240.2630	.0020465	-.000151
#2	.0099671	98.74107	.0003697	239.7583	.0017465	-.000301
#3	.0094194	98.48869	.0008092	241.3831	.0017778	-.000052

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.024336	.0014878	.0046299	-.100582	F -.133001	-.000389
Stddev	.024061	.0006248	.0004488	.018761	.001912	.000269
%RSD	98.86942	41.99597	9.693674	18.65276	1.437402	69.16054
#1	-.016750	.0014723	.0049772	-.111907	-.131157	-.000456
#2	-.051276	.0021203	.0041232	-.078926	-.132873	-.000619
#3	-.004982	.0008709	.0047894	-.110913	-.134974	-.000093

Sample Name: ICSA01 Acquired: 4/1/2025 11:33:05 Type: Unk
Method: NON EPA-6010-200.7(v2864) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005161	-.001259	.0207762	-.004823	-.019254	.0010946
Stddev	.000917	.001113	.0062381	.004151	.004556	.0003338
%RSD	17.76104	88.43979	30.02537	86.07852	23.66180	30.49606
#1	-.006187	-.000808	.0273710	-.002373	-.014227	.0013460
#2	-.004422	-.000442	.0149696	-.009616	-.020423	.0007159
#3	-.004875	-.002527	.0199880	-.002479	-.023111	.0012221

Elem	Sr4077
Units	ppm
Avg	.0054652
Stddev	.0005697
%RSD	10.42324
#1	.0051104
#2	.0051630
#3	.0061223

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2183.842	65414.08	15154.40	1876.480	3706.492
Stddev	6.550	262.70	47.29	13.976	7.011
%RSD	.2999331	.4015967	.3120591	.7447872	.1891538
#1	2186.419	65165.59	15157.52	1860.343	3713.639
#2	2188.712	65387.67	15200.05	1884.392	3706.211
#3	2176.395	65688.99	15105.62	1884.704	3699.625

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSAB01 Acquired: 4/1/2025 11:37:30 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.1129617	.1005193	.0553995	.0397955	.6592750	246.1835
Stddev	.0031794	.0014495	.0026151	.0017530	.0027451	.7561
%RSD	2.814575	1.441972	4.720479	4.405140	.4163807	.3071459
#1	.1143631	.1020034	.0583543	.0414742	.6609607	246.0993
#2	.1151996	.1004474	.0544614	.0399360	.6561075	245.4730
#3	.1093223	.0991071	.0533829	.0379765	.6607570	246.9782

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4600227	.4896905	.9894585	222.8576	.5743010	.5026369
Stddev	.0022394	.0009791	.0018889	.4956	.0004842	.0018926
%RSD	.4867984	.1999475	.1909069	.2223798	.0843096	.3765355
#1	.4574584	.4886873	.9874291	222.3871	.5744918	.5008589
#2	.4615936	.4897405	.9897806	222.8106	.5737505	.5024256
#3	.4610160	.4906437	.9911656	223.3750	.5746607	.5046264

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5095353	96.91453	.4658554	238.5075	1.003910	.1938691
Stddev	.0007514	.23946	.0013668	.7029	.001771	.0003184
%RSD	.1474697	.2470865	.2933871	.2947269	.1764402	.1642345
#1	.5087922	96.90347	.4643014	237.9247	1.003735	.1941541
#2	.5102948	97.15934	.4663937	238.3095	1.002233	.1935255
#3	.5095191	96.68079	.4668710	239.2882	1.005762	.1939278

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009417	.4759331	1.086813	-.104441	F -.161156	F -.000334
Stddev	.008100	.0020155	.003444	.023687	.001927	.000009
%RSD	86.02186	.4234923	.3168509	22.67939	1.195621	2.826841
#1	-.017551	.4751746	1.088975	-.077091	-.158991	-.000345
#2	-.001351	.4744068	1.088621	-.117969	-.161794	-.000326
#3	-.009348	.4782178	1.082842	-.118265	-.162683	-.000332

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSAB01 Acquired: 4/1/2025 11:37:30 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	F -.006595	F -.001565	F .0083179	F -.001958	F -.014112	F .0009092
Stddev	.000980	.000464	.0025622	.002949	.004922	.0014604
%RSD	14.85278	29.65482	30.80311	150.5905	34.87644	160.6234
#1	-.007562	-.001069	.0092538	-.001302	-.016905	.0023631
#2	-.006620	-.001639	.0102804	-.005180	-.008429	-.000558
#3	-.005604	-.001989	.0054193	.000607	-.017002	.000922

Elem	Sr4077
Units	ppm
Avg	F .0066780
Stddev	.0003163
%RSD	4.735781
#1	.0068111
#2	.0063169
#3	.0069059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2163.534	64996.06	14750.35	1832.959	3693.318
Stddev	3.862	142.28	36.97	5.974	8.674
%RSD	.1784826	.2189063	.2506320	.3259358	.2348558
#1	2163.231	64838.57	14753.36	1827.381	3692.598
#2	2167.539	65115.31	14785.72	1839.263	3702.329
#3	2159.833	65034.30	14711.97	1832.234	3685.026

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSADLX20 Acquired: 4/1/2025 11:41:46 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.003624	-.000970	-.000555	.0011005	-.001901	13.49333	-.006074
Stddev	.000324	.001872	.001275	.0022771	.001833	.01758	.000676
%RSD	8.941050	193.0035	229.7835	206.9139	96.38533	.1302939	11.12778
#1	-.003891	-.002992	-.001938	.0025896	-.000937	13.50959	-.006791
#2	-.003263	.000702	-.000300	-.001521	-.000752	13.49574	-.005448
#3	-.003718	-.000619	.000573	.002233	-.004015	13.47467	-.005982

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002782	-.000171	12.92741	.0030579	-.000089	.0004052	5.240560
Stddev	.0000731	.000044	.02680	.0000848	.000157	.0004440	.008518
%RSD	26.25881	25.56324	.2073065	2.773401	176.9810	109.5723	.1625303
#1	.0003488	-.000136	12.90818	.0031531	-.000234	.0008947	5.231234
#2	.0002029	-.000157	12.95802	.0029904	-.000110	.0000282	5.247928
#3	.0002831	-.000220	12.91601	.0030303	.000078	.0002929	5.242519

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022520	13.23849	.0001672	.0002875	-.051570	-.001113	.0056012
Stddev	.0002671	.03862	.0001061	.0002998	.006339	.000434	.0002320
%RSD	11.86065	.2917564	63.44886	104.2992	12.29185	38.99834	4.141714
#1	.0019437	13.20551	.0002590	.0003155	-.058552	-.001349	.0054883
#2	.0023980	13.28098	.0001913	.0005723	-.046176	-.001377	.0054472
#3	.0024143	13.22898	.0000511	-.000025	-.049982	-.000612	.0058680

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.179991	-.022046	-.000382	-.001686	.0003394	.0108904	-.002993
Stddev	.005789	.000472	.000199	.000447	.0000194	.0053834	.001311
%RSD	3.216321	2.142394	52.18219	26.50599	5.704112	49.43321	43.81574
#1	-.177160	-.022245	-.000165	-.001670	.0003610	.0113611	-.001967
#2	-.186651	-.021506	-.000556	-.001247	.0003335	.0160230	-.002541
#3	-.176162	-.022385	-.000424	-.002140	.0003237	.0052870	-.004470

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSADLX20 Acquired: 4/1/2025 11:41:46 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.003829	-.005771	.0002455
Stddev	.000665	.001385	.0000397
%RSD	17.36631	23.99963	16.16701
#1	-.004331	-.007101	.0002824
#2	-.003075	-.005877	.0002507
#3	-.004082	-.004337	.0002035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2435.331	75629.15	15522.12	2134.310	4489.644
Stddev	3.604	245.66	59.22	4.990	6.204
%RSD	.1479824	.3248178	.3815423	.2338139	.1381857
#1	2434.372	75901.40	15588.53	2131.535	4492.473
#2	2432.303	75561.97	15474.79	2140.072	4482.529
#3	2439.317	75424.06	15503.04	2131.325	4493.929

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSABDLX20 Acquired: 4/1/2025 11:46:04 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0057158	.0047141	.0023209	.0030322	.0339018	13.04054	.0197985
Stddev	.0015961	.0018052	.0012660	.0015740	.0022173	.02235	.0003602
%RSD	27.92415	38.29306	54.55041	51.90767	6.540210	.1714170	1.819389
#1	.0045382	.0066329	.0034377	.0026400	.0353466	13.05243	.0195125
#2	.0050767	.0030494	.0025795	.0047653	.0313490	13.05443	.0196799
#3	.0075324	.0044601	.0009455	.0016915	.0350100	13.01475	.0202031

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0272295	.0529703	12.62906	.0315884	.0266813	.0303821	5.109247
Stddev	.0001750	.0001970	.02449	.0001729	.0002872	.0008186	.032506
%RSD	.6424858	.3718389	.1938813	.5473352	1.076223	2.694260	.6362276
#1	.0270322	.0528148	12.62732	.0316688	.0269381	.0304495	5.132489
#2	.0273656	.0529044	12.65437	.0313899	.0263712	.0295320	5.123151
#3	.0272907	.0531918	12.60549	.0317064	.0267344	.0311650	5.072101

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0285186	12.84148	.0542914	.0107924	-.056039	.0253770	.0582035
Stddev	.0000590	.03792	.0003969	.0002113	.010115	.0010695	.0000189
%RSD	.2070550	.2952693	.7310088	1.958184	18.04957	4.214267	.0325181
#1	.0284958	12.79984	.0544119	.0106617	-.067278	.0242051	.0582237
#2	.0284743	12.85058	.0538483	.0110362	-.047667	.0263002	.0581861
#3	.0285856	12.87402	.0546141	.0106793	-.053172	.0256257	.0582008

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.152177	-.021829	-.000218	-.002083	-.000258	.0057045	-.006521
Stddev	.005057	.001153	.000276	.000440	.000245	.0056415	.001018
%RSD	3.322775	5.280065	126.5288	21.12440	94.92866	98.89473	15.60896
#1	-.146980	-.020917	-.000534	-.002199	.000017	.0038076	-.006381
#2	-.152472	-.021447	-.000022	-.001597	-.000451	.0120499	-.007601
#3	-.157080	-.023124	-.000099	-.002454	-.000339	.0012560	-.005580

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: ICSABDLX20 Acquired: 4/1/2025 11:46:04 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.000555	-.003678	.0002638
Stddev	.002428	.001163	.0000412
%RSD	437.3804	31.62001	15.61541
#1	.002213	-.002521	.0002840
#2	-.002325	-.004847	.0002911
#3	-.001554	-.003667	.0002164

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2441.088	74830.88	15450.57	2134.532	4502.117
Stddev	3.684	62.32	34.56	9.893	7.498
%RSD	.1509016	.0832799	.2236746	.4634917	.1665412
#1	2439.364	74796.52	15490.23	2131.703	4497.031
#2	2445.318	74793.31	15434.54	2126.360	4510.728
#3	2438.583	74902.82	15426.93	2145.531	4498.593

Sample Name: CCV01 Acquired: 4/1/2025 11:50:18 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	5.029756	5.111035	4.951237	5.091824	5.100727	9.836362	9.722252
Stddev	.011692	.026563	.006422	.016977	.015656	.023522	.072738
%RSD	.2324508	.5197106	.1297035	.3334174	.3069380	.2391377	.7481628
#1	5.031456	5.088812	4.949396	5.087340	5.102895	9.844594	9.741212
#2	5.017307	5.103837	4.945936	5.077540	5.084100	9.854662	9.783634
#3	5.040504	5.140454	4.958378	5.110594	5.115186	9.809830	9.641912

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2434132	2.440618	23.90298	1.009185	2.439479	1.257674	4.886742
Stddev	.0007386	.002757	.02723	.001940	.004646	.003784	.006305
%RSD	.3034373	.1129476	.1139069	.1922364	.1904605	.3009107	.1290200
#1	.2428285	2.441472	23.87424	1.009203	2.438940	1.257206	4.879472
#2	.2442433	2.437536	23.92839	1.011116	2.435125	1.254146	4.890056
#3	.2431679	2.442847	23.90630	1.007236	2.444371	1.261672	4.890700

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.385159	23.61136	2.461194	1.255221	24.52859	2.438171	2.537317
Stddev	.006331	.09672	.005750	.002667	.15245	.000905	.009978
%RSD	.2654347	.4096132	.2336162	.2124417	.6215217	.0371089	.3932495
#1	2.389995	23.50345	2.459726	1.252334	24.70281	2.438918	2.532149
#2	2.387488	23.69022	2.456320	1.257592	24.41963	2.437165	2.548819
#3	2.377993	23.64040	2.467535	1.255738	24.46334	2.438431	2.530983

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.88467	4.819673	5.071427	4.944830	4.847594	5.001908	5.116935
Stddev	.03910	.030070	.016833	.006959	.012468	.017713	.018151
%RSD	.1571230	.6239013	.3319270	.1407317	.2572091	.3541282	.3547190
#1	24.92499	4.799759	5.070550	4.941487	4.855964	4.990502	5.097083
#2	24.84691	4.854263	5.055050	4.940173	4.853555	4.992908	5.121040
#3	24.88211	4.804998	5.088682	4.952830	4.833265	5.022314	5.132682

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV01 Acquired: 4/1/2025 11:50:18 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	4.886990	4.820522	4.855683
Stddev	.021878	.016096	.047255
%RSD	.4476819	.3339149	.9731927
#1	4.871729	4.836383	4.804720
#2	4.877186	4.820982	4.898050
#3	4.912056	4.804200	4.864279

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2375.160	71389.90	14974.66	2047.220	4195.672
Stddev	5.358	39.27	51.08	7.891	7.823
%RSD	.2255891	.0550142	.3410827	.3854336	.1864573
#1	2376.802	71364.74	14980.86	2041.045	4203.395
#2	2379.504	71369.80	14920.76	2044.506	4195.870
#3	2369.173	71435.16	15022.34	2056.110	4187.752

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB01 Acquired: 4/1/2025 11:54:29 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.001428	-.000701	.0004187	.0002401	.0002200	.0008492	-.005549
Stddev	.001881	.000445	.0003543	.0006498	.0005034	.0027357	.000429
%RSD	131.7194	63.51211	84.61254	270.6491	228.8133	322.1575	7.731722
#1	-.002610	-.000979	.0008255	.0004585	.0007407	-.002309	-.005438
#2	-.002413	-.000936	.0001775	-.000491	-.000264	.002364	-.006022
#3	.000741	-.000187	.0002532	.000753	.000183	.002492	-.005186

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000188	.0001036	.0006813	.0000176	.0000777	.0000055	.0001179
Stddev	.0000225	.0000404	.0054935	.0001605	.0001295	.0001746	.0013193
%RSD	119.5140	38.97535	806.3855	914.4733	166.7867	3177.220	1119.118
#1	.0000005	.0001473	-.001009	.0000988	.0000305	-.000101	.0003823
#2	.0000120	.0000678	-.003768	-.000167	-.000022	-.000090	.0012850
#3	.0000439	.0000956	.006821	.000121	.000224	.000207	-.001314

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001132	-.007884	.0003046	.0007776	-.066601	.0005050	.0049633
Stddev	.000158	.010083	.0003317	.0000756	.012057	.0016568	.0001415
%RSD	13.93716	127.8878	108.8777	9.721897	18.10304	328.0968	2.851004
#1	-.001257	-.011568	.0005811	.0007491	-.052942	.0020224	.0049114
#2	-.001184	.003523	-.000063	.0007204	-.071100	.0007551	.0051234
#3	-.000955	-.015608	.000396	.0008633	-.075762	-.001263	.0048550

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.172281	-.000076	.0001823	-.000010	.0004078	.0157867	-.004481
Stddev	.029486	.000188	.0002737	.000197	.0003342	.0056297	.000991
%RSD	17.11500	247.5410	150.1346	1998.237	81.95743	35.66077	22.12262
#1	-.200530	-.000263	.0004776	-.000204	.0001583	.0176038	-.005307
#2	-.141697	.000113	.0001321	-.000015	.0007876	.0202835	-.003382
#3	-.174615	-.000078	-.000063	.000190	.0002776	.0094729	-.004755

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB01 Acquired: 4/1/2025 11:54:29 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.004544	-.003120	.0000716
Stddev	.001813	.000368	.0000224
%RSD	39.89281	11.78190	31.25607
#1	-.005787	-.002697	.0000966
#2	-.005381	-.003297	.0000647
#3	-.002464	-.003366	.0000534

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2464.059	74547.06	15564.80	2131.220	4737.946
Stddev	9.185	179.12	30.90	12.098	16.468
%RSD	.3727670	.2402842	.1985175	.5676517	.3475818
#1	2467.399	74752.65	15542.45	2145.189	4737.081
#2	2471.108	74424.68	15600.06	2124.110	4754.830
#3	2453.672	74463.84	15551.88	2124.362	4721.928

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-08 Acquired: 4/1/2025 11:58:49 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0545033	.0026515	.2887939	-.065701	-.003132	118.7188
Stddev	.0048045	.0008393	.0041425	.004704	.001413	.1981
%RSD	8.815122	31.65296	1.434401	7.160425	45.10681	.1668824
#1	.0496323	.0030074	.2845267	-.064411	-.002004	118.9094
#2	.0592384	.0032541	.2927992	-.061776	-.002676	118.5140
#3	.0546394	.0016929	.2890557	-.070916	-.004717	118.7331

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5680287	.0063619	.0031550	1285.308	.2567711	.1267074
Stddev	.0033334	.0001137	.0002369	4.858	.0002721	.0003269
%RSD	.5868281	1.786681	7.508161	.3779884	.1059549	.2580163
#1	.5712536	.0063510	.0028978	1288.364	.2569741	.1267997
#2	.5645966	.0062540	.0032031	1287.854	.2568773	.1263443
#3	.5682360	.0064806	.0033642	1279.706	.2564620	.1269783

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.528169	325.0898	4.367252	62.23379	.1056661	.0004351
Stddev	.002881	.6179	.031590	.23204	.0011003	.0005064
%RSD	.1139558	.1900768	.7233368	.3728456	1.041318	116.3819
#1	2.524984	325.0952	4.401289	62.49687	.1043960	.0004049
#2	2.530594	324.4691	4.338874	62.05829	.1063314	-.000056
#3	2.528929	325.7050	4.361593	62.14622	.1062709	.000956

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.222755	.2274202	1.143079	26.79217	-.130972	.0064689
Stddev	.041263	.0014779	.005639	.09650	.006588	.0002035
%RSD	.7900639	.6498548	.4933069	.3601970	5.029877	3.145034
#1	5.216137	.2273327	1.136589	26.70441	-.136788	.0065410
#2	5.185200	.2259880	1.146786	26.77658	-.123818	.0066265
#3	5.266927	.2289399	1.145860	26.89552	-.132311	.0062392

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-08 Acquired: 4/1/2025 11:58:49 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.007221	5.200484	8.152587	F 16.75961	F 45.00936	.1252967
Stddev	.000837	.022192	.017824	.02973	.12949	.0016356
%RSD	11.59569	.4267380	.2186274	.1774186	.2877050	1.305381
#1	-.007273	5.225531	8.139195	16.74749	44.95077	.1240241
#2	-.008031	5.183273	8.145749	16.73785	44.91951	.1247245
#3	-.006359	5.192646	8.172817	16.79349	45.15779	.1271416

Elem	Sr4077
Units	ppm
Avg	5.248409
Stddev	.012079
%RSD	.2301439
#1	5.234668
#2	5.253209
#3	5.257350

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2304.473	70596.67	17077.22	1981.973	3256.380
Stddev	5.674	73.36	94.51	10.322	10.097
%RSD	.2462194	.1039152	.5534279	.5207980	.3100581
#1	2311.010	70671.09	16968.11	1987.132	3267.243
#2	2300.820	70524.41	17129.65	1970.088	3254.617
#3	2301.588	70594.52	17133.89	1988.698	3247.282

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-09 Acquired: 4/1/2025 12:03:10 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0700385	-.011921	.0961055	-.043113	-.003072	139.8517
Stddev	.0021467	.001403	.0063055	.003419	.002123	.1116
%RSD	3.065106	11.77040	6.561007	7.930331	69.12075	.0798335
#1	.0680624	-.011625	.1025100	-.040483	-.005124	139.7232
#2	.0697304	-.013448	.0959025	-.041877	-.000884	139.9246
#3	.0723227	-.010689	.0899039	-.046978	-.003208	139.9073

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6706147	.0077179	.0000103	1230.385	.3169396	.1066174
Stddev	.0009138	.0001075	.0000492	9.997	.0005306	.0006722
%RSD	.1362606	1.392659	475.3627	.8125057	.1674253	.6304539
#1	.6715719	.0075945	-.000012	1234.170	.3175269	.1072787
#2	.6705206	.0077676	-.000024	1219.048	.3164945	.1059348
#3	.6697516	.0077915	.000067	1237.937	.3167976	.1066387

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1534537	187.5741	2.636963	59.40092	.2628756	-.000530
Stddev	.0008345	.3851	.002123	.10240	.0005500	.000400
%RSD	.5438267	.2053313	.0804986	.1723850	.2092061	75.44971
#1	.1534027	188.0157	2.637191	59.31007	.2626535	-.000075
#2	.1526459	187.3075	2.634735	59.38081	.2624715	-.000826
#3	.1543126	187.3992	2.638962	59.51188	.2635019	-.000689

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.347412	.1990648	.5829089	13.84523	-.115009	.0042238
Stddev	.011402	.0017030	.0015031	.04995	.004809	.0004327
%RSD	.4857277	.8554851	.2578627	.3607727	4.181434	10.24321
#1	2.358852	.1971035	.5835073	13.88467	-.109482	.0040890
#2	2.347338	.2001682	.5811988	13.86196	-.117315	.0038746
#3	2.336048	.1999227	.5840206	13.78906	-.118232	.0047078

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-09 Acquired: 4/1/2025 12:03:10 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.007827	3.862472	9.477545	6.045745	F 44.32935	.0775745
Stddev	.002617	.002348	.012405	.023759	.06659	.0011775
%RSD	33.43451	.0607793	.1308909	.3929829	.1502224	1.517859
#1	-.008637	3.864435	9.488496	6.023321	44.35759	.0779462
#2	-.004901	3.863110	9.480066	6.043268	44.25330	.0785214
#3	-.009944	3.859871	9.464073	6.070645	44.37717	.0762561

Elem	Sr4077
Units	ppm
Avg	5.932641
Stddev	.041914
%RSD	.7064992
#1	5.946096
#2	5.885651
#3	5.966175

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2310.036	71041.60	17082.62	2006.001	3288.674
Stddev	.559	181.59	69.19	7.306	.525
%RSD	.0242049	.2556048	.4050072	.3641848	.0159606
#1	2309.436	70927.06	17099.57	1999.367	3288.687
#2	2310.542	71250.97	17141.76	2013.831	3289.192
#3	2310.132	70946.78	17006.54	2004.804	3288.142

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-10 Acquired: 4/1/2025 12:07:31 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0518221	-.026024	.1384365	-.050719	-.003751	133.5575
Stddev	.0054491	.002969	.0033924	.000108	.002876	.3341
%RSD	10.51495	11.40745	2.450537	.2126442	76.66186	.2501408
#1	.0489185	-.028845	.1354588	-.050698	-.005514	133.1727
#2	.0484397	-.026299	.1377212	-.050836	-.005306	133.7737
#3	.0581081	-.022927	.1421296	-.050624	-.000433	133.7260

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3749798	.0057473	-.000181	983.9263	.3268119	.1251953
Stddev	.0006153	.0001044	.000072	6.7992	.0013678	.0005096
%RSD	.1641029	1.817069	39.88818	.6910233	.4185227	.4070803
#1	.3743023	.0057368	-.000098	978.3768	.3252574	.1246083
#2	.3755040	.0056485	-.000225	981.8915	.3278311	.1255253
#3	.3751331	.0058566	-.000222	991.5105	.3273472	.1254522

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.162831	231.1660	2.141006	53.33350	.2278856	.0002610
Stddev	.003514	.4537	.006678	.04050	.0012459	.0001506
%RSD	.3022034	.1962728	.3118946	.0759385	.5467312	57.69464
#1	1.158922	230.7769	2.141892	53.31115	.2270920	.0001607
#2	1.163841	231.0568	2.133929	53.30911	.2272432	.0004342
#3	1.165729	231.6644	2.147196	53.38025	.2293216	.0001882

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.536158	.8835874	.3913655	16.14453	-.205052	.0039540
Stddev	.002519	.0031569	.0024145	.06338	.001794	.0001870
%RSD	.0712449	.3572851	.6169436	.3925793	.8746745	4.729888
#1	3.535064	.8807544	.3885828	16.07236	-.204751	.0038527
#2	3.539039	.8830173	.3926074	16.17011	-.203429	.0038395
#3	3.534370	.8869905	.3929063	16.19112	-.206978	.0041698

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1597-10 Acquired: 4/1/2025 12:07:31 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.012708	5.321555	9.313938	F 15.12597	F 32.70876	.1267810
Stddev	.000859	.009890	.039549	.03928	.12370	.0007760
%RSD	6.756528	.1858408	.4246226	.2596980	.3781848	.6120916
#1	-.011892	5.313610	9.268296	15.08247	32.60982	.1276770
#2	-.013604	5.318424	9.338064	15.15885	32.66903	.1263206
#3	-.012629	5.332631	9.335455	15.13659	32.84745	.1263455

Elem	Sr4077
Units	ppm
Avg	1.555474
Stddev	.010376
%RSD	.6670392
#1	1.562118
#2	1.543518
#3	1.560786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2389.766	73012.12	17291.43	2084.629	3387.117
Stddev	2.259	194.88	33.27	9.195	4.823
%RSD	.0945452	.2669096	.1924339	.4411080	.1423856
#1	2392.312	73233.17	17308.18	2094.277	3392.267
#2	2387.998	72938.08	17313.01	2083.645	3386.376
#3	2388.988	72865.12	17253.11	2075.965	3382.707

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1671-04 Acquired: 4/1/2025 12:11:53 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	-.004816	-.006471	.0388132	.0054349	.0019996	.2031178	.2191730
Stddev	.000269	.001090	.0011725	.0018610	.0009389	.0046989	.0005141
%RSD	5.586459	16.84952	3.020768	34.24084	46.95565	2.313373	.2345674
#1	-.004576	-.005393	.0397284	.0064255	.0012664	.2052383	.2196551
#2	-.004765	-.007574	.0374916	.0032882	.0016746	.1977324	.2186319
#3	-.005107	-.006448	.0392197	.0065910	.0030579	.2063827	.2192319

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000856	.0004674	12.20218	.0001234	.0096182	.0336126	.2062715
Stddev	.0000280	.0000812	.02805	.0002908	.0001641	.0003865	.0077132
%RSD	32.73228	17.38281	.2298381	235.6453	1.705591	1.149764	3.739370
#1	.0000535	.0005570	12.23362	.0003652	.0098076	.0340323	.2029621
#2	.0001048	.0004468	12.19321	.0002043	.0095208	.0335343	.2150872
#3	.0000986	.0003985	12.17972	-.000199	.0095262	.0332713	.2007652

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.387464	1.755550	.0051911	.0003363	336.6828	-.000340	.1762914
Stddev	.002511	.028262	.0002945	.0003927	3.2616	.001152	.0007049
%RSD	.1809809	1.609838	5.672571	116.7708	.9687499	338.5480	.3998489
#1	1.385651	1.774657	.0053227	.0007106	338.9966	-.001671	.1755122
#2	1.390330	1.768908	.0048537	-.000073	338.0994	.000316	.1764770
#3	1.386412	1.723086	.0053967	.000371	332.9524	.000334	.1768849

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7318959	.0119985	-.000141	-.005465	.0047436	.9205752	.0179106
Stddev	.0068539	.0002672	.000068	.000570	.0011799	.0078351	.0017300
%RSD	.9364563	2.227262	47.96603	10.43231	24.87285	.8511046	9.658787
#1	.7356814	.0117081	-.000071	-.005746	.0051838	.9296049	.0175638
#2	.7360222	.0122341	-.000147	-.005840	.0056401	.9165455	.0197877
#3	.7239842	.0120534	-.000205	-.004809	.0034069	.9155751	.0163804

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1671-04 Acquired: 4/1/2025 12:11:53 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.4062097	-.009073	.0839429
Stddev	.0070150	.000585	.0001628
%RSD	1.726948	6.444046	.1939462
#1	.4139226	-.009433	.0840009
#2	.4044966	-.008398	.0840688
#3	.4002099	-.009388	.0837590

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2280.156	69956.68	15651.15	1973.961	4024.834
Stddev	3.604	210.40	23.04	12.414	6.415
%RSD	.1580593	.3007626	.1472292	.6289045	.1593930
#1	2278.430	69798.88	15629.07	1970.475	4026.029
#2	2284.298	69875.60	15649.32	1963.663	4030.567
#3	2277.740	70195.56	15675.05	1987.746	4017.904

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01 Acquired: 4/1/2025 12:16:18 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0079717	.0208342	.0203057	.3460176	.0043897	-.059800
Stddev	.0042175	.0023410	.0018151	.0036237	.0015026	.005641
%RSD	52.90558	11.23646	8.938844	1.047267	34.22882	9.432521
#1	.0107500	.0209627	.0189064	.3474134	.0061029	-.062219
#2	.0100464	.0231083	.0223567	.3419036	.0032958	-.063827
#3	.0031188	.0184315	.0196541	.3487359	.0037704	-.053353

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500347	.0004516	.0019881	909.1313	.0039653	.0000312
Stddev	.0003347	.0000551	.0001322	7.4835	.0002080	.0001134
%RSD	.6688489	12.19058	6.651833	.8231454	5.246294	363.7523
#1	.0499240	.0005014	.0020100	917.4166	.0042051	-.000091
#2	.0497694	.0003925	.0021081	902.8631	.0038575	.000133
#3	.0504107	.0004609	.0018463	907.1143	.0038333	.000051

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159896	.1242524	.0671741	225.1008	.0282906	-.000428
Stddev	.0000934	.0032477	.0001753	.3603	.0004810	.000426
%RSD	.5844086	2.613769	.2609965	.1600577	1.700074	99.54783
#1	.0160396	.1224106	.0670831	225.5157	.0285560	-.000399
#2	.0158818	.1223443	.0670629	224.9201	.0285803	-.000867
#3	.0160473	.1280023	.0673762	224.8666	.0277354	-.000017

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	194.7733	.0550329	.0735390	442.5403	.5999949	3.916122
Stddev	2.2712	.0006165	.0001329	.9453	.0016321	.010570
%RSD	1.166098	1.120224	.1807711	.2136102	.2720165	.2699127
#1	192.1518	.0545389	.0734746	443.3817	.6010606	3.908400
#2	196.1495	.0548361	.0734505	442.7218	.5981160	3.911798
#3	196.0186	.0557238	.0736919	441.5174	.6008081	3.928169

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01 Acquired: 4/1/2025 12:16:18 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0940180	-.021946	.8645918	-.011611	F 1041.510	1.386899
Stddev	.0017738	.000409	.0094582	.006508	4.308	.003911
%RSD	1.886630	1.863772	1.093947	56.05073	.4136535	.2819954
#1	.0938072	-.021526	.8548092	-.005790	1040.794	1.385132
#2	.0923590	-.022343	.8736882	-.010405	1037.605	1.384183
#3	.0958877	-.021968	.8652780	-.018637	1046.131	1.391382

Elem	Sr4077
Units	ppm
Avg	1.420890
Stddev	.010906
%RSD	.7675352
#1	1.412381
#2	1.417105
#3	1.433184

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2290.129	71844.12	17302.42	1968.583	3206.984
Stddev	6.215	269.52	38.02	11.120	12.541
%RSD	.2714029	.3751390	.2197136	.5648695	.3910540
#1	2295.922	72056.22	17258.53	1976.431	3217.774
#2	2290.902	71540.84	17324.31	1955.858	3209.953
#3	2283.564	71935.30	17324.43	1973.460	3193.225

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01DUP Acquired: 4/1/2025 12:21:05 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0087266	.0221281	.0175074	.3460700	.0007339	-.045062
Stddev	.0012420	.0011615	.0002001	.0035644	.0008326	.010123
%RSD	14.23210	5.249193	1.143137	1.029959	113.4373	22.46434
#1	.0086257	.0215864	.0177240	.3419861	.0009510	-.052958
#2	.0075382	.0213364	.0173293	.3476694	-.000186	-.033650
#3	.0100160	.0234616	.0174688	.3485546	.001436	-.048578

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0497430	.0004243	.0021043	908.0157	.0033812	-.000043
Stddev	.0007148	.0000972	.0000944	3.8756	.0002625	.000289
%RSD	1.437028	22.91412	4.484800	.4268166	7.762368	676.8810
#1	.0505340	.0003873	.0020075	906.1832	.0030954	.000269
#2	.0495516	.0003510	.0021092	912.4677	.0036114	-.000095
#3	.0491433	.0005346	.0021961	905.3962	.0034368	-.000302

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160109	.1217188	.0654172	225.1236	.0276884	-.000268
Stddev	.0004387	.0018967	.0000714	.7111	.0007380	.000125
%RSD	2.740009	1.558257	.1091131	.3158858	2.665260	46.63124
#1	.0160586	.1195307	.0653561	225.5763	.0268424	-.000402
#2	.0164239	.1228952	.0653998	225.4906	.0281996	-.000155
#3	.0155504	.1227304	.0654956	224.3040	.0280233	-.000247

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	187.9321	.0550657	.0719874	431.8017	.5912929	3.922540
Stddev	.3264	.0009149	.0003700	6.0404	.0020684	.017179
%RSD	.1736811	1.661378	.5139503	1.398885	.3498115	.4379634
#1	187.7494	.0553634	.0722877	438.6866	.5917186	3.914601
#2	188.3090	.0540391	.0721003	429.3268	.5931153	3.910766
#3	187.7380	.0557946	.0715741	427.3919	.5890447	3.942253

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01DUP Acquired: 4/1/2025 12:21:05 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0952967	-.021965	.8532838	-.012343	F 1044.561	1.358304
Stddev	.0024561	.000318	.0071317	.003674	5.276	.004409
%RSD	2.577265	1.449863	.8357920	29.76637	.5050499	.3245628
#1	.0938573	-.022118	.8453220	-.013377	1041.728	1.363393
#2	.0939003	-.022179	.8554432	-.015390	1041.308	1.355666
#3	.0981326	-.021599	.8590863	-.008263	1050.648	1.355852

Elem	Sr4077
Units	ppm
Avg	1.399192
Stddev	.010861
%RSD	.7762240
#1	1.411007
#2	1.396927
#3	1.389643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2277.908	72769.60	17212.32	1961.971	3185.047
Stddev	7.321	170.75	50.08	8.443	13.755
%RSD	.3213750	.2346488	.2909611	.4303417	.4318753
#1	2279.364	72952.15	17217.89	1971.242	3191.871
#2	2284.391	72613.80	17159.69	1959.950	3194.057
#3	2269.969	72742.84	17259.38	1954.722	3169.214

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01LX5 Acquired: 4/1/2025 12:25:53 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0018880	.0050979	.0040714	.0728983	.0000032	-.037025
Stddev	.0027329	.0011915	.0012258	.0035611	.0012687	.003215
%RSD	144.7458	23.37267	30.10759	4.885051	39421.72	8.682740
#1	-.000809	.0063450	.0041278	.0724063	-.001358	-.033943
#2	.004655	.0039711	.0028184	.0696087	.001153	-.036774
#3	.001818	.0049776	.0052681	.0766798	.000215	-.040358

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064483	.0001090	.0003385	221.3937	.0007607	.0002182
Stddev	.0010961	.0000260	.0000432	.3700	.0004105	.0000855
%RSD	16.99749	23.85189	12.76609	.1671205	53.96632	39.16550
#1	.0069889	.0000952	.0002923	221.6244	.0006473	.0001980
#2	.0051870	.0000929	.0003453	220.9670	.0004188	.0001446
#3	.0071691	.0001391	.0003779	221.5899	.0012160	.0003119

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040826	.0328095	.0178083	52.54248	.0058853	.0004023
Stddev	.0003345	.0021998	.0004261	.17828	.0002485	.0001394
%RSD	8.193611	6.704739	2.393008	.3393039	4.222375	34.63719
#1	.0043210	.0352253	.0174533	52.51500	.0056580	.0002422
#2	.0037002	.0322814	.0182809	52.37954	.0061507	.0004688
#3	.0042266	.0309219	.0176907	52.73291	.0058473	.0004961

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.80048	.0126453	.0175816	92.93974	.1511859	.9264055
Stddev	.22551	.0004393	.0002018	.50099	.0007400	.0011538
%RSD	.5666016	3.474295	1.147948	.5390460	.4894574	.1245473
#1	39.99562	.0128166	.0177418	93.37960	.1513871	.9271974
#2	39.85223	.0121461	.0176480	93.04522	.1503661	.9250817
#3	39.55359	.0129732	.0173549	92.39441	.1518044	.9269374

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01LX5 Acquired: 4/1/2025 12:25:53 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.0177019	-.004977	.2053944	-.008541	F 235.8194	.3042391
Stddev	.0019294	.000362	.0028598	.000417	.2300	.0011517
%RSD	10.89925	7.282814	1.392352	4.886096	.0975394	.3785652
#1	.0199123	-.004922	.2077466	-.008228	235.6047	.3040738
#2	.0168372	-.005364	.2022111	-.009015	235.7913	.3054646
#3	.0163561	-.004645	.2062256	-.008381	236.0622	.3031790

Elem	Sr4077
Units	ppm
Avg	.3298519
Stddev	.0003779
%RSD	.1145604
#1	.3301808
#2	.3299358
#3	.3294391

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2280.697	69247.93	15551.59	1927.221	3839.093
Stddev	3.787	304.94	34.95	4.235	2.385
%RSD	.1660561	.4403608	.2247107	.2197427	.0621129
#1	2276.329	68900.19	15521.94	1923.488	3837.092
#2	2282.681	69373.83	15590.12	1931.823	3841.731
#3	2283.079	69469.75	15542.72	1926.352	3838.456

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01MS Acquired: 4/1/2025 12:30:07 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7405704	1.794585	.9294381	2.288875	.7490957	1.558015
Stddev	.0008918	.005324	.0042985	.011419	.0011099	.008661
%RSD	.1204149	.2966766	.4624829	.4988972	.1481675	.5558982
#1	.7403420	1.789711	.9263430	2.284096	.7488497	1.567090
#2	.7398150	1.793778	.9276252	2.280621	.7503079	1.549838
#3	.7415541	1.800267	.9343461	2.301907	.7481294	1.557117

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2029411	.1482832	.1909661	944.6529	.3191351	.1920843
Stddev	.0010189	.0006688	.0000940	1.1702	.0001689	.0004327
%RSD	.5020874	.4510409	.0492279	.1238715	.0529187	.2252599
#1	.2034351	.1481379	.1910651	943.3196	.3191815	.1916002
#2	.2036188	.1476990	.1909552	945.1301	.3192759	.1922195
#3	.2017693	.1490127	.1908781	945.5091	.3189479	.1924333

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2499108	2.605059	.2106585	235.8361	.5095357	.0683441
Stddev	.0009026	.017908	.0013577	.7025	.0013995	.0001538
%RSD	.3611864	.6874317	.6445165	.2978567	.2746540	.2250657
#1	.2488786	2.607121	.2122155	235.5033	.5081130	.0684858
#2	.2505522	2.621847	.2097215	235.3620	.5095834	.0681805
#3	.2503015	2.586210	.2100384	236.6431	.5109107	.0683661

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	200.7807	.2871096	.2272098	464.8805	.8273592	4.372432
Stddev	1.7599	.0009202	.0001467	2.1647	.0050461	.012303
%RSD	.8765274	.3205048	.0645511	.4656466	.6099015	.2813850
#1	202.5427	.2881411	.2273453	465.6382	.8311931	4.360180
#2	200.7764	.2863728	.2270541	466.5645	.8216424	4.372330
#3	199.0230	.2868150	.2272301	462.4388	.8292420	4.384786

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01MS Acquired: 4/1/2025 12:30:07 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7119937	.1287641	1.637402	7.013106	F 1070.047	1.609499
Stddev	.0008740	.0011351	.011313	.025645	2.330	.014684
%RSD	.1227538	.8815483	.6909001	.3656785	.2177365	.9123335
#1	.7110670	.1296111	1.644863	6.985576	1067.537	1.622530
#2	.7128032	.1292068	1.642958	7.017424	1072.140	1.612378
#3	.7121110	.1274743	1.624386	7.036319	1070.463	1.593589

Elem	Sr4077
Units	ppm
Avg	1.645522
Stddev	.020136
%RSD	1.223656
#1	1.625503
#2	1.665772
#3	1.645292

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2298.664	72086.53	17130.39	1979.760	3190.201
Stddev	3.763	261.28	43.44	8.876	2.447
%RSD	.1636904	.3624579	.2535912	.4483244	.0766971
#1	2302.790	72333.43	17143.51	1989.789	3192.941
#2	2295.421	71812.91	17165.76	1976.577	3188.236
#3	2297.782	72113.26	17081.90	1972.915	3189.426

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01MSD Acquired: 4/1/2025 12:34:41 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7347103	1.808779	.9379214	2.272252	.7399800	1.554762
Stddev	.0038297	.015649	.0030856	.012315	.0019364	.008145
%RSD	.5212555	.8651600	.3289841	.5419880	.2616898	.5238428
#1	.7325155	1.805614	.9344559	2.262371	.7378235	1.546674
#2	.7391324	1.794955	.9403709	2.268336	.7405465	1.554649
#3	.7324829	1.825768	.9389373	2.286049	.7415700	1.562962

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2056739	.1497574	.1921619	954.4771	.3206073	.1932988
Stddev	.0018872	.0017348	.0004029	7.8427	.0006628	.0009117
%RSD	.9175567	1.158410	.2096387	.8216745	.2067271	.4716530
#1	.2044902	.1482507	.1919249	952.2344	.3198439	.1928302
#2	.2046813	.1493676	.1919337	948.0000	.3210363	.1927167
#3	.2078502	.1516539	.1926270	963.1968	.3209417	.1943495

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2507005	2.619712	.2150940	237.7922	.5129293	.0681529
Stddev	.0014189	.011099	.0014269	1.4166	.0015530	.0002394
%RSD	.5659918	.4236728	.6634000	.5957320	.3027623	.3513295
#1	.2494801	2.630013	.2134549	236.4865	.5115170	.0679171
#2	.2503638	2.607958	.2157679	237.5916	.5126786	.0681458
#3	.2522575	2.621165	.2160592	239.2984	.5145924	.0683959

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	201.9724	.2873430	.2265732	462.8267	.8309263	4.375120
Stddev	.3875	.0010690	.0009054	6.0477	.0079807	.012434
%RSD	.1918727	.3720265	.3996108	1.306683	.9604584	.2842074
#1	202.3290	.2862067	.2270278	469.3215	.8248904	4.366896
#2	201.5600	.2874939	.2255306	457.3573	.8279137	4.369039
#3	202.0282	.2883286	.2271613	461.8013	.8399748	4.389424

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01MSD Acquired: 4/1/2025 12:34:41 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7191837	.1300393	1.622739	7.073588	F 1079.245	1.617793
Stddev	.0005338	.0007931	.005249	.024947	3.032	.002846
%RSD	.0742274	.6098967	.3234689	.3526716	.2809042	.1758964
#1	.7196329	.1304639	1.628498	7.054609	1077.688	1.617497
#2	.7185935	.1305298	1.621493	7.064310	1077.308	1.620775
#3	.7193248	.1291243	1.618225	7.101844	1082.739	1.615106

Elem	Sr4077
Units	ppm
Avg	1.646144
Stddev	.010692
%RSD	.6495299
#1	1.633848
#2	1.651323
#3	1.653260

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2299.858	72034.45	16966.90	1992.717	3173.605
Stddev	4.034	195.14	154.75	3.940	6.607
%RSD	.1753955	.2709044	.9120617	.1977046	.2081856
#1	2301.190	71995.18	17084.39	1988.751	3177.091
#2	2303.057	72246.24	17024.74	1992.771	3177.740
#3	2295.326	71861.92	16791.56	1996.630	3165.985

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01A Acquired: 4/1/2025 12:39:17 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7388343	1.802641	.9358058	2.270493	.7440672	1.556155
Stddev	.0057437	.015283	.0026619	.005821	.0007042	.006788
%RSD	.7773964	.8478288	.2844537	.2563841	.0946464	.4361791
#1	.7411950	1.785863	.9377832	2.267815	.7444352	1.563841
#2	.7322865	1.806290	.9327791	2.277172	.7432552	1.550984
#3	.7430216	1.815769	.9368550	2.266494	.7445112	1.553638

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2036226	.1494824	.1919434	947.9195	.3212525	.1934048
Stddev	.0008633	.0006254	.0003918	1.5091	.0006652	.0003601
%RSD	.4239606	.4183910	.2041096	.1591966	.2070764	.1862108
#1	.2027245	.1487622	.1915693	946.1788	.3214742	.1930263
#2	.2036971	.1498889	.1919103	948.8587	.3217786	.1934448
#3	.2044462	.1497961	.1923507	948.7211	.3205047	.1937433

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2506821	2.596708	.2101645	236.9841	.5118467	.0684769
Stddev	.0008017	.003448	.0011921	.5817	.0012304	.0003368
%RSD	.3198041	.1328023	.5671964	.2454645	.2403928	.4918279
#1	.2506231	2.595547	.2092049	236.4504	.5114558	.0684129
#2	.2499115	2.593989	.2097897	236.8978	.5108592	.0688411
#3	.2515116	2.600587	.2114989	237.6042	.5132251	.0681767

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	201.3049	.2848076	.2261356	465.4745	.8261432	4.378136
Stddev	2.0623	.0018067	.0017706	4.4540	.0027838	.012365
%RSD	1.024468	.6343556	.7829922	.9568693	.3369628	.2824359
#1	201.8275	.2842201	.2242372	469.7519	.8230327	4.374710
#2	203.0557	.2868349	.2277421	460.8628	.8284007	4.367844
#3	199.0316	.2833677	.2264276	465.8089	.8269962	4.391853

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-01A Acquired: 4/1/2025 12:39:17 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	.7190721	.1296001	1.635523	7.056716	F 1076.122	1.592272
Stddev	.0019490	.0004364	.002230	.003664	2.836	.003471
%RSD	.2710471	.3367481	.1363521	.0519220	.2635637	.2180168
#1	.7181386	.1301007	1.637252	7.052719	1074.023	1.595553
#2	.7177653	.1292999	1.636312	7.059915	1074.994	1.592627
#3	.7213123	.1293997	1.633006	7.057514	1079.348	1.588637

Elem	Sr4077
Units	ppm
Avg	1.640359
Stddev	.000549
%RSD	.0334626
#1	1.640026
#2	1.640992
#3	1.640057

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2292.988	71718.13	16983.83	1978.961	3171.168
Stddev	5.308	80.44	74.51	4.923	5.415
%RSD	.2315079	.1121573	.4386841	.2487817	.1707551
#1	2292.996	71722.78	17068.99	1984.638	3175.265
#2	2298.293	71635.46	16930.68	1975.854	3173.209
#3	2287.676	71796.14	16951.83	1976.392	3165.029

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV02 Acquired: 4/1/2025 12:43:52 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	5.090533	5.111876	4.950895	5.183281	5.201068	9.785541	9.355872
Stddev	.005888	.005750	.019006	.012884	.008132	.006658	.066625
%RSD	.1156743	.1124836	.3838867	.2485609	.1563435	.0680341	.7121155
#1	5.091610	5.109522	4.939193	5.168913	5.195478	9.787325	9.305948
#2	5.084181	5.118429	4.940668	5.187126	5.197330	9.791125	9.330144
#3	5.095809	5.107676	4.972825	5.193805	5.210396	9.778173	9.431525

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2376194	2.423197	23.58956	1.007993	2.407441	1.252667	4.848647
Stddev	.0009702	.007118	.04103	.003220	.006790	.002964	.029177
%RSD	.4082834	.2937279	.1739192	.3194105	.2820478	.2366497	.6017467
#1	.2365332	2.419857	23.62748	1.004721	2.404583	1.253596	4.881505
#2	.2379251	2.418363	23.54601	1.008101	2.402546	1.249349	4.838666
#3	.2383999	2.431370	23.59519	1.011157	2.415192	1.255055	4.825772

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.340012	23.07929	2.457678	1.242754	24.06795	2.406901	2.520237
Stddev	.009052	.10118	.009927	.001406	.20466	.002542	.005047
%RSD	.3868253	.4383962	.4039278	.1131415	.8503369	.1056110	.2002421
#1	2.350065	23.00715	2.452486	1.241810	24.30406	2.409833	2.521306
#2	2.332507	23.03578	2.451424	1.244370	23.95859	2.405560	2.514741
#3	2.337463	23.19495	2.469125	1.242083	23.94122	2.405311	2.524662

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.13290	4.668662	5.086550	4.913634	4.775677	5.064352	5.072102
Stddev	.17676	.016545	.005997	.013099	.017924	.014292	.022196
%RSD	.7032993	.3543824	.1178950	.2665833	.3753138	.2822161	.4376181
#1	25.33700	4.650055	5.084790	4.906479	4.794306	5.071248	5.064257
#2	25.03169	4.674216	5.081629	4.905671	4.758554	5.047919	5.054893
#3	25.03000	4.681715	5.093229	4.928752	4.774172	5.073889	5.097155

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV02 Acquired: 4/1/2025 12:43:52 Type: Unk
Method: NON EPA-6010-200.7(v2864) 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	5.050883	4.664140	4.696026
Stddev	.008954	.015562	.041022
%RSD	.1772794	.3336581	.8735544
#1	5.056800	4.682100	4.742228
#2	5.055267	4.654628	4.681971
#3	5.040581	4.655693	4.663879

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2327.071	70467.54	15051.44	1977.218	4146.140
Stddev	2.590	180.67	39.73	7.780	7.507
%RSD	.1112940	.2563808	.2639428	.3934635	.1810497
#1	2328.269	70309.71	15052.75	1969.243	4148.687
#2	2328.845	70664.60	15090.50	1984.787	4152.042
#3	2324.099	70428.33	15011.07	1977.625	4137.692

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB02 Acquired: 4/1/2025 12:48:53 Type: Unk
Method: NON EPA-6010-200.7(v2865) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003857	-.000875	.0010504	.0022745	-.000859	-.001091
Stddev	.0029972	.002062	.0009673	.0033674	.000604	.002623
%RSD	777.1837	235.7235	92.09792	148.0519	70.26063	240.3440
#1	-.002712	.000927	.0021626	.0031483	-.000261	.001648
#2	.003271	-.003123	.0004056	.0051189	-.000849	-.003581
#3	.000597	-.000428	.0005828	-.001444	-.001468	-.001341

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008440	.0000522	.0001040	.0420978	.0001342	.0000343
Stddev	.000799	.0000150	.0000192	.0065888	.0003635	.0000475
%RSD	9.466983	28.72459	18.45106	15.65115	270.8999	138.3268
#1	-.009182	.0000635	.0000875	.0493112	-.000175	-.000018
#2	-.007594	.0000578	.0000995	.0363966	.000535	.000048
#3	-.008546	.0000352	.0001251	.0405855	.000042	.000074

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000446	.0001002	.0031550	.0000058	.0003013	.0009060
Stddev	.0001400	.0036044	.0000150	.0009670	.0000818	.0002042
%RSD	313.8334	3597.415	.4765387	16544.55	27.16250	22.54284
#1	-.000116	.0042548	.0031717	.0011209	.0003719	.0008919
#2	.000112	-.001763	.0031426	-.000501	.0002116	.0007092
#3	.000138	-.002191	.0031508	-.000602	.0003205	.0011169

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0418183	-.000637	.0002823	.0867403	-.004430	.0002458
Stddev	.0076776	.000352	.0003362	.0266338	.000400	.0000414
%RSD	18.35953	55.18534	119.0838	30.70517	9.027829	16.86304
#1	.0337204	-.000653	.0000510	.0656580	-.004749	.0002015
#2	.0489920	-.000981	.0006680	.0778905	-.004560	.0002836
#3	.0427424	-.000278	.0001280	.1166725	-.003982	.0002522

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB02 Acquired: 4/1/2025 12:48:53 Type: Unk
Method: NON EPA-6010-200.7(v2865) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000438	.0006319	.0114362	-.005744	F .0828101	-.000305
Stddev	.000199	.0005972	.0049055	.001459	.0018518	.000646
%RSD	45.54580	94.50409	42.89440	25.39298	2.236213	211.7184
#1	-.000433	.0012307	.0152488	-.005773	.0849219	-.000598
#2	-.000241	.0000363	.0059020	-.007188	.0814636	-.000752
#3	-.000639	.0006287	.0131579	-.004271	.0820448	.000435

Elem	Sr4077
Units	ppm
Avg	-.000063
Stddev	.000033
%RSD	52.63693
#1	-.000059
#2	-.000032
#3	-.000097

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2421.244	73771.37	15731.78	2051.962	4656.019
Stddev	6.393	206.88	19.40	9.222	8.342
%RSD	.2640196	.2804370	.1232921	.4494359	.1791616
#1	2414.039	73709.21	15747.01	2053.053	4648.113
#2	2426.237	73602.69	15709.94	2042.243	4664.737
#3	2423.456	74002.21	15738.39	2060.590	4655.208

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-02 Acquired: 4/1/2025 12:53:12 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0091861	.0276484	.0054317	.6021173	.0090802	-.121034
Stddev	.0033078	.0019386	.0033358	.0051441	.0005671	.006956
%RSD	36.00916	7.011544	61.41263	.8543352	6.245384	5.746881
#1	.0102240	.0273345	.0016228	.6003303	.0084332	-.119139
#2	.0054838	.0258859	.0078327	.6079166	.0094913	-.115222
#3	.0118505	.0297248	.0068397	.5981050	.0093160	-.128740

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0786026	.0002841	-.000429	1111.169	.0033068	.0175797
Stddev	.0005869	.0000154	.000092	1.222	.0002120	.0003239
%RSD	.7467146	5.428921	21.52681	.1099472	6.411838	1.842373
#1	.0779538	.0002690	-.000395	1109.778	.0031418	.0179299
#2	.0790967	.0002998	-.000533	1112.068	.0032326	.0172910
#3	.0787573	.0002836	-.000358	1111.662	.0035459	.0175181

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008082	1.762191	4.747746	273.6754	.0313261	-.000784
Stddev	.0003906	.008092	.020953	.7726	.0006996	.000141
%RSD	48.33779	.4591897	.4413241	.2823030	2.233148	17.97366
#1	.0004914	1.753065	4.725990	273.9655	.0310235	-.000621
#2	.0012447	1.765020	4.767791	274.2609	.0308287	-.000869
#3	.0006885	1.768488	4.749458	272.7998	.0321260	-.000861

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	534.9703	.0594268	.1432057	671.5245	.7344326	4.604175
Stddev	3.4588	.0017207	.0008653	.5568	.0035591	.002921
%RSD	.6465351	2.895459	.6042186	.0829211	.4846089	.0634382
#1	531.1009	.0599547	.1441194	670.8854	.7344745	4.606253
#2	537.7618	.0608217	.1430991	671.7834	.7379706	4.600836
#3	536.0481	.0575040	.1423987	671.9048	.7308527	4.605438

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-02 Acquired: 4/1/2025 12:53:12 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0181028	-.027068	1.179549	F 22.50361	F 1068.284	1.711521
Stddev	.0006260	.000480	.003273	.07919	1.851	.007578
%RSD	3.457759	1.774623	.2774930	.3518786	.1732664	.4427571
#1	.0188175	-.027040	1.176480	22.46114	1069.214	1.703001
#2	.0178392	-.026602	1.179172	22.45471	1066.153	1.714054
#3	.0176518	-.027561	1.182994	22.59497	1069.486	1.717508

Elem	Sr4077
Units	ppm
Avg	1.819592
Stddev	.003972
%RSD	.2183143
#1	1.819136
#2	1.823773
#3	1.815867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1859.323	58125.72	14334.84	1587.930	3113.728
Stddev	1.985	116.29	66.19	7.430	2.715
%RSD	.1067790	.2000618	.4617729	.4678880	.0871970
#1	1857.194	58255.58	14348.91	1583.397	3110.597
#2	1859.651	58090.37	14262.74	1583.888	3115.433
#3	1861.124	58031.21	14392.86	1596.504	3115.154

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-03 Acquired: 4/1/2025 12:57:59 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.1289936	.0197098	.0082452	.0783722	.0065039	-.166353
Stddev	.0005690	.0030950	.0009958	.0065290	.0008221	.013623
%RSD	.4411461	15.70276	12.07739	8.330717	12.63976	8.189167
#1	.1283780	.0192878	.0071245	.0708817	.0073099	-.181223
#2	.1291024	.0229941	.0090283	.0813777	.0065352	-.163360
#3	.1295005	.0168475	.0085828	.0828572	.0056666	-.154475

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0693230	.0002846	-.000260	1097.491	.0152698	-.001507
Stddev	.0000934	.0000967	.000094	2.231	.0004538	.000022
%RSD	.1346766	33.98742	36.12757	.2032461	2.971935	1.451394
#1	.0692153	.0003940	-.000156	1096.673	.0156657	-.001482
#2	.0693799	.0002498	-.000339	1100.016	.0147746	-.001515
#3	.0693739	.0002102	-.000286	1095.786	.0153691	-.001524

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0095424	.0696873	.1826684	272.9054	.0194694	-.000658
Stddev	.0007088	.0007317	.0005116	1.1659	.0006471	.000118
%RSD	7.427720	1.049901	.2800512	.4272182	3.323880	17.90379
#1	.0088962	.0689272	.1820780	271.5891	.0187383	-.000577
#2	.0103005	.0703868	.1829480	273.3190	.0197011	-.000605
#3	.0094305	.0697478	.1829793	273.8082	.0199689	-.000793

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	553.8276	.1358270	.0269177	644.6487	.7867639	4.172928
Stddev	5.0563	.0019512	.0004499	2.9167	.0015414	.004515
%RSD	.9129806	1.436523	1.671332	.4524438	.1959206	.1081989
#1	548.2641	.1352494	.0264814	641.5216	.7866722	4.171964
#2	555.0757	.1342299	.0268917	645.1293	.7883492	4.168972
#3	558.1430	.1380018	.0273800	647.2953	.7852704	4.177847

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1673-03 Acquired: 4/1/2025 12:57:59 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0148041	-.027340	2.474657	F 12.99360	F 1073.689	1.695653
Stddev	.0011872	.000171	.012884	.02847	1.081	.004659
%RSD	8.019228	.6271523	.5206380	.2190992	.1006993	.2747582
#1	.0135037	-.027142	2.466309	12.96076	1072.567	1.696814
#2	.0150788	-.027449	2.468166	13.00879	1073.777	1.690523
#3	.0158299	-.027428	2.489495	13.01125	1074.724	1.699621

Elem	Sr4077
Units	ppm
Avg	2.046638
Stddev	.015809
%RSD	.7724594
#1	2.034175
#2	2.064421
#3	2.041316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1856.758	59415.88	14428.28	1618.695	3080.443
Stddev	1.511	68.06	55.28	6.599	4.436
%RSD	.0813895	.1145427	.3831410	.4076930	.1440176
#1	1856.956	59465.89	14472.71	1611.443	3085.303
#2	1858.161	59338.38	14366.37	1620.295	3079.415
#3	1855.158	59443.36	14445.74	1624.347	3076.610

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167385BL Acquired: 4/1/2025 13:02:46 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.000638	-.002169	-.000068	.0017037	-.001005	.0016659
Stddev	.002115	.001386	.000973	.0008014	.001507	.0018873
%RSD	331.2376	63.92549	1432.852	47.04015	150.0297	113.2930
#1	.001800	-.001333	.000303	.0019834	-.002440	.0002931
#2	-.001749	-.001405	-.001172	.0007999	-.001140	.0008865
#3	-.001966	-.003769	.000665	.0023277	.000566	.0038181

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008352	.0000297	-.000065	.2228045	-.000300	-.000079
Stddev	.000425	.0000411	.000027	.0098532	.000114	.000112
%RSD	5.087710	138.3288	41.93454	4.422375	37.96108	140.4121
#1	-.007914	.0000770	-.000046	.2317784	-.000230	-.000199
#2	-.008382	.0000077	-.000096	.2243745	-.000240	-.000060
#3	-.008762	.0000043	-.000053	.2122604	-.000432	.000021

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004498	-.001364	.0026946	.0374813	-.000031	.0008761
Stddev	.0005368	.004648	.0002740	.0101344	.000230	.0002112
%RSD	119.3426	340.7849	10.16963	27.03860	742.2348	24.10707
#1	.0007439	-.006391	.0029971	.0463567	-.000275	.0011164
#2	.0007753	-.000479	.0026237	.0264385	.000180	.0007920
#3	-.000170	.002778	.0024630	.0396487	.000002	.0007199

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2589588	-.001254	.0006449	.4507603	-.008407	.0005110
Stddev	.0028630	.000603	.0001680	.0036299	.000590	.0002505
%RSD	1.105599	48.09081	26.05706	.8052829	7.013908	49.01150
#1	.2615549	-.001932	.0005425	.4465838	-.007894	.0007970
#2	.2594334	-.001051	.0005534	.4525425	-.009051	.0004056
#3	.2558881	-.000779	.0008389	.4531547	-.008275	.0003305

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167385BL Acquired: 4/1/2025 13:02:46 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.000589	.0006535	.0080835	-.004514	F .2297225	.0068160
Stddev	.000251	.0003652	.0015565	.001031	.0232334	.0005007
%RSD	42.53173	55.88731	19.25549	22.83018	10.11367	7.346054
#1	-.000460	.0008682	.0094895	-.003509	.2544945	.0070747
#2	-.000429	.0002318	.0083500	-.004466	.2262555	.0071344
#3	-.000878	.0008603	.0064109	-.005568	.2084174	.0062388

Elem	Sr4077
Units	ppm
Avg	-.000067
Stddev	.000032
%RSD	47.05716
#1	-.000039
#2	-.000101
#3	-.000061

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2435.526	76077.94	15553.67	2110.709	4685.050
Stddev	7.860	182.68	27.44	13.397	14.704
%RSD	.3227322	.2401224	.1764239	.6346987	.3138469
#1	2441.006	76285.92	15576.27	2125.415	4696.661
#2	2439.052	75943.45	15561.59	2099.199	4689.973
#3	2426.520	76004.45	15523.14	2107.514	4668.517

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167385BS Acquired: 4/1/2025 13:07:06 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7699729	1.951542	.9242407	2.003928	.8166175	1.872549
Stddev	.0036054	.013903	.0023669	.011317	.0035278	.007822
%RSD	.4682543	.7123986	.2560914	.5647435	.4320082	.4177212
#1	.7666263	1.961542	.9234623	1.992794	.8139329	1.874331
#2	.7695016	1.935666	.9223611	2.003571	.8153065	1.863990
#3	.7737908	1.957417	.9268988	2.015419	.8206132	1.879327

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .1652968	.1812738	.1807229	.9739990	.3918351	.1833888
Stddev	.0008275	.0004528	.0007050	.0058047	.0009861	.0004386
%RSD	.5006350	.2497648	.3900990	.5959638	.2516684	.2391508
#1	.1662511	.1816231	.1799588	.9774019	.3917252	.1834415
#2	.1647769	.1814361	.1808619	.9772985	.3928716	.1829262
#3	.1648624	.1807623	.1813481	.9672966	.3909086	.1837986

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3028392	2.822054	.1983399	1.730290	.4708489	.0738246
Stddev	.0010008	.020168	.0017356	.005802	.0008502	.0003287
%RSD	.3304719	.7146682	.8750744	.3353372	.1805702	.4452623
#1	.3028854	2.808163	.1964961	1.726349	.4702363	.0734458
#2	.3018161	2.812811	.1985817	1.727568	.4704908	.0739931
#3	.3038161	2.845187	.1999420	1.736953	.4718196	.0740349

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.685616	.2754643	.2014229	9.305041	F .2516584	.3996855
Stddev	.009143	.0015718	.0010748	.024230	.0009668	.0001685
%RSD	.3404376	.5706015	.5336181	.2603976	.3841721	.0421494
#1	2.694336	.2765919	.2026562	9.325942	.2505778	.3996290
#2	2.676102	.2761321	.2006856	9.278483	.2524415	.3995525
#3	2.686410	.2736688	.2009269	9.310699	.2519559	.3998749

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167385BS Acquired: 4/1/2025 13:07:06 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.6471286	.1817669	F .7721791	5.548317	F .0741313	.1851841
Stddev	.0024458	.0003558	.0049196	.025969	.0043743	.0008502
%RSD	.3779384	.1957612	.6371052	.4680521	5.900784	.4591218
#1	.6474230	.1813725	.7703303	5.554078	.0791079	.1861650
#2	.6445490	.1820640	.7684517	5.519952	.0708947	.1846587
#3	.6494138	.1818642	.7777552	5.570923	.0723915	.1847287

Elem	Sr4077
Units	ppm
Avg	.1780071
Stddev	.0001844
%RSD	.1035684
#1	.1780873
#2	.1781378
#3	.1777962

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2386.514	72576.83	15556.01	2013.084	4511.272
Stddev	4.743	140.96	47.75	9.247	8.562
%RSD	.1987364	.1942258	.3069507	.4593434	.1897820
#1	2385.623	72416.80	15517.30	2003.619	4506.494
#2	2391.639	72631.11	15541.37	2022.096	4521.156
#3	2382.279	72682.59	15609.37	2013.539	4506.165

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01 Acquired: 4/1/2025 13:11:07 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0297303	.0055707	.1306088	-.026193	-.004617	82.85747
Stddev	.0027860	.0011047	.0019590	.003202	.000629	.03641
%RSD	9.370878	19.82983	1.499901	12.22541	13.62613	.0439450
#1	.0274611	.0056870	.1302733	-.025527	-.003975	82.88569
#2	.0328397	.0044125	.1327139	-.023376	-.004644	82.81637
#3	.0288901	.0066126	.1288392	-.029676	-.005233	82.87034

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5374267	.0086213	-.002211	20.03075	.1507345	.0931325
Stddev	.0026993	.0000703	.000119	.06118	.0012559	.0001672
%RSD	.5022657	.8157027	5.367017	.3054253	.8331657	.1795687
#1	.5400001	.0085728	-.002346	20.04026	.1495474	.0929461
#2	.5346170	.0085890	-.002122	19.96537	.1506068	.0932694
#3	.5376629	.0087019	-.002167	20.08661	.1520494	.0931820

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3049532	173.5646	3.997475	23.94079	.1916576	.0012368
Stddev	.0002573	.4220	.020268	.06193	.0005012	.0001849
%RSD	.0843673	.2431168	.5070128	.2586790	.2615031	14.94811
#1	.3047622	173.7349	4.001632	23.89319	.1918444	.0012078
#2	.3048517	173.0841	3.975452	23.91839	.1910898	.0010681
#3	.3052457	173.8749	4.015343	24.01081	.1920385	.0014344

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.165697	.1956084	.4375000	8.258707	-.312144	.0011744
Stddev	.025494	.0015215	.0021543	.001543	.003446	.0000986
%RSD	.4935335	.7778360	.4924075	.0186802	1.104039	8.395558
#1	5.192357	.1947269	.4352586	8.257214	-.308225	.0011426
#2	5.141555	.1947331	.4376862	8.258611	-.313501	.0012849
#3	5.163178	.1973653	.4395551	8.260295	-.314704	.0010956

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01 Acquired: 4/1/2025 13:11:07 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.001917	1.884031	F 11.53299	5.715044	1.334410	.1828445
Stddev	.001107	.006163	.04335	.019428	.005221	.0011312
%RSD	57.75648	.3271067	.3759096	.3399446	.3912867	.6186455
#1	-.003176	1.885730	11.55358	5.692765	1.339923	.1840772
#2	-.001096	1.877196	11.56220	5.723905	1.333767	.1826022
#3	-.001479	1.889165	11.48317	5.728461	1.329540	.1818541

Elem	Sr4077
Units	ppm
Avg	-.043910
Stddev	.000054
%RSD	.1234494
#1	-.043853
#2	-.043915
#3	-.043961

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2656.625	82999.90	17895.45	2293.776	4186.999
Stddev	3.200	130.54	53.67	9.985	10.021
%RSD	.1204661	.1572824	.2999323	.4353081	.2393278
#1	2659.489	83150.59	17938.01	2303.484	4197.451
#2	2657.215	82921.22	17913.19	2294.309	4186.074
#3	2653.170	82927.89	17835.15	2283.535	4177.474

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01DUP Acquired: 4/1/2025 13:15:13 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0300027	.0074297	.1306375	-.027379	-.003165	82.15174
Stddev	.0007536	.0030946	.0012154	.001797	.000878	.17315
%RSD	2.511836	41.65214	.9303461	6.562185	27.72375	.2107697
#1	.0298495	.0098976	.1292384	-.026388	-.002418	82.15722
#2	.0293375	.0084339	.1312423	-.029453	-.002947	82.32209
#3	.0308212	.0039577	.1314318	-.026296	-.004131	81.97592

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5478196	.0085419	-.003518	20.03685	.1516942	.0934483
Stddev	.0024283	.0001435	.000095	.06714	.0000737	.0003438
%RSD	.4432607	1.680264	2.704126	.3350603	.0486034	.3678834
#1	.5458443	.0083810	-.003611	19.96585	.1516934	.0938383
#2	.5505306	.0085878	-.003521	20.09931	.1516209	.0931892
#3	.5470839	.0086568	-.003421	20.04537	.1517683	.0933175

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3042615	179.5111	4.004827	23.85453	.1926275	.0020209
Stddev	.0008736	.3656	.012053	.07694	.0004989	.0001894
%RSD	.2871352	.2036638	.3009537	.3225518	.2590253	9.373192
#1	.3043520	179.5454	3.992283	23.76627	.1931029	.0019912
#2	.3033461	179.8583	4.016319	23.90745	.1926716	.0022235
#3	.3050864	179.1295	4.005880	23.88988	.1921079	.0018481

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.369518	.1947574	.4411136	8.572784	-.272094	.0011025
Stddev	.011676	.0004515	.0016158	.040182	.003075	.0001697
%RSD	.2174408	.2318155	.3662983	.4687197	1.130105	15.39549
#1	5.369728	.1950861	.4395452	8.565025	-.268547	.0011007
#2	5.381086	.1942426	.4427729	8.616280	-.274013	.0012731
#3	5.357738	.1949434	.4410227	8.537047	-.273721	.0009337

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01DUP Acquired: 4/1/2025 13:15:13 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.001143	1.894130	F 11.94333	5.787305	1.323768	.1837284
Stddev	.001341	.006038	.04181	.013230	.008296	.0006286
%RSD	117.2743	.3187714	.3500677	.2286079	.6266900	.3421403
#1	-.001630	1.897810	11.94051	5.800908	1.323101	.1844541
#2	.000373	1.897418	11.98647	5.774482	1.315825	.1833513
#3	-.002173	1.887161	11.90299	5.786525	1.332377	.1833799

Elem	Sr4077
Units	ppm
Avg	-.048178
Stddev	.000097
%RSD	.2018433
#1	-.048284
#2	-.048156
#3	-.048093

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2665.768	81899.61	18268.57	2304.371	4186.514
Stddev	6.506	56.46	59.37	5.864	6.746
%RSD	.2440736	.0689369	.3250043	.2544827	.1611319
#1	2658.321	81942.51	18333.83	2310.750	4183.643
#2	2668.633	81835.65	18254.16	2303.146	4194.221
#3	2670.351	81920.66	18217.73	2299.215	4181.679

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01LX5 Acquired: 4/1/2025 13:19:19 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0070882	.0010058	.0273396	-.004581	-.002261	18.53594	.1180020
Stddev	.0032686	.0005056	.0000140	.002009	.001363	.02151	.0007323
%RSD	46.11371	50.26590	.0511904	43.85319	60.29495	.1160331	.6206074
#1	.0103487	.0010073	.0273276	-.002513	-.001551	18.55789	.1177568
#2	.0071045	.0004995	.0273362	-.006525	-.001399	18.51490	.1188255
#3	.0038115	.0015106	.0273550	-.004704	-.003833	18.53502	.1174238

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020118	-.001611	4.640940	.0343646	.0185179	.0724257	39.32105
Stddev	.0000225	.000011	.013817	.0001633	.0002629	.0007678	.16864
%RSD	1.115739	.6753847	.2977128	.4753146	1.419415	1.060128	.4288918
#1	.0020139	-.001598	4.635568	.0343707	.0182144	.0726237	39.41293
#2	.0019884	-.001617	4.656636	.0341984	.0186639	.0715783	39.12641
#3	.0020332	-.001617	4.630617	.0345249	.0186753	.0730751	39.42380

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9290794	5.467865	.0389126	.0007491	1.161624	.0438728	.1001938
Stddev	.0011601	.018928	.0005962	.0002788	.016491	.0003298	.0003873
%RSD	.1248692	.3461588	1.532077	37.21381	1.419690	.7516705	.3865272
#1	.9304153	5.489694	.0382391	.0010227	1.166924	.0440930	.1002889
#2	.9284979	5.457892	.0393728	.0004654	1.174813	.0440317	.1005248
#3	.9283251	5.456010	.0391258	.0007591	1.143134	.0434937	.0997679

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.825775	-.080976	.0000627	-.001531	.4406863	2.593784	1.160348
Stddev	.021251	.001487	.0003226	.000987	.0087854	.045970	.003000
%RSD	1.163922	1.836630	514.2559	64.50130	1.993579	1.772331	.2585140
#1	1.809759	-.079273	.0000957	-.000636	.4337014	2.629693	1.158120
#2	1.817684	-.082017	.0003675	-.002590	.4378074	2.609686	1.163759
#3	1.849883	-.081638	-.000275	-.001367	.4505499	2.541974	1.159167

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01LX5 Acquired: 4/1/2025 13:19:19 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.2814277	.0394431	-.009559
Stddev	.0033290	.0006470	.000197
%RSD	1.182904	1.640290	2.063305
#1	.2799635	.0395375	-.009631
#2	.2852378	.0387542	-.009336
#3	.2790817	.0400378	-.009710

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2488.974	76671.90	16305.14	2156.512	4488.576
Stddev	2.599	54.81	50.63	5.758	7.803
%RSD	.1044333	.0714800	.3105016	.2669877	.1738347
#1	2488.259	76611.50	16350.02	2155.704	4492.848
#2	2486.807	76718.45	16250.26	2151.201	4479.570
#3	2491.856	76685.74	16315.15	2162.630	4493.309

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01MS Acquired: 4/1/2025 13:23:35 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7199507	1.933210	1.054843	1.653763	.3980902	83.61659
Stddev	.0032066	.012342	.003457	.007217	.0024273	.13849
%RSD	.4453887	.6384320	.3277383	.4364106	.6097283	.1656287
#1	.7164249	1.929864	1.051849	1.646941	.3956334	83.60049
#2	.7226927	1.922885	1.054053	1.653028	.3981505	83.76243
#3	.7207346	1.946880	1.058626	1.661319	.4004868	83.48685

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6754131	.1683001	.1858959	17.65108	.4889900	.2772865
Stddev	.0011402	.0007132	.0005773	.01097	.0005370	.0012164
%RSD	.1688210	.4237538	.3105443	.0621769	.1098115	.4386713
#1	.6757009	.1679148	.1852329	17.65511	.4895905	.2760471
#2	.6763818	.1678623	.1862873	17.63866	.4888236	.2773340
#3	.6741565	.1691230	.1861676	17.65947	.4885560	.2784784

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5503280	163.1653	3.893947	23.82822	.6608770	.0678403
Stddev	.0020148	.7125	.010217	.09025	.0015061	.0002432
%RSD	.3661151	.4366687	.2623875	.3787506	.2278958	.3584447
#1	.5480770	163.9866	3.902801	23.85413	.6592698	.0675606
#2	.5509438	162.7962	3.882768	23.72785	.6611052	.0680018
#3	.5519630	162.7130	3.896273	23.90268	.6622560	.0679585

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.718985	.4278525	.5905096	16.24560	-.057334	.3458106
Stddev	.062501	.0023776	.0021039	.06931	.004713	.0007577
%RSD	.8096988	.5557075	.3562911	.4266077	8.221039	.2191064
#1	7.772451	.4251718	.5912201	16.29583	-.052474	.3451415
#2	7.734233	.4297062	.5921662	16.27445	-.057641	.3456569
#3	7.650272	.4286794	.5881424	16.16654	-.061886	.3466333

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01MS Acquired: 4/1/2025 13:23:35 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.6427564	1.909596	5.275395	F 11.33977	1.007179	.3430717
Stddev	.0038329	.004588	.022564	.01860	.002339	.0015019
%RSD	.5963219	.2402401	.4277260	.1639942	.2322048	.4377825
#1	.6385143	1.914551	5.297526	11.31843	1.005529	.3444835
#2	.6437845	1.905496	5.276238	11.34832	1.009855	.3432382
#3	.6459704	1.908739	5.252421	11.35254	1.006153	.3414935

Elem	Sr4077
Units	ppm
Avg	.1266844
Stddev	.0004893
%RSD	.3862237
#1	.1262891
#2	.1272316
#3	.1265324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2653.300	82235.26	17875.90	2316.948	4187.033
Stddev	5.971	279.19	3.92	14.926	7.285
%RSD	.2250418	.3395019	.0219190	.6442178	.1739867
#1	2659.929	81969.97	17875.09	2306.837	4195.164
#2	2651.629	82209.27	17880.16	2309.916	4184.832
#3	2648.344	82526.54	17872.45	2334.092	4181.102

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01MSD Acquired: 4/1/2025 13:27:35 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7276131	1.961362	1.061850	1.683715	.4070645	83.81256
Stddev	.0030021	.008033	.005333	.016571	.0024949	.10070
%RSD	.4125906	.4095549	.5022139	.9841940	.6129013	.1201464
#1	.7295855	1.968686	1.062403	1.670628	.4055084	83.71126
#2	.7241582	1.952771	1.056263	1.678171	.4057429	83.91264
#3	.7290958	1.962630	1.066885	1.702348	.4099422	83.81378

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6729337	.1665048	.1878285	17.58371	.4846971	.2776049
Stddev	.0028791	.0003876	.0007447	.03207	.0016562	.0013076
%RSD	.4278381	.2328031	.3964600	.1823570	.3416975	.4710147
#1	.6715410	.1664611	.1876393	17.56975	.4830397	.2769985
#2	.6762443	.1669125	.1871968	17.62039	.4846994	.2767107
#3	.6710158	.1661409	.1886496	17.56099	.4863521	.2791056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5515591	159.8784	3.866850	23.62138	.6647858	.0668518
Stddev	.0025311	.6632	.007931	.05089	.0036717	.0003697
%RSD	.4588980	.4147863	.2050981	.2154534	.5523096	.5530388
#1	.5493202	159.1232	3.864225	23.64037	.6617692	.0664252
#2	.5510516	160.3654	3.875761	23.56373	.6637141	.0670795
#3	.5543055	160.1467	3.860565	23.66006	.6688740	.0670507

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.585149	.4273095	.5915677	16.07426	-.081856	.3478702
Stddev	.063533	.0020033	.0009331	.11679	.003686	.0011394
%RSD	.8376026	.4688125	.1577259	.7265365	4.503576	.3275238
#1	7.514241	.4255767	.5905843	15.94314	-.086088	.3470099
#2	7.604309	.4268489	.5916783	16.16709	-.079342	.3474383
#3	7.636898	.4295030	.5924406	16.11256	-.080138	.3491623

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01MSD Acquired: 4/1/2025 13:27:35 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.6478047	1.919612	5.963691	F 11.33015	1.005642	.3402030
Stddev	.0015094	.004897	.012034	.04516	.004668	.0009597
%RSD	.2329965	.2550795	.2017943	.3986209	.4641695	.2820882
#1	.6495473	1.914962	5.967458	11.32179	1.001471	.3393476
#2	.6469618	1.924723	5.973391	11.28975	1.010684	.3412408
#3	.6469051	1.919152	5.950224	11.37891	1.004771	.3400205

Elem	Sr4077
Units	ppm
Avg	.1290493
Stddev	.0004741
%RSD	.3673710
#1	.1294068
#2	.1292295
#3	.1285115

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2634.999	83620.45	17966.73	2296.764	4164.184
Stddev	10.003	161.37	36.81	11.125	14.852
%RSD	.3796158	.1929800	.2048678	.4843979	.3566701
#1	2644.519	83803.58	17925.16	2304.736	4179.237
#2	2635.903	83558.73	17979.87	2301.502	4163.773
#3	2624.574	83499.05	17995.17	2284.053	4149.541

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-01A Acquired: 4/1/2025 13:31:36 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7356839	1.968130	1.062706	1.707915	.4069138	83.83618
Stddev	.0065080	.009145	.007870	.011704	.0054138	.10479
%RSD	.8846226	.4646517	.7405795	.6852925	1.330453	.1249946
#1	.7304348	1.957617	1.057762	1.697644	.4020445	83.77742
#2	.7336512	1.974247	1.058574	1.705443	.4059533	83.77395
#3	.7429657	1.972525	1.071781	1.720657	.4127435	83.95716

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6720709	.1677592	.1868453	17.66117	.4949971	.2769403
Stddev	.0007649	.0002286	.0008020	.02892	.0013250	.0008013
%RSD	.1138078	.1362734	.4292131	.1637574	.2676800	.2893553
#1	.6711959	.1678051	.1863835	17.65105	.4934705	.2764005
#2	.6726122	.1675112	.1863811	17.63867	.4956724	.2765594
#3	.6724046	.1679614	.1877713	17.69379	.4958485	.2778611

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5492389	165.7693	3.869586	23.53234	.6649802	.0691464
Stddev	.0022213	.6166	.011373	.03443	.0039109	.0005640
%RSD	.4044270	.3719528	.2939117	.1463232	.5881238	.8157056
#1	.5470791	165.1835	3.862805	23.51958	.6622305	.0686383
#2	.5491207	165.7117	3.863236	23.50611	.6632527	.0690474
#3	.5515169	166.4126	3.882716	23.57133	.6694574	.0697533

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.853660	.4267276	.6011739	16.67223	-.059649	.3494842
Stddev	.012847	.0013650	.0032080	.06035	.000852	.0016332
%RSD	.1635812	.3198764	.5336201	.3619837	1.428519	.4673063
#1	7.840437	.4281030	.5974697	16.61477	-.059531	.3475986
#2	7.854447	.4253732	.6030481	16.66680	-.058861	.3504518
#3	7.866095	.4267066	.6030038	16.73511	-.060553	.3504022

Sample Name: Q1672-01A Acquired: 4/1/2025 13:31:36 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.6465793	1.908387	5.775872	F 11.26243	1.002457	.3427705
Stddev	.0039109	.003279	.029484	.03134	.005805	.0021406
%RSD	.6048668	.1718269	.5104660	.2783106	.5790537	.6245114
#1	.6426045	1.904615	5.741965	11.24157	.999590	.3409367
#2	.6467104	1.909991	5.790173	11.24725	.998643	.3422521
#3	.6504231	1.910557	5.795477	11.29848	1.009137	.3451227

Elem	Sr4077
Units	ppm
Avg	.1243593
Stddev	.0000381
%RSD	.0306538
#1	.1243999
#2	.1243242
#3	.1243538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2615.543	80552.94	17975.25	2246.546	4151.889
Stddev	8.967	246.21	77.51	8.731	10.731
%RSD	.3428270	.3056466	.4312303	.3886194	.2584703
#1	2624.411	80521.71	17925.60	2254.232	4160.461
#2	2615.738	80813.28	18064.57	2248.354	4155.353
#3	2606.480	80323.85	17935.58	2237.054	4139.854

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV03 Acquired: 4/1/2025 13:35:37 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	5.260826	5.299626	5.049849	5.387647	5.386644	10.00906	9.582204
Stddev	.025229	.044914	.016492	.020092	.010826	.02287	.123729
%RSD	.4795665	.8475010	.3265812	.3729296	.2009739	.2284451	1.291233
#1	5.258435	5.297809	5.041544	5.386722	5.379908	10.02354	9.539119
#2	5.236878	5.255647	5.039161	5.368034	5.380892	10.02093	9.721715
#3	5.287166	5.345420	5.068842	5.408186	5.399132	9.98270	9.485778

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2423785	2.458272	23.77876	1.021768	2.447429	1.285589	4.957403
Stddev	.0022825	.008226	.06606	.001983	.005719	.004581	.032035
%RSD	.9417219	.3346226	.2778020	.1941190	.2336673	.3563421	.6462008
#1	.2397638	2.452821	23.71405	1.022199	2.441794	1.283224	4.994305
#2	.2439734	2.454261	23.84609	1.023501	2.447265	1.282675	4.941168
#3	.2433981	2.467734	23.77614	1.019605	2.453228	1.290870	4.936736

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.565473	23.09179	2.506695	1.270280	24.63095	2.458758	2.569370
Stddev	.005488	.09264	.005992	.002300	.28340	.002155	.013096
%RSD	.2139077	.4011622	.2390573	.1810699	1.150573	.0876573	.5097074
#1	2.559152	22.98703	2.503105	1.272645	24.95680	2.458586	2.575422
#2	2.568246	23.16289	2.503367	1.270144	24.44197	2.456694	2.578345
#3	2.569022	23.12543	2.513613	1.268050	24.49407	2.460994	2.554342

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.28035	4.772765	5.218951	5.003582	4.876406	5.168654	5.148621
Stddev	.30918	.046819	.017133	.018565	.003703	.039761	.022460
%RSD	1.222988	.9809620	.3282906	.3710418	.0759378	.7692799	.4362246
#1	25.63527	4.718709	5.211366	4.993640	4.879417	5.213145	5.136095
#2	25.06953	4.800524	5.206918	4.992105	4.877531	5.136590	5.135217
#3	25.13625	4.799061	5.238567	5.025001	4.872272	5.156227	5.174550

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV03 Acquired: 4/1/2025 13:35:37 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	4.939567	4.783992	4.830630
Stddev	.011738	.022709	.037634
%RSD	.2376228	.4746904	.7790632
#1	4.941127	4.810187	4.790715
#2	4.927127	4.771942	4.835708
#3	4.950446	4.769848	4.865467

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2309.212	70675.34	15093.09	1971.462	4139.686
Stddev	7.066	292.81	104.46	18.119	10.383
%RSD	.3059918	.4143075	.6920979	.9190553	.2508043
#1	2308.403	70375.48	15205.20	1954.989	4143.034
#2	2316.648	70689.97	14998.49	1968.530	4147.983
#3	2302.586	70960.56	15075.58	1990.869	4128.043

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB03 Acquired: 4/1/2025 13:39:49 Type: Unk
Method: NON EPA-6010-200.7(v2865) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001102	-.000736	.0008503	.0010885	-.001136	.0048050
Stddev	.0011534	.001012	.0019135	.0015687	.001146	.0071099
%RSD	1046.939	137.4773	225.0406	144.1189	100.8315	147.9687
#1	.0013310	.000151	.0023370	.0021585	-.002445	-.001654
#2	-.000961	-.000521	-.001309	.0018192	-.000317	.012423
#3	-.000039	-.001838	.001522	-.000712	-.000647	.003646

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007097	.0000187	.0001221	-.004421	.0002297	.0000625
Stddev	.001332	.0000097	.0000879	.007131	.0001190	.0001071
%RSD	18.76998	52.19641	71.95076	161.2770	51.79251	171.4205
#1	-.008598	.0000083	.0002068	-.008618	.0001091	.0001638
#2	-.006055	.0000276	.0000314	.003812	.0002329	.0000733
#3	-.006638	.0000200	.0001281	-.008459	.0003470	-.000050

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000082	.0088120	.0034520	-.006910	.0000713	.0009107
Stddev	.000203	.0032108	.0002631	.007030	.0002324	.0001508
%RSD	248.2133	36.43718	7.622503	101.7349	325.9432	16.56040
#1	.000094	.0103227	.0035084	-.001298	-.000073	.0009186
#2	-.000304	.0109888	.0031653	-.014796	-.000052	.0010575
#3	-.000035	.0051244	.0036824	-.004637	.000339	.0007561

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079607	-.000058	.0002653	.1201973	-.002430	.0001583
Stddev	.0068328	.001782	.0001800	.0084444	.000595	.0000271
%RSD	85.83231	3081.249	67.84422	7.025479	24.47718	17.12913
#1	.0099593	-.001809	.0002319	.1112708	-.002008	.0001302
#2	.0003514	-.000117	.0001043	.1280585	-.003110	.0001843
#3	.0135713	.001753	.0004596	.1212626	-.002171	.0001605

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB03 Acquired: 4/1/2025 13:39:49 Type: Unk
Method: NON EPA-6010-200.7(v2865) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000202	.0009874	.0134989	-.006383	F .0134184	-.003131
Stddev	.000546	.0001922	.0039267	.001280	.0042937	.001009
%RSD	270.3401	19.46790	29.08862	20.04725	31.99848	32.23697
#1	-.000021	.0007665	.0090345	-.005479	.0183446	-.004074
#2	.000231	.0011169	.0150453	-.005822	.0114405	-.002066
#3	-.000816	.0010788	.0164169	-.007847	.0104702	-.003254

Elem	Sr4077
Units	ppm
Avg	.0001048
Stddev	.0000448
%RSD	42.69392
#1	.0001265
#2	.0001346
#3	.0000534

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2427.269	73797.24	15651.03	2084.987	4675.627
Stddev	1.786	151.70	68.21	11.156	5.803
%RSD	.0735811	.2055617	.4358210	.5350645	.1241165
#1	2426.619	73767.39	15701.95	2082.020	4679.420
#2	2425.899	73662.68	15677.61	2075.615	4678.514
#3	2429.289	73961.64	15573.53	2097.327	4668.946

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-01 Acquired: 4/1/2025 13:44:08 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0546451	.0272231	.4959240	-.092884	-.005324	223.7320
Stddev	.0028317	.0009681	.0023661	.003843	.003055	1.1546
%RSD	5.181945	3.556111	.4771183	4.137517	57.37958	.5160565
#1	.0543738	.0282442	.4970724	-.095608	-.007776	222.5577
#2	.0576027	.0263186	.4932028	-.088488	-.006295	224.8658
#3	.0519589	.0271065	.4974967	-.094555	-.001902	223.7724

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.593241	.0202144	.0030571	30.19473	.4825857	.3235788
Stddev	.004467	.0002786	.0002582	.02537	.0010734	.0011100
%RSD	.2803728	1.378171	8.444663	.0840087	.2224354	.3430487
#1	1.595568	.0204295	.0029073	30.17106	.4813464	.3227664
#2	1.596064	.0198997	.0029089	30.19162	.4831872	.3231265
#3	1.588091	.0203139	.0033552	30.22151	.4832236	.3248436

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1898230	555.7713	13.76899	106.9567	.6502627	-.000222
Stddev	.0019956	.1076	.00689	.2575	.0019241	.000444
%RSD	1.051285	.0193628	.0500198	.2407766	.2958969	200.4719
#1	.1887555	555.6634	13.77618	106.8567	.6489416	-.000606
#2	.1885882	555.8787	13.76245	106.7642	.6493763	.000265
#3	.1921253	555.7718	13.76833	107.2493	.6524703	-.000323

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.969936	.5065354	1.522912	37.35282	^ *****	.0059598
Stddev	.035692	.0024596	.006503	.29492	-----	.0002849
%RSD	.8990579	.4855827	.4270389	.7895562	-----	4.780641
#1	4.009490	.5092262	1.530328	37.48473	^ -----	.0061867
#2	3.960187	.5059768	1.518180	37.55876	^ -----	.0060527
#3	3.940132	.5044030	1.520229	37.01497	^ -----	.0056400

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-01 Acquired: 4/1/2025 13:44:08 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0103834	5.544607	F 13.83502	8.570543	.8378575	1.099652
Stddev	.0001881	.022046	.10235	.024551	.0027893	.004064
%RSD	1.811518	.3976096	.7397907	.2864557	.3329031	.3695919
#1	.0105944	5.565404	13.92744	8.573787	.8406619	1.101147
#2	.0102334	5.546924	13.85260	8.544531	.8350836	1.102758
#3	.0103223	5.521495	13.72502	8.593310	.8378270	1.095053

Elem	Sr4077
Units	ppm
Avg	-.315686
Stddev	.000402
%RSD	.1274418
#1	-.315349
#2	-.315577
#3	-.316131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2636.439	80775.37	18518.73	2266.852	3839.796
Stddev	7.495	164.40	86.76	10.780	9.878
%RSD	.2842995	.2035228	.4684742	.4755584	.2572573
#1	2642.572	80777.71	18538.80	2258.205	3848.463
#2	2638.661	80609.81	18593.68	2278.930	3841.887
#3	2628.084	80938.58	18423.69	2263.420	3829.041

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-03 Acquired: 4/1/2025 13:48:28 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0484747	.0111980	.2859724	-.041569	-.007670	133.5397	1.033053
Stddev	.0012901	.0012309	.0009465	.005595	.000494	.1777	.003052
%RSD	2.661464	10.99244	.3309636	13.46005	6.435280	.1330801	.2953920
#1	.0479566	.0113802	.2849003	-.043867	-.007166	133.7449	1.034764
#2	.0475242	.0098861	.2863245	-.035190	-.007692	133.4393	1.029530
#3	.0499433	.0123276	.2866923	-.045649	-.008153	133.4349	1.034865

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0133819	-.002313	12.48754	.2751187	.1382331	.3314010	281.9063
Stddev	.0000703	.000248	.02974	.0015081	.0001622	.0006587	.2707
%RSD	.5250643	10.73180	.2381495	.5481570	.1173200	.1987721	.0960417
#1	.0134626	-.002265	12.51098	.2747142	.1383491	.3307733	282.0948
#2	.0133340	-.002582	12.49757	.2767878	.1380478	.3313430	282.0280
#3	.0133492	-.002093	12.45409	.2738541	.1383024	.3320869	281.5960

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.415484	38.01963	.2801077	.0013729	1.251478	.3387238	.7501365
Stddev	.007068	.22613	.0005148	.0003915	.005607	.0021988	.0007886
%RSD	.0953158	.5947654	.1837895	28.51411	.4480505	.6491514	.1051271
#1	7.422144	38.09050	.2802898	.0009580	1.256987	.3382318	.7496050
#2	7.408069	38.20183	.2795266	.0014249	1.245777	.3411270	.7510426
#3	7.416238	37.76655	.2805067	.0017357	1.251671	.3368127	.7497620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.899242	-.493628	.0017735	.0053586	2.099777	5.654116	6.147203
Stddev	.004806	.001713	.0002046	.0012739	.002922	.008940	.010693
%RSD	.0608378	.3471180	11.53882	23.77305	.1391494	.1581209	.1739465
#1	7.903698	-.495397	.0016760	.0067918	2.100658	5.645135	6.139628
#2	7.894150	-.493510	.0020087	.0049283	2.096516	5.663016	6.142546
#3	7.899879	-.491976	.0016359	.0043555	2.102157	5.654197	6.159434

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-03 Acquired: 4/1/2025 13:48:28 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	1.376633	.3814367	-.165399
Stddev	.004904	.0013699	.000392
%RSD	.3562623	.3591371	.2372859
#1	1.376110	.3821731	-.165426
#2	1.372012	.3798561	-.165777
#3	1.381779	.3822808	-.164994

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2740.162	84337.07	18349.15	2389.334	4110.480
Stddev	9.041	404.36	83.59	11.530	9.475
%RSD	.3299318	.4794565	.4555463	.4825535	.2305059
#1	2739.081	84125.98	18314.49	2382.831	4112.447
#2	2749.694	84081.95	18288.46	2382.525	4118.816
#3	2731.710	84803.29	18444.49	2402.646	4100.175

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1678-01 Acquired: 4/1/2025 13:52:34 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.002212	-.003668	.0327610	.0058997	.0014506	.3074017	-.000298
Stddev	.001431	.000753	.0001165	.0031934	.0008337	.0038528	.000818
%RSD	64.70920	20.52210	.3555106	54.12837	57.46896	1.253351	274.4072
#1	-.000583	-.002925	.0326373	.0022706	.0017592	.3077919	-.000072
#2	-.002782	-.004430	.0327772	.0071484	.0020860	.3110446	.000383
#3	-.003271	-.003648	.0328686	.0082801	.0005067	.3033687	-.001206

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000052	-.000135	.4853972	.0025991	-.000168	.0540843	.8202578
Stddev	.000092	.000036	.0047912	.0001750	.000148	.0002304	.0109463
%RSD	174.5583	26.47004	.9870633	6.733782	88.25633	.4260158	1.334500
#1	.000052	-.000139	.4831470	.0024200	-.000008	.0539866	.8306026
#2	-.000118	-.000098	.4908992	.0026076	-.000302	.0543475	.8213752
#3	-.000091	-.000169	.4821453	.0027697	-.000194	.0539188	.8087957

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008777	.2017261	.0011051	.0013487	-.025575	-.000285	.0295673
Stddev	.0001538	.0163159	.0001755	.0002353	.007514	.001057	.0007807
%RSD	17.51754	8.088149	15.88347	17.44745	29.37955	370.7864	2.640484
#1	.0010471	.1836681	.0013010	.0010917	-.019164	-.001505	.0301280
#2	.0007469	.2061030	.0009620	.0015537	-.023718	.000302	.0286756
#3	.0008393	.2154071	.0010523	.0014005	-.033844	.000348	.0298982

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.083160	-.008392	.0002565	.0129140	.0219223	.2798269	.0491544
Stddev	.018698	.000516	.0000881	.0003281	.0019562	.0028857	.0010484
%RSD	22.48380	6.148410	34.33714	2.540992	8.923209	1.031262	2.132791
#1	-.063513	-.008930	.0002097	.0132377	.0241810	.2829697	.0498974
#2	-.085232	-.008345	.0002017	.0129227	.0207793	.2772965	.0479553
#3	-.100735	-.007902	.0003581	.0125816	.0208065	.2792145	.0496106

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1678-01 Acquired: 4/1/2025 13:52:34 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	2.463108	-.005948	.0000908
Stddev	.007396	.000362	.0000244
%RSD	.3002891	6.080163	26.87130
#1	2.462090	-.006304	.0000836
#2	2.456274	-.005958	.0001179
#3	2.470961	-.005581	.0000708

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2409.178	75518.63	16167.50	2051.308	4759.837
Stddev	5.854	108.32	65.84	5.535	7.615
%RSD	.2429952	.1434331	.4072395	.2698240	.1599839
#1	2411.476	75450.82	16203.56	2047.432	4762.623
#2	2413.534	75461.50	16091.51	2057.647	4765.667
#3	2402.523	75643.55	16207.43	2048.846	4751.221

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1678-02 Acquired: 4/1/2025 13:56:54 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.1171174	.0063441	.3896145	-.016846	.0025201	52.49226	.1722586
Stddev	.0020951	.0002665	.0012831	.003807	.0008058	.01826	.0014855
%RSD	1.788868	4.200874	.3293146	22.59810	31.97350	.0347912	.8623878
#1	.1189011	.0064484	.3890347	-.020722	.0017750	52.47874	.1722569
#2	.1176410	.0065427	.3887236	-.016704	.0024101	52.48502	.1707739
#3	.1148103	.0060412	.3910851	-.013113	.0033752	52.51304	.1737449

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073094	.0019944	9.256453	.3079905	.0274031	.1651053	176.1555
Stddev	.0001570	.0001052	.023395	.0004109	.0003132	.0002235	.3553
%RSD	2.148175	5.276178	.2527419	.1334146	1.143066	.1353546	.2016711
#1	.0073688	.0018917	9.235319	.3076754	.0270702	.1648522	175.8131
#2	.0071313	.0021020	9.252447	.3078407	.0274469	.1651878	176.1312
#3	.0074280	.0019893	9.281592	.3084552	.0276921	.1652757	176.5223

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.042119	8.078992	.0544974	.0026207	.4963704	.2571304	1.248322
Stddev	.003848	.020118	.0003066	.0000715	.0119536	.0005709	.003563
%RSD	.3692106	.2490122	.5625740	2.728624	2.408204	.2220129	.2854438
#1	1.042547	8.098000	.0543261	.0026785	.5035147	.2577751	1.251332
#2	1.038076	8.057923	.0543147	.0025407	.4825704	.2566890	1.249245
#3	1.045735	8.081053	.0548513	.0026429	.5030260	.2569272	1.244388

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.27453	-.291862	.0043282	.0107810	.8210321	7.890503	5.725219
Stddev	.07716	.000716	.0002129	.0006081	.0015603	.029805	.005482
%RSD	.6843800	.2453135	4.918960	5.640196	.1900429	.3777267	.0957498
#1	11.18546	-.291133	.0045557	.0100797	.8227945	7.863767	5.730419
#2	11.32100	-.292564	.0042951	.0111012	.8198269	7.885105	5.719493
#3	11.31713	-.291889	.0041338	.0111620	.8204747	7.922638	5.725745

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1678-02 Acquired: 4/1/2025 13:56:54 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	1.043015	.0964520	-.102691
Stddev	.004924	.0005641	.000196
%RSD	.4721358	.5848101	.1905948
#1	1.040817	.0962032	-.102471
#2	1.039572	.0970977	-.102755
#3	1.048655	.0960551	-.102846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2434.220	75631.38	16557.74	2065.714	4277.842
Stddev	6.864	142.66	72.86	4.802	10.697
%RSD	.2819968	.1886283	.4400496	.2324546	.2500458
#1	2426.498	75723.70	16532.87	2068.546	4265.499
#2	2436.535	75703.37	16639.78	2060.170	4284.410
#3	2439.629	75467.07	16500.57	2068.427	4283.618

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-01 Acquired: 4/1/2025 14:01:00 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0583132	.0027402	.4262848	-.022432	-.001105	71.39038	.6399082
Stddev	.0004299	.0022124	.0018970	.002077	.001852	.07815	.0015237
%RSD	.7371351	80.73858	.4450114	9.256859	167.5620	.1094674	.2381075
#1	.0586694	.0046387	.4264056	-.022986	-.000974	71.46474	.6412622
#2	.0584343	.0032714	.4243303	-.024176	-.003019	71.39747	.6402042
#3	.0578357	.0003106	.4281185	-.020135	.000678	71.30892	.6382583

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063918	-.001561	25.59137	.1390740	.0753863	.4951329	162.1729
Stddev	.0000721	.000292	.08087	.0002615	.0005671	.0013299	.8787
%RSD	1.128328	18.68598	.3160212	.1880415	.7521938	.2686006	.5418418
#1	.0063473	-.001898	25.50432	.1392816	.0747319	.4948948	163.1560
#2	.0063530	-.001392	25.60559	.1391603	.0756932	.4939382	161.8988
#3	.0064750	-.001394	25.66418	.1387803	.0757337	.4965658	161.4639

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.891011	19.43961	.1598256	.0047363	3.441891	.1804665	.6129645
Stddev	.008721	.10286	.0008220	.0003078	.042139	.0004212	.0031274
%RSD	.2241365	.5291114	.5143365	6.499875	1.224292	.2334186	.5102079
#1	3.881339	19.32354	.1590338	.0050874	3.486557	.1801908	.6151161
#2	3.898277	19.47583	.1597681	.0045125	3.436271	.1802572	.6093770
#3	3.893416	19.51946	.1606749	.0046089	3.402843	.1809514	.6144003

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.419981	-.270805	.0009007	.0197255	2.036978	6.862635	6.887708
Stddev	.123447	.007545	.0001561	.0005998	.004741	.060096	.007401
%RSD	1.663705	2.786139	17.32765	3.040912	.2327400	.8757041	.1074531
#1	7.561367	-.263445	.0007308	.0192077	2.041789	6.931067	6.881344
#2	7.364995	-.270448	.0009336	.0203828	2.036834	6.818454	6.885950
#3	7.333582	-.278522	.0010377	.0195859	2.032310	6.838383	6.895830

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-01 Acquired: 4/1/2025 14:01:00 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7838818	.1499469	-.017587
Stddev	.0066911	.0009369	.000656
%RSD	.8535875	.6248510	3.729539
#1	.7772653	.1510288	-.018343
#2	.7906451	.1494086	-.017169
#3	.7837350	.1494034	-.017249

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2666.038	81486.31	18087.58	2283.030	4201.499
Stddev	3.471	206.30	126.32	6.743	6.910
%RSD	.1301918	.2531731	.6983816	.2953496	.1644708
#1	2662.727	81305.71	18222.53	2275.269	4203.636
#2	2669.650	81711.14	18068.08	2287.443	4207.088
#3	2665.738	81442.10	17972.16	2286.379	4193.773

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-05 Acquired: 4/1/2025 14:05:07 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0628161	.0058901	.3551188	-.035177	-.005854	147.0330	.8642582
Stddev	.0038695	.0026327	.0013367	.004702	.000863	.1759	.0027591
%RSD	6.160059	44.69692	.3764152	13.36599	14.74819	.1196317	.3192468
#1	.0656321	.0038561	.3544547	-.033204	-.006825	147.0629	.8655669
#2	.0584038	.0088637	.3566575	-.031783	-.005175	147.1921	.8661195
#3	.0644124	.0049506	.3542442	-.040544	-.005561	146.8441	.8610883

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097369	.0020534	12.46097	.2326759	.2690166	.2229956	254.3618
Stddev	.0000651	.0001049	.04335	.0001997	.0002663	.0006689	.4835
%RSD	.6688641	5.106781	.3478755	.0858220	.0989880	.2999763	.1900752
#1	.0096620	.0020134	12.48333	.2324731	.2687221	.2226933	254.7752
#2	.0097687	.0019744	12.48856	.2328723	.2692404	.2225312	254.4799
#3	.0097801	.0021723	12.41100	.2326823	.2690874	.2237624	253.8301

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.772215	25.04556	.2130092	.0034892	10.84456	.3382914	.5059561
Stddev	.011760	.03517	.0006354	.0003373	.04871	.0007532	.0012754
%RSD	.1736559	.1404197	.2983062	9.666181	.4491240	.2226469	.2520785
#1	6.773944	25.05736	.2122826	.0038221	10.84809	.3387738	.5063178
#2	6.783015	25.00601	.2134610	.0031477	10.89140	.3386770	.5070116
#3	6.759686	25.07332	.2132840	.0034979	10.79418	.3374235	.5045389

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.735990	-.450627	.0025884	.0100089	2.645280	7.895994	6.215281
Stddev	.004335	.002843	.0003935	.0009200	.004842	.036074	.014299
%RSD	.0643612	.6308913	15.20110	9.191333	.1830356	.4568588	.2300597
#1	6.739918	-.447588	.0021401	.0092276	2.644890	7.917703	6.200531
#2	6.731339	-.453222	.0027484	.0097762	2.650304	7.915927	6.229082
#3	6.736713	-.451071	.0028766	.0110228	2.640644	7.854353	6.216231

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-05 Acquired: 4/1/2025 14:05:07 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	2.906623	.2367666	-.056080
Stddev	.003846	.0012763	.000421
%RSD	.1323094	.5390578	.7506588
#1	2.906167	.2355138	-.056259
#2	2.903026	.2380652	-.055599
#3	2.910677	.2367210	-.056382

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2761.734	85333.35	18943.30	2407.730	4106.014
Stddev	3.259	204.74	37.33	7.080	5.836
%RSD	.1179957	.2399266	.1970536	.2940432	.1421309
#1	2759.646	85453.49	18971.46	2411.183	4112.179
#2	2765.489	85096.95	18900.96	2399.586	4105.290
#3	2760.067	85449.61	18957.48	2412.421	4100.574

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167384BS Acquired: 4/1/2025 14:13:32 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.7613020	1.972618	.9241723	1.971545	.8018808	1.874746
Stddev	.0009859	.012294	.0015318	.002324	.0021763	.006069
%RSD	.1294975	.6232508	.1657448	.1178975	.2713941	.3237465
#1	.7602083	1.958433	.9245037	1.974228	.8036865	1.867754
#2	.7615754	1.980207	.9225020	1.970264	.8024913	1.878656
#3	.7621223	1.979213	.9255113	1.970143	.7994644	1.877829

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1674914	.1841672	.1805194	.9330367	.3891875	.1828655
Stddev	.0014358	.0000289	.0004186	.0076338	.0020256	.0001236
%RSD	.8572613	.0157108	.2318728	.8181705	.5204775	.0676075
#1	.1679783	.1841871	.1809019	.9285818	.3871307	.1827605
#2	.1686206	.1841340	.1800723	.9418513	.3911804	.1830017
#3	.1658755	.1841805	.1805841	.9286770	.3892515	.1828342

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2996998	2.810615	.2003360	1.723059	.4705559	.0733941
Stddev	.0006493	.017971	.0006299	.009458	.0007359	.0002935
%RSD	.2166626	.6393975	.3144243	.5489076	.1563892	.3998457
#1	.3003770	2.804815	.2008292	1.713105	.4707965	.0732187
#2	.2996399	2.830770	.2005525	1.731928	.4711413	.0737329
#3	.2990825	2.796260	.1996265	1.724145	.4697298	.0732307

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.551238	.2735058	.1973501	9.047834	.2524313	.3939596
Stddev	.007404	.0021103	.0013699	.053622	.0011830	.0008339
%RSD	.2902276	.7715607	.6941296	.5926493	.4686440	.2116676
#1	2.550258	.2741119	.1957699	8.986357	.2517608	.3940657
#2	2.559083	.2752467	.1980789	9.072188	.2517358	.3947354
#3	2.544372	.2711589	.1982014	9.084956	.2537972	.3930778

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167384BS Acquired: 4/1/2025 14:13:32 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.6442547	.1805517	F .7423820	5.682012	F .0033124	.1808287
Stddev	.0028023	.0002824	.0120276	.005891	.0032348	.0007477
%RSD	.4349681	.1564085	1.620130	.1036827	97.65703	.4134723
#1	.6455567	.1807316	.7292999	5.687590	.0064976	.1808954
#2	.6410382	.1806972	.7448850	5.682597	.0034092	.1800498
#3	.6461691	.1802262	.7529611	5.675851	.0000303	.1815407

Elem	Sr4077
Units	ppm
Avg	.1794435
Stddev	.0006209
%RSD	.3460316
#1	.1800539
#2	.1794640
#3	.1788126

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2415.666	74056.44	15430.53	2090.407	4544.854
Stddev	3.870	312.91	50.54	18.304	6.101
%RSD	.1602174	.4225270	.3275310	.8756254	.1342375
#1	2411.867	74358.96	15377.51	2108.504	4537.849
#2	2415.529	73734.08	15435.93	2071.902	4547.716
#3	2419.604	74076.27	15478.16	2090.816	4548.999

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167384BL Acquired: 4/1/2025 14:18:36 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.000310	-.000975	.0005624	.0016014	-.000375	.0007315	-.008997
Stddev	.000511	.001215	.0000796	.0031196	.000371	.0015893	.001411
%RSD	164.8339	124.6431	14.16238	194.8039	98.80259	217.2678	15.67762
#1	.000236	-.000319	.0005080	.0047851	-.000480	-.001039	-.007622
#2	-.000778	-.002377	.0006538	.0014690	.000037	.002034	-.008929
#3	-.000388	-.000229	.0005253	-.001450	-.000681	.001199	-.010441

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000003	-.000060	-.007725	.0001057	-.000178	-.000382	.0031995
Stddev	.000023	.000058	.003567	.0001186	.000185	.000241	.0014661
%RSD	676.1239	96.21335	46.17606	112.2159	103.6786	63.10774	45.82202
#1	-.000030	-.000106	-.003901	-.000030	-.000080	-.000503	.0015751
#2	.000009	.000005	-.008313	.000155	-.000391	-.000540	.0044244
#3	.000011	-.000079	-.010962	.000192	-.000063	-.000105	.0035989

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008285	-.007349	-.000050	.0010017	-.022058	-.001257	-.000395
Stddev	.000274	.007730	.000230	.0000633	.004921	.001122	.000158
%RSD	3.310837	105.1814	462.0525	6.314805	22.30811	89.21566	40.08270
#1	-.008274	-.000218	-.000050	.0010005	-.027696	-.002180	-.000213
#2	-.008565	-.006266	-.000280	.0009391	-.018628	-.000009	-.000472
#3	-.008016	-.015563	.000180	.0010656	-.019850	-.001583	-.000500

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002731	-.012667	-.000559	-.003354	.0001581	.0038865	-.007668
Stddev	.013357	.000370	.000034	.000327	.0002139	.0062764	.002507
%RSD	489.0008	2.919935	6.010628	9.757998	135.2955	161.4941	32.70101
#1	-.017985	-.012250	-.000597	-.003720	-.000085	-.003066	-.007872
#2	.002916	-.012799	-.000540	-.003091	.000316	.005591	-.005064
#3	.006874	-.012954	-.000538	-.003249	.000244	.009135	-.010067

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167384BL Acquired: 4/1/2025 14:18:36 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0062366	-.004537	-.000496
Stddev	.0032846	.000572	.000026
%RSD	52.66650	12.59914	5.233698
#1	.0081618	-.004347	-.000508
#2	.0024440	-.005179	-.000466
#3	.0081041	-.004084	-.000513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2424.407	74040.49	15521.33	2073.379	4689.596
Stddev	3.336	199.26	107.55	12.519	5.211
%RSD	.1376055	.2691164	.6929141	.6038168	.1111267
#1	2425.346	73939.34	15400.46	2068.560	4695.429
#2	2420.702	74270.03	15557.10	2087.592	4685.397
#3	2427.173	73912.10	15606.44	2063.985	4687.963

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167373TB Acquired: 4/1/2025 14:22:56 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.005093	-.008557	-.000320	.0031454	.0003276	.0102993
Stddev	.001333	.001021	.000905	.0007428	.0007093	.0037562
%RSD	26.18430	11.92998	283.0726	23.61568	216.4853	36.46995
#1	-.005925	-.009227	-.000559	.0032251	-.000343	.0095435
#2	-.003555	-.007382	.000681	.0023660	.001070	.0069785
#3	-.005799	-.009063	-.001081	.0038452	.000255	.0143759

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010528	-.000159	-.000115	.0049422	-.000099	-.000280
Stddev	.000480	.000008	.000016	.0038165	.000274	.000133
%RSD	4.562554	5.280549	13.66616	77.22230	277.9761	47.46336
#1	-.009989	-.000163	-.000133	.0023362	-.000379	-.000135
#2	-.010912	-.000149	-.000109	.0031675	-.000087	-.000396
#3	-.010683	-.000164	-.000103	.0093229	.000169	-.000307

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000800	.0227809	-.007439	-.008508	.0003082	.0009888
Stddev	.0003631	.0048592	.000240	.005000	.0002121	.0002077
%RSD	453.8858	21.33034	3.223411	58.76928	68.81505	21.00425
#1	-.000323	.0180651	-.007671	-.009874	.0000718	.0008004
#2	.000382	.0225058	-.007192	-.002967	.0003709	.0009544
#3	.000181	.0277719	-.007454	-.012683	.0004819	.0012115

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 337.7168	-.000337	-.000088	-.075926	-.012763	-.000295
Stddev	5.1311	.000624	.000490	.017900	.000649	.000296
%RSD	1.519339	185.0668	559.2464	23.57484	5.081105	100.3971
#1	340.9267	-.000632	.000111	-.094973	-.012303	-.000607
#2	340.4247	-.000759	-.000645	-.059453	-.012481	-.000018
#3	331.7990	.000380	.000272	-.073353	-.013505	-.000260

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167373TB Acquired: 4/1/2025 14:22:56 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.004504	.0004004	.0067385	-.002469	F .0228832	-.007734
Stddev	.001133	.0004264	.0070868	.002385	.0041254	.000937
%RSD	25.15315	106.4793	105.1700	96.57343	18.02813	12.12178
#1	-.003214	-.000085	.0137934	-.000766	.0255901	-.008739
#2	-.004962	.000716	-.000380	-.005194	.0181351	-.007581
#3	-.005337	.000569	.006802	-.001447	.0249244	-.006883

Elem	Sr4077
Units	ppm
Avg	-.000463
Stddev	.000020
%RSD	4.296750
#1	-.000444
#2	-.000462
#3	-.000484

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2216.124	68978.55	15638.62	1901.167	3962.134
Stddev	10.631	239.27	78.51	2.671	12.811
%RSD	.4797252	.3468720	.5020549	.1404803	.3233428
#1	2213.621	68702.29	15566.17	1901.937	3960.085
#2	2227.784	69113.78	15627.65	1898.196	3975.846
#3	2206.968	69119.58	15722.04	1903.368	3950.470

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-04 Acquired: 4/1/2025 14:27:24 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.002941	-.006509	.0003827	.0061142	.0002980	.0735840	.2238052
Stddev	.001587	.002277	.0012109	.0019049	.0009998	.0016554	.0003670
%RSD	53.94406	34.98631	316.4130	31.15560	335.4654	2.249641	.1639972
#1	-.002939	-.007342	.0016877	.0039977	.0009872	.0720106	.2234178
#2	-.004529	-.008253	.0001650	.0076912	-.000849	.0734307	.2241478
#3	-.001356	-.003933	-.000705	.0066537	.000756	.0753107	.2238500

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003684	.0004945	8.974429	.0002924	.0052310	.0334800	.0279748
Stddev	.0000239	.0000290	.011826	.0001825	.0000540	.0001851	.0059083
%RSD	6.480161	5.862831	.1317743	62.41840	1.032091	.5527438	21.12024
#1	.0003436	.0004641	8.961460	.0004760	.0051755	.0336612	.0300574
#2	.0003913	.0004974	8.984617	.0001110	.0052833	.0334876	.0213072
#3	.0003704	.0005219	8.977208	.0002902	.0052343	.0332913	.0325599

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.297234	.4595868	.0043116	.0006090	336.8112	-.000062	.0768350
Stddev	.007620	.0044701	.0001196	.0000960	1.7659	.000983	.0002081
%RSD	.3317017	.9726363	2.773909	15.76916	.5242965	1577.979	.2707902
#1	2.288662	.4611852	.0042353	.0005114	335.9106	-.000468	.0765947
#2	2.299801	.4545372	.0042501	.0007033	335.6772	-.000777	.0769533
#3	2.303239	.4630379	.0044494	.0006122	338.8458	.001058	.0769569

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9467271	.0033014	-.000319	-.005318	.0001127	.7410619	.0044073
Stddev	.0133797	.0005136	.000191	.000313	.0003262	.0156905	.0019493
%RSD	1.413259	15.55710	59.93849	5.881400	289.4206	2.117302	44.22891
#1	.9364025	.0038044	-.000137	-.005650	-.000148	.7562817	.0044202
#2	.9419361	.0027778	-.000301	-.005275	.000479	.7419645	.0063500
#3	.9618427	.0033221	-.000518	-.005029	.000007	.7249396	.0024515

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1672-04 Acquired: 4/1/2025 14:27:24 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.4851335	-.008397	.0653889
Stddev	.0014717	.000916	.0001078
%RSD	.3033563	10.91119	.1648292
#1	.4834452	-.008796	.0653879
#2	.4858106	-.007349	.0652817
#3	.4861448	-.009045	.0654972

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2257.892	68513.01	15598.79	1913.925	4004.798
Stddev	3.823	152.06	54.48	4.406	4.528
%RSD	.1693331	.2219397	.3492401	.2302126	.1130690
#1	2253.724	68687.62	15630.63	1918.765	3999.617
#2	2258.716	68441.68	15535.89	1912.864	4006.776
#3	2261.236	68409.72	15629.87	1910.147	4008.000

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV04 Acquired: 4/1/2025 14:31:50 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	5.184519	5.206895	5.024667	5.295070	5.310675	9.864129	9.492799
Stddev	.012453	.025507	.017165	.023894	.009684	.027039	.122054
%RSD	.2402043	.4898682	.3416067	.4512527	.1823436	.2741170	1.285757
#1	5.178291	5.197981	5.008381	5.287418	5.310839	9.884445	9.589796
#2	5.176407	5.235663	5.023028	5.275939	5.300910	9.874503	9.532850
#3	5.198857	5.187042	5.042593	5.321852	5.320275	9.833439	9.355751

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2416443	2.441278	23.74759	1.016481	2.428828	1.272085	4.863299
Stddev	.0010126	.005936	.07782	.001566	.005487	.002004	.013105
%RSD	.4190642	.2431687	.3277089	.1540877	.2259170	.1575217	.2694706
#1	.2425266	2.436330	23.82024	1.014672	2.424077	1.270670	4.876926
#2	.2418676	2.439643	23.75706	1.017368	2.427575	1.271206	4.850787
#3	.2405386	2.447860	23.66546	1.017402	2.434834	1.274377	4.862183

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.558748	22.89682	2.491907	1.255135	24.45977	2.436786	2.541390
Stddev	.007839	.07433	.007928	.001083	.13731	.005725	.007394
%RSD	.3063463	.3246139	.3181623	.0862746	.5613760	.2349267	.2909533
#1	2.567156	22.97314	2.484689	1.255211	24.59278	2.433169	2.543894
#2	2.557446	22.89266	2.490638	1.256178	24.31853	2.443386	2.547208
#3	2.551642	22.82467	2.500393	1.254016	24.46799	2.433803	2.533069

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.87912	4.750520	5.173638	4.965610	4.862081	5.058124	5.220693
Stddev	.01671	.021312	.004178	.009301	.016669	.012767	.006167
%RSD	.0671634	.4486205	.0807579	.1873144	.3428442	.2524106	.1181314
#1	24.86365	4.761413	5.171680	4.958304	4.880953	5.044846	5.213671
#2	24.87688	4.764184	5.170798	4.962444	4.855923	5.070310	5.223172
#3	24.89684	4.725964	5.178436	4.976080	4.849367	5.059218	5.225234

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV04 Acquired: 4/1/2025 14:31:50 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	4.878642	4.742763	4.867362
Stddev	.018685	.014769	.036849
%RSD	.3829978	.3113933	.7570602
#1	4.867360	4.759803	4.906921
#2	4.868355	4.733640	4.834012
#3	4.900210	4.734847	4.861152

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2309.901	71173.00	15030.22	1988.611	4137.170
Stddev	4.342	109.37	67.02	6.957	6.559
%RSD	.1879831	.1536698	.4459181	.3498438	.1585419
#1	2308.751	71060.91	14970.92	1986.171	4138.918
#2	2314.702	71178.67	15016.79	1983.203	4142.678
#3	2306.249	71279.43	15102.93	1996.460	4129.913

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB04 Acquired: 4/1/2025 14:36:01 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	-.002262	-.000531	.0002067	.0013369	-.001002	-.002773	-.007575
Stddev	.001163	.000598	.0007241	.0020192	.000957	.003039	.000478
%RSD	51.42202	112.5475	350.3318	151.0423	95.42357	109.5923	6.304988
#1	-.003451	.000157	-.000557	.0034789	-.001017	-.006194	-.007735
#2	-.001126	-.000923	.000295	.0010633	-.000039	-.000384	-.007039
#3	-.002210	-.000827	.000883	-.000532	-.001952	-.001741	-.007953

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000415	.0001169	-.005546	.0001734	-.000003	.0004221	-.001472
Stddev	.0000446	.0000628	.002307	.0001044	.000273	.0001801	.001872
%RSD	107.5565	53.69401	41.59809	60.22814	9577.657	42.66373	127.1497
#1	-.000010	.0001894	-.003734	.0001038	-.000287	.0003289	.000688
#2	.000070	.0000796	-.004760	.0001228	.000259	.0003077	-.002487
#3	.000064	.0000817	-.008143	.0002934	.000020	.0006296	-.002618

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031354	-.013296	-.000078	.0009931	.0179151	-.000472	-.000322
Stddev	.0003102	.005324	.000234	.0001785	.0139335	.001731	.000041
%RSD	9.893521	40.04154	300.5972	17.97797	77.77529	366.4647	12.87598
#1	.0034195	-.017750	.000170	.0010021	.0130959	-.001975	-.000370
#2	.0028045	-.014738	-.000294	.0008103	.0070309	-.000863	-.000302
#3	.0031824	-.007399	-.000110	.0011670	.0336184	.001421	-.000294

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0791875	-.005894	-.000115	-.000253	.0011205	.0107957	-.008009
Stddev	.0275509	.000491	.000255	.000207	.0004179	.0055032	.003902
%RSD	34.79192	8.338034	221.4281	81.85406	37.29356	50.97574	48.72363
#1	.0559311	-.005482	.000154	-.000201	.0006552	.0072038	-.004835
#2	.0720167	-.006438	-.000352	-.000077	.0012427	.0080519	-.012365
#3	.1096148	-.005762	-.000147	-.000482	.0014637	.0171313	-.006826

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB04 Acquired: 4/1/2025 14:36:01 Type: Unk
Method: NON EPA-6010-200.7(v2865) 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	.0065994	-.001669	-.000041
Stddev	.0013525	.000778	.000051
%RSD	20.49348	46.57834	122.5280
#1	.0050479	-.000773	-.000029
#2	.0075292	-.002078	-.000097
#3	.0072213	-.002158	.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2441.082	76231.95	15541.49	2135.130	4704.710
Stddev	5.946	115.30	31.00	8.312	9.490
%RSD	.2435724	.1512514	.1994813	.3893007	.2017135
#1	2443.665	76283.65	15505.72	2141.353	4705.700
#2	2445.300	76312.35	15558.26	2125.690	4713.666
#3	2434.282	76099.85	15560.50	2138.347	4694.764

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-02 Acquired: 4/1/2025 14:40:33 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.004662	-.006110	.0035056	.0059330	.0001265	.0812128	.1983707
Stddev	.002778	.000775	.0007352	.0016633	.0018605	.0076420	.0004078
%RSD	59.58598	12.68451	20.97223	28.03399	1470.804	9.409835	.2055887
#1	-.004614	-.006020	.0029588	.0053973	-.001546	.0818291	.1979765
#2	-.007463	-.005384	.0043414	.0046036	-.000206	.0732813	.1983445
#3	-.001908	-.006926	.0032167	.0077981	.002131	.0885280	.1987909

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001174	.0002509	11.12160	-.000032	-.000193	.0229992	.0136776
Stddev	.0000550	.0000423	.00264	.000117	.000158	.0002313	.0057270
%RSD	46.81624	16.84728	.0237149	362.1209	81.70080	1.005741	41.87177
#1	.0001751	.0002855	11.12151	.000023	-.000081	.0229489	.0173537
#2	.0001116	.0002633	11.12428	-.000167	-.000125	.0232516	.0070789
#3	.0000656	.0002038	11.11901	.000047	-.000373	.0227973	.0166001

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2456379	2.616033	.0034282	.0008054	306.1865	-.000791	.0675706
Stddev	.0011785	.013077	.0003838	.0000361	4.0753	.000553	.0003594
%RSD	.4797786	.4998879	11.19521	4.483354	1.330970	70.00829	.5319648
#1	.2446003	2.622406	.0037810	.0008343	302.1370	-.000367	.0679712
#2	.2453942	2.600991	.0034841	.0008171	306.1355	-.000588	.0672764
#3	.2469192	2.624703	.0030195	.0007649	310.2870	-.001417	.0674640

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.379477	.0187792	-.000007	-.005427	-.000199	1.059415	.0206041
Stddev	.028001	.0004302	.000134	.000700	.000032	.000277	.0014229
%RSD	2.029831	2.290838	1923.719	12.90218	15.85606	.0261561	6.906107
#1	1.383328	.0188765	.000044	-.004638	-.000215	1.059412	.0191665
#2	1.405353	.0183087	.000095	-.005669	-.000163	1.059693	.0220119
#3	1.349750	.0191525	-.000159	-.005975	-.000220	1.059139	.0206340

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-02 Acquired: 4/1/2025 14:40:33 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.3077332	-.006965	.0507939
Stddev	.0034703	.000607	.0000766
%RSD	1.127703	8.717775	.1507875
#1	.3055121	-.007237	.0508555
#2	.3059554	-.006269	.0508180
#3	.3117322	-.007388	.0507082

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2260.650	69214.72	15553.33	1946.430	4011.569
Stddev	7.504	255.01	39.99	7.652	8.898
%RSD	.3319464	.3684340	.2570866	.3931461	.2218071
#1	2266.919	69508.99	15520.93	1953.315	4017.728
#2	2262.698	69076.80	15598.02	1938.191	4015.612
#3	2252.335	69058.37	15541.05	1947.783	4001.367

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-04 Acquired: 4/1/2025 14:45:00 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.006526	-.005550	.0058122	.0048302	.0009128	.0779200	.2825130
Stddev	.001989	.000724	.0023506	.0027969	.0016449	.0018126	.0009625
%RSD	30.48435	13.04836	40.44251	57.90492	180.1939	2.326184	.3407074
#1	-.005055	-.006219	.0078416	.0019172	.0012594	.0770355	.2829011
#2	-.005734	-.005651	.0063584	.0050790	.0023569	.0767195	.2832210
#3	-.008789	-.004781	.0032366	.0074944	-.000878	.0800050	.2814170

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001830	.0007458	9.231269	-.000270	-.000203	.0176561	.0058190
Stddev	.0000402	.0000268	.034788	.000120	.000112	.0001472	.0043373
%RSD	21.97252	3.588061	.3768492	44.53568	55.20730	.8337711	74.53703
#1	.0001557	.0007173	9.240402	-.000339	-.000100	.0175469	.0100699
#2	.0002291	.0007704	9.260580	-.000340	-.000322	.0175979	.0059867
#3	.0001641	.0007498	9.192826	-.000131	-.000186	.0178235	.0014002

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2061260	2.896927	.0050871	.0009592	335.6939	-.002021	.1249900
Stddev	.0011093	.005103	.0002892	.0002329	1.8802	.001529	.0004978
%RSD	.5381609	.1761619	5.684088	24.28101	.5600793	75.69241	.3982954
#1	.2065833	2.901069	.0053841	.0011256	337.6404	-.001721	.1245414
#2	.2069336	2.898485	.0050708	.0006930	333.8880	-.000663	.1255256
#3	.2048612	2.891226	.0048065	.0010589	335.5532	-.003678	.1249031

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.418019	.0347939	-.000346	-.004392	.0002099	.9700526	.0137112
Stddev	.014799	.0001914	.000419	.000907	.0004273	.0050895	.0003430
%RSD	1.043646	.5501019	121.1293	20.64266	203.5771	.5246667	2.501354
#1	1.421631	.0349927	.000006	-.005400	.0006945	.9649121	.0134689
#2	1.430678	.0347783	-.000234	-.004134	-.000113	.9750896	.0135612
#3	1.401748	.0346108	-.000810	-.003642	.000048	.9701562	.0141037

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1674-04 Acquired: 4/1/2025 14:45:00 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.6063429	-.007485	.0624007
Stddev	.0037702	.000411	.0002882
%RSD	.6217913	5.494044	.4617834
#1	.6052217	-.007156	.0623601
#2	.6032605	-.007946	.0627070
#3	.6105465	-.007352	.0621350

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2228.101	69731.11	15500.57	1926.136	3964.997
Stddev	9.779	32.35	61.11	4.318	15.393
%RSD	.4388774	.0463982	.3942557	.2241650	.3882258
#1	2234.777	69740.96	15469.70	1925.108	3970.281
#2	2232.650	69757.39	15461.06	1922.425	3977.052
#3	2216.877	69694.97	15570.96	1930.875	3947.657

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-04 Acquired: 4/1/2025 14:49:26 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.003006	-.005571	.0063322	.0035345	.0006670	.0775727	.2787813
Stddev	.002546	.001415	.0008617	.0010059	.0004667	.0012701	.0003301
%RSD	84.68621	25.39197	13.60801	28.46043	69.97414	1.637277	.1184006
#1	-.004623	-.006929	.0073270	.0023731	.0011524	.0790328	.2791390
#2	-.000072	-.004106	.0058500	.0041329	.0006272	.0767234	.2787167
#3	-.004325	-.005679	.0058195	.0040974	.0002215	.0769619	.2784884

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000441	.0008707	7.520476	-.000174	.0045648	.0429483	.6730381
Stddev	.0000195	.0000384	.016684	.000450	.0002971	.0002694	.0052901
%RSD	44.27618	4.408323	.2218436	258.8349	6.507899	.6271654	.7860015
#1	.0000318	.0008719	7.539694	-.000694	.0047321	.0431982	.6675529
#2	.0000339	.0008318	7.509704	.000084	.0047406	.0429838	.6734527
#3	.0000667	.0009085	7.512031	.000088	.0042218	.0426630	.6781086

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.390525	.5177955	.0033727	.0007809	341.3761	-.000291	.1266538
Stddev	.003760	.0226116	.0002046	.0001527	1.7243	.000362	.0009118
%RSD	.2703970	4.366897	6.065782	19.55843	.5050887	124.1760	.7198916
#1	1.394401	.4952216	.0035917	.0009204	339.5207	-.000537	.1260148
#2	1.386892	.5177205	.0033402	.0006177	342.9293	.000124	.1262486
#3	1.390283	.5404446	.0031864	.0008046	341.6783	-.000461	.1276979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6043371	.0230215	-.000370	-.004286	.0013992	.4130217	.0296565
Stddev	.0271924	.0008615	.000198	.000835	.0003178	.0065531	.0029478
%RSD	4.499535	3.742147	53.49574	19.47283	22.71433	1.586635	9.939728
#1	.6187306	.0220305	-.000561	-.003322	.0013978	.4068578	.0329454
#2	.6213073	.0235914	-.000384	-.004782	.0017177	.4199048	.0272527
#3	.5729733	.0234428	-.000166	-.004753	.0010821	.4123025	.0287714

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-04 Acquired: 4/1/2025 14:49:26 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.4506933	-.008127	.0523329
Stddev	.0037427	.000694	.0000489
%RSD	.8304242	8.534019	.0934217
#1	.4467443	-.007364	.0523893
#2	.4541881	-.008719	.0523044
#3	.4511475	-.008298	.0523049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2243.018	69895.99	15716.16	1920.340	3994.182
Stddev	5.692	41.33	59.46	5.815	7.376
%RSD	.2537701	.0591293	.3783092	.3028061	.1846661
#1	2237.030	69934.70	15649.22	1918.058	3989.134
#2	2248.358	69852.46	15762.82	1926.950	4002.647
#3	2243.667	69900.81	15736.43	1916.012	3990.766

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08 Acquired: 4/1/2025 14:53:53 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.002419	-.006807	.0035910	.0019687	.0003343	.2088761	.2637129
Stddev	.002715	.001644	.0002462	.0022079	.0007479	.0055904	.0019632
%RSD	112.2574	24.14888	6.855618	112.1513	223.7434	2.676429	.7444355
#1	-.003850	-.006004	.0036148	.0007246	-.000517	.2149661	.2659798
#2	-.004118	-.005719	.0033337	.0006636	.000887	.2076851	.2625706
#3	.000713	-.008699	.0038244	.0045179	.000632	.2039772	.2625883

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000386	-.000128	6.657200	.0007656	.0183192	.0118225	3.288436
Stddev	.0000644	.000045	.021641	.0002156	.0000684	.0001552	.008861
%RSD	166.7112	35.03576	.3250802	28.15360	.3734890	1.312635	.2694541
#1	.0000874	-.000133	6.680792	.0007410	.0183977	.0119871	3.295399
#2	.0000630	-.000170	6.638269	.0009925	.0182879	.0116788	3.291447
#3	-.000034	-.000081	6.652538	.0005635	.0182721	.0118017	3.278462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.400251	1.072191	.0043854	.0010400	393.5171	-.001294	.0963045
Stddev	.020219	.004803	.0002003	.0002877	2.2799	.001043	.0004609
%RSD	.5946387	.4479645	4.567490	27.66629	.5793585	80.57875	.4786038
#1	3.422225	1.068427	.0044349	.0009647	392.2739	-.002498	.0963383
#2	3.396096	1.070547	.0045563	.0013579	396.1483	-.000670	.0967475
#3	3.382432	1.077601	.0041650	.0007974	392.1291	-.000715	.0958276

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.152256	.0215999	-.000591	-.004418	.0031985	.5179612	-.001225
Stddev	.025635	.0015040	.000066	.000753	.0001464	.0081166	.001315
%RSD	2.224764	6.963129	11.12499	17.04237	4.576548	1.567036	107.3544
#1	1.179764	.0233252	-.000660	-.005285	.0031171	.5262505	-.002199
#2	1.147968	.0205652	-.000584	-.003931	.0031110	.5100290	-.001746
#3	1.129035	.0209093	-.000529	-.004037	.0033675	.5176041	.000271

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08 Acquired: 4/1/2025 14:53:53 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.5483307	-.007037	.0770283
Stddev	.0062617	.000683	.0003273
%RSD	1.141953	9.708491	.4248621
#1	.5411640	-.006326	.0773884
#2	.5527431	-.007098	.0769477
#3	.5510850	-.007688	.0767490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2241.061	68630.62	15612.75	1932.093	3959.513
Stddev	6.658	251.16	115.66	13.618	15.306
%RSD	.2970771	.3659636	.7408017	.7048318	.3865553
#1	2248.527	68386.18	15480.28	1937.159	3977.171
#2	2235.742	68617.68	15664.29	1916.668	3951.320
#3	2238.913	68888.01	15693.67	1942.453	3950.048

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08DUP Acquired: 4/1/2025 14:58:18 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.003625	-.006023	.0035970	.0049276	.0003241	.2079999	.2652928
Stddev	.001309	.002746	.0014461	.0026085	.0011728	.0044021	.0004092
%RSD	36.10874	45.58874	40.20386	52.93611	361.8634	2.116417	.1542587
#1	-.004169	-.007544	.0040742	.0041943	.0016012	.2034991	.2651690
#2	-.004574	-.007671	.0047441	.0078242	-.000704	.2122963	.2649597
#3	-.002132	-.002853	.0019725	.0027642	.000075	.2082044	.2657496

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000495	-.000083	6.703498	.0006127	.0185935	.0119688	3.257040
Stddev	.0000342	.000063	.030400	.0002718	.0000171	.0000383	.015001
%RSD	69.11491	75.89653	.4534942	44.35616	.0920379	.3196908	.4605811
#1	.0000888	-.000144	6.708143	.0007307	.0186048	.0119492	3.244686
#2	.0000320	-.000087	6.671043	.0008054	.0185738	.0120129	3.273732
#3	.0000275	-.000018	6.731309	.0003018	.0186019	.0119443	3.252700

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.428367	1.084746	.0045982	.0008748	385.2823	.0003623	.0953495
Stddev	.011624	.021580	.0002721	.0004018	2.0882	.0012503	.0006858
%RSD	.3390571	1.989406	5.918106	45.93403	.5420030	345.1038	.7191989
#1	3.440236	1.071739	.0047849	.0011677	386.7323	-.000902	.0958783
#2	3.417004	1.109656	.0042860	.0004167	386.2259	.001598	.0955955
#3	3.427860	1.072842	.0047238	.0010401	382.8888	.000391	.0945747

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.099773	.0208784	-.000243	-.005261	.0029234	.5151923	.0002563
Stddev	.016498	.0003107	.000402	.000782	.0007001	.0038431	.0035230
%RSD	1.500151	1.488274	165.4395	14.86184	23.94678	.7459613	1374.476
#1	1.117973	.0211076	-.000414	-.004557	.0026178	.5110141	.0007156
#2	1.085798	.0210028	.000216	-.005124	.0024282	.5185764	-.003474
#3	1.095547	.0205247	-.000530	-.006103	.0037244	.5159863	.003527

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08DUP Acquired: 4/1/2025 14:58:18 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.5480926	-.006615	.0775707
Stddev	.0017028	.000779	.0003133
%RSD	.3106810	11.77728	.4038339
#1	.5467268	-.006133	.0779005
#2	.5500005	-.007514	.0775344
#3	.5475504	-.006198	.0772771

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2241.326	69368.35	15394.37	1953.899	3950.700
Stddev	6.246	129.21	115.49	5.449	3.806
%RSD	.2786593	.1862667	.7502087	.2788582	.0963293
#1	2248.380	69220.15	15265.03	1956.997	3954.121
#2	2239.099	69457.33	15487.18	1947.607	3951.378
#3	2236.499	69427.58	15430.90	1957.092	3946.601

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08LX5 Acquired: 4/1/2025 15:02:44 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.001303	-.003074	.0009071	.0021382	.0003642	.0434526	.0491371
Stddev	.000416	.003563	.0003383	.0014802	.0018954	.0036711	.0003214
%RSD	31.90645	115.8959	37.29387	69.22565	520.4542	8.448424	.6541078
#1	-.000838	-.007137	.0005457	.0033350	-.001702	.0438156	.0487659
#2	-.001640	-.001603	.0009594	.0004831	.002022	.0469287	.0493240
#3	-.001431	-.000483	.0012162	.0025966	.000773	.0396136	.0493212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000015	-.000113	1.362937	-.000231	.0036916	.0025224	.6506783
Stddev	.000032	.000023	.016208	.000476	.0000791	.0002824	.0034927
%RSD	215.4394	20.38090	1.189218	206.0668	2.142365	11.19542	.5367757
#1	-.000019	-.000129	1.348251	-.000778	.0036003	.0021973	.6540817
#2	-.000045	-.000123	1.380328	.000081	.0037408	.0026636	.6471027
#3	.000019	-.000087	1.360233	.000005	.0037336	.0027064	.6508503

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7115246	.2206594	.0009001	.0005858	76.19849	-.000245	.0193099
Stddev	.0005227	.0176438	.0004009	.0001845	.47799	.000838	.0002643
%RSD	.0734616	7.995964	44.54181	31.50315	.6272989	342.7214	1.368895
#1	.7111082	.2015311	.0006678	.0006609	76.54063	-.000629	.0190456
#2	.7121112	.2241502	.0006696	.0007210	75.65234	.000717	.0193099
#3	.7113545	.2362969	.0013631	.0003755	76.40249	-.000822	.0195743

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3062262	-.004742	-.000572	-.001670	.0003735	.1165363	-.008514
Stddev	.0133712	.000109	.000157	.000568	.0001601	.0041878	.002291
%RSD	4.366438	2.298618	27.39308	34.02097	42.86837	3.593559	26.90679
#1	.3016314	-.004768	-.000649	-.001927	.0004163	.1122740	-.006414
#2	.2957583	-.004622	-.000675	-.001019	.0001964	.1166896	-.010957
#3	.3212890	-.004835	-.000392	-.002065	.0005079	.1206453	-.008170

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08LX5 Acquired: 4/1/2025 15:02:44 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.1170307	.0073906	.0155405
Stddev	.0022449	.0009692	.0000663
%RSD	1.918209	13.11360	.4266975
#1	.1146099	.0062769	.0155133
#2	.1190439	.0078524	.0156160
#3	.1174383	.0080425	.0154920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2349.528	70888.42	15300.02	2019.204	4254.673
Stddev	4.633	203.96	75.42	6.608	7.706
%RSD	.1971994	.2877146	.4929227	.3272501	.1811256
#1	2354.786	71045.46	15374.05	2020.161	4263.023
#2	2347.754	70961.88	15223.29	2012.170	4253.162
#3	2346.044	70657.90	15302.74	2025.281	4247.834

Sample Name: Q1679-08MS Acquired: 4/1/2025 15:07:01 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.7961953	1.844054	.9189080	1.990506	.9063282	2.059862	.3959169
Stddev	.0035125	.025596	.0019828	.008623	.0038806	.014924	.0010791
%RSD	.4411575	1.388055	.2157748	.4331845	.4281636	.7245325	.2725590
#1	.7946268	1.847120	.9167193	1.985139	.9037783	2.053692	.3961488
#2	.7937404	1.817062	.9194205	1.985928	.9044122	2.076882	.3968613
#3	.8002188	1.867979	.9205843	2.000452	.9107941	2.049012	.3947408

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1790492	.1889741	6.380698	.3994409	.2061698	.2969879	5.594191
Stddev	.0011956	.0005525	.009360	.0004945	.0008027	.0009324	.045537
%RSD	.6677686	.2923920	.1466902	.1237968	.3893599	.3139414	.8139968
#1	.1776898	.1885611	6.370390	.3996864	.2055825	.2967307	5.631513
#2	.1799378	.1887595	6.383038	.3997646	.2058423	.2962111	5.543454
#3	.1795200	.1896018	6.388666	.3988717	.2070845	.2980218	5.607607

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.988919	2.605910	.4890289	.0740942	314.6250	.2837133	.2794111
Stddev	.004299	.039872	.0019925	.0005481	5.5893	.0013035	.0018109
%RSD	.1438425	1.530044	.4074377	.7397770	1.776507	.4594378	.6480976
#1	2.984600	2.600326	.4876647	.0735546	308.4962	.2822088	.2785806
#2	2.993198	2.569125	.4881065	.0746505	315.9373	.2844301	.2781646
#3	2.988959	2.648279	.4913154	.0740775	319.4414	.2845012	.2814883

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.40727	.2562612	.4611509	.7414928	.2107527	1.305832	6.206227
Stddev	.10404	.0017775	.0016751	.0026652	.0014148	.020505	.025461
%RSD	.9120285	.6936426	.3632361	.3594397	.6712824	1.570294	.4102495
#1	11.52620	.2544111	.4595388	.7388064	.2104895	1.329503	6.192353
#2	11.33311	.2579560	.4610315	.7415357	.2122806	1.293534	6.190716
#3	11.36249	.2564166	.4628825	.7441363	.2094880	1.294458	6.235612

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08MS Acquired: 4/1/2025 15:07:01 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.4221945	.1866995	.2468892
Stddev	.0031448	.0004673	.0001789
%RSD	.7448641	.2502886	.0724590
#1	.4195050	.1863378	.2470884
#2	.4214263	.1872271	.2467421
#3	.4256522	.1865335	.2468372

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2268.203	69230.27	15308.55	1966.014	4001.992
Stddev	4.591	165.17	98.10	15.803	8.878
%RSD	.2024034	.2385766	.6408414	.8038089	.2218514
#1	2271.308	69118.51	15418.05	1968.983	4008.073
#2	2270.373	69419.99	15228.67	1980.122	4006.100
#3	2262.930	69152.30	15278.93	1948.937	3991.804

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08MSD Acquired: 4/1/2025 15:11:12 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.8049728	1.839460	.9161714	2.022925	.9197729	2.067559	.3879604
Stddev	.0080421	.015743	.0029546	.012462	.0047649	.007104	.0009775
%RSD	.9990524	.8558267	.3224925	.6160290	.5180485	.3435880	.2519542
#1	.7969060	1.826108	.9140133	2.017815	.9158693	2.068614	.3890215
#2	.8050222	1.835454	.9195388	2.013829	.9183668	2.059987	.3870967
#3	.8129900	1.856819	.9149622	2.037129	.9250826	2.074077	.3877630

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1783877	.1881644	6.317143	.4009234	.2053257	.2969454	5.580209
Stddev	.0002131	.0005341	.022107	.0019641	.0008007	.0017294	.030970
%RSD	.1194801	.2838758	.3499563	.4898979	.3899819	.5824053	.5549943
#1	.1781453	.1876043	6.291903	.4031913	.2044035	.2958150	5.615871
#2	.1784722	.1882207	6.326454	.3997841	.2057288	.2960850	5.564672
#3	.1785457	.1886681	6.333072	.3997947	.2058447	.2989363	5.560083

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.952475	2.577030	.4876812	.0748536	315.1387	.2804548	.2805334
Stddev	.002827	.022170	.0012314	.0000403	6.2848	.0027332	.0011326
%RSD	.0957520	.8602778	.2525072	.0538174	1.994306	.9745449	.4037220
#1	2.951229	2.553385	.4864004	.0748932	321.8193	.2798104	.2793981
#2	2.950485	2.580357	.4877868	.0748548	309.3436	.2781014	.2805388
#3	2.955711	2.597348	.4888565	.0748127	314.2530	.2834526	.2816633

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.38616	.2556480	.4639558	.7382784	.2093433	1.318200	6.134493
Stddev	.02661	.0011319	.0021436	.0031161	.0009248	.008914	.031605
%RSD	.2337448	.4427641	.4620188	.4220784	.4417558	.6762083	.5152054
#1	11.39859	.2569549	.4625294	.7346802	.2092275	1.328296	6.098789
#2	11.40428	.2550083	.4629172	.7400780	.2084819	1.311420	6.145802
#3	11.35561	.2549807	.4664208	.7400770	.2103206	1.314883	6.158888

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08MSD Acquired: 4/1/2025 15:11:12 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.4282636	.1867251	.2437862
Stddev	.0065526	.0008050	.0005193
%RSD	1.530040	.4311387	.2129993
#1	.4207057	.1858283	.2443375
#2	.4323510	.1869615	.2437148
#3	.4317342	.1873854	.2433064

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2256.905	68793.09	15321.30	1922.143	4005.997
Stddev	10.719	148.14	15.40	10.667	12.256
%RSD	.4749523	.2153355	.1005263	.5549312	.3059289
#1	2266.025	68649.33	15339.04	1933.438	4019.242
#2	2259.593	68784.68	15313.54	1920.749	4003.691
#3	2245.098	68945.25	15311.33	1912.242	3995.058

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08A Acquired: 4/1/2025 15:15:24 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.8145265	1.846413	.9222196	2.063372	.9409724	2.052824	.3930066
Stddev	.0079595	.022567	.0015837	.008028	.0055607	.005625	.0011571
%RSD	.9772001	1.222200	.1717222	.3890566	.5909511	.2739966	.2944222
#1	.8080368	1.843644	.9237067	2.054132	.9345602	2.049014	.3940137
#2	.8121352	1.825359	.9205545	2.067350	.9444685	2.050175	.3932634
#3	.8234076	1.870237	.9223977	2.068633	.9438884	2.059285	.3917426

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1753074	.1897123	6.286992	.4045699	.2062677	.2993893	5.676597
Stddev	.0008477	.0003892	.010594	.0005165	.0006943	.0009892	.026877
%RSD	.4835652	.2051686	.1685082	.1276654	.3365804	.3304145	.4734621
#1	.1759838	.1893696	6.294378	.4044794	.2056898	.2982489	5.684239
#2	.1755820	.1896319	6.274854	.4041046	.2060755	.3000148	5.646727
#3	.1743565	.1901355	6.291743	.4051256	.2070378	.2999043	5.698825

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.933610	2.543571	.4923920	.0754948	321.8117	.2815889	.2820263
Stddev	.002049	.008459	.0008666	.0001775	.5673	.0027384	.0014154
%RSD	.0698379	.3325677	.1759945	.2350864	.1762764	.9724989	.5018669
#1	2.934560	2.536228	.4923277	.0753216	321.2727	.2798437	.2819237
#2	2.935012	2.552821	.4915594	.0756762	322.4036	.2847451	.2834902
#3	2.931259	2.541663	.4932890	.0754865	321.7589	.2801780	.2806650

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.77849	.2502504	.4675634	.7433192	.2103240	1.369589	6.085480
Stddev	.00838	.0010975	.0022958	.0018220	.0004673	.012882	.008789
%RSD	.0711435	.4385509	.4910096	.2451114	.2221919	.9406070	.1444199
#1	11.77187	.2495932	.4664109	.7417605	.2107165	1.354790	6.089793
#2	11.77569	.2515174	.4660723	.7428750	.2104484	1.375685	6.075367
#3	11.78791	.2496407	.4702072	.7453222	.2098070	1.378293	6.091278

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1679-08A Acquired: 4/1/2025 15:15:24 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.4268907	.1862436	.2463648
Stddev	.0012913	.0006069	.0006102
%RSD	.3024903	.3258633	.2476839
#1	.4256072	.1866387	.2468732
#2	.4268752	.1865472	.2465330
#3	.4281897	.1855448	.2456881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2233.179	68245.40	15645.21	1906.151	3974.718
Stddev	6.936	49.58	27.87	5.319	7.680
%RSD	.3105915	.0726533	.1781067	.2790402	.1932316
#1	2240.489	68209.74	15634.92	1902.188	3979.965
#2	2232.357	68302.02	15623.94	1912.196	3978.287
#3	2226.690	68224.45	15676.75	1904.069	3965.903

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167398BL Acquired: 4/1/2025 15:19:36 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.0001626	-.001285	.0004508	.0017485	-.000017	.0064328	-.007579
Stddev	.0005065	.001108	.0003683	.0015580	.001502	.0015237	.000130
%RSD	311.5409	86.20301	81.69986	89.10492	8970.194	23.68704	1.721830
#1	.0005366	-.000304	.0008626	.0028553	-.001081	.0069833	-.007591
#2	.0003649	-.001065	.0003371	-.000033	-.000670	.0047103	-.007703
#3	-.000414	-.002486	.0001528	.002423	.001701	.0076047	-.007442

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000638	-.000079	.0005586	-.000110	-.000132	-.000112	-.000847
Stddev	.0000363	.000065	.0055144	.000029	.000154	.000514	.002325
%RSD	56.92105	81.98176	987.1642	25.88659	117.1840	460.6581	274.3850
#1	.0000946	-.000131	-.003805	-.000139	.000040	-.000554	.001829
#2	.0000237	-.000006	-.001276	-.000110	-.000258	-.000233	-.002366
#3	.0000732	-.000100	.006757	-.000082	-.000177	.000452	-.002004

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033047	-.006965	.0000120	.0010842	.2638794	-.001595	.0001202
Stddev	.0001740	.015789	.0001157	.0002365	.0238251	.001107	.0004138
%RSD	5.265712	226.6855	964.9962	21.81821	9.028771	69.41710	344.2171
#1	.0034964	.009426	-.000117	.0013170	.2902465	-.000434	-.000315
#2	.0032607	-.008248	.000106	.0010915	.2574942	-.002640	.000168
#3	.0031568	-.022074	.000048	.0008440	.2438976	-.001711	.000508

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1385978	-.012339	-.000395	-.000734	.0004865	.0075861	-.008070
Stddev	.0450907	.000630	.000098	.000189	.0004518	.0061925	.001667
%RSD	32.53350	5.106003	24.78281	25.80754	92.86724	81.63043	20.66193
#1	.0903332	-.012323	-.000318	-.000727	.0006918	.0032313	-.008446
#2	.1458166	-.012976	-.000362	-.000548	.0007993	.0048518	-.006247
#3	.1796436	-.011717	-.000506	-.000927	-.000031	.0146751	-.009518

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167398BL Acquired: 4/1/2025 15:19:36 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.0083298	.0065054	-.000425
Stddev	.0027595	.0010910	.000070
%RSD	33.12840	16.77121	16.40602
#1	.0090674	.0071169	-.000402
#2	.0052764	.0071537	-.000369
#3	.0106455	.0052458	-.000503

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2426.783	73198.34	15535.86	2053.882	4664.804
Stddev	4.088	154.41	42.56	6.522	5.098
%RSD	.1684684	.2109528	.2739471	.3175561	.1092825
#1	2424.562	73039.81	15499.55	2047.467	4665.179
#2	2431.502	73348.27	15582.70	2060.506	4669.704
#3	2424.286	73206.94	15525.35	2053.674	4659.529

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV05 Acquired: 4/1/2025 15:23:55 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	5.087624	5.129654	4.970734	5.205192	5.203699	9.757191	9.501710
Stddev	.007609	.040794	.009856	.010852	.010788	.023926	.021140
%RSD	.1495674	.7952539	.1982783	.2084759	.2073219	.2452132	.2224906
#1	5.081822	5.091330	4.962883	5.196721	5.203983	9.754893	9.478871
#2	5.096240	5.125097	4.967525	5.201432	5.192772	9.734497	9.520592
#3	5.084811	5.172535	4.981795	5.217424	5.214343	9.782184	9.505667

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2406200	2.417687	23.62398	.9950892	2.405648	1.252652	4.712612
Stddev	.0009288	.002236	.07279	.0031294	.004377	.001153	.026686
%RSD	.3860065	.0924955	.3081104	.3144821	.1819628	.0920840	.5662736
#1	.2399774	2.415130	23.68822	.9968016	2.401333	1.251494	4.741026
#2	.2401975	2.419278	23.54492	.9969887	2.410085	1.252662	4.708730
#3	.2416849	2.418653	23.63880	.9914773	2.405527	1.253801	4.688079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.541585	22.84909	2.463149	1.224582	23.34332	2.417536	2.473299
Stddev	.010760	.04549	.001905	.002813	.09475	.003874	.003580
%RSD	.4233478	.1990941	.0773572	.2296793	.4058981	.1602334	.1447323
#1	2.550598	22.81166	2.461145	1.223560	23.45269	2.419999	2.476892
#2	2.529673	22.83588	2.464938	1.227763	23.29092	2.413071	2.469733
#3	2.544484	22.89972	2.463363	1.222423	23.28634	2.419538	2.473271

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.98014	4.735279	5.084137	4.909836	4.809682	4.869257	5.194598
Stddev	.04156	.021380	.009997	.012340	.019032	.018198	.005890
%RSD	.1733160	.4515120	.1966246	.2513289	.3957079	.3737260	.1133817
#1	24.00692	4.731428	5.080240	4.896172	4.822809	4.859433	5.188653
#2	24.00124	4.716086	5.076675	4.913169	4.787855	4.890255	5.194710
#3	23.93226	4.758324	5.095495	4.920167	4.818383	4.858083	5.200431

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV05 Acquired: 4/1/2025 15:23:55 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	4.816466	4.662717	4.835561
Stddev	.009069	.017768	.026591
%RSD	.1882981	.3810579	.5499123
#1	4.811299	4.677781	4.835864
#2	4.811161	4.643123	4.808820
#3	4.826938	4.667247	4.862000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2324.544	72428.70	14874.28	2028.344	4144.792
Stddev	3.115	161.07	61.97	6.723	5.170
%RSD	.1340189	.2223819	.4166584	.3314329	.1247386
#1	2325.257	72340.21	14833.79	2020.666	4150.232
#2	2327.241	72331.27	14945.62	2033.173	4144.201
#3	2321.134	72614.61	14843.41	2031.194	4139.942

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB05 Acquired: 4/1/2025 15:28:07 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.0000868	-.001673	-.000221	.0006070	.0000033	.0011730	-.006485
Stddev	.0023943	.001637	.001563	.0022036	.0012141	.0011095	.000339
%RSD	2757.489	97.79308	707.9229	363.0605	36642.68	94.58596	5.231537
#1	-.002654	.000195	-.001240	.0022541	-.001258	.0016828	-.006845
#2	.001773	-.002361	-.001001	.0014630	.001164	-.000100	-.006438
#3	.001141	-.002854	.001579	-.001896	.000104	.001936	-.006172

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000414	.0001206	.0020568	.0000334	.0000878	-.000087	-.000966
Stddev	.0000232	.0000479	.0042527	.0002020	.0002277	.000105	.003785
%RSD	56.07551	39.68165	206.7582	604.0172	259.4126	120.5707	391.8595
#1	.0000486	.0001392	-.002841	-.000146	.0001547	.000014	.001001
#2	.0000154	.0000663	.004806	.000252	-.000166	-.000196	.001431
#3	.0000601	.0001565	.004206	-.000006	.000275	-.000079	-.005329

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035402	-.007056	.0001446	.0006804	.0952009	.0006598	.0000392
Stddev	.0000875	.004522	.0001374	.0000524	.0019587	.0001814	.0004013
%RSD	2.471454	64.08905	95.04597	7.695976	2.057485	27.49064	1025.023
#1	.0035740	-.001843	.0000657	.0007226	.0967734	.0006875	-.000346
#2	.0036058	-.009396	.0003032	.0006218	.0930068	.0008257	.000455
#3	.0034409	-.009929	.0000648	.0006968	.0958225	.0004662	.000009

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2161732	-.004602	.0000185	-.000271	.0000817	.0099304	-.005628
Stddev	.0213785	.000436	.0001467	.000693	.0002824	.0025613	.001630
%RSD	9.889502	9.477139	791.4579	255.9149	345.7000	25.79279	28.95758
#1	.1944244	-.004247	-.000091	.000311	-.000113	.0075199	-.003813
#2	.2169342	-.004470	.000185	-.000086	.000406	.0096515	-.006967
#3	.2371609	-.005089	-.000038	-.001038	-.000047	.0126197	-.006103

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB05 Acquired: 4/1/2025 15:28:07 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.0034893	-.001358	-.000054
Stddev	.0040262	.000686	.000066
%RSD	115.3889	50.52292	122.1051
#1	.0079974	-.001053	.000022
#2	.0002515	-.002143	-.000095
#3	.0022188	-.000876	-.000088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2436.069	74579.12	15254.77	2118.397	4674.370
Stddev	3.981	273.11	52.26	8.129	9.363
%RSD	.1634270	.3662010	.3425939	.3837550	.2003022
#1	2439.889	74439.43	15282.93	2115.288	4684.549
#2	2436.375	74893.82	15194.46	2127.622	4672.434
#3	2431.944	74404.10	15286.91	2112.280	4666.126

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167398BS Acquired: 4/1/2025 15:32:27 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.7628849	2.002272	.9279922	1.970165	.8045666	1.862228
Stddev	.0054384	.015426	.0021561	.008083	.0041786	.005307
%RSD	.7128715	.7704469	.2323439	.4102778	.5193656	.2849938
#1	.7656403	1.985870	.9280075	1.971202	.8021025	1.858226
#2	.7566202	2.004455	.9258285	1.961613	.8022060	1.868249
#3	.7663940	2.016490	.9301407	1.977679	.8093913	1.860210

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1686729	.1886845	.1817874	.9410524	.3930573	.1836558
Stddev	.0006041	.0005432	.0005200	.0003449	.0005633	.0009091
%RSD	.3581631	.2878733	.2860754	.0366512	.1433030	.4950276
#1	.1685122	.1881147	.1814773	.9410274	.3926530	.1832818
#2	.1681653	.1887424	.1814972	.9414092	.3937007	.1829933
#3	.1693411	.1891964	.1823878	.9407207	.3928183	.1846923

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2997308	2.798507	.2018137	1.742043	.4731821	.0739704
Stddev	.0007927	.008868	.0005379	.004978	.0008499	.0002951
%RSD	.2644791	.3168843	.2665329	.2857356	.1796164	.3989581
#1	.2998339	2.802001	.2014953	1.737056	.4729851	.0736479
#2	.2988916	2.788425	.2015111	1.742063	.4724479	.0740362
#3	.3004670	2.805097	.2024348	1.747011	.4741132	.0742270

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.619340	.2763461	.2007650	9.160930	.2598030	.3964772
Stddev	.019311	.0006081	.0001900	.037526	.0004819	.0011584
%RSD	.7372463	.2200642	.0946349	.4096287	.1854773	.2921783
#1	2.597749	.2757334	.2009380	9.118394	.2592878	.3964554
#2	2.625307	.2763553	.2005617	9.189354	.2598783	.3953298
#3	2.634963	.2769496	.2007952	9.175042	.2602427	.3976463

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167398BS Acquired: 4/1/2025 15:32:27 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.6523791	.1831098	.7616169	5.767679	F -.000417	.1822054
Stddev	.0029117	.0001970	.0095532	.016125	.001913	.0029264
%RSD	.4463155	.1075719	1.254337	.2795721	458.4580	1.606111
#1	.6490180	.1831791	.7505999	5.753923	.001385	.1811230
#2	.6539884	.1832628	.7666423	5.763691	-.000213	.1799744
#3	.6541310	.1828876	.7676085	5.785424	-.002425	.1855188

Elem	Sr4077
Units	ppm
Avg	.1792683
Stddev	.0004507
%RSD	.2514173
#1	.1789102
#2	.1791202
#3	.1797744

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2404.393	72496.55	15068.53	2066.339	4498.831
Stddev	4.943	150.91	29.48	7.714	6.720
%RSD	.2055949	.2081635	.1956146	.3733261	.1493627
#1	2401.358	72606.97	15100.54	2074.786	4496.355
#2	2410.097	72324.59	15062.53	2064.564	4506.437
#3	2401.724	72558.10	15042.51	2059.667	4493.700

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392TB Acquired: 4/1/2025 15:36:30 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.004212	-.004198	.0002217	.0035277	.0001239	.0045962
Stddev	.000988	.001062	.0008787	.0016467	.0012984	.0003469
%RSD	23.46041	25.28412	396.2927	46.68002	1047.756	7.546407
#1	-.005268	-.003866	.0012343	.0024372	.0007374	.0047909
#2	-.003309	-.003343	-.000341	.0054220	.0010019	.0041958
#3	-.004058	-.005386	-.000228	.0027240	-.001368	.0048021

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008197	-.000148	-.000101	.0191944	.0000608	-.000297
Stddev	.000845	.000008	.000038	.0036970	.0000950	.000214
%RSD	10.30485	5.726154	38.06303	19.26095	156.2398	72.20724
#1	-.007242	-.000138	-.000065	.0234379	.0000778	-.000466
#2	-.008503	-.000150	-.000141	.0166696	.0001461	-.000056
#3	-.008846	-.000155	-.000096	.0174758	-.000042	-.000367

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003255	.0186085	.0006492	-.015946	.0002229	.0007913
Stddev	.0002683	.0012163	.0000788	.005952	.0002067	.0001613
%RSD	82.40676	6.536025	12.14149	37.32433	92.74753	20.38813
#1	.0006241	.0175170	.0006641	-.021738	.0000899	.0007256
#2	.0002477	.0199196	.0007195	-.009846	.0001177	.0009751
#3	.0001048	.0183888	.0005640	-.016254	.0004610	.0006732

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0775017	-.000868	.0010082	-.164762	-.009952	-.000202
Stddev	.0045346	.000565	.0002337	.008064	.000454	.000108
%RSD	5.850970	65.08685	23.18505	4.894484	4.560292	53.19539
#1	.0743533	-.001099	.0007725	-.156150	-.009461	-.000219
#2	.0826992	-.000224	.0012400	-.166003	-.010356	-.000301
#3	.0754525	-.001282	.0010121	-.172134	-.010039	-.000087

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392TB Acquired: 4/1/2025 15:36:30 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.004840	.0001515	.0110226	-.003348	F 14.12912	-.007396
Stddev	.000071	.0001920	.0023885	.002401	.03872	.000390
%RSD	1.464241	126.7326	21.66937	71.71452	.2740119	5.271503
#1	-.004922	.0003139	.0101193	-.000576	14.10234	-.007316
#2	-.004794	-.000060	.0137311	-.004722	14.11150	-.007053
#3	-.004805	.000201	.0092175	-.004748	14.17351	-.007820

Elem	Sr4077
Units	ppm
Avg	-.000231
Stddev	.000025
%RSD	10.93044
#1	-.000261
#2	-.000218
#3	-.000216

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2444.278	77237.78	15811.34	2119.075	4790.009
Stddev	4.212	202.42	117.52	2.539	7.660
%RSD	.1723411	.2620726	.7432542	.1198065	.1599220
#1	2448.712	77120.35	15700.60	2118.106	4798.333
#2	2443.792	77121.49	15934.63	2117.164	4788.437
#3	2440.330	77471.52	15798.78	2121.956	4783.257

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: LR1 Acquired: 4/1/2025 15:43:40 Type: Unk
Method: NON EPA-6010-200.7(v2866) 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	.0353763	.0718022	.0229438	-.144805	-.002757	1915.307	.0039794
Stddev	.0058079	.0108956	.0046410	.029238	.004711	11.179	.0004827
%RSD	16.41736	15.17446	20.22754	20.19147	170.8589	.5836458	12.13062
#1	.0400205	.0635170	.0255015	-.117738	-.006652	1921.983	.0042982
#2	.0288644	.0677454	.0257431	-.140862	-.004099	1902.402	.0042161
#3	.0372441	.0841443	.0175867	-.175815	.002479	1921.537	.0034240

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075198	.0081768	1819.581	.0206756	.0258778	.1067181	910.8009
Stddev	.0000484	.0015175	4.082	.0003828	.0005261	.0033657	10.2408
%RSD	.6439271	18.55869	.2243331	1.851529	2.032907	3.153827	1.124372
#1	.0075184	.0064871	1815.598	.0203523	.0263588	.1033457	922.5189
#2	.0074720	.0086196	1823.755	.0205763	.0253160	.1067315	906.3169
#3	.0075689	.0094236	1819.390	.0210983	.0259586	.1100771	903.5669

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.084533	1655.422	.0062148	-.005503	1835.070	.0146679	.1475071
Stddev	.000165	5.852	.0007357	.002109	25.657	.0010134	.0019981
%RSD	.1956392	.3534984	11.83875	38.31647	1.398174	6.908683	1.354602
#1	-.084387	1661.265	.0067104	-.003069	1862.962	.0146621	.1454133
#2	-.084500	1649.562	.0065646	-.006673	1829.776	.0156842	.1493934
#3	-.084713	1655.439	.0053694	-.006768	1812.473	.0136575	.1477146

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1348.813	^ *****	-.008825	-.006554	-.040260	.1287002	.0663711
Stddev	18.528	-----	.000612	.001433	.000295	.0083728	.0046367
%RSD	1.373651	-----	6.938483	21.87025	.7320196	6.505658	6.985995
#1	1370.074	^ -----	-.008366	-.005684	-.040419	.1362212	.0685120
#2	1340.251	^ -----	-.008589	-.005770	-.040441	.1196786	.0610508
#3	1336.115	^ -----	-.009521	-.008209	-.039920	.1302009	.0695506

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: LR1 Acquired: 4/1/2025 15:43:40 Type: Unk
Method: NON EPA-6010-200.7(v2866) 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	-.182918	.0816266	-.790266
Stddev	.019184	.0058998	.008942
%RSD	10.48794	7.227752	1.131574
#1	-.170178	.0884365	-.800497
#2	-.173594	.0780616	-.786355
#3	-.204982	.0783816	-.783945

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1587.751	49767.84	12856.86	1356.829	2460.535
Stddev	2.840	114.47	46.59	2.525	5.774
%RSD	.1788773	.2300104	.3623755	.1860591	.2346657
#1	1585.116	49636.40	12884.08	1354.341	2457.556
#2	1590.759	49845.64	12883.43	1356.757	2467.190
#3	1587.377	49821.47	12803.06	1359.389	2456.858

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV06 Acquired: 4/1/2025 15:52:33 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	5.070085	5.118427	4.964088	5.177108	5.173796	9.805191	9.445663
Stddev	.004639	.054107	.015303	.006281	.020327	.006325	.095903
%RSD	.0914912	1.057108	.3082787	.1213207	.3928918	.0645073	1.015314
#1	5.066449	5.173598	4.955654	5.180579	5.172821	9.805790	9.503332
#2	5.075310	5.116232	4.954859	5.169857	5.153974	9.811194	9.334956
#3	5.068498	5.065450	4.981753	5.180887	5.194594	9.798587	9.498701

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2419265	2.416247	23.66782	1.001502	2.398872	1.246730	4.739783
Stddev	.0017876	.006202	.05059	.000744	.008127	.003627	.013838
%RSD	.7388927	.2566755	.2137632	.0742485	.3388018	.2909607	.2919481
#1	.2433958	2.411408	23.70407	1.001326	2.393030	1.245652	4.738020
#2	.2399363	2.414095	23.61002	1.002317	2.395432	1.243763	4.754418
#3	.2424474	2.423239	23.68936	1.000862	2.408154	1.250774	4.726912

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.535129	22.71912	2.461850	1.229740	23.54925	2.411608	2.478185
Stddev	.002297	.11348	.008799	.002836	.15388	.010294	.013309
%RSD	.0905971	.4995065	.3574095	.2305797	.6534577	.4268505	.5370461
#1	2.537591	22.79958	2.455315	1.232008	23.51202	2.421521	2.476117
#2	2.533044	22.58932	2.458379	1.230652	23.71833	2.400972	2.492407
#3	2.534753	22.76846	2.471854	1.226561	23.41739	2.412330	2.466031

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.98543	4.750327	5.071235	4.906589	4.808740	4.944462	5.211952
Stddev	.14182	.022077	.005930	.011229	.005275	.020359	.009383
%RSD	.5912782	.4647558	.1169416	.2288579	.1096958	.4117548	.1800267
#1	23.92189	4.758608	5.073973	4.897360	4.813708	4.925983	5.217082
#2	24.14791	4.725307	5.064431	4.903315	4.809307	4.966287	5.201123
#3	23.88649	4.767067	5.075303	4.919091	4.803204	4.941118	5.217651

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV06 Acquired: 4/1/2025 15:52:33 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	4.800485	4.620892	4.791309
Stddev	.011895	.004066	.037585
%RSD	.2477953	.0879931	.7844428
#1	4.805307	4.621045	4.790067
#2	4.786936	4.624880	4.829499
#3	4.809213	4.616752	4.754360

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2332.188	71950.06	14872.64	2029.115	4153.302
Stddev	3.077	102.99	58.99	6.073	8.980
%RSD	.1319560	.1431448	.3966334	.2992788	.2162160
#1	2333.678	71953.85	14846.28	2031.269	4157.621
#2	2334.236	71845.22	14940.22	2022.259	4159.306
#3	2328.649	72051.10	14831.43	2033.817	4142.978

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB06 Acquired: 4/1/2025 15:56:44 Type: Unk
Method: NON EPA-6010-200.7(v2867) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000025	-.001722	.0007672	.0025286	.0010014	.0264789
Stddev	.0001826	.001600	.0005689	.0017920	.0010578	.0044709
%RSD	7407.661	92.92075	74.14546	70.86939	105.6414	16.88490
#1	-.000051	-.001755	.0013281	.0004678	.0020100	.0269271
#2	-.000148	-.000106	.0007830	.0033971	-.000100	.0218008
#3	.000206	-.003305	.0001906	.0037209	.001094	.0307089

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006276	.0000032	.0002041	.0223215	-.000178	-.000054
Stddev	.001076	.0000673	.0000535	.0055827	.000444	.000086
%RSD	17.13927	2076.979	26.21011	25.01042	248.9691	160.0216
#1	-.006907	-.000074	.0002594	.0165694	-.000668	-.000041
#2	-.005034	.000040	.0002000	.0277178	-.000062	-.000145
#3	-.006888	.000044	.0001527	.0226772	.000196	.000025

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000156	.0121141	.0032300	.0223923	-.000202	.0012022
Stddev	.000184	.0031295	.0002175	.0152781	.000203	.0005091
%RSD	117.6203	25.83344	6.732011	68.22952	100.5335	42.34723
#1	-.000217	.0121102	.0029896	.0049199	-.000364	.0009834
#2	.000050	.0089866	.0032877	.0332401	-.000267	.0017841
#3	-.000302	.0152456	.0034128	.0290169	.000026	.0008391

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1100569	.0001248	-.000055	-.006976	-.001075	.0001910
Stddev	.0114698	.0004192	.000178	.021711	.000656	.0000697
%RSD	10.42166	335.9214	325.2463	311.2294	60.97345	36.51200
#1	.0988377	.0006037	-.000072	-.017016	-.000536	.0001993
#2	.1217618	-.000175	.000131	-.021849	-.000885	.0001174
#3	.1095712	-.000054	-.000223	.017938	-.001805	.0002561

Sample Name: CCB06 Acquired: 4/1/2025 15:56:44 Type: Unk
Method: NON EPA-6010-200.7(v2867) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000841	.0008447	.0123295	F -.010437	.0051589	-.000763
Stddev	.0007449	.0004159	.0066272	.001568	.0003530	.000130
%RSD	886.0998	49.23391	53.75069	15.02093	6.842702	17.06402
#1	.0000841	.0008308	.0114416	-.009420	.0055619	-.000840
#2	.0008290	.0004360	.0061910	-.009649	.0050101	-.000836
#3	-.000661	.0012674	.0193559	-.012243	.0049046	-.000613

Elem	Sr4077
Units	ppm
Avg	.0001511
Stddev	.0000492
%RSD	32.55298
#1	.0000947
#2	.0001736
#3	.0001851

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2435.579	73833.10	15246.45	2083.975	4664.965
Stddev	6.711	186.65	116.12	10.739	14.417
%RSD	.2755484	.2527972	.7616507	.5153210	.3090425
#1	2427.915	73827.04	15280.63	2071.620	4648.761
#2	2440.404	74022.71	15117.07	2089.231	4669.762
#3	2438.419	73649.56	15341.65	2091.074	4676.372

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04 Acquired: 4/1/2025 16:01:04 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	.0051537	.0019410	.0082627	-.035052	-.001578	10.08672
Stddev	.0009497	.0018963	.0017497	.004584	.003744	.02524
%RSD	18.42686	97.69773	21.17597	13.07624	237.2006	.2502141
#1	.0042005	.0027448	.0066788	-.040241	-.005035	10.11570
#2	.0051607	.0033031	.0079685	-.033359	.002399	10.06956
#3	.0060998	-.000225	.0101409	-.031556	-.002099	10.07489

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2187356	.0024353	-.000806	926.4627	.0438239	.1088130
Stddev	.0008971	.0001716	.000182	6.2240	.0003713	.0009139
%RSD	.4101094	7.046481	22.58914	.6718035	.8473523	.8398537
#1	.2188092	.0024036	-.000598	933.5158	.0434392	.1084063
#2	.2195935	.0022818	-.000936	924.1312	.0441802	.1081731
#3	.2178040	.0026206	-.000884	921.7410	.0438523	.1098597

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6468013	120.2904	13.97427	102.5223	.1267003	.0001224
Stddev	.0007063	.3506	.03587	.4572	.0002511	.0001524
%RSD	.1091968	.2914574	.2566842	.4459858	.1982078	124.4716
#1	.6467366	119.9394	14.01160	103.0228	.1266294	.0002140
#2	.6461296	120.6405	13.97116	102.4176	.1264922	-.000053
#3	.6475377	120.2915	13.94006	102.1264	.1269792	.000207

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.27069	.1460307	.9483035	2.677468	F 18.38951	-.001579
Stddev	.16586	.0006077	.0021230	.038061	.08516	.000162
%RSD	.4985147	.4161264	.2238697	1.421547	.4630907	10.23720
#1	33.09741	.1455282	.9471234	2.658347	18.48635	-.001753
#2	33.42796	.1458579	.9470327	2.652759	18.32632	-.001550
#3	33.28671	.1467061	.9507543	2.721299	18.35585	-.001433

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04 Acquired: 4/1/2025 16:01:04 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	-.009241	-.022430	F 81.19167	.7591988	F 739.5999	-.063536
Stddev	.000638	.000557	.32432	.0057642	2.4672	.002001
%RSD	6.908438	2.484325	.3994438	.7592443	.3335857	3.149681
#1	-.009587	-.021985	80.86105	.7580416	739.7729	-.064994
#2	-.008504	-.022249	81.50929	.7541009	737.0507	-.064360
#3	-.009632	-.023055	81.20467	.7654537	741.9760	-.061255

Elem	Sr4077
Units	ppm
Avg	2.023776
Stddev	.005498
%RSD	.2716690
#1	2.030041
#2	2.021535
#3	2.019752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2232.938	69694.52	16142.18	1931.961	3467.972
Stddev	3.123	208.88	54.61	5.698	6.637
%RSD	.1398584	.2997088	.3383315	.2949197	.1913719
#1	2235.380	69894.93	16084.89	1937.373	3472.980
#2	2234.017	69478.10	16148.00	1926.015	3470.492
#3	2229.419	69710.52	16193.65	1932.496	3460.445

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04DUP Acquired: 4/1/2025 16:05:28 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	.0012159	.0012390	.0050704	-.035854	-.001495	9.686652
Stddev	.0013313	.0020195	.0027500	.002714	.002377	.030047
%RSD	109.4891	162.9991	54.23534	7.569964	158.9631	.3101889
#1	.0005780	.0008385	.0082450	-.038963	-.003859	9.655618
#2	.0003236	.0034288	.0035456	-.034641	-.001522	9.715604
#3	.0027462	-.000550	.0034207	-.033958	.000895	9.688735

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2101258	.0025142	-.001071	899.1770	.0423402	.1051397
Stddev	.0011857	.0001656	.000259	5.1622	.0000280	.0000567
%RSD	.5642780	6.586446	24.14626	.5740982	.0661848	.0539536
#1	.2092682	.0023666	-.001053	899.6164	.0423722	.1051709
#2	.2114788	.0026933	-.001339	893.8092	.0423199	.1050742
#3	.2096303	.0024828	-.000822	904.1054	.0423286	.1051739

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6255632	115.9502	13.45881	99.47299	.1214138	-.000005
Stddev	.0035035	.6655	.04900	.18062	.0006230	.000149
%RSD	.5600567	.5739466	.3641011	.1815819	.5130821	2831.258
#1	.6239856	115.2259	13.40862	99.49336	.1221132	-.000130
#2	.6231258	116.5346	13.50653	99.28305	.1209183	-.000046
#3	.6295781	116.0902	13.46130	99.64257	.1212100	.000160

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.81178	.1409608	.9145579	2.488363	F 17.74339	-.001996
Stddev	.30658	.0016407	.0029635	.034861	.06729	.000243
%RSD	.9637267	1.163946	.3240351	1.400969	.3792530	12.18919
#1	31.50565	.1398905	.9112322	2.450591	17.82099	-.002119
#2	32.11880	.1401422	.9155231	2.495200	17.70800	-.001716
#3	31.81088	.1428498	.9169186	2.519300	17.70117	-.002153

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04DUP Acquired: 4/1/2025 16:05:28 Type: Unk
Method: NON EPA-6010-200.7(v2867) 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	-.009485	-.022026	F 78.42782	.7313344	F 716.5486	-.062265
Stddev	.000421	.000547	.27162	.0041871	1.8811	.001882
%RSD	4.434014	2.484831	.3463312	.5725319	.2625177	3.022210
#1	-.009233	-.021395	78.11508	.7285596	715.3778	-.063890
#2	-.009251	-.022371	78.60470	.7361507	715.5496	-.060203
#3	-.009971	-.022312	78.56369	.7292928	718.7184	-.062702

Elem	Sr4077
Units	ppm
Avg	1.957816
Stddev	.011633
%RSD	.5941572
#1	1.955147
#2	1.947750
#3	1.970551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2233.426	68951.83	15975.01	1916.733	3483.305
Stddev	8.274	110.81	7.78	7.881	7.160
%RSD	.3704486	.1607097	.0487042	.4111837	.2055579
#1	2241.903	69055.97	15966.03	1922.491	3489.043
#2	2233.002	68835.37	15979.32	1919.956	3485.591
#3	2225.372	68964.15	15979.68	1907.750	3475.281

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04LX5 Acquired: 4/1/2025 16:09:33 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.0006572	-.001855	-.000692	-.006886	-.000813	2.147146
Stddev	.0032385	.001302	.001079	.004883	.001149	.008594
%RSD	492.7898	70.18606	155.9379	70.91033	141.2579	.4002682
#1	.0042801	-.002470	.000552	-.001913	-.001701	2.147839
#2	-.000352	-.000360	-.001372	-.007071	.000484	2.155373
#3	-.001957	-.002736	-.001256	-.011675	-.001223	2.138226

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0399306	.0005474	-.000871	208.4867	.0094729	.0219320
Stddev	.0004577	.0000475	.000062	.8844	.0003117	.0000938
%RSD	1.146132	8.672998	7.092632	.4241947	3.290211	.4274925
#1	.0404487	.0005063	-.000878	209.3282	.0094850	.0219848
#2	.0395814	.0005365	-.000928	208.5671	.0097783	.0219876
#3	.0397616	.0005994	-.000805	207.5649	.0091553	.0218238

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1496804	26.04611	3.120262	22.48084	.0257040	.0009117
Stddev	.0003454	.13215	.021307	.04110	.0000888	.0002163
%RSD	.2307433	.5073793	.6828586	.1828231	.3455459	23.72176
#1	.1499701	25.92343	3.144221	22.49250	.0257686	.0010640
#2	.1492982	26.18604	3.113124	22.51485	.0257407	.0010068
#3	.1497729	26.02887	3.103440	22.43517	.0256027	.0006641

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.328482	.0318729	.2042844	.4479128	4.457193	.0000221
Stddev	.009886	.0012649	.0013290	.0338051	.036989	.0003091
%RSD	.1562116	3.968674	.6505824	7.547251	.8298738	1399.985
#1	6.324793	.0319674	.2030059	.4088811	4.498568	.0003604
#2	6.339682	.0330879	.2056588	.4670027	4.445685	-.000049
#3	6.320971	.0305634	.2041887	.4678545	4.427326	-.000246

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04LX5 Acquired: 4/1/2025 16:09:33 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.005617	-.004575	F 16.95057	.1362546	F 160.7627	-.016596
Stddev	.001486	.000937	.11835	.0053587	.3102	.000709
%RSD	26.45761	20.49155	.6981855	3.932860	.1929738	4.270965
#1	-.005176	-.004028	16.81415	.1393502	161.0703	-.017413
#2	-.007274	-.004040	17.01174	.1393467	160.4499	-.016232
#3	-.004401	-.005658	17.02580	.1300669	160.7679	-.016143

Elem	Sr4077
Units	ppm
Avg	.4483834
Stddev	.0029936
%RSD	.6676413
#1	.4517291
#2	.4474628
#3	.4459582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2285.311	70547.86	15639.48	1952.826	4036.046
Stddev	11.887	198.62	164.98	6.591	18.057
%RSD	.5201437	.2815460	1.054872	.3375185	.4474034
#1	2279.506	70420.88	15458.29	1959.928	4029.701
#2	2298.985	70445.94	15679.12	1946.906	4056.420
#3	2277.442	70776.75	15781.02	1951.643	4022.018

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-05 Acquired: 4/1/2025 16:13:43 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.7979604	1.852374	.9376218	2.007808	.8168077	16.56509
Stddev	.0070436	.013592	.0036169	.013238	.0060104	.01727
%RSD	.8827054	.7337454	.3857468	.6593507	.7358341	.1042367
#1	.7951883	1.865546	.9338024	1.997374	.8171678	16.54567
#2	.7927246	1.838398	.9409946	2.003348	.8106254	16.57871
#3	.8059684	1.853180	.9380684	2.022700	.8226300	16.57090

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3981288	.1737830	.1930839	1011.179	.4199015	.3241218
Stddev	.0016371	.0007524	.0004574	1.831	.0016319	.0011960
%RSD	.4111949	.4329559	.2369203	.1810793	.3886282	.3690043
#1	.3976538	.1729421	.1930856	1009.074	.4216676	.3235386
#2	.3999509	.1743926	.1926255	1012.405	.4184496	.3233293
#3	.3967817	.1740144	.1935404	1012.058	.4195872	.3254976

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.542222	135.8766	15.84601	112.7261	.6426800	.0727988
Stddev	.008508	.4012	.06039	.6411	.0011682	.0007066
%RSD	.5516709	.2952554	.3811132	.5686870	.1817676	.9705476
#1	1.538209	135.6766	15.80058	111.9937	.6414705	.0735992
#2	1.536463	136.3385	15.91454	112.9994	.6427674	.0725358
#3	1.551995	135.6148	15.82291	113.1851	.6438020	.0722615

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.34190	.4282921	1.419804	13.84089	F 17.22968	.3812638
Stddev	.19600	.0010895	.002105	.05351	.01842	.0016032
%RSD	.4740839	.2543932	.1482809	.3865749	.1068897	.4204889
#1	41.54304	.4272326	1.420722	13.90264	17.20917	.3815825
#2	41.33118	.4282343	1.417396	13.81173	17.24480	.3795252
#3	41.15149	.4294094	1.421294	13.80830	17.23507	.3826836

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-05 Acquired: 4/1/2025 16:13:43 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.6896104	.1469647	F 82.56710	8.723635	F 814.2528	.1192817
Stddev	.0013776	.0007303	.06511	.043129	1.5630	.0019447
%RSD	.1997668	.4969030	.0788626	.4943940	.1919520	1.630346
#1	.6886695	.1473865	82.53870	8.739557	815.0888	.1200588
#2	.6889700	.1473862	82.64159	8.674808	812.4496	.1207176
#3	.6911916	.1461215	82.52102	8.756539	815.2199	.1170686

Elem	Sr4077
Units	ppm
Avg	2.370551
Stddev	.016798
%RSD	.7086020
#1	2.355169
#2	2.368009
#3	2.388474

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2221.318	69433.55	15825.57	1917.317	3387.434
Stddev	6.975	147.28	37.92	3.487	7.402
%RSD	.3139934	.2121185	.2396120	.1818471	.2185032
#1	2220.649	69324.21	15856.70	1920.790	3379.995
#2	2228.603	69375.40	15783.34	1913.817	3394.798
#3	2214.702	69601.03	15836.67	1917.343	3387.508

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-06 Acquired: 4/1/2025 16:17:59 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.7519957	1.716922	.8729206	1.906578	.7732002	15.51987
Stddev	.0039731	.000552	.0027370	.020206	.0055266	.02281
%RSD	.5283454	.0321620	.3135500	1.059798	.7147726	.1469677
#1	.7496823	1.716336	.8753407	1.896142	.7684779	15.50520
#2	.7497214	1.717432	.8699502	1.893725	.7718439	15.54614
#3	.7565835	1.716998	.8734708	1.929868	.7792787	15.50825

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3740203	.1604747	.1791539	949.6124	.3915298	.3020037
Stddev	.0015222	.0004782	.0003679	5.0331	.0016865	.0006573
%RSD	.4069850	.2979787	.2053668	.5300163	.4307535	.2176605
#1	.3723067	.1599559	.1795739	945.1486	.3899909	.3025622
#2	.3745382	.1608977	.1789992	948.6212	.3912656	.3012793
#3	.3752159	.1605707	.1788886	955.0673	.3933328	.3021696

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.472776	129.1543	14.91483	105.1045	.6001998	.0687299
Stddev	.005887	.6546	.03610	.3300	.0001061	.0004331
%RSD	.3997436	.5068619	.2420474	.3139585	.0176836	.6301439
#1	1.472442	128.6858	14.87328	104.9781	.6002420	.0686542
#2	1.467063	128.8748	14.93854	105.4790	.6002785	.0683396
#3	1.478823	129.9023	14.93266	104.8564	.6000791	.0691958

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.54507	.3991942	1.338383	13.10517	F 16.10152	.3581629
Stddev	.21017	.0036771	.008666	.08402	.06654	.0010127
%RSD	.5314722	.9211360	.6474712	.6411521	.4132292	.2827466
#1	39.51588	.3951012	1.347275	13.07289	16.06121	.3578852
#2	39.35102	.4002628	1.337911	13.04206	16.17832	.3573180
#3	39.76831	.4022187	1.329963	13.20054	16.06503	.3592854

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-06 Acquired: 4/1/2025 16:17:59 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.6446179	.1384238	F 78.24034	8.162273	F 769.9384	.1136214
Stddev	.0056436	.0002753	.29605	.004758	1.7145	.0006025
%RSD	.8754992	.1988520	.3783871	.0582985	.2226761	.5302997
#1	.6501757	.1381190	77.99813	8.158812	771.9020	.1141841
#2	.6388922	.1386543	78.15252	8.160307	768.7385	.1129857
#3	.6447860	.1384983	78.57036	8.167699	769.1746	.1136944

Elem	Sr4077
Units	ppm
Avg	2.205743
Stddev	.013125
%RSD	.5950540
#1	2.211057
#2	2.215378
#3	2.190794

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2224.800	70107.96	16135.72	1926.648	3431.012
Stddev	6.917	447.75	74.32	1.146	8.810
%RSD	.3108938	.6386647	.4605689	.0595056	.2567764
#1	2222.036	70517.87	16221.53	1926.976	3421.803
#2	2232.671	70175.90	16092.60	1925.374	3439.360
#3	2219.692	69630.13	16093.03	1927.596	3431.874

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04A Acquired: 4/1/2025 16:34:59 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.7581935	1.732723	.8787684	1.919514	.7888321	11.68216
Stddev	.0009137	.004086	.0058826	.011051	.0020898	.02387
%RSD	.1205153	.2358185	.6694136	.5757146	.2649222	.2043090
#1	.7584045	1.730593	.8727970	1.918736	.7877049	11.69262
#2	.7571927	1.730141	.8789501	1.908873	.7875478	11.65485
#3	.7589833	1.737434	.8845580	1.930934	.7912434	11.69902

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3776960	.1635042	.1791466	918.8148	.3826422	.2877279
Stddev	.0012335	.0007216	.0008954	2.9628	.0008391	.0013501
%RSD	.3265725	.4413584	.4997924	.3224597	.2192975	.4692320
#1	.3785338	.1629210	.1782751	918.1952	.3822880	.2881951
#2	.3762796	.1632805	.1791006	922.0384	.3836003	.2862062
#3	.3782746	.1643112	.1800641	916.2108	.3820382	.2887823

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8862351	120.1876	14.03594	102.2356	.5857867	.0701800
Stddev	.0033530	.7065	.05647	.3199	.0017905	.0003569
%RSD	.3783457	.5878052	.4023309	.3129421	.3056512	.5085267
#1	.8834182	120.9639	14.10014	102.3472	.5848157	.0697882
#2	.8853433	120.0166	13.99397	102.4849	.5846916	.0702652
#3	.8899439	119.5823	14.01371	101.8749	.5878529	.0704865

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.74564	.3891399	1.119011	12.64375	F 18.42985	.3685953
Stddev	.24285	.0028378	.003821	.03214	.09276	.0016263
%RSD	.6793700	.7292384	.3414877	.2542145	.5033220	.4412192
#1	36.02407	.3881563	1.114792	12.67948	18.33613	.3678476
#2	35.57760	.3923386	1.120001	12.63457	18.43179	.3674773
#3	35.63524	.3869248	1.122240	12.61720	18.52162	.3704610

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-04A Acquired: 4/1/2025 16:34:59 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.6465577	.1422944	F 80.33851	7.335811	F 729.2809	.1167265
Stddev	.0030933	.0003031	.36850	.033472	2.4847	.0011100
%RSD	.4784175	.2129977	.4586832	.4562803	.3407106	.9509284
#1	.6436196	.1425607	80.73603	7.319088	727.4654	.1171980
#2	.6462678	.1423580	80.27118	7.313997	728.2645	.1154586
#3	.6497857	.1419646	80.00832	7.374349	732.1127	.1175229

Elem	Sr4077
Units	ppm
Avg	2.200103
Stddev	.022924
%RSD	1.041937
#1	2.224890
#2	2.195754
#3	2.179666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2209.834	69622.99	15970.83	1906.220	3453.133
Stddev	4.613	269.94	14.47	9.026	6.619
%RSD	.2087586	.3877170	.0906258	.4735085	.1916702
#1	2208.016	69327.32	15960.59	1897.033	3453.331
#2	2215.079	69685.37	15987.39	1906.551	3459.650
#3	2206.407	69856.28	15964.51	1915.076	3446.418

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-08 Acquired: 4/1/2025 16:39:16 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.002447	-.008218	-.000539	-.002217	.0000790	1.502887
Stddev	.003264	.001568	.000656	.001452	.0014252	.006464
%RSD	133.4254	19.08513	121.7261	65.49667	1803.982	.4301051
#1	-.005461	-.007921	-.000142	-.003891	-.001395	1.497392
#2	.001020	-.009913	-.001296	-.001464	.001450	1.510009
#3	-.002899	-.006819	-.000178	-.001296	.000182	1.501260

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2726500	-.000164	-.000150	236.1981	.0029486	.0022646
Stddev	.0014201	.000086	.000084	.4836	.0003238	.0002345
%RSD	.5208443	52.77684	56.20316	.2047310	10.98314	10.35435
#1	.2730259	-.000075	-.000111	235.7041	.0027355	.0020403
#2	.2710798	-.000248	-.000246	236.2196	.0033213	.0025081
#3	.2738444	-.000168	-.000092	236.6706	.0027890	.0022454

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074782	2.915000	1.974064	24.66876	.0054804	.0007972
Stddev	.0002495	.017991	.006534	.11622	.0004478	.0003140
%RSD	3.336795	.6171933	.3310003	.4711057	8.170506	39.38142
#1	.0077481	2.930522	1.973791	24.53984	.0058779	.0004475
#2	.0074304	2.895281	1.967670	24.76547	.0049953	.0008895
#3	.0072560	2.919196	1.980730	24.70097	.0055678	.0010547

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.15831	.0158041	.0851627	1.489390	.6926994	.0015001
Stddev	.10207	.0002439	.0006755	.008097	.0038724	.0002305
%RSD	.4606247	1.543180	.7932345	.5436609	.5590289	15.36858
#1	22.26025	.0160849	.0850253	1.480138	.6914353	.0016776
#2	22.05612	.0156822	.0845665	1.495185	.6896170	.0012395
#3	22.15855	.0156452	.0858964	1.492847	.6970459	.0015830

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-08 Acquired: 4/1/2025 16:39:16 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.009088	.0417017	F 17.30317	.0670039	F 102.8047	-.031166
Stddev	.000310	.0013199	.02334	.0031171	.5560	.000785
%RSD	3.410688	3.165072	.1348692	4.652092	.5408483	2.517729
#1	-.008815	.0416182	17.29295	.0698256	102.4316	-.032039
#2	-.009024	.0404255	17.32987	.0675282	102.5387	-.030936
#3	-.009425	.0430613	17.28668	.0636580	103.4438	-.030521

Elem	Sr4077
Units	ppm
Avg	1.079469
Stddev	.011291
%RSD	1.045980
#1	1.068285
#2	1.079258
#3	1.090864

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2193.291	68378.91	15482.39	1857.702	4032.962
Stddev	.893	100.56	36.49	5.508	8.754
%RSD	.0407153	.1470643	.2356658	.2964742	.2170626
#1	2194.321	68388.24	15523.78	1857.709	4041.696
#2	2192.725	68274.01	15468.53	1852.190	4033.003
#3	2192.827	68474.48	15454.87	1863.206	4024.188

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-10 Acquired: 4/1/2025 16:43:37 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.004458	-.007236	.0001737	.0002132	.0012224	-.055145
Stddev	.003080	.000668	.0010502	.0013815	.0010472	.009285
%RSD	69.08939	9.236296	604.6192	647.9115	85.67146	16.83644
#1	-.001561	-.006982	.0006781	-.001371	.0005563	-.045964
#2	-.007693	-.006731	-.001034	.000844	.0006814	-.054943
#3	-.004120	-.007994	.000877	.001167	.0024295	-.064529

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2680763	-.000217	.0000575	253.4189	-.000017	-.000285
Stddev	.0014993	.000048	.0000601	.3375	.000263	.000030
%RSD	.5592754	22.16421	104.4455	.1331768	1572.154	10.55584
#1	.2682218	-.000214	.0001245	253.4955	-.000273	-.000263
#2	.2694975	-.000171	.0000082	253.0498	.000253	-.000274
#3	.2665095	-.000267	.0000399	253.7116	-.000031	-.000319

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027277	.0199105	1.614799	9.833867	.0011669	.0005971
Stddev	.0002366	.0028317	.001534	.051411	.0002078	.0000522
%RSD	8.674553	14.22200	.0949837	.5227908	17.80385	8.747615
#1	.0025266	.0179334	1.615224	9.870132	.0012580	.0006421
#2	.0026681	.0231544	1.613098	9.775032	.0013136	.0006094
#3	.0029884	.0186437	1.616076	9.856438	.0009292	.0005398

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	48.04386	.0130043	.0738271	1.665940	.6253575	.0009444
Stddev	.28836	.0007007	.0010019	.036974	.0053558	.0001236
%RSD	.6002033	5.387853	1.357136	2.219428	.8564410	13.08901
#1	47.95838	.0122002	.0749812	1.660666	.6267116	.0010817
#2	48.36530	.0134839	.0733195	1.705268	.6194545	.0008420
#3	47.80791	.0133287	.0731805	1.631885	.6299062	.0009095

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-10 Acquired: 4/1/2025 16:43:37 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.008242	-.006043	F 10.30550	.0513664	F 103.3505	-.036039
Stddev	.000452	.000626	.03739	.0024044	.2914	.000596
%RSD	5.486601	10.36061	.3627893	4.680931	.2819685	1.653301
#1	-.008690	-.006071	10.29631	.0510496	103.3147	-.035698
#2	-.008249	-.005403	10.34663	.0539135	103.0786	-.036727
#3	-.007786	-.006654	10.27357	.0491361	103.6581	-.035693

Elem	Sr4077
Units	ppm
Avg	.7155000
Stddev	.0008488
%RSD	.1186258
#1	.7153573
#2	.7164111
#3	.7147316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2199.560	68153.19	15183.49	1871.779	4006.079
Stddev	5.721	43.35	66.53	13.170	14.484
%RSD	.2600965	.0636067	.4381488	.7036172	.3615512
#1	2201.135	68103.78	15142.70	1856.763	4020.105
#2	2204.329	68184.85	15260.26	1881.368	4006.956
#3	2193.217	68170.94	15147.51	1877.207	3991.176

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-12 Acquired: 4/1/2025 16:47:50 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.003386	-.007523	-.000610	-.001879	.0018548	-.035869
Stddev	.000736	.001154	.000410	.002915	.0008936	.003788
%RSD	21.72749	15.34504	67.14426	155.1294	48.17583	10.56106
#1	-.003882	-.006190	-.000239	-.003199	.0017972	-.032413
#2	-.003736	-.008174	-.001050	.001462	.0027758	-.039919
#3	-.002541	-.008204	-.000543	-.003901	.0009915	-.035275

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1761841	-.000173	-.000015	244.0279	-.000480	.0001511
Stddev	.0006725	.000077	.000058	.1746	.000049	.0001988
%RSD	.3816956	44.17242	398.6316	.0715640	10.25893	131.5900
#1	.1764298	-.000179	-.000027	243.9142	-.000430	.0003673
#2	.1754233	-.000094	-.000065	243.9406	-.000482	.0001100
#3	.1766991	-.000247	.000049	244.2290	-.000528	-.000024

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058848	.0234795	1.596185	9.061182	.0014387	.0006931
Stddev	.0006747	.0007133	.002618	.042142	.0002712	.0004464
%RSD	11.46515	3.037741	.1640462	.4650858	18.85187	64.41123
#1	.0066173	.0233209	1.596487	9.016416	.0012802	.0011695
#2	.0052887	.0242587	1.593428	9.067042	.0017519	.0002843
#3	.0057485	.0228589	1.598639	9.100087	.0012841	.0006256

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	44.83395	.0107443	.1135477	1.453470	.6822230	.0007426
Stddev	.74820	.0005272	.0006973	.036816	.0104999	.0001594
%RSD	1.668814	4.906984	.6141319	2.532945	1.539073	21.46613
#1	45.57327	.0113353	.1133376	1.495943	.6710831	.0008524
#2	44.07719	.0105751	.1129795	1.433779	.6919372	.0008158
#3	44.85139	.0103224	.1143259	1.430688	.6836487	.0005598

Sample Name: Q1664-12 Acquired: 4/1/2025 16:47:50 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.009813	-.005163	9.764422	.0535036	F 100.6467	-.035266
Stddev	.000914	.000568	.124645	.0027571	.3932	.000134
%RSD	9.315402	10.99559	1.276525	5.153077	.3906492	.3800911
#1	-.008984	-.004560	9.885887	.0566687	101.0763	-.035419
#2	-.009660	-.005241	9.636823	.0516240	100.5592	-.035173
#3	-.010793	-.005688	9.770556	.0522181	100.3047	-.035205

Elem	Sr4077
Units	ppm
Avg	.6300126
Stddev	.0030836
%RSD	.4894501
#1	.6335275
#2	.6277626
#3	.6287476

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2232.320	69533.24	15244.29	1939.233	4066.260
Stddev	13.426	656.20	79.33	32.839	24.971
%RSD	.6014283	.9437244	.5204007	1.693389	.6141122
#1	2217.963	69189.53	15332.49	1915.075	4041.128
#2	2234.430	70289.91	15221.63	1976.624	4066.585
#3	2244.565	69120.30	15178.76	1926.000	4091.068

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-14 Acquired: 4/1/2025 16:52:04 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.003716	-.007038	.0002516	-.000627	.0000696	.5430639
Stddev	.000631	.001252	.0003491	.001606	.0029916	.0030167
%RSD	16.97738	17.79563	138.7236	256.0278	4299.140	.5554944
#1	-.003083	-.006211	-.000119	.000985	-.001382	.5446567
#2	-.003720	-.008478	.000301	-.002226	.003510	.5395847
#3	-.004345	-.006423	.000574	-.000640	-.001919	.5449504

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2171309	-.000266	.0002707	240.3239	.0010694	.0020980
Stddev	.0005484	.000024	.0000444	.4952	.0004169	.0001600
%RSD	.2525794	9.060438	16.38213	.2060585	38.98927	7.627600
#1	.2165710	-.000259	.0002195	239.8578	.0011131	.0019146
#2	.2176671	-.000293	.0002975	240.2700	.0006323	.0021703
#3	.2171548	-.000247	.0002951	240.8438	.0014627	.0022092

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085653	.6924075	3.583097	12.99489	.0063317	.0005140
Stddev	.0004468	.0061213	.008335	.01859	.0004846	.0003264
%RSD	5.216292	.8840630	.2326201	.1430472	7.654159	63.49600
#1	.0089969	.6987563	3.579970	12.98628	.0063715	.0007447
#2	.0081048	.6919237	3.576778	12.98217	.0058284	.0006567
#3	.0085942	.6865424	3.592543	13.01623	.0067952	.0001406

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.34291	.0087499	.1416032	2.049232	.7294008	.0006238
Stddev	.15843	.0004712	.0007258	.026272	.0031350	.0002296
%RSD	.6251322	5.385466	.5125264	1.282035	.4298117	36.80085
#1	25.19605	.0086620	.1408367	2.043879	.7303476	.0003608
#2	25.51080	.0092588	.1416933	2.026049	.7259014	.0007836
#3	25.32186	.0083288	.1422798	2.077768	.7319533	.0007271

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-14 Acquired: 4/1/2025 16:52:04 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.009237	.0237010	F 12.53869	.0537355	F 103.9061	-.030655
Stddev	.000345	.0007156	.07368	.0028856	.3075	.000634
%RSD	3.732781	3.019244	.5876292	5.369978	.2959028	2.067780
#1	-.009342	.0239472	12.45361	.0536141	103.9924	-.030348
#2	-.008851	.0242610	12.58082	.0509125	103.5647	-.030233
#3	-.009516	.0228948	12.58164	.0566798	104.1611	-.031384

Elem	Sr4077
Units	ppm
Avg	.6571765
Stddev	.0009773
%RSD	.1487070
#1	.6560940
#2	.6574420
#3	.6579937

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2245.321	70307.01	15050.49	1965.088	4094.238
Stddev	3.794	99.28	44.64	6.304	3.734
%RSD	.1689593	.1412102	.2966062	.3207767	.0912096
#1	2246.886	70420.68	15032.77	1972.335	4097.514
#2	2240.995	70237.32	15101.27	1962.053	4095.027
#3	2248.082	70263.02	15017.43	1960.876	4090.172

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV07 Acquired: 4/1/2025 16:56:19 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	5.060541	5.013636	4.968264	5.161235	5.172315	9.820408	9.421431
Stddev	.007728	.026430	.012484	.005880	.011755	.014694	.029718
%RSD	.1527136	.5271581	.2512808	.1139220	.2272588	.1496316	.3154319
#1	5.066330	5.043677	4.965076	5.166636	5.172106	9.836378	9.442230
#2	5.051765	5.003272	4.957683	5.154972	5.160667	9.807458	9.387395
#3	5.063528	4.993958	4.982034	5.162098	5.184173	9.817388	9.434669

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2482790	2.422910	23.63993	1.010816	2.403173	1.247414	4.801903
Stddev	.0009704	.008796	.06490	.000499	.008268	.003055	.013146
%RSD	.3908608	.3630363	.2745185	.0493654	.3440284	.2449223	.2737575
#1	.2490942	2.422610	23.70608	1.010986	2.399740	1.247026	4.816539
#2	.2472056	2.414267	23.57636	1.011208	2.397175	1.244571	4.791099
#3	.2485372	2.431851	23.63736	1.010254	2.412604	1.250644	4.798072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.569662	22.89781	2.473336	1.247251	23.74976	2.411962	2.515080
Stddev	.009494	.03953	.009923	.002681	.16971	.003755	.010921
%RSD	.3694651	.1726243	.4012075	.2149536	.7145777	.1556857	.4342080
#1	2.579251	22.91234	2.470791	1.250210	23.90856	2.416208	2.522094
#2	2.560266	22.85307	2.464933	1.246561	23.76979	2.410599	2.520649
#3	2.569470	22.92801	2.484284	1.244982	23.57092	2.409079	2.502498

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.11643	4.859315	5.067959	4.904209	4.832474	5.026075	5.173657
Stddev	.06886	.027147	.013844	.015740	.019384	.008374	.015714
%RSD	.2855431	.5586655	.2731619	.3209389	.4011162	.1666155	.3037318
#1	24.14889	4.888377	5.065817	4.904096	4.854747	5.032308	5.165243
#2	24.16307	4.834609	5.055311	4.888527	4.823253	5.029361	5.163941
#3	24.03734	4.854959	5.082749	4.920005	4.819421	5.016557	5.191786

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV07 Acquired: 4/1/2025 16:56:19 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	4.820399	4.693687	4.772612
Stddev	.017674	.019997	.021291
%RSD	.3666446	.4260331	.4461119
#1	4.830184	4.716711	4.781528
#2	4.799997	4.683688	4.748312
#3	4.831017	4.680662	4.787996

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2337.228	70478.02	14590.83	2009.080	4155.049
Stddev	4.397	65.24	45.81	8.452	7.683
%RSD	.1881086	.0925617	.3139470	.4206689	.1849182
#1	2337.494	70405.71	14565.38	2012.090	4156.556
#2	2341.486	70532.45	14643.71	1999.535	4161.866
#3	2332.705	70495.89	14563.39	2015.614	4146.723

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB07 Acquired: 4/1/2025 17:00:31 Type: Unk
Method: NON EPA-6010-200.7(v2868) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000241	-.000393	.0005080	.0012998	-.000402	-.000910
Stddev	.001170	.001559	.0019217	.0010600	.001705	.003311
%RSD	485.5205	396.8910	378.2668	81.55608	424.0136	363.8658
#1	-.001585	.000301	-.000595	.0020991	.000335	.001449
#2	.000553	-.002178	.002727	.0000973	.000810	-.004694
#3	.000309	.000698	-.000608	.0017029	-.002352	.000516

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006006	.0000124	.0001687	.0114546	.0001283	.0001326
Stddev	.000441	.0000292	.0000714	.0015129	.0001109	.0002386
%RSD	7.336037	235.5058	42.29282	13.20776	86.44986	179.9254
#1	-.005980	-.000009	.0002509	.0108059	.0000811	-.000083
#2	-.005579	.000046	.0001224	.0131837	.0000488	.000091
#3	-.006459	.000000	.0001329	.0103742	.0002550	.000389

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001777	-.001297	.0036149	-.009211	.0003076	.0009153
Stddev	.0004047	.000315	.0001594	.019242	.0001397	.0004717
%RSD	227.6620	24.26127	4.408658	208.9042	45.42987	51.53800
#1	.0006440	-.001359	.0037563	.003759	.0004688	.0010927
#2	-.000082	-.001575	.0036463	-.000073	.0002325	.0012727
#3	-.000028	-.000956	.0034422	-.031320	.0002214	.0003806

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0844443	-.001252	-.000272	.0220222	.0159439	.0000457
Stddev	.0148036	.001231	.000273	.0128475	.0004836	.0001535
%RSD	17.53064	98.30602	100.2453	58.33888	3.032877	335.6661
#1	.0673541	-.002321	-.000578	.0134181	.0159344	.0000448
#2	.0926884	.000093	-.000053	.0158584	.0154653	.0001996
#3	.0932904	-.001528	-.000185	.0367901	.0164322	-.000107

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB07 Acquired: 4/1/2025 17:00:31 Type: Unk
Method: NON EPA-6010-200.7(v2868) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000309	.0004027	.0149708	-.006402	F .0369855	-.001555
Stddev	.001062	.0004314	.0032752	.000736	.0019163	.001406
%RSD	343.5303	107.1252	21.87702	11.49017	5.181070	90.45519
#1	-.000150	-.000057	.0143754	-.005885	.0391982	-.001172
#2	.000665	.000799	.0185029	-.006077	.0358769	-.003112
#3	-.001442	.000467	.0120343	-.007244	.0358815	-.000379

Elem	Sr4077
Units	ppm
Avg	.0000140
Stddev	.0000078
%RSD	55.28495
#1	.0000178
#2	.0000051
#3	.0000192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2425.243	73852.57	14997.40	2094.118	4644.045
Stddev	5.972	112.39	110.55	7.909	3.035
%RSD	.2462418	.1521769	.7371104	.3776743	.0653600
#1	2430.998	73974.48	15093.08	2090.500	4644.891
#2	2425.654	73830.16	14876.38	2103.189	4640.676
#3	2419.076	73753.09	15022.75	2088.665	4646.567

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-16 Acquired: 4/1/2025 17:04:51 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.001032	-.006654	.0001172	-.002382	.0008652	-.022073
Stddev	.002714	.001206	.0002324	.002295	.0005347	.011999
%RSD	262.8903	18.12902	198.2939	96.35244	61.80169	54.36015
#1	.000370	-.007405	-.000072	-.000465	.0011021	-.009587
#2	-.004161	-.005263	.000377	-.001756	.0002530	-.033518
#3	.000694	-.007295	.000047	-.004926	.0012405	-.023116

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2963510	-.000191	.0003125	243.7016	-.000004	.0001302
Stddev	.0018135	.000055	.0001045	.5670	.000290	.0002671
%RSD	.6119370	28.60543	33.46013	.2326508	6899.198	205.1624
#1	.2983390	-.000242	.0002098	244.3447	-.000237	.0002866
#2	.2959265	-.000134	.0004188	243.2737	.000320	.0002822
#3	.2947874	-.000195	.0003088	243.4864	-.000096	-.000178

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096170	.0383881	2.092395	12.94381	.0023034	.0009383
Stddev	.0005241	.0018584	.007941	.00945	.0002581	.0000728
%RSD	5.449736	4.841155	.3795324	.0729904	11.20686	7.760937
#1	.0090662	.0405201	2.101392	12.93791	.0025164	.0009338
#2	.0101095	.0371110	2.086361	12.93881	.0020163	.0008679
#3	.0096753	.0375332	2.089432	12.95471	.0023774	.0010133

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.24741	.0140874	.1259282	1.917598	.5196695	.0013792
Stddev	.44970	.0009827	.0009165	.017347	.0019998	.0000718
%RSD	.7720458	6.975838	.7277623	.9046105	.3848173	5.206884
#1	58.66681	.0132267	.1249522	1.913372	.5210538	.0013472
#2	58.30285	.0138773	.1260619	1.936667	.5173767	.0013291
#3	57.77256	.0151581	.1267704	1.902755	.5205779	.0014615

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-16 Acquired: 4/1/2025 17:04:51 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.009074	-.004140	F 11.66077	.0683016	F 107.9278	-.030514
Stddev	.001652	.000439	.03684	.0028213	.6295	.001183
%RSD	18.20425	10.59989	.3159632	4.130722	.5832714	3.878276
#1	-.010161	-.004162	11.65664	.0651635	107.6393	-.029880
#2	-.007173	-.003690	11.69951	.0691131	107.4942	-.029782
#3	-.009889	-.004567	11.62617	.0706284	108.6499	-.031879

Elem	Sr4077
Units	ppm
Avg	1.041541
Stddev	.006112
%RSD	.5868263
#1	1.043829
#2	1.034615
#3	1.046179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2177.523	68365.97	14998.33	1866.552	3958.696
Stddev	7.340	137.23	58.32	10.319	19.629
%RSD	.3370834	.2007262	.3888227	.5528116	.4958367
#1	2185.444	68518.21	15017.92	1878.215	3971.905
#2	2176.174	68251.79	15044.32	1862.830	3968.043
#3	2170.951	68327.90	14932.74	1858.610	3936.141

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-18 Acquired: 4/1/2025 17:09:08 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.006343	-.008013	-.000378	-.002506	.0029925	.0123179
Stddev	.002460	.000696	.001207	.001002	.0012976	.0024291
%RSD	38.78220	8.680705	319.2786	39.99282	43.36100	19.71984
#1	-.008915	-.007254	-.000801	-.002885	.0043531	.0138820
#2	-.006104	-.008620	.000984	-.003263	.0017689	.0135523
#3	-.004012	-.008165	-.001317	-.001369	.0028554	.0095196

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1840679	-.000203	.0001801	314.8326	.0002318	.0023928
Stddev	.0015057	.000049	.0000397	3.0283	.0001279	.0001552
%RSD	.8180078	23.96590	22.04105	.9618889	55.19796	6.484317
#1	.1824375	-.000185	.0001456	311.8510	.0003051	.0025701
#2	.1843602	-.000166	.0001712	314.7412	.0000840	.0023266
#3	.1854061	-.000258	.0002235	317.9056	.0003061	.0022817

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086392	.1575179	2.814956	12.30835	.0064483	.0006337
Stddev	.0002974	.0046888	.010586	.14483	.0004021	.0001366
%RSD	3.442761	2.976680	.3760682	1.176660	6.235822	21.55845
#1	.0083131	.1575307	2.805905	12.15957	.0069126	.0005592
#2	.0087089	.1528227	2.812366	12.31661	.0062154	.0005505
#3	.0088956	.1622003	2.826596	12.44888	.0062168	.0007914

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.26766	.0107461	.1419457	2.435752	1.292732	.0009811
Stddev	.25793	.0010321	.0008131	.016796	.014418	.0003173
%RSD	.4351930	9.604218	.5728333	.6895456	1.115295	32.33863
#1	59.55390	.0096994	.1428810	2.417664	1.276152	.0007849
#2	59.05329	.0117629	.1415488	2.450855	1.302325	.0008111
#3	59.19579	.0107760	.1414072	2.438737	1.299718	.0013471

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-18 Acquired: 4/1/2025 17:09:08 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.009609	-.000551	F 16.78699	.0548328	F 161.3245	-.043084
Stddev	.000619	.000194	.08013	.0014736	.2197	.000903
%RSD	6.441918	35.18754	.4773168	2.687462	.1361711	2.096080
#1	-.010034	-.000524	16.87694	.0535073	161.3244	-.042076
#2	-.009893	-.000372	16.72325	.0564195	161.1049	-.043353
#3	-.008899	-.000757	16.76077	.0545714	161.5443	-.043821

Elem	Sr4077
Units	ppm
Avg	.7022611
Stddev	.0014498
%RSD	.2064508
#1	.7006931
#2	.7025373
#3	.7035530

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2182.255	67280.85	14973.54	1850.240	3923.718
Stddev	4.061	215.32	102.74	15.779	6.744
%RSD	.1861042	.3200260	.6861552	.8528296	.1718804
#1	2180.829	67126.79	15076.56	1833.869	3924.440
#2	2186.837	67526.88	14972.97	1865.352	3930.073
#3	2179.099	67188.88	14871.08	1851.499	3916.642

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-20 Acquired: 4/1/2025 17:13:30 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.004703	-.006757	-.001114	-.001929	.0004182	.0004807
Stddev	.002090	.001811	.000488	.001170	.0009602	.0075630
%RSD	44.43235	26.79517	43.76947	60.65975	229.6388	1573.331
#1	-.006978	-.004692	-.000562	-.001853	.0009743	.0073272
#2	-.004261	-.007512	-.001296	-.003135	-.000691	-.007638
#3	-.002869	-.008069	-.001484	-.000799	.000971	.001752

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1518488	-.000226	.0003810	208.8548	.0002670	.0025856
Stddev	.0000827	.000103	.0000708	.3712	.0003472	.0002811
%RSD	.0544817	45.48991	18.57337	.1777275	130.0726	10.87310
#1	.1518765	-.000309	.0004502	209.1754	.0006679	.0024169
#2	.1517558	-.000111	.0003087	208.9408	.0000655	.0024297
#3	.1519142	-.000258	.0003842	208.4481	.0000675	.0029101

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054292	.0908945	2.140603	17.03695	.0073426	.0005731
Stddev	.0002282	.0034497	.004807	.03946	.0002301	.0003909
%RSD	4.202388	3.795231	.2245504	.2316295	3.133764	68.21043
#1	.0051979	.0894903	2.143897	17.05029	.0073771	.0005240
#2	.0054355	.0883684	2.142825	17.06801	.0070972	.0002091
#3	.0056541	.0948248	2.135087	16.99254	.0075536	.0009863

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.95939	.0128525	.0557362	2.050137	1.581514	.0011327
Stddev	.06299	.0007255	.0008157	.005433	.005652	.0002547
%RSD	.3005252	5.644635	1.463572	.2650189	.3573981	22.48774
#1	20.95341	.0127745	.0564022	2.049892	1.587768	.0012234
#2	21.02515	.0121692	.0559801	2.055689	1.580003	.0008450
#3	20.89960	.0136138	.0548264	2.044831	1.576770	.0013297

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-20 Acquired: 4/1/2025 17:13:30 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.008934	-.002073	F 17.46623	.0700868	F 107.3459	-.025665
Stddev	.000243	.000273	.01436	.0020076	.4553	.001047
%RSD	2.719651	13.17410	.0822068	2.864492	.4241623	4.079819
#1	-.009158	-.001808	17.45230	.0720328	107.0232	-.024500
#2	-.008969	-.002057	17.46542	.0680228	107.1477	-.026527
#3	-.008676	-.002354	17.48098	.0702048	107.8667	-.025968

Elem	Sr4077
Units	ppm
Avg	1.108442
Stddev	.007877
%RSD	.7106183
#1	1.117157
#2	1.101830
#3	1.106338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2242.268	68926.06	15089.82	1930.724	4092.747
Stddev	6.185	56.79	33.65	10.286	11.828
%RSD	.2758212	.0823906	.2230256	.5327325	.2890018
#1	2247.454	68880.19	15057.10	1929.562	4102.429
#2	2243.928	68908.40	15088.03	1921.068	4079.563
#3	2235.423	68989.58	15124.34	1941.541	4096.249

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-22 Acquired: 4/1/2025 17:17:51 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.005046	-.006297	-.000408	.0001852	.0012364	.0387146
Stddev	.002939	.002645	.001121	.0006652	.0026633	.0057312
%RSD	58.24680	42.00704	274.8349	359.1783	215.4172	14.80375
#1	-.002244	-.009071	-.000021	-.000582	.0022779	.0370224
#2	-.008105	-.003804	.000468	.000594	.0032216	.0340201
#3	-.004788	-.006015	-.001671	.000544	-.001790	.0451014

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1067799	-.000141	.0000079	222.6448	-.000134	-.000518
Stddev	.0011503	.000037	.0000157	.4531	.000084	.000164
%RSD	1.077255	26.41302	199.8640	.2034873	62.34147	31.69615
#1	.1066448	-.000099	.0000170	222.9185	-.000181	-.000330
#2	.1057031	-.000168	-.000010	222.1218	-.000038	-.000635
#3	.1079918	-.000157	.000017	222.8940	-.000183	-.000588

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051004	.0792648	.7761668	11.09181	.0013808	.0006364
Stddev	.0002160	.0030129	.0021724	.02736	.0004356	.0001093
%RSD	4.234443	3.801001	.2798826	.2466518	31.55165	17.17554
#1	.0053080	.0822154	.7752469	11.12121	.0011732	.0007274
#2	.0051163	.0793856	.7746057	11.06710	.0018814	.0005152
#3	.0048769	.0761934	.7786477	11.08711	.0010877	.0006666

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.72043	.0182363	.0326917	1.829392	.4992684	.0010122
Stddev	.34348	.0002926	.0004809	.033210	.0010910	.0002317
%RSD	.6276923	1.604785	1.471092	1.815337	.2185186	22.88866
#1	55.02726	.0185725	.0329161	1.816042	.4985585	.0007903
#2	54.34938	.0180384	.0330194	1.867199	.5005247	.0009936
#3	54.78466	.0180979	.0321396	1.804934	.4987221	.0012525

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1664-22 Acquired: 4/1/2025 17:17:51 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.008235	-.003153	F 11.58550	.0561403	F 93.93007	-.029469
Stddev	.000741	.000523	.05000	.0021144	.35460	.001732
%RSD	8.993702	16.59258	.4315540	3.766318	.3775191	5.876894
#1	-.009017	-.003648	11.64151	.0565206	93.90195	-.027703
#2	-.008145	-.002606	11.56960	.0538616	93.59036	-.031164
#3	-.007544	-.003205	11.54538	.0580388	94.29790	-.029541

Elem	Sr4077
Units	ppm
Avg	.7805862
Stddev	.0027270
%RSD	.3493529
#1	.7825923
#2	.7774812
#3	.7816851

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2223.209	67677.47	14745.78	1918.522	4009.532
Stddev	6.725	107.54	10.09	13.309	9.935
%RSD	.3025077	.1588952	.0684379	.6937203	.2477814
#1	2224.441	67584.20	14753.78	1914.312	4003.310
#2	2229.233	67653.11	14734.44	1907.827	4020.990
#3	2215.952	67795.10	14749.12	1933.427	4004.297

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392BL Acquired: 4/1/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.001153	-.000328	-.000483	.0018894	.0008505	.0106181
Stddev	.000840	.003191	.000738	.0050620	.0009787	.0037754
%RSD	72.86745	971.8550	152.8271	267.9106	115.0820	35.55609
#1	-.000930	.002477	-.001084	.0006096	.0019795	.0062688
#2	-.000447	.000339	.000341	.0074686	.0002429	.0125346
#3	-.002082	-.003801	-.000705	-.002410	.0003289	.0130508

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005396	.0000062	-.000133	.0343304	-.000023	-.000245
Stddev	.000545	.0000246	.000084	.0047046	.000292	.000149
%RSD	10.10384	396.0311	62.63377	13.70384	1294.507	61.02712
#1	-.005910	-.000020	-.000136	.0313795	-.000200	-.000119
#2	-.004825	.000029	-.000215	.0397559	.000315	-.000410
#3	-.005453	.000009	-.000049	.0318560	-.000182	-.000205

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001506	-.001147	.0033640	-.008597	-.000222	.0007793
Stddev	.0001614	.005705	.0001618	.009654	.000144	.0001975
%RSD	107.2033	497.2852	4.810881	112.2884	64.65721	25.34352
#1	.0000774	.005387	.0034284	-.012819	-.000129	.0005683
#2	.0000387	-.003690	.0031799	.002448	-.000388	.0008098
#3	.0003356	-.005139	.0034837	-.015421	-.000150	.0009597

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0507473	-.000179	-.000285	-.109220	.0037150	-.000428
Stddev	.0084198	.001201	.000065	.004829	.0009635	.000101
%RSD	16.59164	671.4254	22.93266	4.421529	25.93660	23.49439
#1	.0452938	.000634	-.000251	-.113693	.0030764	-.000544
#2	.0604445	.000388	-.000243	-.109867	.0032454	-.000362
#3	.0465035	-.001558	-.000360	-.104100	.0048234	-.000378

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392BL Acquired: 4/1/2025 17:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	-.000811	.0002620	.0147052	-.008330	F .0476484	-.001287
Stddev	.000351	.0009359	.0034935	.004683	.0021872	.000731
%RSD	43.31637	357.2135	23.75699	56.22097	4.590236	56.83011
#1	-.001055	-.000742	.0185142	-.008501	.0501622	-.001419
#2	-.000970	.001110	.0139511	-.003564	.0461812	-.001943
#3	-.000408	.000418	.0116504	-.012925	.0466017	-.000499

Elem	Sr4077
Units	ppm
Avg	-.000271
Stddev	.000018
%RSD	6.520989
#1	-.000288
#2	-.000272
#3	-.000253

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2432.910	72932.39	15025.67	2081.824	4647.686
Stddev	2.906	82.69	42.08	4.900	7.330
%RSD	.1194420	.1133801	.2800838	.2353755	.1577195
#1	2430.411	72999.51	15006.87	2078.369	4639.226
#2	2432.220	72840.01	14996.27	2087.432	4651.679
#3	2436.099	72957.64	15073.88	2079.670	4652.153

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392BS Acquired: 4/1/2025 17:26:25 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.7753227	1.973783	.9502065	1.998379	.8215671	1.896175
Stddev	.0050461	.006772	.0027718	.014330	.0014758	.002240
%RSD	.6508441	.3431071	.2917082	.7170788	.1796285	.1181543
#1	.7725408	1.970637	.9502407	1.985832	.8201873	1.895111
#2	.7722797	1.969156	.9474177	1.995311	.8213909	1.894665
#3	.7811475	1.981556	.9529610	2.013995	.8231230	1.898749

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1711267	.1936340	.1867114	.9738028	.4055974	.1879234
Stddev	.0007882	.0002959	.0007579	.0092778	.0006194	.0006354
%RSD	.4605877	.1528259	.4059379	.9527425	.1527101	.3380873
#1	.1717133	.1934285	.1866963	.9760227	.4062712	.1878325
#2	.1702308	.1935004	.1859610	.9817694	.4054685	.1873384
#3	.1714361	.1939732	.1874767	.9636164	.4050527	.1885993

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3050159	2.784949	.2039319	1.765970	.4843754	.0745486
Stddev	.0012263	.008640	.0011602	.008864	.0014867	.0005457
%RSD	.4020336	.3102507	.5689202	.5019169	.3069230	.7320452
#1	.3042649	2.775046	.2052037	1.755942	.4844494	.0751768
#2	.3043517	2.788853	.2036604	1.772760	.4828532	.0742780
#3	.3064310	2.790948	.2029314	1.769206	.4858238	.0741911

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.594021	.2802226	.2002645	9.030925	.2775188	.4038599
Stddev	.012745	.0032137	.0006442	.009185	.0003348	.0019950
%RSD	.4913214	1.146825	.3216920	.1017100	.1206526	.4939846
#1	2.591375	.2791222	.2009820	9.034409	.2775736	.4034198
#2	2.607880	.2777037	.2000758	9.020507	.2778229	.4021217
#3	2.582806	.2838419	.1997357	9.037858	.2771600	.4060382

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: PB167392BS Acquired: 4/1/2025 17:26:25 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.6665521	.1846287	.7640854	5.831437	F .0210649	.1807496
Stddev	.0020253	.0010971	.0036856	.016007	.0004512	.0016437
%RSD	.3038425	.5942113	.4823562	.2744962	2.142050	.9093716
#1	.6668894	.1846035	.7680552	5.837346	.0208425	.1822804
#2	.6643793	.1857382	.7634286	5.813315	.0207680	.1809559
#3	.6683875	.1835444	.7607723	5.843649	.0215842	.1790125

Elem	Sr4077
Units	ppm
Avg	.1818776
Stddev	.0000333
%RSD	.0183007
#1	.1818790
#2	.1819101
#3	.1818436

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2409.312	72619.24	14931.16	2072.026	4506.479
Stddev	7.951	76.92	20.59	3.013	11.220
%RSD	.3300145	.1059280	.1379205	.1454094	.2489687
#1	2411.662	72708.01	14954.89	2070.140	4503.294
#2	2415.824	72577.44	14920.64	2075.501	4518.946
#3	2400.451	72572.26	14917.96	2070.437	4497.195

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1687-01 Acquired: 4/1/2025 17:30:27 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	.0940922	.0010513	.4172342	-.051081	-.000227	98.86961	.3346629
Stddev	.0016597	.0017376	.0050720	.004649	.001717	.20900	.0014719
%RSD	1.763910	165.2885	1.215614	9.102014	756.6765	.2113860	.4398145
#1	.0930574	.0016744	.4113777	-.055710	.000062	98.87996	.3342683
#2	.0932126	-.000912	.4201339	-.051122	.001328	98.65563	.3334285
#3	.0960065	.002391	.4201910	-.046412	-.002070	99.07323	.3362919

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0086030	.0039205	695.5847	.2240414	.1168792	.4250052	257.8862
Stddev	.0000913	.0003720	3.6638	.0007790	.0000921	.0011385	.6472
%RSD	1.061792	9.489019	.5267166	.3476970	.0787770	.2678905	.2509709
#1	.0086379	.0036039	691.4041	.2249060	.1167894	.4259481	258.2508
#2	.0086718	.0043303	697.1131	.2233942	.1168748	.4237403	257.1389
#3	.0084994	.0038274	698.2367	.2238241	.1169733	.4253271	258.2688

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.701730	382.0306	.2449174	.0017464	4.269659	.3342719	3.347281
Stddev	.010604	1.0061	.0004435	.0000875	.013437	.0010806	.003911
%RSD	.2255357	.2633451	.1810730	5.010721	.3147096	.3232647	.1168412
#1	4.697618	382.0246	.2445990	.0018419	4.272538	.3354460	3.348241
#2	4.693798	381.0276	.2454239	.0017272	4.255015	.3340508	3.342980
#3	4.713774	383.0397	.2447292	.0016700	4.281423	.3333190	3.350623

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.65325	-.407222	.0036778	-.002837	3.293214	3.305658	9.142618
Stddev	.04850	.003800	.0002826	.000882	.006524	.039956	.025044
%RSD	.3832666	.9332215	7.682821	31.10366	.1981070	1.208713	.2739208
#1	12.69739	-.405625	.0034042	-.003472	3.296570	3.318159	9.142908
#2	12.60134	-.411561	.0039686	-.003209	3.285695	3.260946	9.167515
#3	12.66103	-.404481	.0036606	-.001829	3.297377	3.337868	9.117431

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: Q1687-01 Acquired: 4/1/2025 17:30:27 Type: Unk
Method: NON EPA-6010-200.7(v2868) 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	6.278336	.2755084	.6182789
Stddev	.012988	.0007772	.0014900
%RSD	.2068754	.2820997	.2409915
#1	6.269299	.2761130	.6179239
#2	6.272488	.2757804	.6169984
#3	6.293220	.2746318	.6199143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2344.792	71685.33	17059.67	1971.090	3323.735
Stddev	6.873	115.16	29.46	2.368	6.191
%RSD	.2931165	.1606469	.1726749	.1201275	.1862741
#1	2343.604	71603.57	17078.17	1968.471	3326.918
#2	2352.181	71817.03	17075.15	1971.718	3327.687
#3	2338.590	71635.39	17025.70	1973.080	3316.600

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: LR2 Acquired: 4/1/2025 17:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2869) 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	.0077389	-.012452	250.5630	.0058320	-.008098	.2091280	^F *****
Stddev	.0033565	.002056	.2951	.0030031	.003019	.0033696	-----
%RSD	43.37226	16.51133	.1177596	51.49231	37.28886	1.611264	-----
#1	.0110699	-.014037	250.4652	.0048761	-.008883	.2107343	^ -----
#2	.0077892	-.013189	250.3293	.0091967	-.010646	.2113938	^ -----
#3	.0043575	-.010129	250.8946	.0034233	-.004763	.2052558	^ -----

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000994	-.003186	.2680867	.0102253	.0018684	246.3990	.0641689
Stddev	.000051	.000107	.0092368	.0002999	.0001556	.4872	.0028910
%RSD	5.111816	3.347490	3.445469	2.932877	8.329760	.1977456	4.505225
#1	-.001040	-.003235	.2774131	.0098805	.0018101	246.0349	.0674656
#2	-.000939	-.003063	.2679050	.0104260	.0020447	246.2098	.0620658
#3	-.001004	-.003259	.2589421	.0103692	.0017503	246.9525	.0629754

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.22216	-.053568	49.00762	.0021503	.0149021	-.010486	33.68526
Stddev	.39067	.011390	.03966	.0004963	.0117275	.001725	.13681
%RSD	.9477285	21.26247	.0809323	23.07927	78.69705	16.45407	.4061506
#1	41.12940	-.059300	48.98260	.0025526	.0038095	-.012420	33.84300
#2	41.65086	-.060954	48.98692	.0015957	.0271753	-.009933	33.59897
#3	40.88621	-.040451	49.05335	.0023026	.0137216	-.009105	33.61380

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.092899	-.003011	-.005770	-.006891	-.036599	-.003089	.0568976
Stddev	.017165	.000374	.000358	.001334	.000673	.009407	.0012055
%RSD	18.47704	12.40617	6.196340	19.35711	1.838916	304.5740	2.118711
#1	-.112492	-.003205	-.006106	-.007833	-.036945	-.013387	.0555519
#2	-.085696	-.002581	-.005395	-.005365	-.037029	-.000931	.0572623
#3	-.080509	-.003248	-.005810	-.007476	-.035824	.005052	.0578787

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: LR2 Acquired: 4/1/2025 17:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2869) 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	.0092957	-.005023	.0010610
Stddev	.0055593	.001306	.0000359
%RSD	59.80521	26.00604	3.383517
#1	.0036976	-.004031	.0010339
#2	.0093742	-.006503	.0010473
#3	.0148154	-.004535	.0011017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2149.900	74609.23	15721.67	2014.450	4351.716
Stddev	2.628	249.66	84.68	17.862	5.567
%RSD	.1222246	.3346253	.5386138	.8866691	.1279365
#1	2151.679	74355.67	15807.40	1994.389	4349.569
#2	2151.140	74617.22	15638.09	2028.627	4358.037
#3	2146.882	74854.80	15719.50	2020.334	4347.541

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV08 Acquired: 4/1/2025 17:41:45 Type: Unk
Method: NON EPA-6010-200.7(v2870) 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	5.166221	5.106700	5.039946	5.280280	5.278508	9.899127	9.627749
Stddev	.013074	.037257	.012543	.015203	.018259	.011149	.065507
%RSD	.2530763	.7295768	.2488667	.2879213	.3459160	.1126246	.6803956
#1	5.177548	5.149698	5.027403	5.294184	5.286634	9.908765	9.695577
#2	5.151914	5.086421	5.039947	5.264046	5.257597	9.901697	9.622831
#3	5.169200	5.083981	5.052488	5.282609	5.291294	9.886917	9.564840

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2410244	2.455655	23.77861	1.016979	2.440968	1.288022	4.943267
Stddev	.0023246	.004978	.10607	.002544	.005352	.004677	.031990
%RSD	.9644713	.2027322	.4460840	.2501330	.2192521	.3630849	.6471418
#1	.2420348	2.454398	23.81579	1.014952	2.438228	1.292793	4.906695
#2	.2426728	2.451425	23.86108	1.019834	2.437541	1.283446	4.957054
#3	.2383656	2.461141	23.65895	1.016150	2.447135	1.287827	4.966052

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.258628	22.75612	2.500724	1.261670	24.99226	2.442539	2.527501
Stddev	.007895	.11048	.003207	.002714	.22534	.007601	.014319
%RSD	.3495359	.4854938	.1282532	.2150834	.9016251	.3111940	.5665282
#1	2.262155	22.85272	2.498336	1.258626	24.76095	2.445163	2.513849
#2	2.264144	22.78000	2.499466	1.263836	25.00472	2.448480	2.542405
#3	2.249584	22.63566	2.504369	1.262549	25.21111	2.433974	2.526248

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.44456	4.749703	5.150827	4.970160	4.888620	5.155220	5.203481
Stddev	.18643	.044478	.013115	.011050	.008636	.038800	.011377
%RSD	.7326989	.9364363	.2546185	.2223341	.1766505	.7526272	.2186397
#1	25.28705	4.773669	5.157069	4.963750	4.886907	5.122477	5.200900
#2	25.39622	4.777057	5.135758	4.963811	4.897984	5.145108	5.193616
#3	25.65040	4.698381	5.159656	4.982920	4.880969	5.198074	5.215927

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCV08 Acquired: 4/1/2025 17:41:45 Type: Unk
Method: NON EPA-6010-200.7(v2870) 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	4.876131	4.772676	4.931651
Stddev	.012515	.008013	.073354
%RSD	.2566660	.1678901	1.487414
#1	4.879231	4.763559	4.956323
#2	4.862356	4.778601	4.989488
#3	4.886804	4.775868	4.849141

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2355.753	71554.00	15346.53	2012.857	4192.072
Stddev	8.119	90.42	125.58	7.397	10.019
%RSD	.3446450	.1263652	.8183023	.3675023	.2390057
#1	2349.577	71656.46	15264.10	2021.243	4185.310
#2	2364.949	71485.37	15284.42	2010.068	4203.582
#3	2352.733	71520.18	15491.06	2007.258	4187.322

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB08 Acquired: 4/1/2025 17:50:56 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	-.000517	-.001115	.0050040	.0007163	.0000449	.0000638	-.002744
Stddev	.001506	.001481	.0015546	.0007502	.0004531	.0045709	.000245
%RSD	291.1484	132.8279	31.06810	104.7345	1009.963	7165.177	8.928217
#1	-.000652	-.000661	.0062257	.0015658	-.000288	.0050874	-.002991
#2	-.001952	.000085	.0055321	.0004389	-.000138	-.001046	-.002741
#3	.001052	-.002771	.0032541	.0001443	.000561	-.003850	-.002501

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000016	-.000048	-.007548	.0000750	-.000094	.0044963	-.001650
Stddev	.000039	.000069	.005511	.0002035	.000142	.0008844	.002583
%RSD	248.2483	144.4950	73.00636	271.5338	150.9571	19.67010	156.5844
#1	-.000019	-.000122	-.013854	.0002313	.000068	.0050735	-.004310
#2	-.000053	-.000036	-.003654	-.000155	-.000198	.0049372	-.001487
#3	.000025	.000015	-.005138	.000149	-.000152	.0034780	.000848

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007534	-.012746	.0004837	.0009993	-.006405	-.001204	.0007412
Stddev	.000405	.007214	.0002714	.0004403	.004149	.000468	.0001698
%RSD	5.379904	56.59741	56.10873	44.06133	64.77851	38.87337	22.90134
#1	-.008001	-.017508	.0006374	.0013782	-.009148	-.000664	.0007544
#2	-.007269	-.004446	.0006433	.0005163	-.008435	-.001497	.0005653
#3	-.007333	-.016283	.0001703	.0011036	-.001632	-.001451	.0009040

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.069413	-.001434	-.000117	-.003115	.0006166	.0027222	-.008281
Stddev	.029571	.000678	.000075	.000672	.0001306	.0022373	.000782
%RSD	42.60111	47.29311	63.90035	21.56943	21.18507	82.18528	9.447672
#1	-.100209	-.000763	-.000198	-.003671	.0007617	.0035988	-.007381
#2	-.066787	-.002119	-.000051	-.003305	.0005084	.0001794	-.008659
#3	-.041243	-.001420	-.000101	-.002368	.0005796	.0043885	-.008803

Reviewed By:sohil
On:4/8/2025 9:37:56 AM
Inst Id :P4
LB :LB135255

Sample Name: CCB08 Acquired: 4/1/2025 17:50:56 Type: Unk
Method: NON EPA-6010-200.7(v2863) 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	.0071100	-.003484	-.000314
Stddev	.0012444	.000141	.000077
%RSD	17.50259	4.054999	24.60437
#1	.0080219	-.003574	-.000395
#2	.0076157	-.003321	-.000241
#3	.0056923	-.003557	-.000308

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2425.476	71888.31	14807.66	2054.534	4643.329
Stddev	4.076	109.74	75.40	3.458	7.231
%RSD	.1680621	.1526502	.5092139	.1682899	.1557231
#1	2429.366	71991.43	14824.86	2057.272	4651.536
#2	2421.236	71772.98	14725.14	2050.648	4637.896
#3	2425.826	71900.53	14872.97	2055.682	4640.555

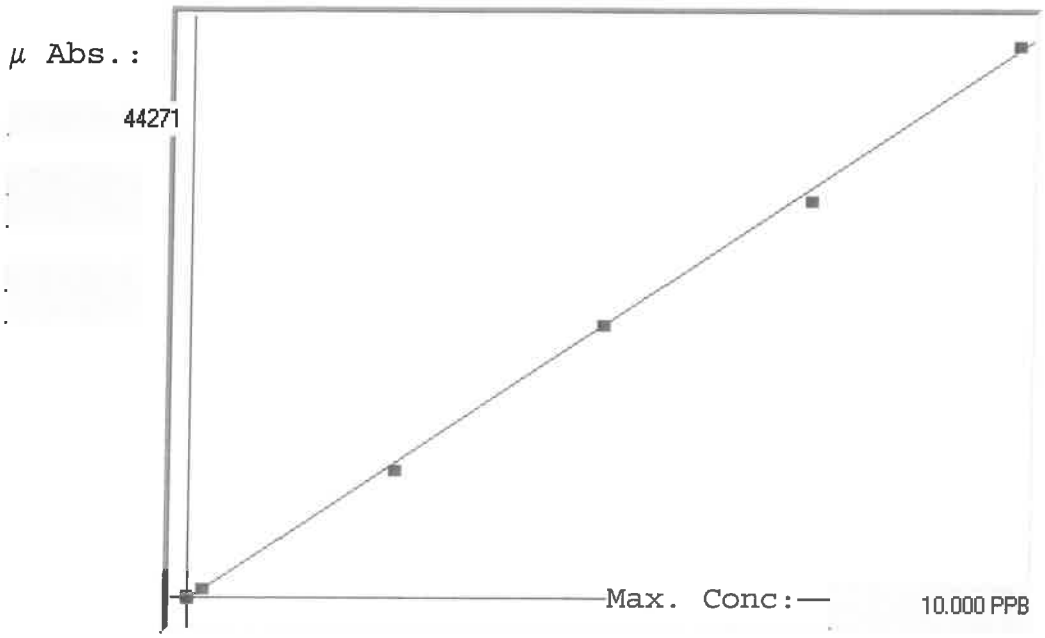
Reviewed By:jaswal
On:4/2/2025 11:36:30 PM
Inst Id :CV1
LB :LB135246

LB135246

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.2723e-004

C= 5.5230e-002

Rho= 0.9996299

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	0.058	0.058	10	0.000	10	0				
0.2	0.200	0.230	0.030	769	0.0 %	769					-15
2.5	2.500	2.408	-0.092	10352	0.0 %	10352					-4
5.0	5.000	5.064	0.064	22043	0.0 %	22043					1
7.5	7.500	7.326	-0.174	31996	0.0 %	31996					-2
10.0	10.000	10.115	0.115	44271	0.0 %	44271					1

Reviewed By:jaswal
On:4/2/2025 11:36:30 PM
Inst Id :CV1
LB :LB135246

LB135246 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 01 Apr 2025 10:18:51

Sample ID	Extended ID	µ Abs	Conc	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	50	10	-	0.00000	7470A	PPB	01 Apr 2025 10:24:38	S	Std
0.2 - 1	50.2	769	-	0.20000	7470A	PPB	01 Apr 2025 10:31:18	S	Std
2.5 - 1	52.5	10352	-	2.50000	7470A	PPB	01 Apr 2025 10:33:35	S	Std
5.0 - 1	55	22043	-	5.00000	7470A	PPB	01 Apr 2025 10:35:52	S	Std
7.5 - 1	57.5	31996	-	7.50000	7470A	PPB	01 Apr 2025 10:41:38	S	Std
10.0 - 1	510	44271	-	10.00000	7470A	PPB	01 Apr 2025 10:43:54	S	Std
ICV68 - 1	ICV68	17004	3.9191		-7470A	PPB	01 Apr 2025 10:51:56	U	SMPL
ICB68 - 1	ICB68	133	0.0855		-7470A	PPB	01 Apr 2025 10:56:51	U	SMPL
CCV07 - 1	CCV07	21714	4.9894		-7470A	PPB	01 Apr 2025 10:59:05	U	SMPL
CCB07 - 1	CCB07	-85	0.0359		-7470A	PPB	01 Apr 2025 11:01:20	U	SMPL
CRA - 1	CRA	799	0.2368		-7470A	PPB	01 Apr 2025 11:03:37	U	SMPL
HighStd - 1	HighStd	43266	9.8867		-7470A	PPB	01 Apr 2025 11:05:52	U	SMPL
ChkStd - 1	ChkStd	30334	6.9481		-7470A	PPB	01 Apr 2025 11:11:06	U	SMPL
PB167414BL - 1	PBW	-487	-0.0554		-7470A	PPB	01 Apr 2025 11:13:22	U	SMPL
PB167414BS - 1	LCSW	17855	4.1125		-7470A	PPB	01 Apr 2025 11:15:45	U	SMPL
Q1671-04 - 1	WC-1	-250	-0.0016		-7470A	PPB	01 Apr 2025 11:18:01	U	SMPL
Q1672-04 - 1	TP-8	-36	0.0470		-7470A	PPB	01 Apr 2025 11:20:19	U	SMPL
Q1674-02 - 1	RT5358	-13	0.0523		-7470A	PPB	01 Apr 2025 11:22:36	U	SMPL
Q1674-04 - 1	72-11991	36	0.0634		-7470A	PPB	01 Apr 2025 11:24:53	U	SMPL
Q1679-04 - 1	TP-10	27	0.0614		-7470A	PPB	01 Apr 2025 11:27:08	U	SMPL
CCV08 - 1	CCV08	22079	5.0723		-7470A	PPB	01 Apr 2025 11:29:24	U	SMPL
CCB08 - 1	CCB08	-39	0.0464		-7470A	PPB	01 Apr 2025 11:31:39	U	SMPL
Q1679-08 - 1	TP-9	-112	0.0298		-7470A	PPB	01 Apr 2025 11:33:56	U	SMPL
Q1679-08DUP - 1	TP-9DUP	-59	0.0418		-7470A	PPB	01 Apr 2025 11:36:11	U	SMPL
Q1679-08MS - 1	TP-9MS	15831	3.6526		-7470A	PPB	01 Apr 2025 11:38:27	U	SMPL
Q1679-08MSD - 1	TP-9MSD	15374	3.5487		-7470A	PPB	01 Apr 2025 11:40:42	U	SMPL
PB167415BL - 1	PBW	-232	0.0025		-7470A	PPB	01 Apr 2025 11:43:00	U	SMPL
PB167415BS - 1	LCSW	16256	3.7491		-7470A	PPB	01 Apr 2025 11:45:17	U	SMPL
Q1664-04 - 1	P001-BBDGA-001-01	87	0.0750		-7470A	PPB	01 Apr 2025 11:52:28	U	SMPL
Q1664-04DUP - 1	P001-BBDGA-001-01DUP	90	0.0757		-7470A	PPB	01 Apr 2025 11:54:46	U	SMPL
Q1664-05 - 1	Q1664-04MS	15637	3.6085		-7470A	PPB	01 Apr 2025 11:57:03	U	SMPL
Q1664-06 - 1	Q1664-04MSD	15060	3.4774		-7470A	PPB	01 Apr 2025 11:59:19	U	SMPL
CCV09 - 1	CCV09	20921	4.8092		-7470A	PPB	01 Apr 2025 12:01:36	U	SMPL
CCB09 - 1	CCB09	46	0.0657		-7470A	PPB	01 Apr 2025 12:03:54	U	SMPL
Q1664-08 - 1	P001-BBDGA-001-02	-57	0.0423		-7470A	PPB	01 Apr 2025 12:06:12	U	SMPL
Q1664-10 - 1	P001-BBDGA-002-01	3	0.0559		-7470A	PPB	01 Apr 2025 12:08:28	U	SMPL
Q1664-12 - 1	P001-BBDGA-003-01	49	0.0664		-7470A	PPB	01 Apr 2025 12:10:43	U	SMPL
Q1664-14 - 1	P001-BBDGA-004-01	41	0.0645		-7470A	PPB	01 Apr 2025 12:12:59	U	SMPL
Q1664-16 - 1	P001-BBDGA-005-01	6	0.0566		-7470A	PPB	01 Apr 2025 12:15:15	U	SMPL
Q1664-18 - 1	P001-BBDGA-006-01	5	0.0564		-7470A	PPB	01 Apr 2025 12:17:32	U	SMPL
Q1664-20 - 1	P001-BBDGA-007-01	-69	0.0396		-7470A	PPB	01 Apr 2025 12:19:48	U	SMPL
Q1664-22 - 1	P001-BBDGA-008-01	29	0.0618		-7470A	PPB	01 Apr 2025 12:22:05	U	SMPL
CCV10 - 1	CCV10	20186	4.6422		-7470A	PPB	01 Apr 2025 12:24:22	U	SMPL
CCB10 - 1	CCB10	-29	0.0486		-7470A	PPB	01 Apr 2025 12:26:38	U	SMPL
PB167372TB - 1	PB167372TB	-30	0.0484		-7470A	PPB	01 Apr 2025 12:28:55	U	SMPL
PB167373TB - 1	PB167373TB	13	0.0582		-7470A	PPB	01 Apr 2025 12:31:11	U	SMPL
Q1679-08LX5 - 1		27	0.0614		-7470A	PPB	01 Apr 2025 12:33:26	U	SMPL
Q1679-08A - 1		15134	3.4942		-7470A	PPB	01 Apr 2025 12:35:41	U	SMPL
Q1664-04LX5 - 1		-72	0.0389		-7470A	PPB	01 Apr 2025 12:37:57	U	SMPL
Q1664-04A - 1		14862	3.4324		-7470A	PPB	01 Apr 2025 13:00:35	U	SMPL
CCV11 - 1	CCV11	21170	4.8658		-7470A	PPB	01 Apr 2025 13:02:50	U	SMPL
CCB11 - 1	CCB11	-35	0.0473		-7470A	PPB	01 Apr 2025 13:05:07	U	SMPL

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167392

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 03/31/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 03/31/2025 **Time :** 15:35 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SJB

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6003
LFS-2	0.25	M6012
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	3.00	M6158
1:1 HCL	5.00	MP84720
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
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 # 1 CELL 50 Temp :96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03131125 16:35	SJB.met.dig	[signature]
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167392BL	PBW392	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	9
PB167392BS	LCS392	<2	50	25	Colorless	Colorless	Clear	Clear	M6003,M6012	10
PB167392TB	LEB392	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	23
Q1664-04DUP	P001-BBDGA-001-01DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	12
Q1664-04	P001-BBDGA-001-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	11
Q1664-05	Q1664-04MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6003,M6012	13
Q1664-06	Q1664-04MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6003,M6012	14
Q1664-08	P001-BBDGA-001-02	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	15
Q1664-10	P001-BBDGA-002-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	16
Q1664-12	P001-BBDGA-003-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	17
Q1664-14	P001-BBDGA-004-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	18
Q1664-16	P001-BBDGA-005-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	19
Q1664-18	P001-BBDGA-006-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	20
Q1664-20	P001-BBDGA-007-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	21
Q1664-22	P001-BBDGA-008-01	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	22

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB167372

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Pre Pos
PB167372TB	LEB372	20	N/A	2000	N/A	N/A	N/A	4.24	1.5	T-2
Q1664-04	P001-BBDGA-001-01	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-05	Q1664-04MS	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-06	Q1664-04MSD	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-08	P001-BBDGA-001-02	12	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-10	P001-BBDGA-002-01	13	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1664-12	P001-BBDGA-003-01	14	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1664-14	P001-BBDGA-004-01	15	100.02	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1664-16	P001-BBDGA-005-01	16	100.01	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-18	P001-BBDGA-006-01	17	100.02	2000	N/A	N/A	N/A	7.6	1.0	T-2
Q1664-20	P001-BBDGA-007-01	18	100.03	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-22	P001-BBDGA-008-01	19	100.04	2000	N/A	N/A	N/A	7.6	1.0	T-2

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167415

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 04/01/2025 **Time :** 07:30 **Temp :** 93 °C

End Digest Date: 04/01/2025 **Time :** 09:30 **Temp :** 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: [signature]

Temp : 1. 93°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85096
CCV	30mL	MP85098
CRA	30mL	MP85100
Blank Spike	0.48mL	MP85089
Matrix Spike	0.48mL	MP85089

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP84563
KMnO4 (5%)	4.5mL	MP84564
K2S2O8 (5%)	2.5mL	MP84565
Hydroxylamine HCL (12%)	2.0mL	MP84566
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
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP85090
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85091
2.5 ppb	S2.5	30mL	MP85092
5.0 ppb	S5.0	30mL	MP85093
7.5 ppb	S7.5	30mL	MP85094
10.0 ppb	S10.0	30mL	MP85095
ICV	ICV	30mL	MP85096
ICB	ICB	30mL	MP85097
CCV	CCV	30mL	MP85098
CCB	CCB	30mL	MP85099
CRI	CRI	30mL	MP85100
CHK STD	CHK STD	30mL	MP85101

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
4/1/25 @ ~~8:55~~ 9:30	MB - HG · CRL	MB - Metal Lab
	Preparation Group	**Analysis Group**

MB 4/1/25

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167415

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB167415BL	PBW415	30	30	<2	N/A	3-13
PB167415BS	LCS415	30	30	<2	MP85089	14
PB167415TB	LEB415	30	30	<2	N/A	15
Q1664-04DUP	P001-BBDGA-001-01DUP	30	30	<2	N/A	17
Q1664-04	P001-BBDGA-001-01	30	30	<2	N/A	16
Q1664-05	Q1664-04MS	30	30	<2	MP85089	18
Q1664-06	Q1664-04MSD	30	30	<2	MP85089	19
Q1664-08	P001-BBDGA-001-02	30	30	<2	N/A	20
Q1664-10	P001-BBDGA-002-01	30	30	<2	N/A	21
Q1664-12	P001-BBDGA-003-01	30	30	<2	N/A	22
Q1664-14	P001-BBDGA-004-01	30	30	<2	N/A	23
Q1664-16	P001-BBDGA-005-01	30	30	<2	N/A	24
Q1664-18	P001-BBDGA-006-01	30	30	<2	N/A	25
Q1664-20	P001-BBDGA-007-01	30	30	<2	N/A	26
Q1664-22	P001-BBDGA-008-01	30	30	<2	N/A	27

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB167372

SOP ID : M1312-SPLP-10

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2

TCLP Filter ID : 115525

Start Prep Date : 03/28/2025 Time : 15:20

End Prep Date : 03/29/2025 Time : 09:50

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ TB

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : TB

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
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

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP110804
pH Strips	W3172.	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

TUMBLER T-2 checked,30 rpm. Particle size reduction is not required. Matrix spikes are added after fiftration and before preservation.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/31/25 10:30	TB ICP Room	Gladys.
	Preparation Group	Analysis Group Inst. D.I.

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 # LB135246

Review By	mohan	Review On	4/2/2025 10:33:23 AM
Supervise By	jaswal	Supervise On	4/2/2025 11:36:30 PM

STD. NAME	STD REF.#
ICAL Standard	MP85090,MP85091,MP85092,MP85093,MP85094,MP85095
ICV Standard	MP85096
CCV Standard	MP85098
ICSA Standard	
CRI Standard	MP85100
LCS Standard	
Chk Standard	MP85097,MP85199,MP85101,MP85103

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	04/01/25 10:24		mohan	OK
2	S0.2	S0.2	CAL2	04/01/25 10:31		mohan	OK
3	S2.5	S2.5	CAL3	04/01/25 10:33		mohan	OK
4	S5	S5	CAL4	04/01/25 10:35		mohan	OK
5	S7.5	S7.5	CAL5	04/01/25 10:41		mohan	OK
6	S10	S10	CAL6	04/01/25 10:43		mohan	OK
7	ICV68	ICV68	ICV	04/01/25 10:51		mohan	OK
8	ICB68	ICB68	ICB	04/01/25 10:56		mohan	OK
9	CCV07	CCV07	CCV	04/01/25 10:59		mohan	OK
10	CCB07	CCB07	CCB	04/01/25 11:01		mohan	OK
11	CRA	CRA	CRDL	04/01/25 11:03		mohan	OK
12	HighStd	HighStd	HIGH STD	04/01/25 11:05		mohan	OK
13	ChkStd	ChkStd	SAM	04/01/25 11:11		mohan	OK
14	PB167414BL	PB167414BL	MB	04/01/25 11:13		mohan	OK
15	PB167414BS	PB167414BS	LCS	04/01/25 11:15		mohan	OK
16	Q1671-04	WC-1	SAM	04/01/25 11:18		mohan	OK
17	Q1672-04	TP-8	SAM	04/01/25 11:20		mohan	OK
18	Q1674-02	RT5358	SAM	04/01/25 11:22		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 # LB135246

Review By	mohan	Review On	4/2/2025 10:33:23 AM
Supervise By	jaswal	Supervise On	4/2/2025 11:36:30 PM

STD. NAME	STD REF.#
ICAL Standard	MP85090,MP85091,MP85092,MP85093,MP85094,MP85095
ICV Standard	MP85096
CCV Standard	MP85098
ICSA Standard	
CRI Standard	MP85100
LCS Standard	
Chk Standard	MP85097,MP85199,MP85101,MP85103

19	Q1674-04	72-11991	SAM	04/01/25 11:24		mohan	OK
20	Q1679-04	TP-10	SAM	04/01/25 11:27		mohan	OK
21	CCV08	CCV08	CCV	04/01/25 11:29		mohan	OK
22	CCB08	CCB08	CCB	04/01/25 11:31		mohan	OK
23	Q1679-08	TP-9	SAM	04/01/25 11:33		mohan	OK
24	Q1679-08DUP	TP-9DUP	DUP	04/01/25 11:36		mohan	OK
25	Q1679-08MS	TP-9MS	MS	04/01/25 11:38		mohan	OK
26	Q1679-08MSD	TP-9MSD	MSD	04/01/25 11:40		mohan	OK
27	PB167415BL	PB167415BL	MB	04/01/25 11:43		mohan	OK
28	PB167415BS	PB167415BS	LCS	04/01/25 11:45		mohan	OK
29	Q1664-04	P001-BBDGA-001-01	SAM	04/01/25 11:52		mohan	OK
30	Q1664-04DUP	P001-BBDGA-001-01	DUP	04/01/25 11:54		mohan	OK
31	Q1664-05	P001-BBDGA-001-01	MS	04/01/25 11:57		mohan	OK
32	Q1664-06	P001-BBDGA-001-01	MSD	04/01/25 11:59		mohan	OK
33	CCV09	CCV09	CCV	04/01/25 12:01		mohan	OK
34	CCB09	CCB09	CCB	04/01/25 12:03		mohan	OK
35	Q1664-08	P001-BBDGA-001-02	SAM	04/01/25 12:06		mohan	OK
36	Q1664-10	P001-BBDGA-002-01	SAM	04/01/25 12:08		mohan	OK
37	Q1664-12	P001-BBDGA-003-01	SAM	04/01/25 12:10		mohan	OK
38	Q1664-14	P001-BBDGA-004-01	SAM	04/01/25 12:12		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 # LB135246

Review By	mohan	Review On	4/2/2025 10:33:23 AM
Supervise By	jaswal	Supervise On	4/2/2025 11:36:30 PM

STD. NAME	STD REF.#
ICAL Standard	MP85090,MP85091,MP85092,MP85093,MP85094,MP85095
ICV Standard	MP85096
CCV Standard	MP85098
ICSA Standard	
CRI Standard	MP85100
LCS Standard	
Chk Standard	MP85097,MP85199,MP85101,MP85103

39	Q1664-16	P001-BBDGA-005-01	SAM	04/01/25 12:15		mohan	OK
40	Q1664-18	P001-BBDGA-006-01	SAM	04/01/25 12:17		mohan	OK
41	Q1664-20	P001-BBDGA-007-01	SAM	04/01/25 12:19		mohan	OK
42	Q1664-22	P001-BBDGA-008-01	SAM	04/01/25 12:22		mohan	OK
43	CCV10	CCV10	CCV	04/01/25 12:24		mohan	OK
44	CCB10	CCB10	CCB	04/01/25 12:26		mohan	OK
45	PB167415TB	PB167415TB	MB	04/01/25 12:28		mohan	OK
46	PB167373TB	PB167373TB	MB	04/01/25 12:31		mohan	OK
47	Q1679-08L	TP-9L	SD	04/01/25 12:33		mohan	OK
48	Q1679-08A	TP-9A	PS	04/01/25 12:35		mohan	OK
49	Q1664-04L	P001-BBDGA-001-01	SD	04/01/25 12:37		mohan	OK
50	Q1664-04A	P001-BBDGA-001-01	PS	04/01/25 13:00		mohan	OK
51	CCV11	CCV11	CCV	04/01/25 13:02		mohan	OK
52	CCB11	CCB11	CCB	04/01/25 13:05		mohan	OK

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Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135255

Review By	kareem	Review On	4/2/2025 5:17:16 PM
Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	04/01/25 10:31		Kareem	OK
2	S1	S1	CAL2	04/01/25 10:35		Kareem	OK
3	S2	S2	CAL3	04/01/25 10:40		Kareem	OK
4	S3	S3	CAL4	04/01/25 10:44		Kareem	OK
5	S4	S4	CAL5	04/01/25 10:48		Kareem	OK
6	S5	S5	CAL6	04/01/25 10:52		Kareem	OK
7	ICV01	ICV01	ICV	04/01/25 10:57	ICV fail for Ba,Mg,Mn,Na(95-105%)	Kareem	OK
8	LLICV01	LLICV01	LLICV	04/01/25 11:15		Kareem	OK
9	ICB01	ICB01	ICB	04/01/25 11:19		Kareem	OK
10	CRI01	CRI01	CRDL	04/01/25 11:28		Kareem	OK
11	ICSA01	ICSA01	ICSA	04/01/25 11:33		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	04/01/25 11:37		Kareem	OK
13	ICSADL	ICSADL	ICSA	04/01/25 11:41		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	04/01/25 11:46		Kareem	OK
15	CCV01	CCV01	CCV	04/01/25 11:50		Kareem	OK
16	CCB01	CCB01	CCB	04/01/25 11:54		Kareem	OK
17	Q1597-08	1-CONCRETE-SLAB	SAM	04/01/25 11:58		Kareem	OK
18	Q1597-09	2-CONCRETE-SLAB	SAM	04/01/25 12:03		Kareem	OK

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Instrument ID: P4

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Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

19	Q1597-10	3-CONCRETE-SLAB	SAM	04/01/25 12:07		Kareem	OK
20	Q1671-04	WC-1	SAM	04/01/25 12:11		Kareem	OK
21	Q1673-01	GW-CONTROL	SAM	04/01/25 12:16		Kareem	OK
22	Q1673-01DUP	GW-CONTROLDUP	DUP	04/01/25 12:21		Kareem	OK
23	Q1673-01L	GW-CONTROLL	SD	04/01/25 12:25		Kareem	OK
24	Q1673-01MS	GW-CONTROLMS	MS	04/01/25 12:30	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
25	Q1673-01MSD	GW-CONTROLMSD	MSD	04/01/25 12:34	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
26	Q1673-01A	GW-CONTROLA	PS	04/01/25 12:39	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
27	CCV02	CCV02	CCV	04/01/25 12:43		Kareem	OK
28	CCB02	CCB02	CCB	04/01/25 12:48		Kareem	OK
29	Q1673-02	SDC9	SAM	04/01/25 12:53		Kareem	OK
30	Q1673-03	FBR4	SAM	04/01/25 12:57		Kareem	OK
31	PB167385BL	PB167385BL	MB	04/01/25 13:02		Kareem	OK
32	PB167385BS	PB167385BS	LCS	04/01/25 13:07	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
33	Q1672-01	TP-8	SAM	04/01/25 13:11		Kareem	OK
34	Q1672-01DUP	TP-8DUP	DUP	04/01/25 13:15		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135255

Review By	kareem	Review On	4/2/2025 5:17:16 PM
Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

35	Q1672-01L	TP-8L	SD	04/01/25 13:19		Kareem	OK
36	Q1672-01MS	TP-8MS	MS	04/01/25 13:23	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
37	Q1672-01MSD	TP-8MSD	MSD	04/01/25 13:27	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
38	Q1672-01A	TP-8A	PS	04/01/25 13:31	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
39	CCV03	CCV03	CCV	04/01/25 13:35		Kareem	OK
40	CCB03	CCB03	CCB	04/01/25 13:39		Kareem	OK
41	Q1674-01	RT5358	SAM	04/01/25 13:44		Kareem	OK
42	Q1674-03	72-11991	SAM	04/01/25 13:48		Kareem	OK
43	Q1678-01	MOO-25-0082	SAM	04/01/25 13:52		Kareem	OK
44	Q1678-02	MOO-25-0086-87-88	SAM	04/01/25 13:56		Kareem	OK
45	Q1679-01	TP-10	SAM	04/01/25 14:01		Kareem	OK
46	Q1679-05	TP-9	SAM	04/01/25 14:05		Kareem	OK
47	PB167384BS	PB167384BS	LCS	04/01/25 14:13	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
48	PB167384BL	PB167384BL	MB	04/01/25 14:18		Kareem	OK
49	PB167373TB	PB167373TB	MB	04/01/25 14:22		Kareem	OK
50	Q1672-04	TP-8	SAM	04/01/25 14:27		Kareem	OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB135255

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Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

51	CCV04	CCV04	CCV	04/01/25 14:31		Kareem	OK
52	CCB04	CCB04	CCB	04/01/25 14:36		Kareem	OK
53	Q1674-02	RT5358	SAM	04/01/25 14:40		Kareem	OK
54	Q1674-04	72-11991	SAM	04/01/25 14:45		Kareem	OK
55	Q1679-04	TP-10	SAM	04/01/25 14:49		Kareem	OK
56	Q1679-08	TP-9	SAM	04/01/25 14:53		Kareem	OK
57	Q1679-08DUP	TP-9DUP	DUP	04/01/25 14:58		Kareem	OK
58	Q1679-08L	TP-9L	SD	04/01/25 15:02		Kareem	OK
59	Q1679-08MS	TP-9MS	MS	04/01/25 15:07	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
60	Q1679-08MSD	TP-9MSD	MSD	04/01/25 15:11	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
61	Q1679-08A	TP-9A	PS	04/01/25 15:15	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
62	PB167398BL	PB167398BL	MB	04/01/25 15:19		Kareem	OK
63	CCV05	CCV05	CCV	04/01/25 15:23		Kareem	OK
64	CCB05	CCB05	CCB	04/01/25 15:28		Kareem	OK
65	PB167398BS	PB167398BS	LCS	04/01/25 15:32	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
66	PB167392TB	PB167392TB	MB	04/01/25 15:36		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135255

Review By	kareem	Review On	4/2/2025 5:17:16 PM
Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

67	LR1	LR1	HIGH STD	04/01/25 15:43		Kareem	OK
68	CCV06	CCV06	CCV	04/01/25 15:52		Kareem	OK
69	CCB06	CCB06	CCB	04/01/25 15:56		Kareem	OK
70	Q1664-04	P001-BBDGA-001-01	SAM	04/01/25 16:01		Kareem	OK
71	Q1664-04DUP	P001-BBDGA-001-01	DUP	04/01/25 16:05		Kareem	OK
72	Q1664-04L	P001-BBDGA-001-01	SD	04/01/25 16:09		Kareem	OK
73	Q1664-05	P001-BBDGA-001-01	MS	04/01/25 16:13	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
74	Q1664-06	P001-BBDGA-001-01	MSD	04/01/25 16:17	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
75	Q1664-04A	P001-BBDGA-001-01	PS	04/01/25 16:34	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
76	Q1664-08	P001-BBDGA-001-02	SAM	04/01/25 16:39		Kareem	OK
77	Q1664-10	P001-BBDGA-002-01	SAM	04/01/25 16:43		Kareem	OK
78	Q1664-12	P001-BBDGA-003-01	SAM	04/01/25 16:47		Kareem	OK
79	Q1664-14	P001-BBDGA-004-01	SAM	04/01/25 16:52		Kareem	OK
80	CCV07	CCV07	CCV	04/01/25 16:56		Kareem	OK
81	CCB07	CCB07	CCB	04/01/25 17:00		Kareem	OK
82	Q1664-16	P001-BBDGA-005-01	SAM	04/01/25 17:04		Kareem	OK
83	Q1664-18	P001-BBDGA-006-01	SAM	04/01/25 17:09		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135255

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Supervise By	sohil	Supervise On	4/8/2025 9:37:56 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

84	Q1664-20	P001-BBDGA-007-01	SAM	04/01/25 17:13		Kareem	OK
85	Q1664-22	P001-BBDGA-008-01	SAM	04/01/25 17:17		Kareem	OK
86	PB167392BL	PB167392BL	MB	04/01/25 17:22		Kareem	OK
87	PB167392BS	PB167392BS	LCS	04/01/25 17:26	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
88	Q1687-01	72-12016	SAM	04/01/25 17:30		Kareem	OK
89	LR2	LR2	HIGH STD	04/01/25 17:36		Kareem	OK
90	CCV08	CCV08	CCV	04/01/25 17:41		Kareem	OK
91	CCB08	CCB08	CCB	04/01/25 17:50		Kareem	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB167372

SOP ID : M1312-SPLP-10

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-2

TCLP Filter ID : 115525

Start Prep Date : 03/28/2025 **Time :** 15:20

End Prep Date : 03/29/2025 **Time :** 09:50

Combination Ratio : 20 TB

ZHE Cleaning Batch : ~~N/A~~

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : TB

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
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

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP110804
pH Strips	W3172.	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

TUMBLER T-2 checked,30 rpm. Particle size reduction is not required. Matrix spikes are added after fiftration and before preservation.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/31/25 10:30	TB ICP ROOM	SIGN.
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB167372

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167372TB	LEB372	20	N/A	2000	N/A	N/A	N/A	4.24	1.5	T-2
Q1664-04	P001-BBDGA-001-01	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-05	Q1664-04MS	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-06	Q1664-04MSD	11	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-2
Q1664-08	P001-BBDGA-001-02	12	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-10	P001-BBDGA-002-01	13	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1664-12	P001-BBDGA-003-01	14	100.02	2000	N/A	N/A	N/A	7.2	1.0	T-2
Q1664-14	P001-BBDGA-004-01	15	100.02	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1664-16	P001-BBDGA-005-01	16	100.01	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-18	P001-BBDGA-006-01	17	100.02	2000	N/A	N/A	N/A	7.6	1.0	T-2
Q1664-20	P001-BBDGA-007-01	18	100.03	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1664-22	P001-BBDGA-008-01	19	100.04	2000	N/A	N/A	N/A	7.6	1.0	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB167372TB	LEB372	N/A	N/A	N/A	N/A	N/A	N/A
Q1664-04	P001-BBDGA-001-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-05	Q1664-04MS	N/A	N/A	N/A	N/A	100	N/A
Q1664-06	Q1664-04MSD	N/A	N/A	N/A	N/A	100	N/A
Q1664-08	P001-BBDGA-001-02	N/A	N/A	N/A	N/A	100	N/A
Q1664-10	P001-BBDGA-002-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-12	P001-BBDGA-003-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-14	P001-BBDGA-004-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-16	P001-BBDGA-005-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-18	P001-BBDGA-006-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-20	P001-BBDGA-007-01	N/A	N/A	N/A	N/A	100	N/A
Q1664-22	P001-BBDGA-008-01	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB167372

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB167372TB	LEB372	N/A	N/A	N/A	N/A	#1	4.24
Q1664-04	P001-BBDGA-001-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-05	Q1664-04MS	N/A	N/A	N/A	N/A	#1	4.24
Q1664-06	Q1664-04MSD	N/A	N/A	N/A	N/A	#1	4.24
Q1664-08	P001-BBDGA-001-02	N/A	N/A	N/A	N/A	#1	4.24
Q1664-10	P001-BBDGA-002-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-12	P001-BBDGA-003-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-14	P001-BBDGA-004-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-16	P001-BBDGA-005-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-18	P001-BBDGA-006-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-20	P001-BBDGA-007-01	N/A	N/A	N/A	N/A	#1	4.24
Q1664-22	P001-BBDGA-008-01	N/A	N/A	N/A	N/A	#1	4.24

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Prep Standard - Chemical Standard Summary

Order ID : Q1664

Test : SPLP ICP Metals,SPLP Mercury

Prepbatch ID : PB167392,PB167415,

Sequence ID/Qc Batch ID: LB135246,LB135255,

Standard ID :
MP84563,MP84564,MP84565,MP84566,MP84720,MP85016,MP85017,MP85018,MP85019,MP85020,MP85021,MP85022,MP85023,MP85024,MP85025,MP85026,MP85030,MP85031,MP85089,MP85090,MP85091,MP85092,MP85093,MP85094,MP85095,MP85096,MP85097,MP85098,MP85100,MP85101,MP85103,MP85199,

Chemical ID :
M4371,M4465,M4883,M4891,M4916,M5020,M5062,M5288,M5387,M5395,M5429,M5466,M5472,M5496,M5497,M5516,M5521,M5532,M5658,M5747,M5748,M5768,M5789,M5798,M5799,M5800,M5801,M5811,M5814,M5816,M5817,M5820,M5875,M5882,M5884,M5959,M5970,M5978,M5985,M6003,M6012,M6021,M6023,M6028,M6030,M6041,M6058,M6076,M6126,M6128,M6137,M6150,M6151,M6152,M6155,M6156,M6158,M6160,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP84563	02/18/2025	06/03/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6126 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP84564	02/18/2025	08/18/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP84565	02/18/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP84566	02/18/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP84720	03/03/2025	04/04/2025	Sagar Kanani	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 03/03/2025

FROM 1000.00000ml of M6151 + 1000.00000ml of W3112 = 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)	MP85016	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M5789 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP85017	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M5395 + 5.00000ml of M5466 + 5.00000ml of M5472 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M6076 + 5.00000ml of M6160 + 455.00000ml of MP85016 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85018	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85019	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of MP85017 + 75.00000ml of MP85016 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP85020	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 16.00000ml of MP85017 + 184.00000ml of MP85016 = Final Quantity: 200.000 ml

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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	MP85021	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5496 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.06000ml of M5747 + 0.10000ml of M4883 + 0.10000ml of M5472 + 0.10000ml of M5521 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M4891 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5466 + 0.25000ml of M6160 + 0.50000ml of M5387 + 0.50000ml of M5814 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5516 + 1.00000ml of M5768 + 1.00000ml of M5978 + 1.00000ml of M6156 + 2.00000ml of M5816 + 77.68000ml of MP85016 = 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	MP85022	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 2.00000ml of MP85021 + 98.00000ml of MP85016 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85023	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.02500ml of M5020 + 0.02500ml of M5429 + 0.02500ml of M5817 + 0.10000ml of M5466 + 0.25000ml of M5472 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.77500ml of MP85016 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP85024	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85016 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85025	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.01000ml of M5020 + 0.01000ml of M5817 + 0.10000ml of M5472 + 0.10000ml of M5970 + 0.10000ml of M6076 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.50000ml of MP85016 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP85026	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85030	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M5789 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
513	RINSE SOLN	MP85031	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 200.00000ml of M5789 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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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.	MP85089	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

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	MP85090	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85091	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85089 = 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	MP85092	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85089 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85093	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85089 = 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	MP85094	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP85089 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85095	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85089 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85096	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6158 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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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)	MP85097	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

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)	MP85098	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85089 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85100	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85089 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85101	04/01/2025	04/02/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/07/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP85089 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP85103	04/01/2025	04/02/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/07/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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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	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

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	070221	09/07/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4883

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	031921	05/19/2025	08/25/2021 / bin	08/05/2021 / jaswal	M4891

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 #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	032921	05/17/2025	12/13/2021 / bin	12/09/2021 / bin	M5020

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CHEMICAL RECEIPT LOG BOOK

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.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

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	072122	07/21/2025	11/01/2022 / jaswal	09/18/2022 / jaswal	M5387

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-MEB714159	01/13/2027	01/30/2024 / bin	09/19/2022 / bin	M5395

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

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CHEMICAL RECEIPT LOG BOOK

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	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

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	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

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	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

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	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

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	102622	10/26/2025	11/21/2022 / bin	11/20/2022 / bin	M5521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	04/30/2025	01/02/2025 / jaswal	03/30/2023 / mohan	M5532

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CHEMICAL RECEIPT LOG BOOK

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

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.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

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)	23G1262003	07/30/2025	02/08/2024 / Al-Terek	06/26/2023 / Al-Terek	M5789

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

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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

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.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

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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

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	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

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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	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

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	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/26/2025	02/26/2025 / Eman	05/14/2024 / Jaswal	M6003

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	09/17/2025	03/17/2025 / Eman	05/14/2024 / Jaswal	M6012

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

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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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

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

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CHEMICAL RECEIPT LOG BOOK

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.	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

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

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

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CHEMICAL RECEIPT LOG BOOK

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 #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	032123	03/21/2026	11/06/2024 / JANVI	06/12/2024 / JANVI	M6156

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.	57051 / Sb, 1000 PPM, 125 ml	071724	03/24/2026	03/24/2025 / kareem	10/18/2024 / kareem	M6160

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

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

M6028

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57048
Lot Number: 070124
Description: Cadmium (Cd)

Expiration Date: 070127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

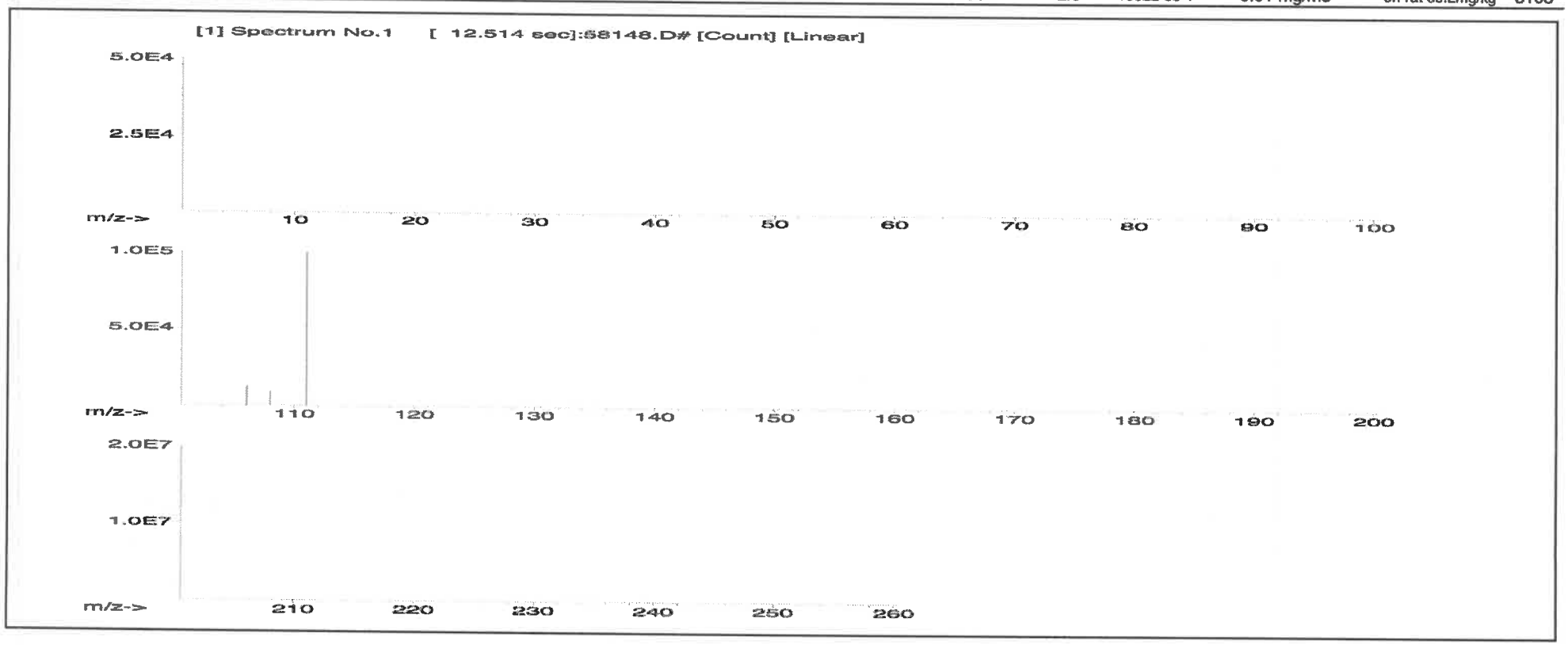
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance 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



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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).

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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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

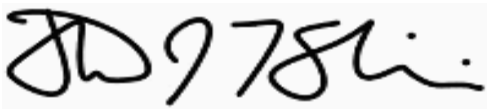
- Sealed TCT Bag Open Date: _____

- 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



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Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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-MEB714159
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 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 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 13, 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

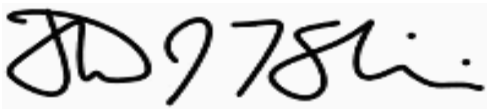
- Sealed TCT Bag Open Date: _____

- 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 #**	
Lot Number:	**051523**	**Solvent:**	21110221	Nitric Acid
Description:	**Iron (Fe)**	5.0%	250.0 (mL)	Nitric Acid
Expiration Date:	051526			
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):	5000.1	0.12	Flask Uncertainty	

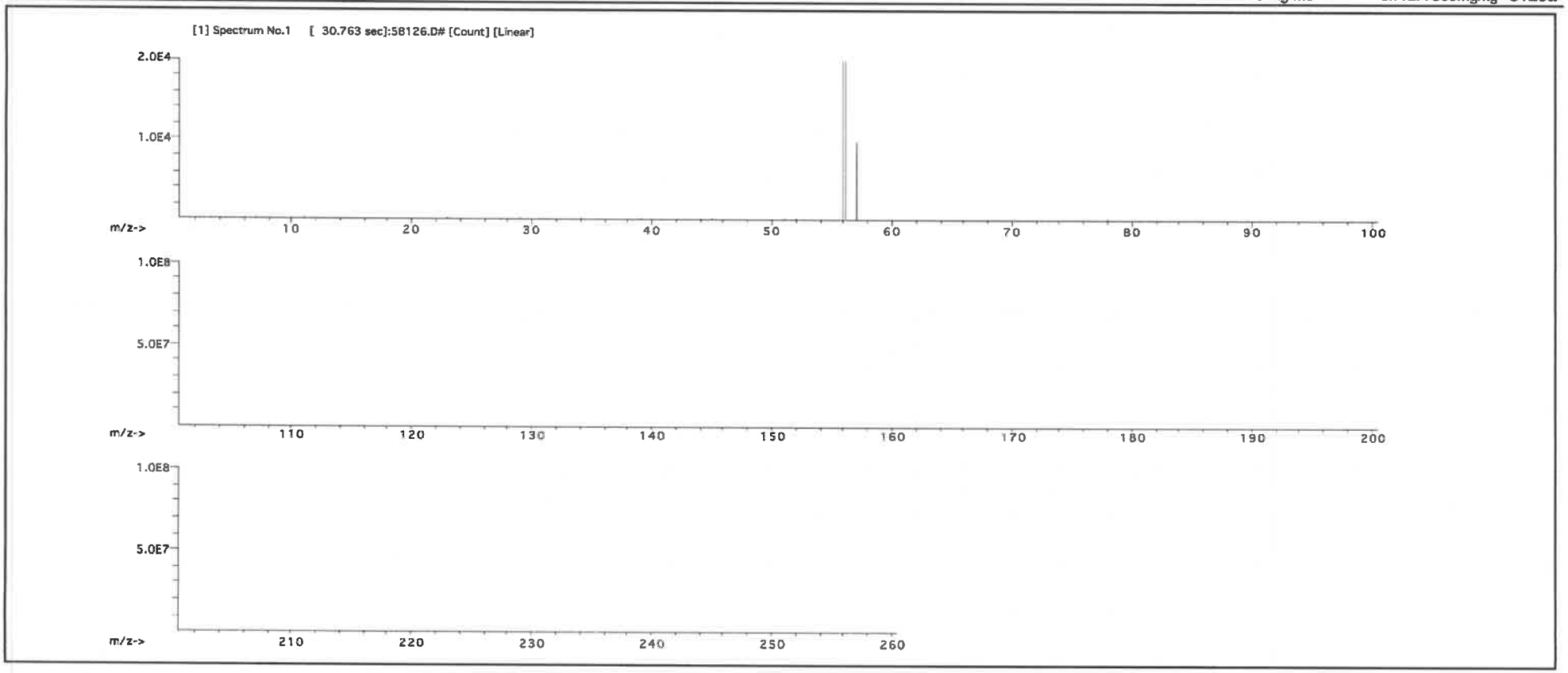
Giovanni Esposito

Formulated By:	Giovanni Esposito	051523

Pedro Rentas

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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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

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Certificate of Analysis

RD:05/14/2024

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inorganicventures.com

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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

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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



M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

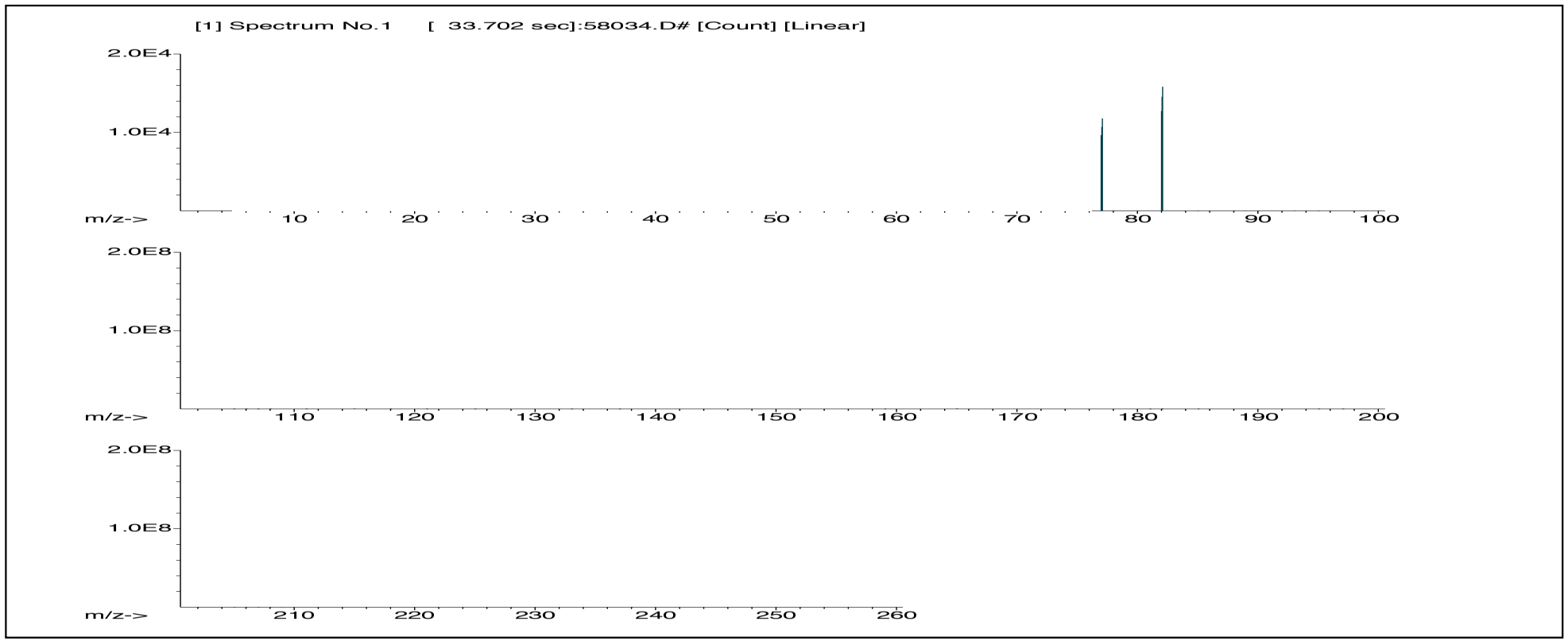
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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	20370011	Nitric Acid	
Lot Number:	**070221**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	070224			
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:	Giovanni Esposito 070221
Reviewed By:	Pedro L. Rentas 070221

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(IV) oxide (Se)	58134	021621	0.1000	200.0	0.084	1000	10000.2	**1000.0**	**2.2**	7446-08-4	0.2 mg/m3	orl-rat 68 mg/kg	3149



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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	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:

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).

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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58030**	20370011	Nitric Acid	
Lot Number:	**031921**			
Description:	**Zinc (Zn)**			
		2.0%	40.0	Nitric Acid
Expiration Date:	031924		(mL)	
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	

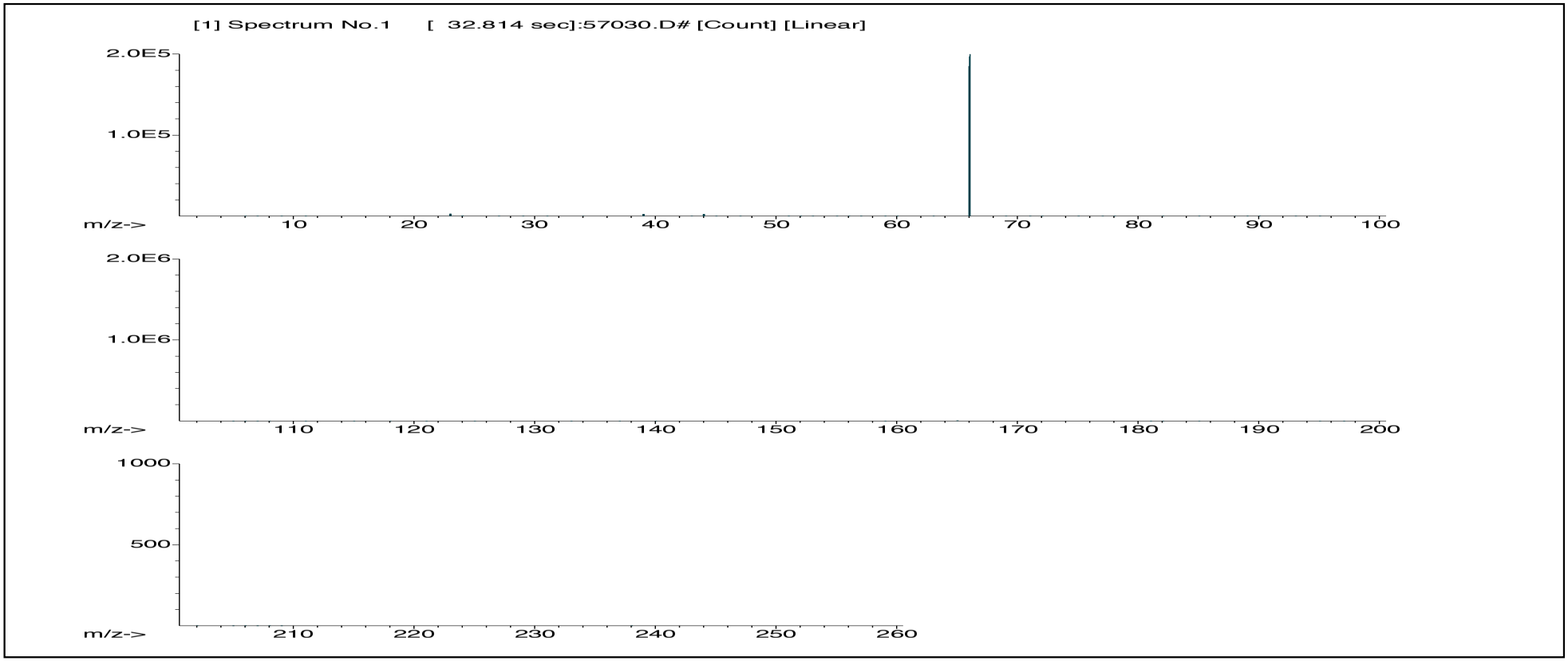
Giovanni Esposito

Formulated By:	Giovanni Esposito	031921

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031921

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. Zinc nitrate hexahydrate (Zn)	58130	082020	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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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	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).

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.

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Certified Reference Material CRM

BA M5020 R: 12/09/21

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

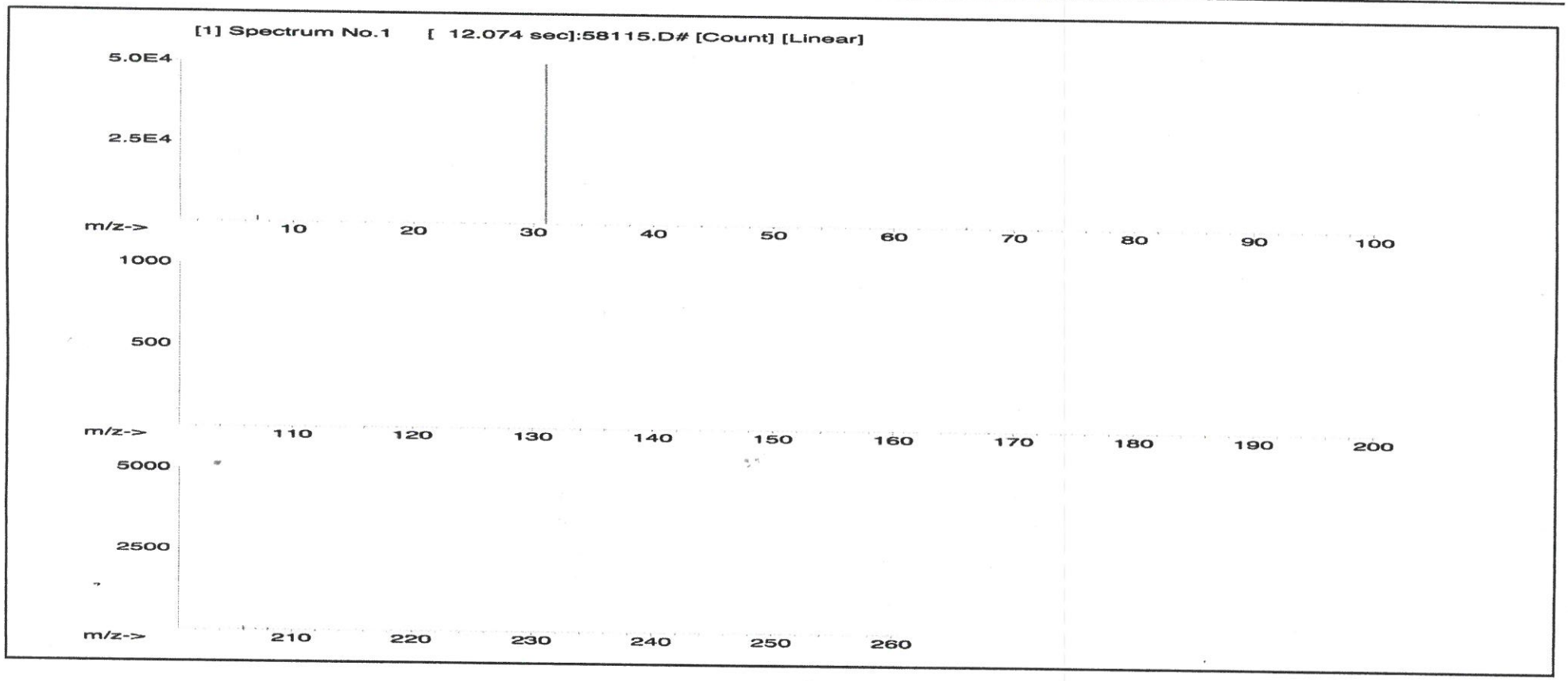
Part Number: 57115
Lot Number: 032921
Description: Phosphorous (P)

Expiration Date: 032924
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	032921
Reviewed By:	Pedro L. Rentas	032921

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	PV052018A1	10000	99.999	0.10	27.3	109.9063	109.9093	**10000.3**	**20.0**	7722-76-1	5 mg/m3	NA	3186



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Trace Metals Verification by ICP-MS (µg/mL)																	
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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:

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Certified by:



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* 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).

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

M5062
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/4}$

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 HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 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



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Certified Reference Material CRM

M5288 R: 07/21/2022

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CERTIFIED WEIGHT REPORT:

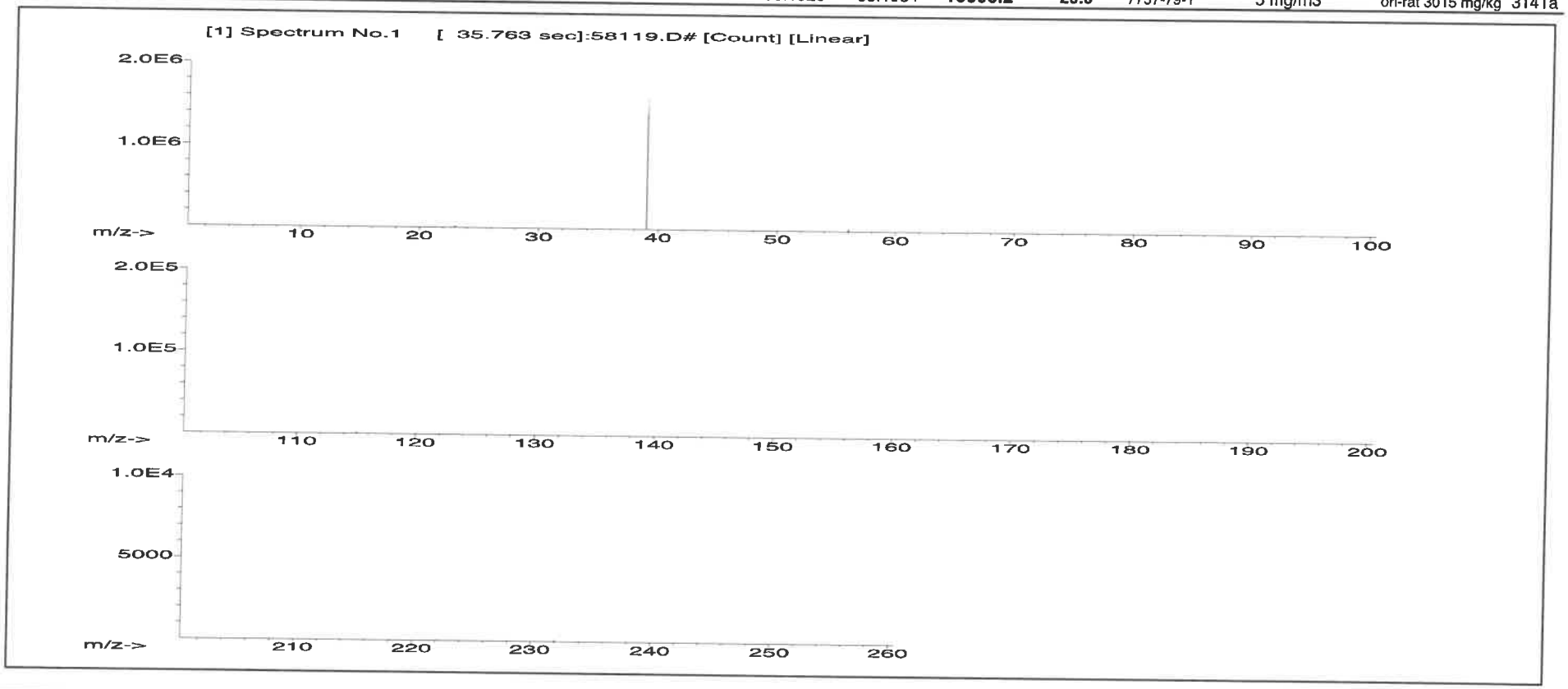
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

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	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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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:

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).

Part # **58119** Lot # **071122**

Printed: 8/2/2022, 11:20:01 PM

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R: 09/08/22 (BA)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

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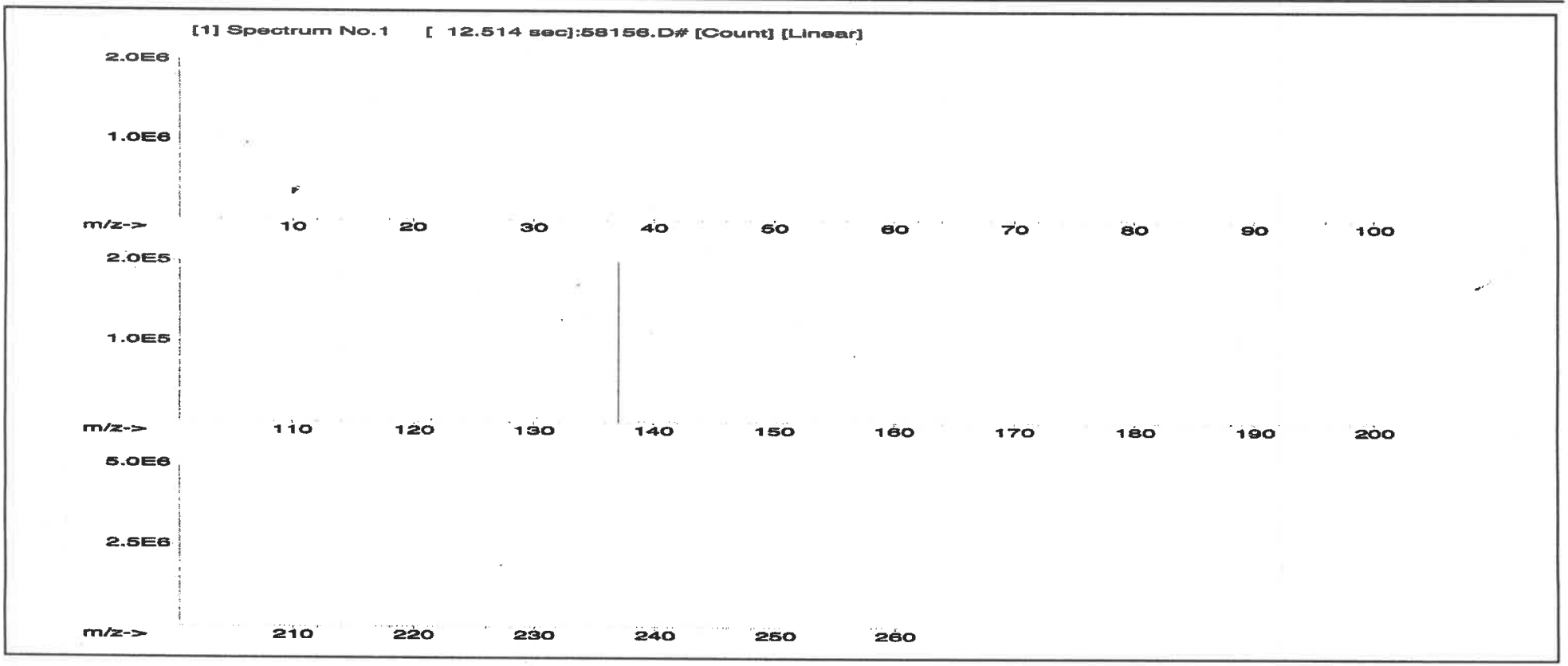
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**072122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	072125				
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	072122
Reviewed By:	Pedro L. Rentas	072122

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	3.82426	**1000.0**	**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:

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).

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Certified Reference Material CRM

M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

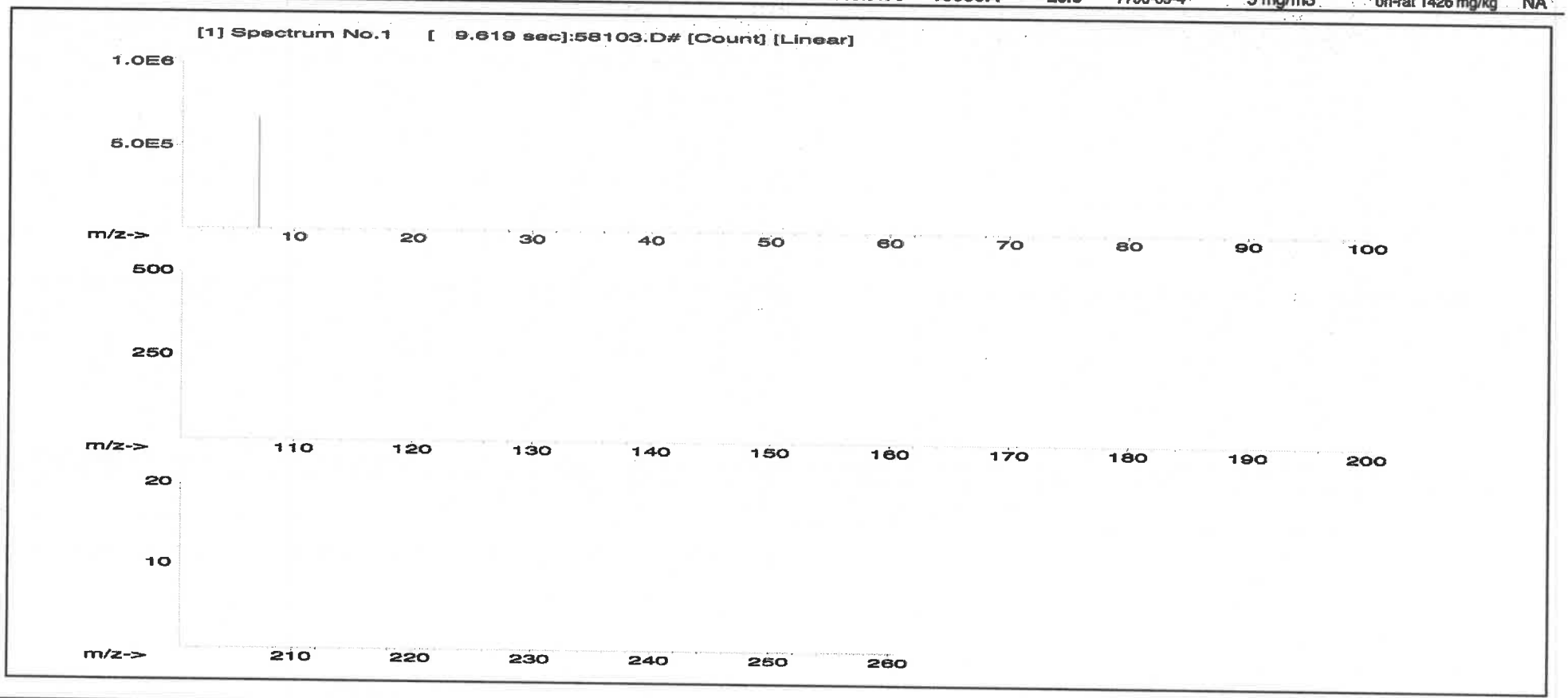
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	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



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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).

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M 5466

Certified Reference Material CRM

R: 03/01/23 BH

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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 ± 0.058 Flask Uncertainty

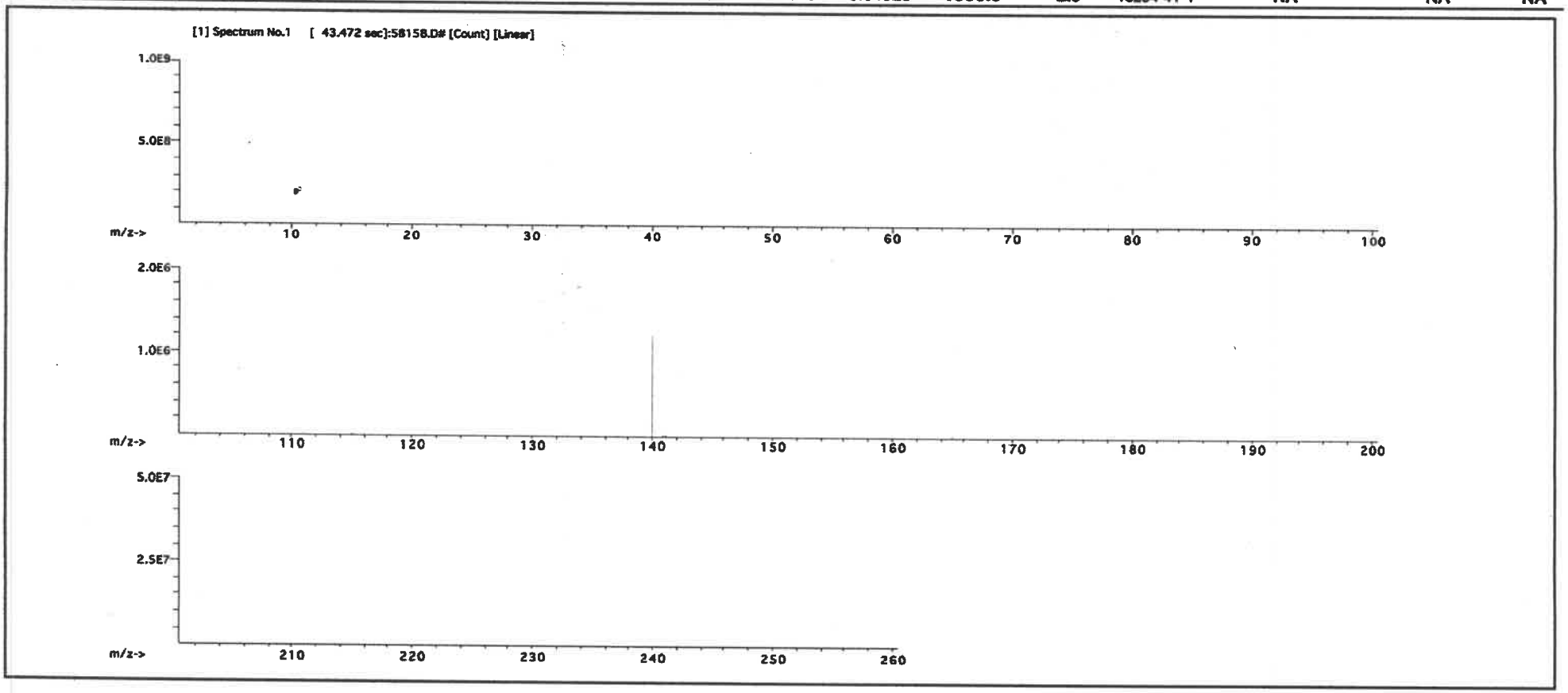
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

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



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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.
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* 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).

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M5496 R 7/20/23

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CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Lot #**	
Lot Number:	**011623**	**Solvent:**	20510011	Nitric Acid
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626			
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	

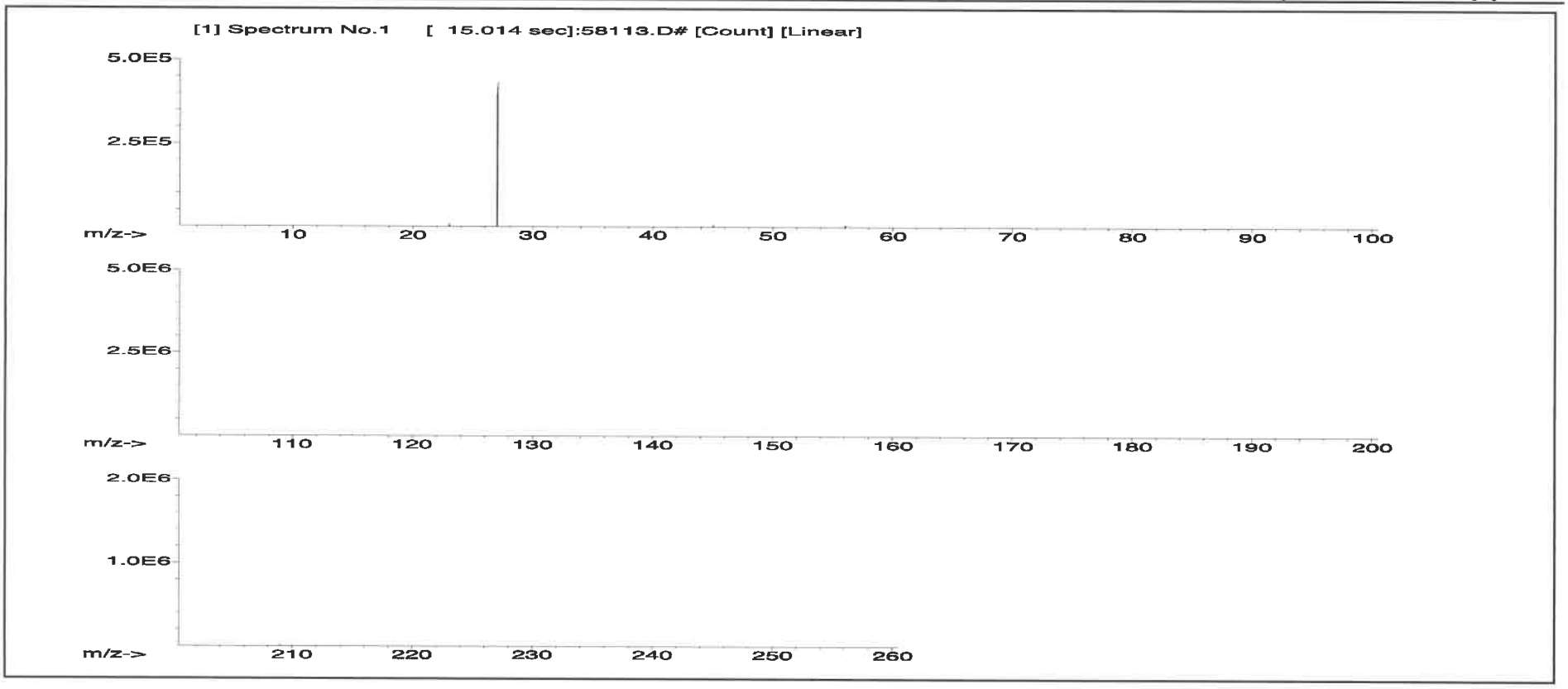
Giovanni Esposito

Formulated By:	Giovanni Esposito	011623

Pedro Rentas

Reviewed By:	Pedro L. Rentas	011623

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. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



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Certified Reference Material CRM

M5497 - M5498 R: 03/17/23 (BP)

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

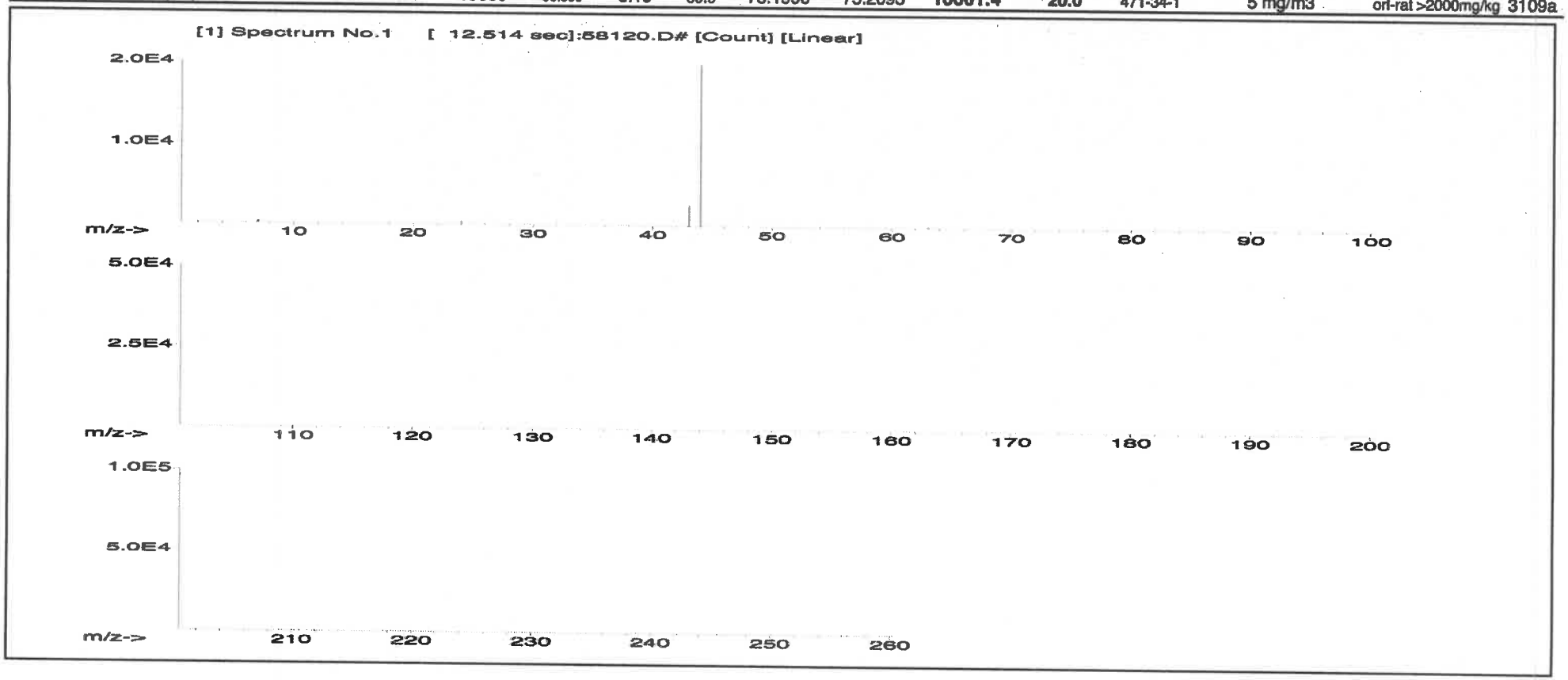
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

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	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**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	<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.
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* 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).

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Q1664-METALS

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M546 M517 R: 03/17/22 BH

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CERTIFIED WEIGHT REPORT:

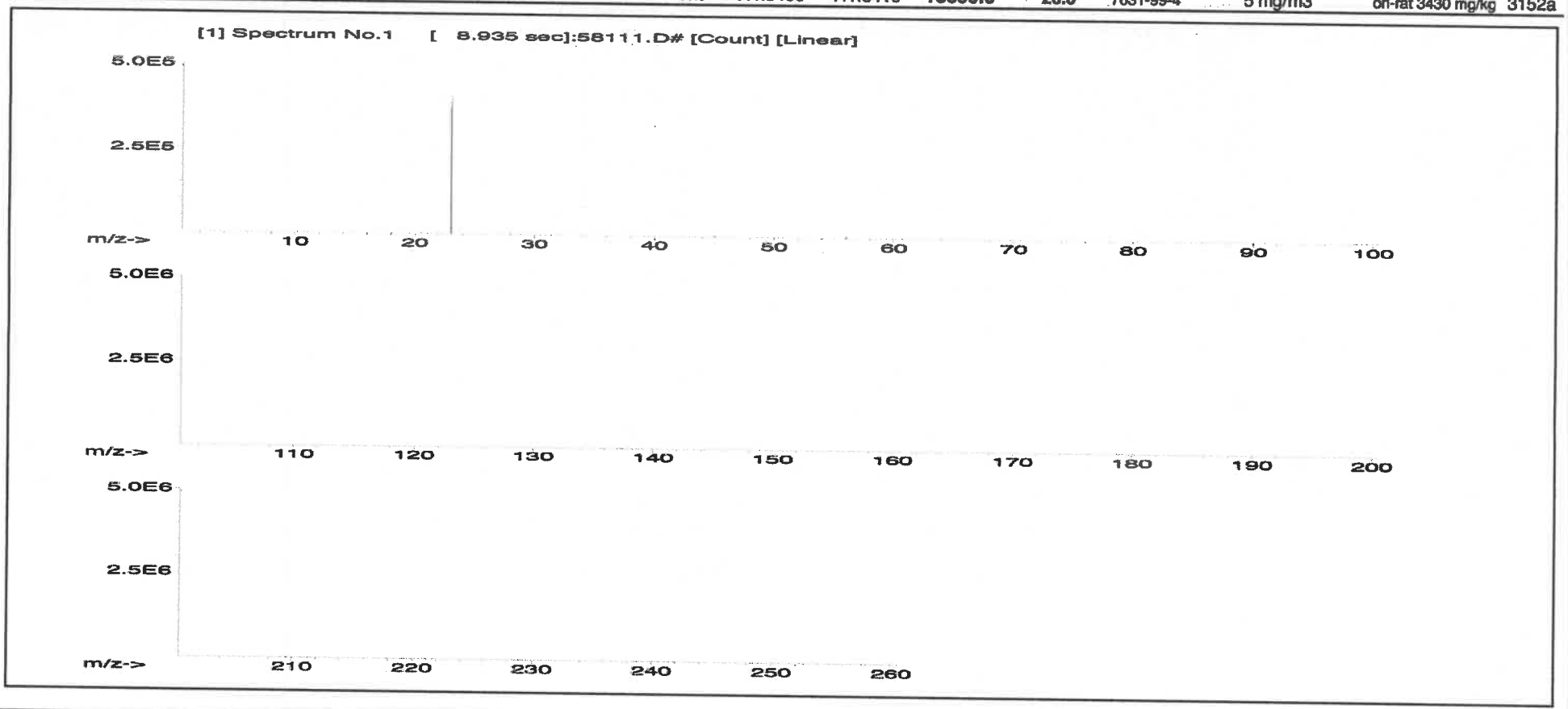
Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 5E-05 Balance Uncertainty 0.06 Flask Uncertainty

	Lot #	
Solvent:	21110221	Nitric Acid
2%	60.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

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	111.5406	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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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	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.

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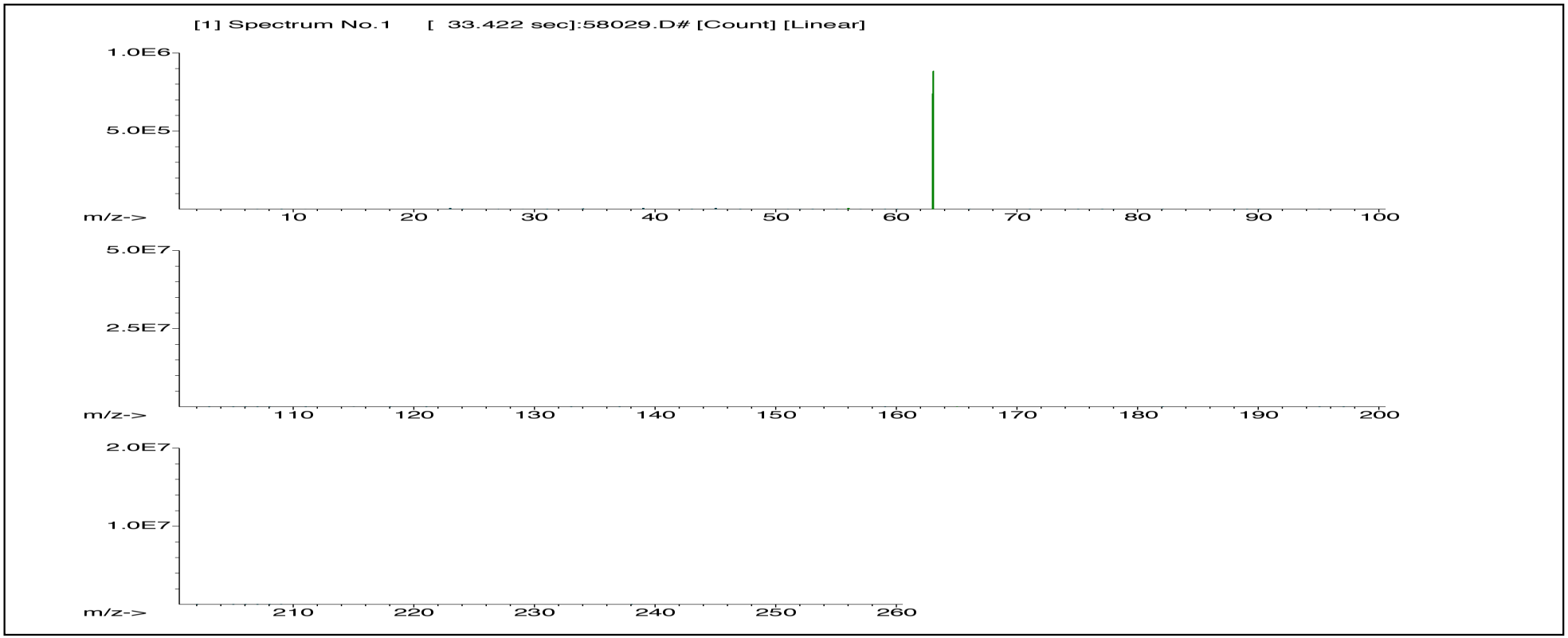
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	20510011	Nitric Acid	
Lot Number:	**102622**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102625			
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:	Eli Aliaga 102622
Reviewed By:	Pedro L. Rentas 102622

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	021422	0.1000	200.0	0.084	1000	10000.8	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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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.

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QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

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.

MSS28-37
MB

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.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

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

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M5658 R ! 8/25/23

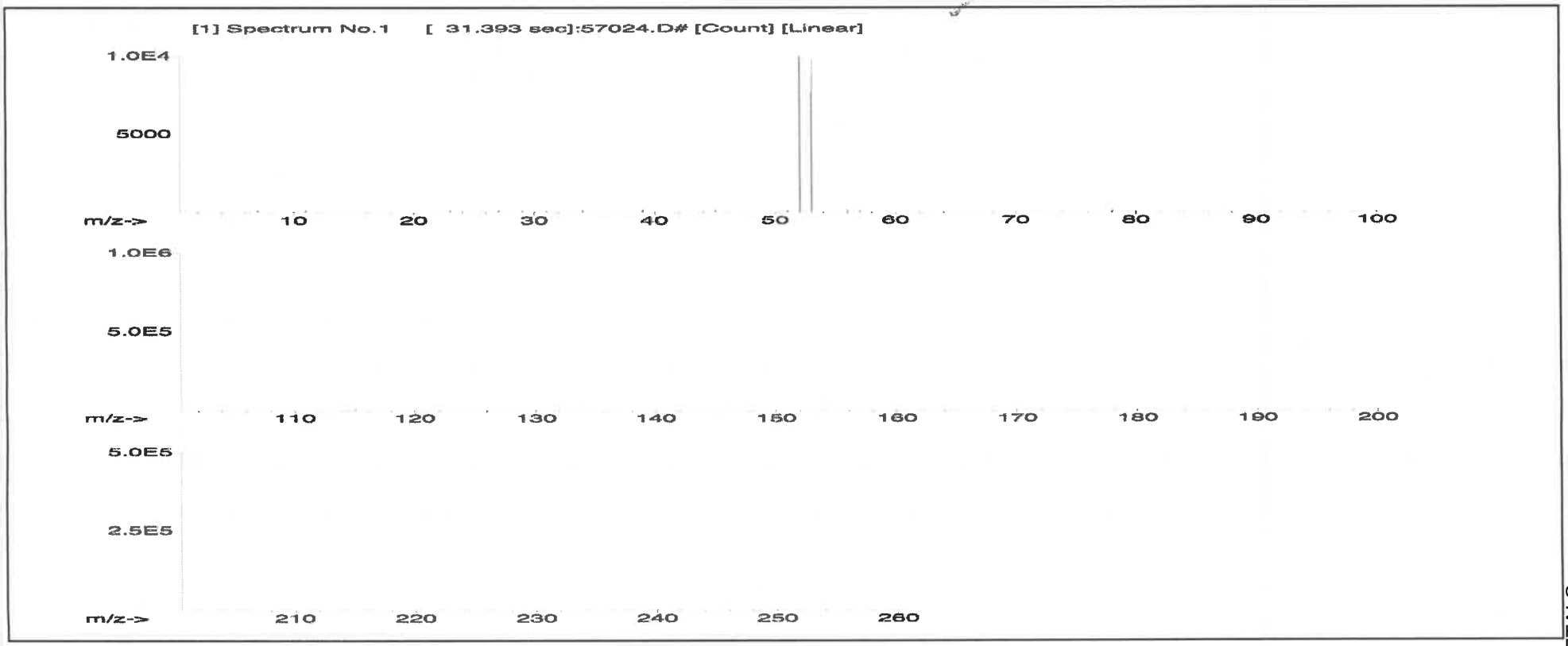
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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		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



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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.

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* 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.
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* 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).

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R: 12/20/23 M5747

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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

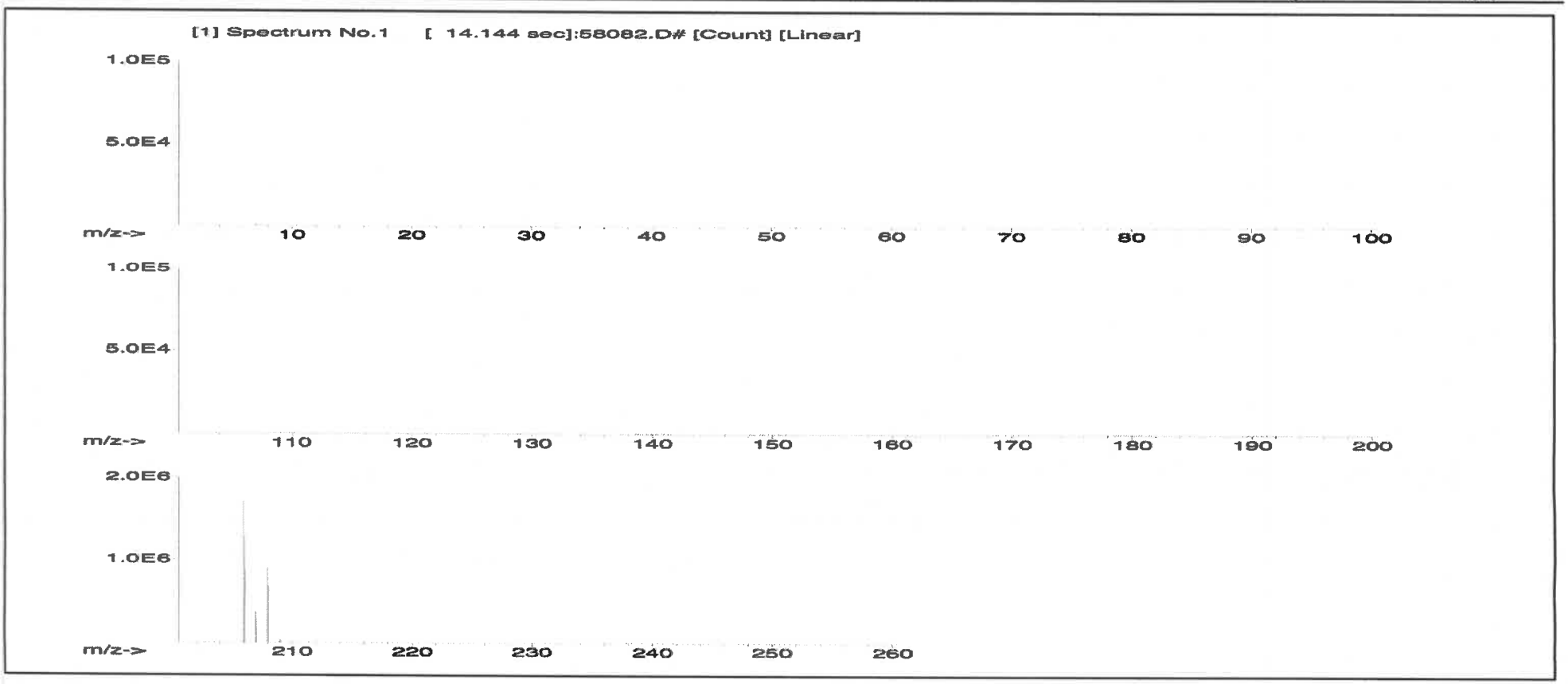
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	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



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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.
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R: 12/20/23 M5748

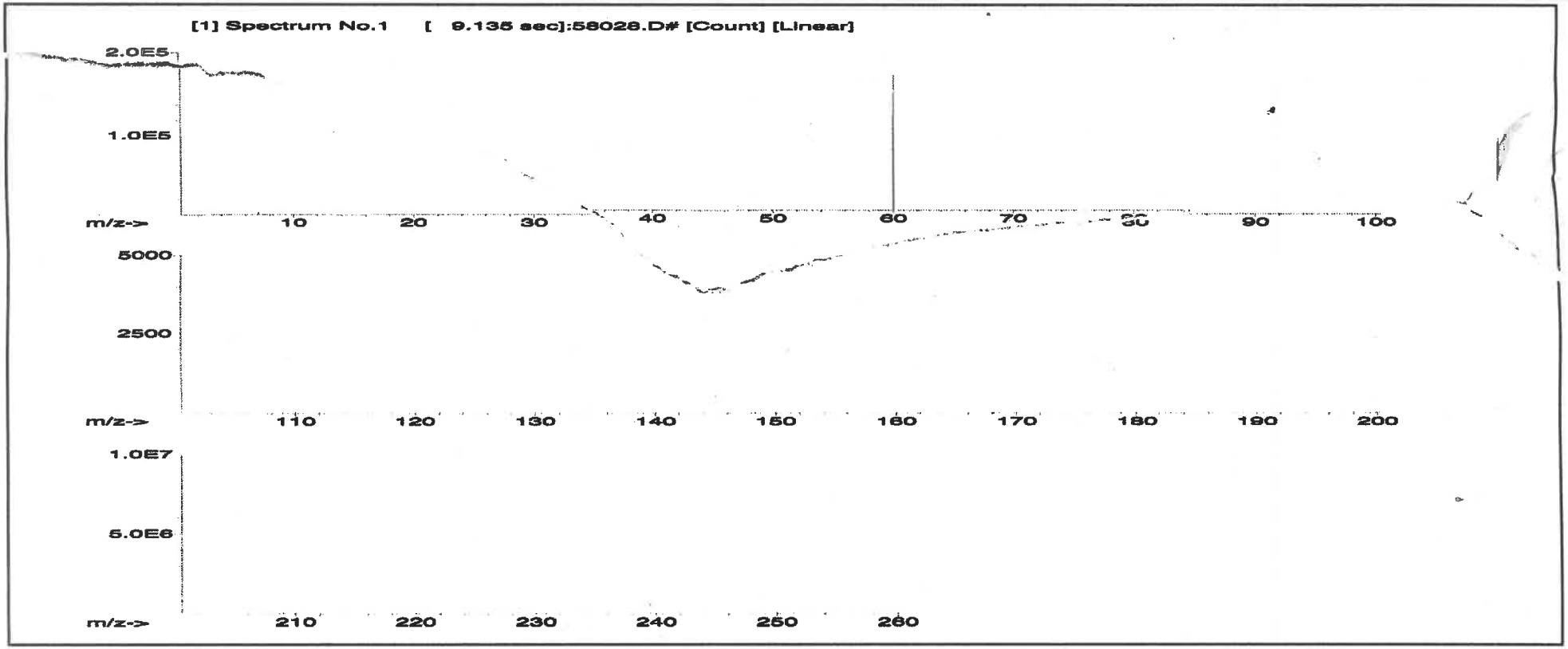
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CERTIFIED WEIGHT REPORT:

		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



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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.

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M5768 M5769 BH R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

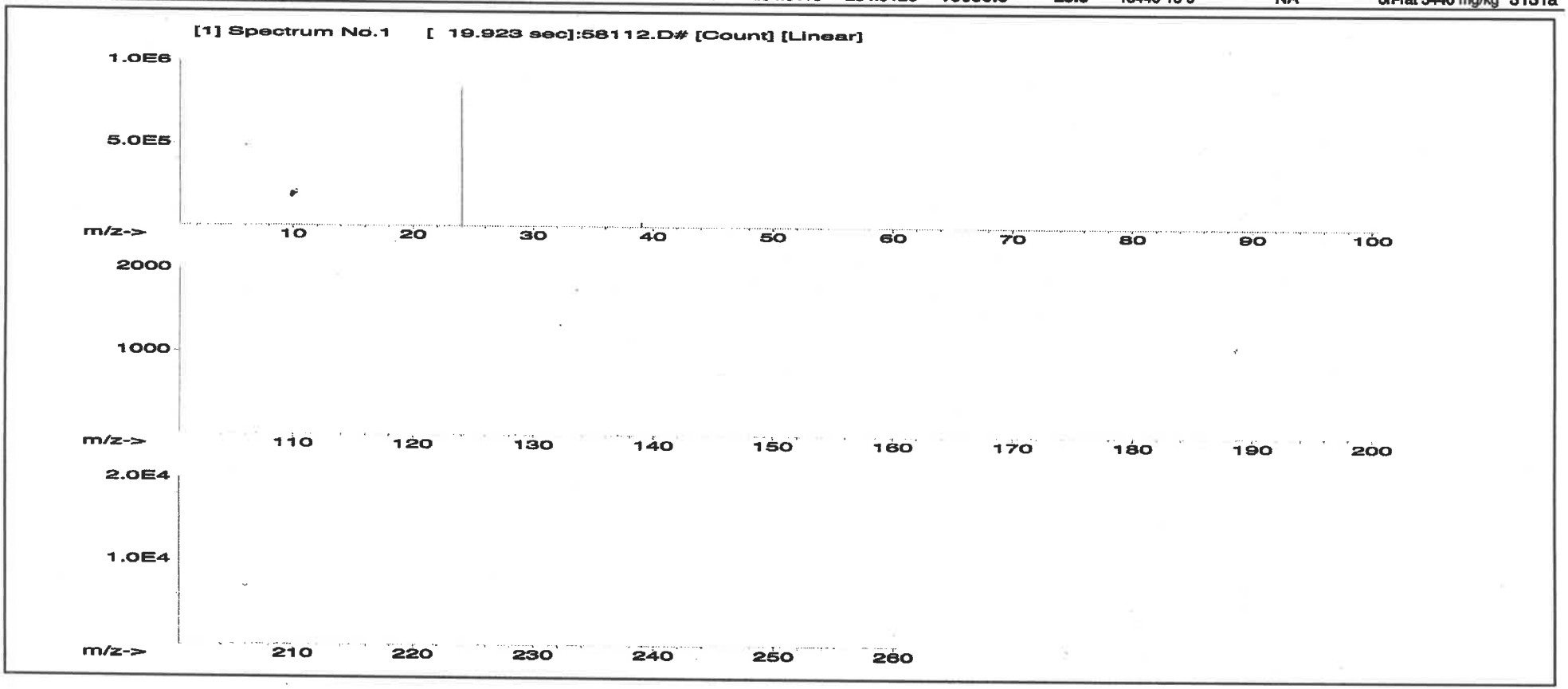
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

M5768, M5769 BH R: 1/3/24

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

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	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ort-rat 5440 mg/kg	3131a



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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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 02/09/24 M5798

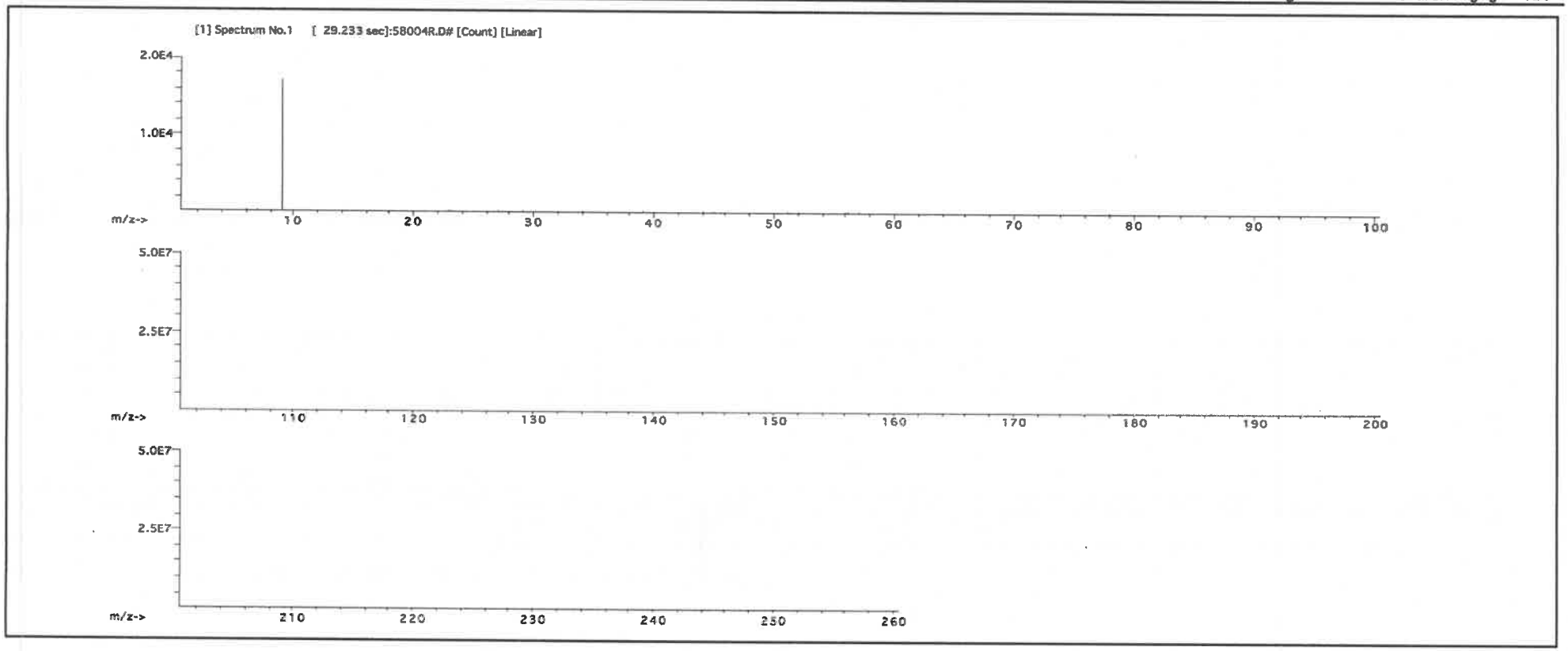
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**			
Lot Number:	**102523**	24002546	Nitric Acid	
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



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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.

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R? 02/09/24 IV15799 BA

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

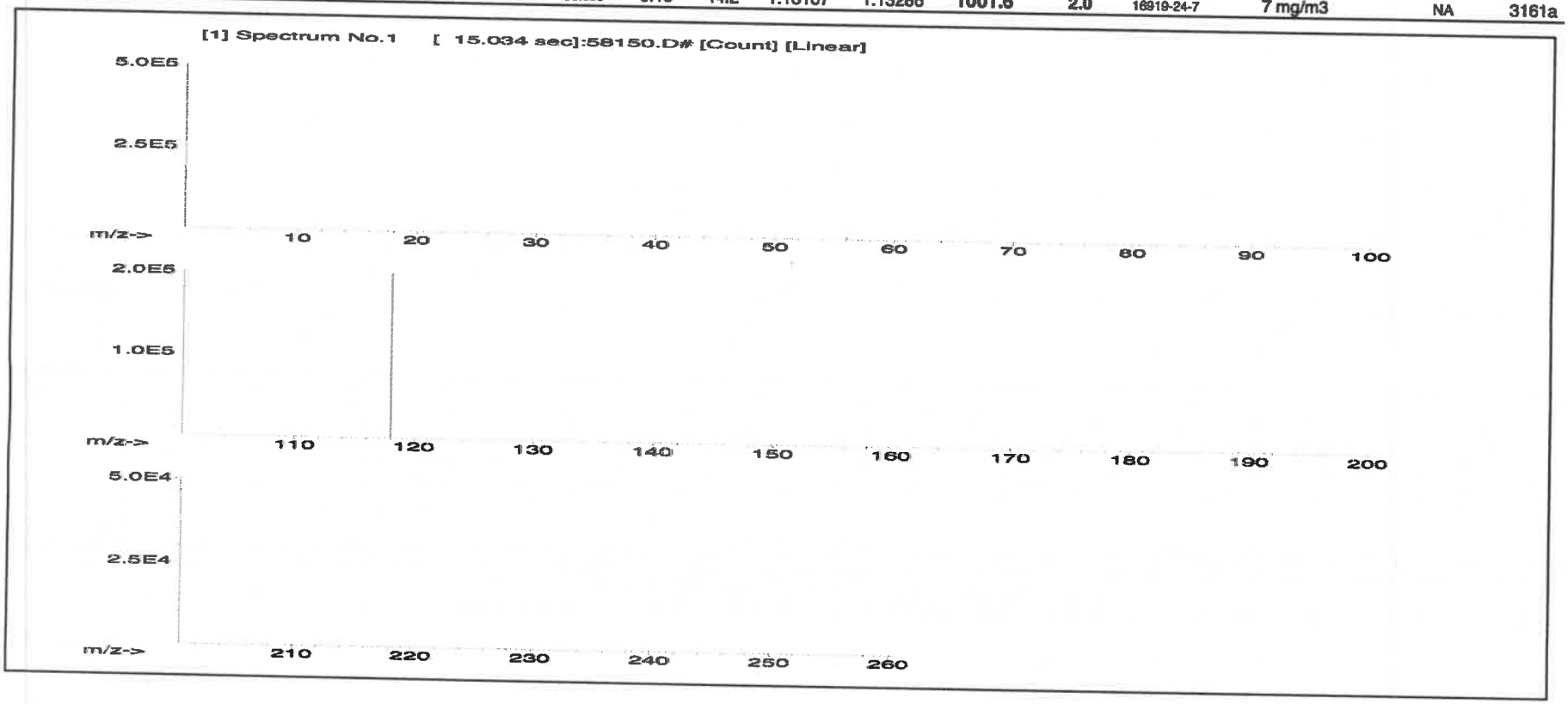
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



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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:

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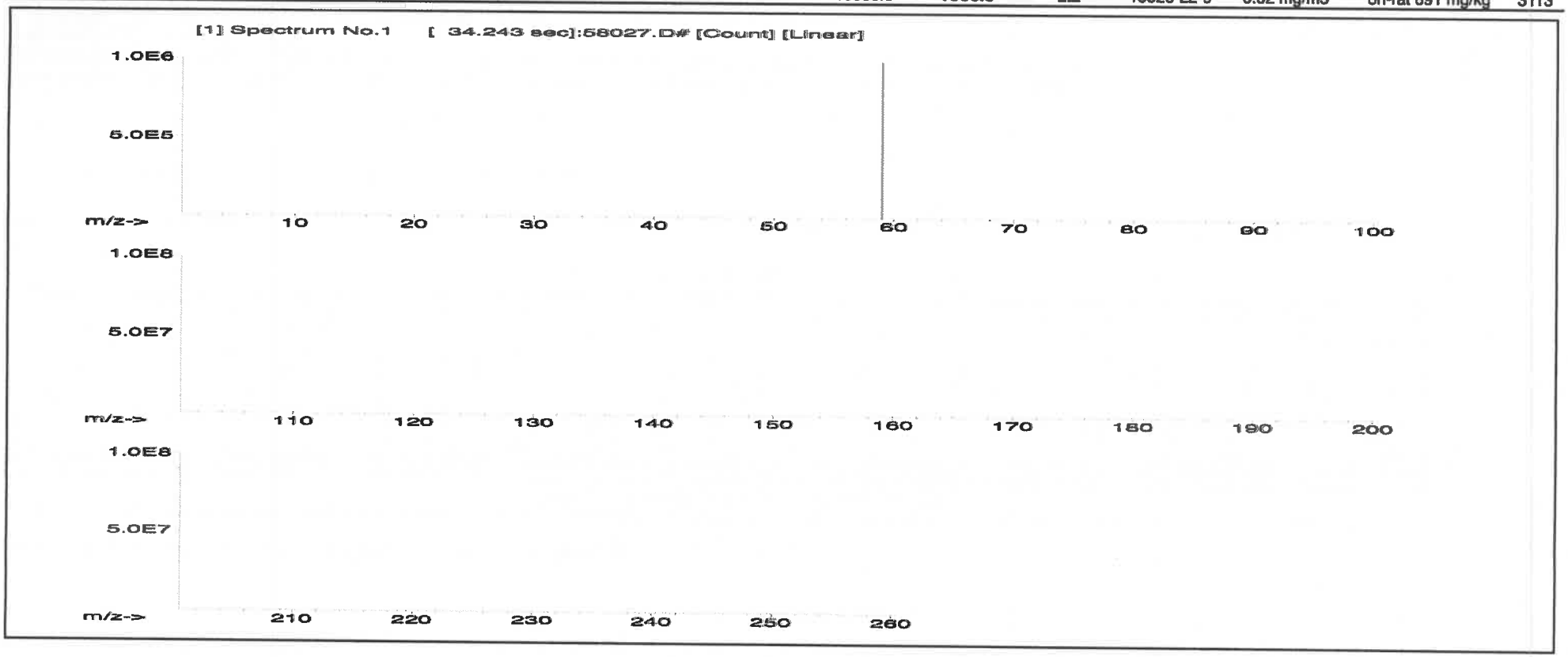
CERTIFIED WEIGHT REPORT:

		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



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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.
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* 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).

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R: 02/09/24 M5801 BH

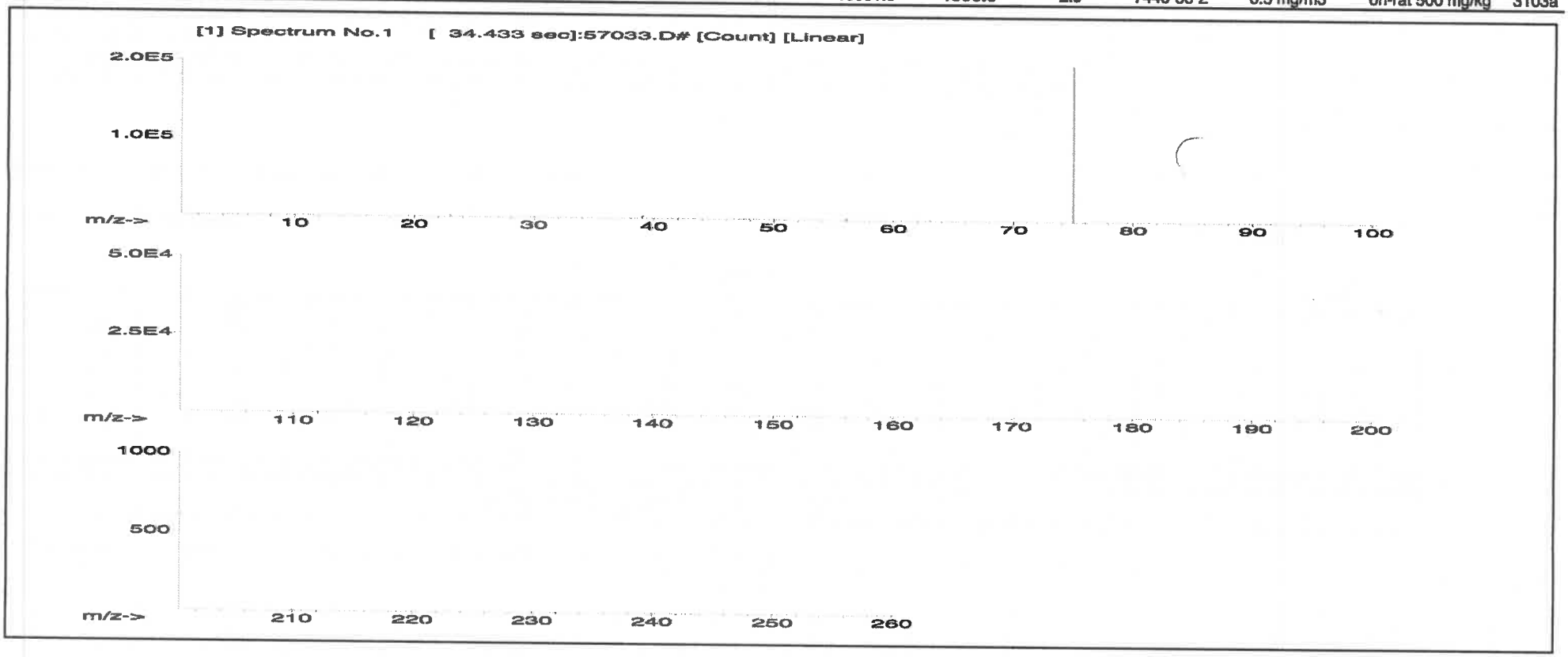
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CERTIFIED WEIGHT REPORT:

		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



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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.
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* 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).

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A: 02/09/24 M.5814

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CERTIFIED WEIGHT REPORT:

Part Number: 57005
Lot Number: 071123
Description: Boron (B)

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

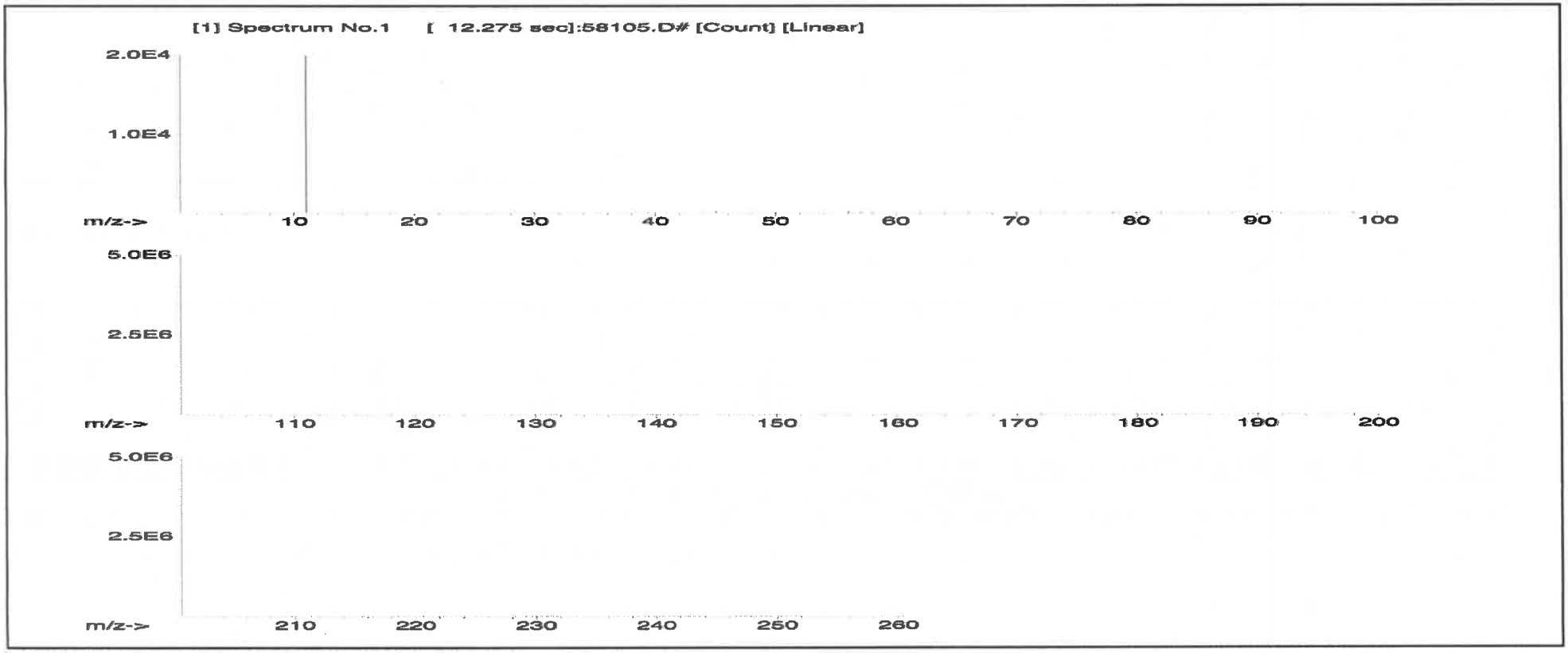
	Lot #			
Solvent:	MKBQ8597V	Ammonium hydroxide		
	2.0%	40.0 (mL)	Ammonium hydroxide	

5E-05 Balance 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



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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.
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* 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).

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R: 02/09/24 M5816

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CERTIFIED WEIGHT REPORT:

Part Number: 57016
Lot Number: 122923
Description: Sulfur (S)

Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

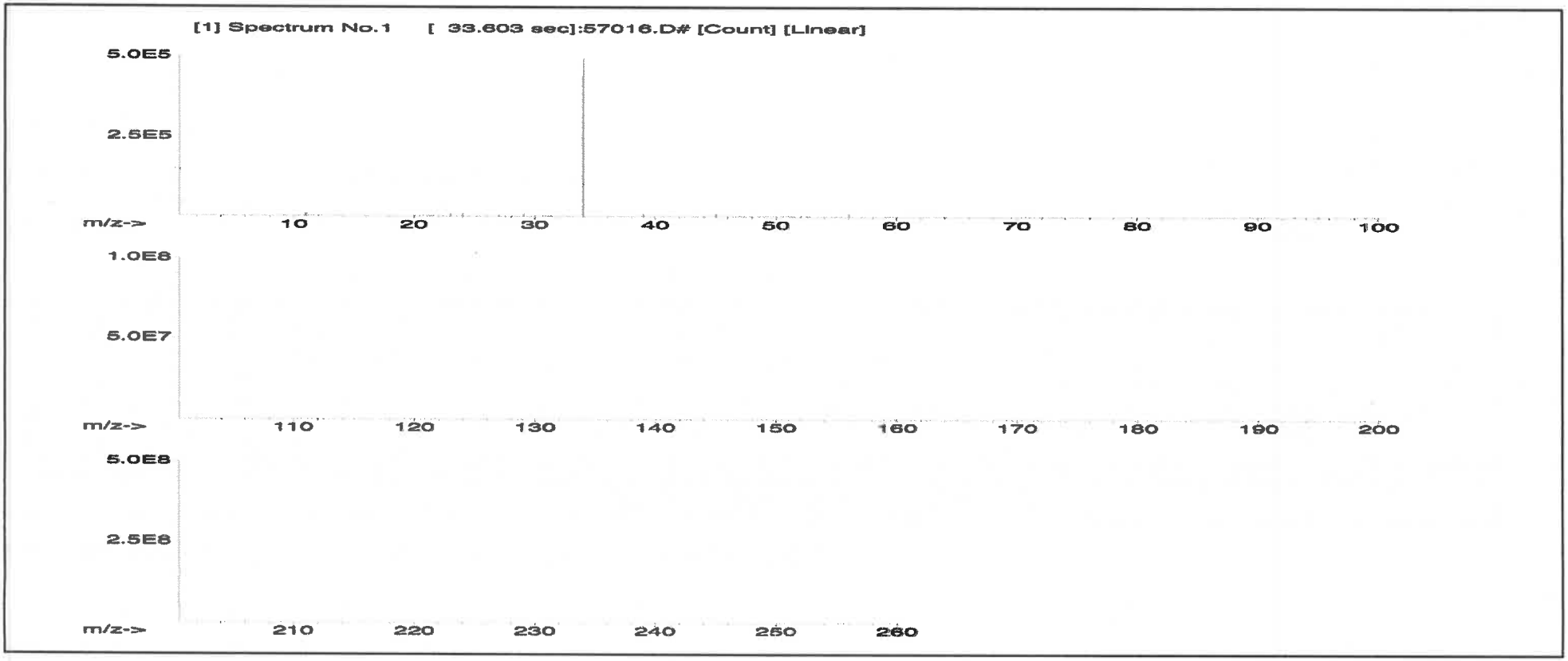
Weight shown below was diluted to (mL): 4000.0 0.06 Flask Uncertainty

Solvent: Lot # 122923 ASTM Type 1 Water

5E-05 Balance 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



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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.
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* 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).

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CERTIFIED WEIGHT REPORT:

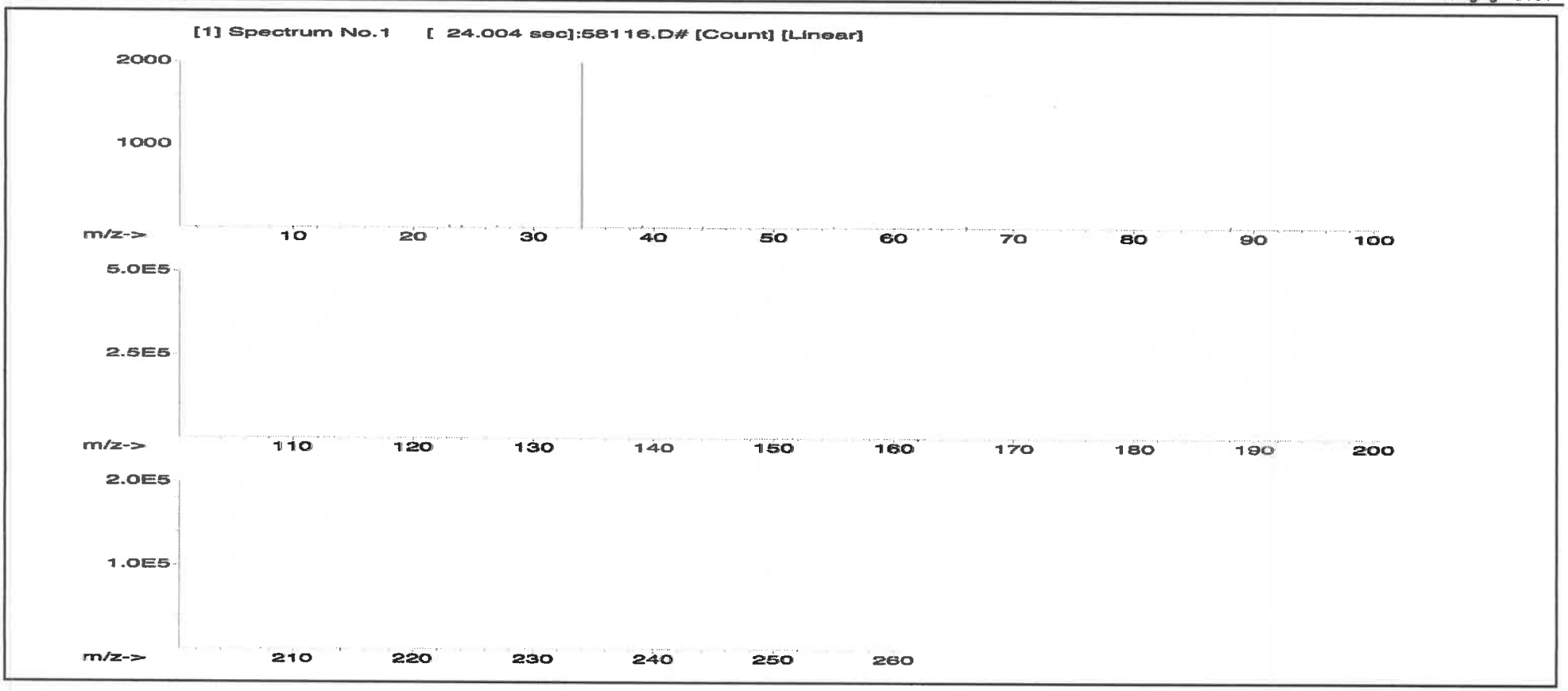
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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



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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:

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R: 02/09/24 M5820

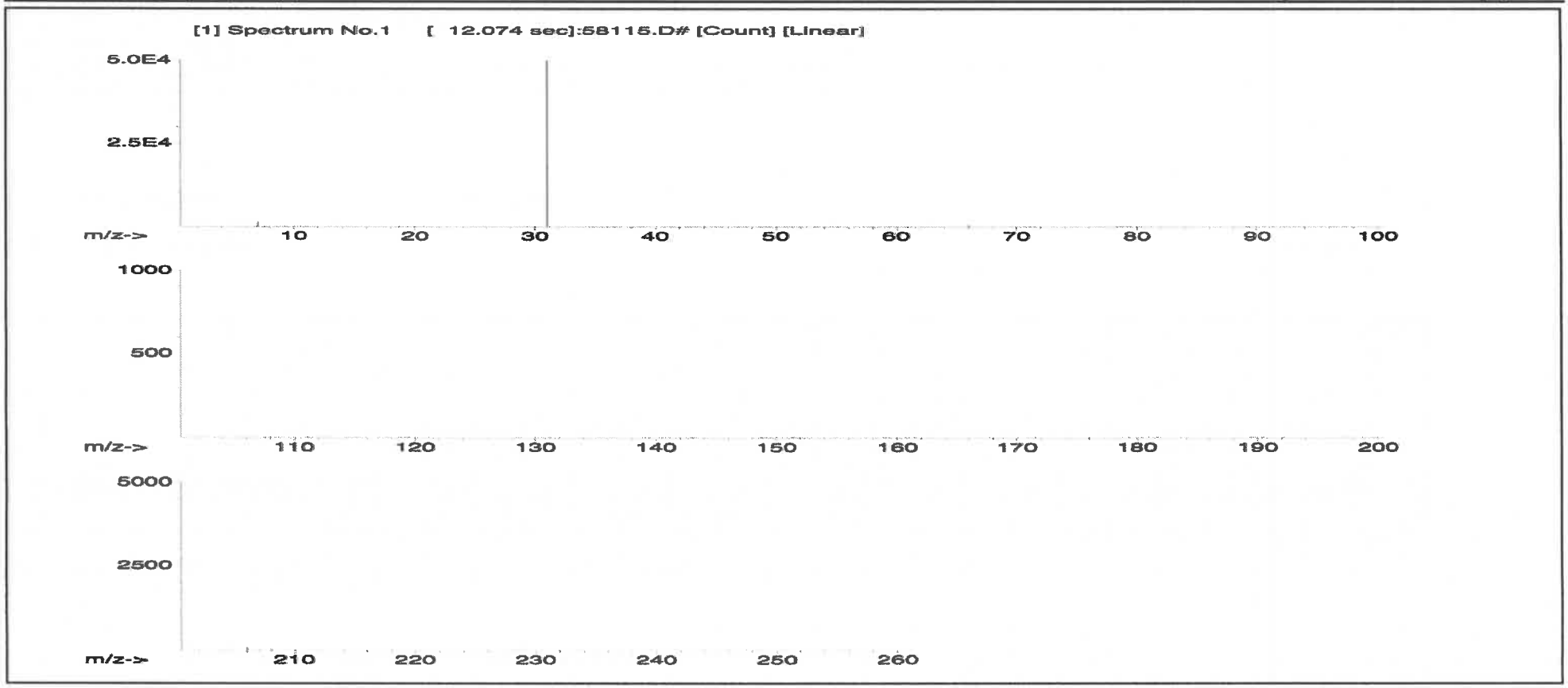
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CERTIFIED WEIGHT REPORT:

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



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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

MF884
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

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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	<	0.004600	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

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11 0.016 Flask Uncertainty

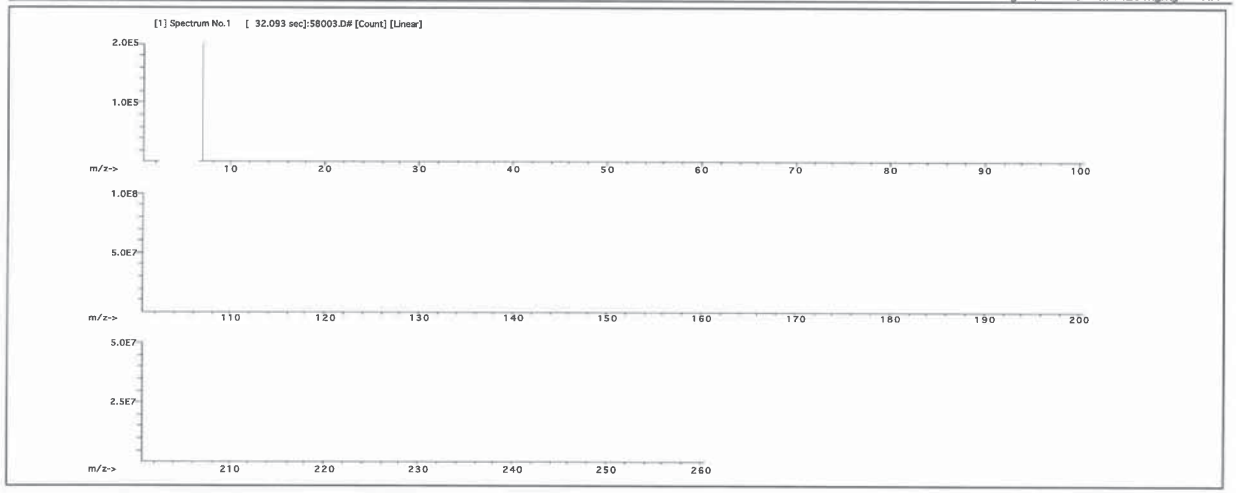
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

5E-05 Balance 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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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).

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R: 2/22/24

Certificate of Analysis

Refine your results. Redefine your industry.

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 865.01

ACCREDITED Reference Material Producer Certificate 865.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGT11
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, $X_{CRM/MM}$, 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 ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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:

$$X_{CRM/RM} = (\Sigma x_a)\,(u_{Char\ a})$$

X_a = mean of Assay Method A with

$u_{Char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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 for months in 1% 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 + K2SO7 - 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: 800.669.5798; 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 property 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 Kozlkowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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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

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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



Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

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R! 08/22/24 M6058, M6059

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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) 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: 1.032 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

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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



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
M6128

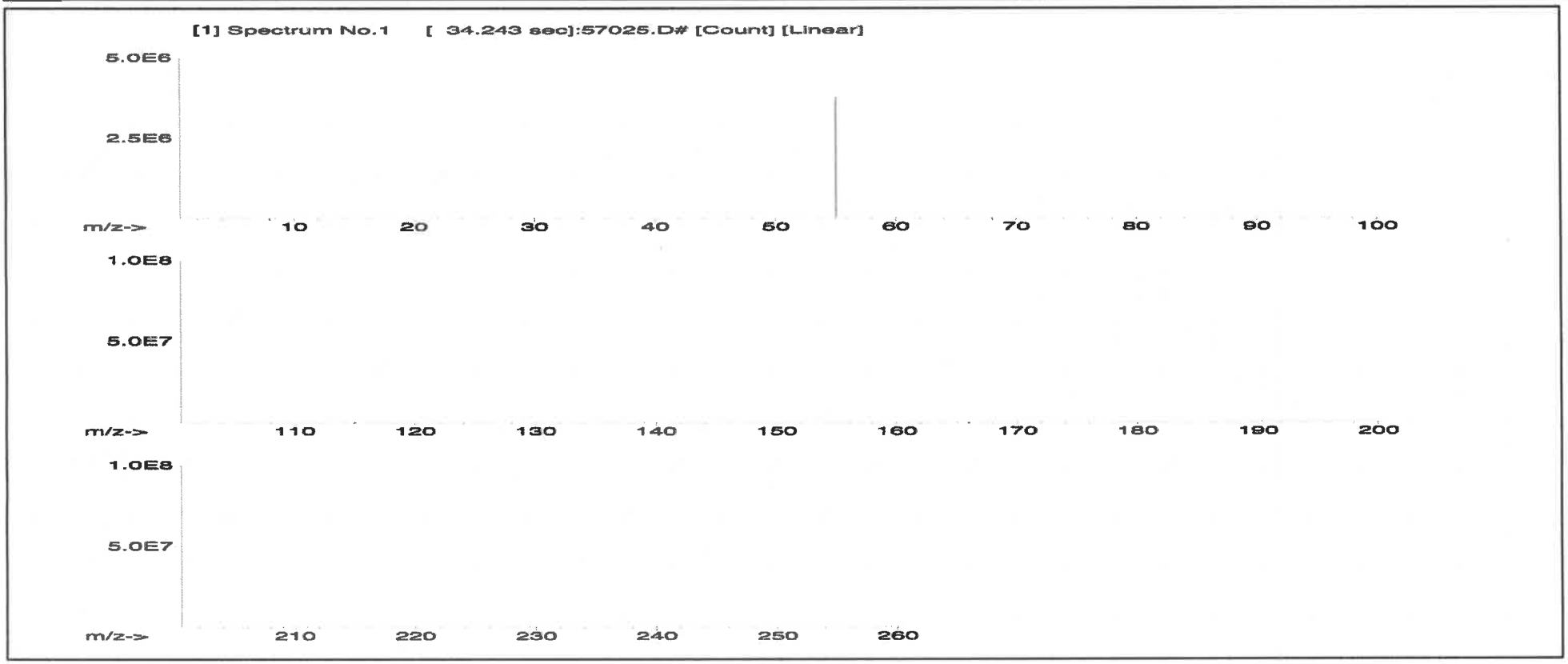
Part Number: 58025
Lot Number: 101124
Description: Manganese (Mn)
Expiration Date: 101127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2 0.10 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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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:

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).

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Certificate of Analysis

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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

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M6156

Certified Reference Material CRM

R→ 6/12/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

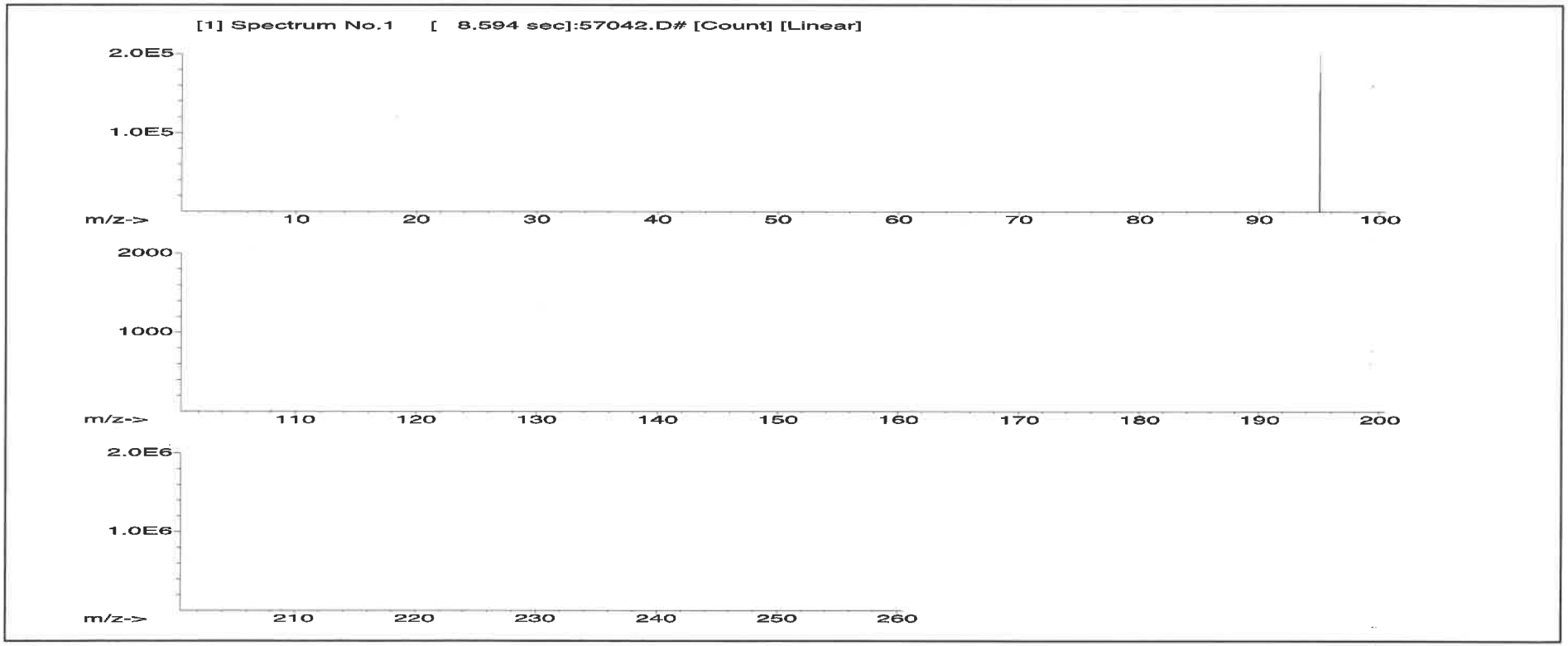
CERTIFIED WEIGHT REPORT:

Part Number:	**57042**
Lot Number:	**032123**
Description:	**Molybdenum (Mo)**
Expiration Date:	032126
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	**1000**
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	3000.41

Lot #	Solvent:		
MKBQ8597V	Ammonium hydroxide		
0.5%	15.0 (mL)	Ammonium hydroxide	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	032123
Reviewed By:	Pedro L. Rentas	032123

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 molybdate (Mo)	58142	112322	0.1000	300.0	0.084	1000	10001.4	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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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	T	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).

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 Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

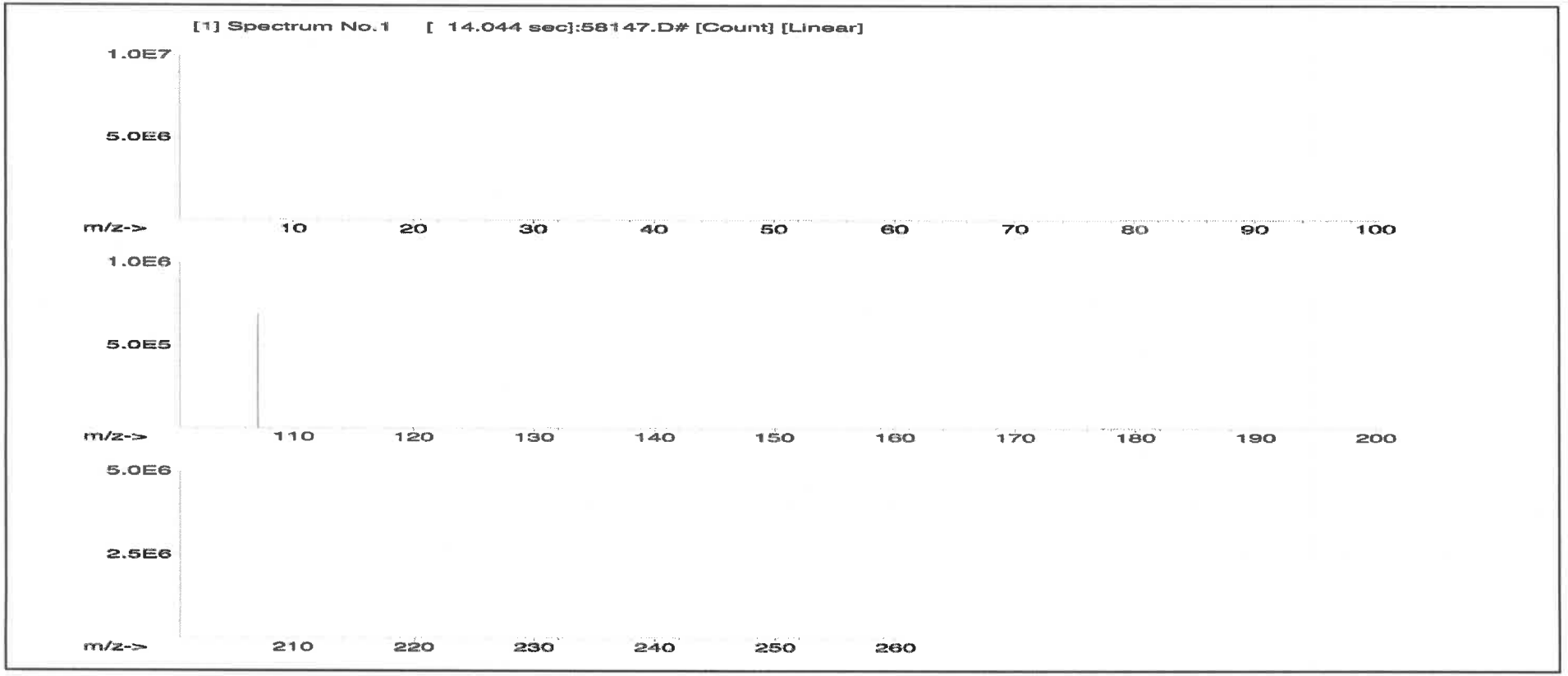
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance 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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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:

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 : 04/20/21

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.

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
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(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,



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.

opened : 3/24/25

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: M6160

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)

Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26 ± 0.058 Flask Uncertainty

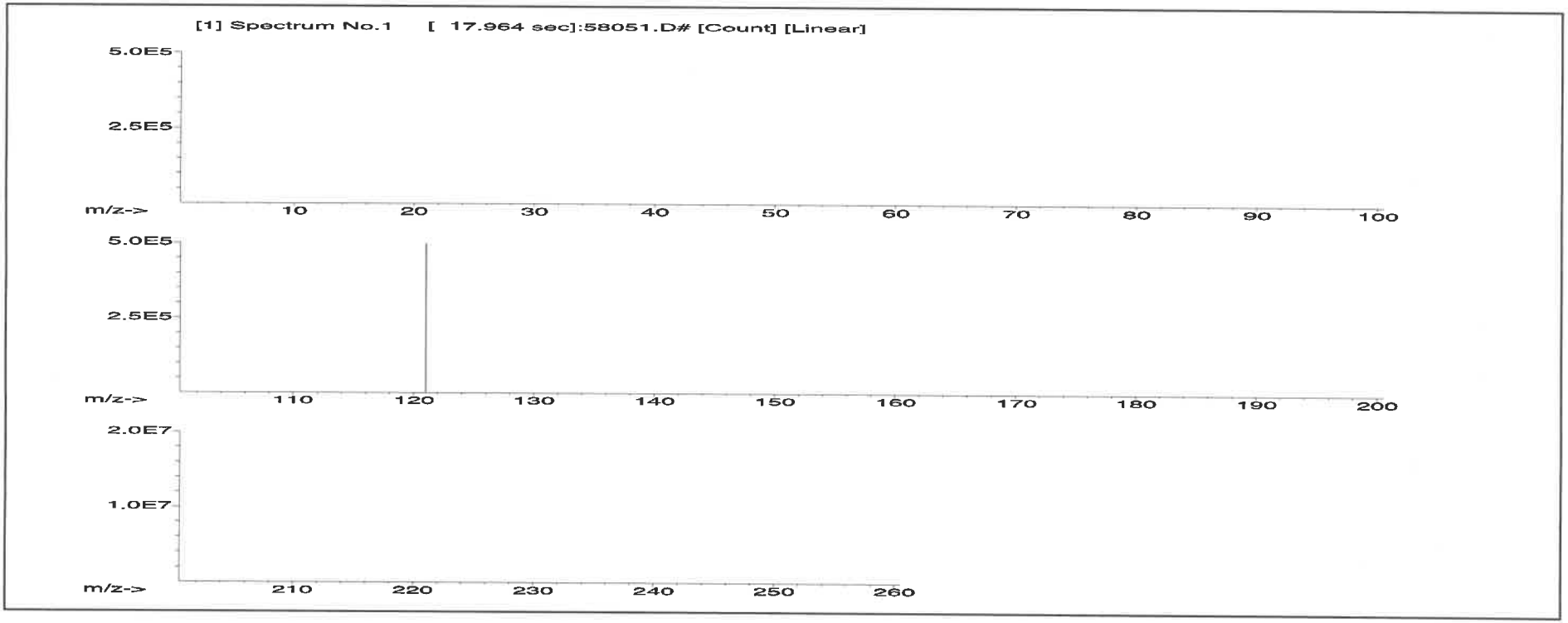
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance 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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 883.02

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

M6023

R ! 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

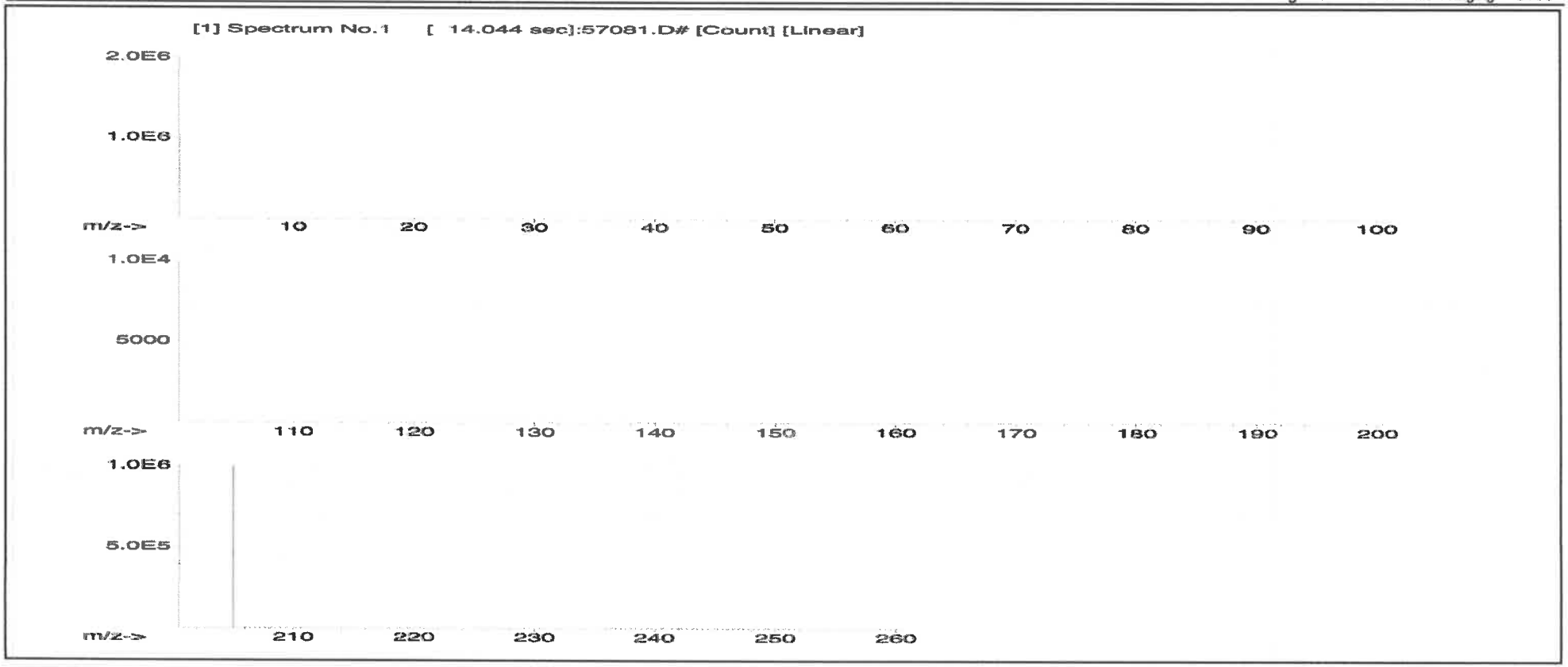
CERTIFIED WEIGHT REPORT:

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



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Certified Reference Material CRM

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https://Absolutestandards.com

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

Rc. 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	

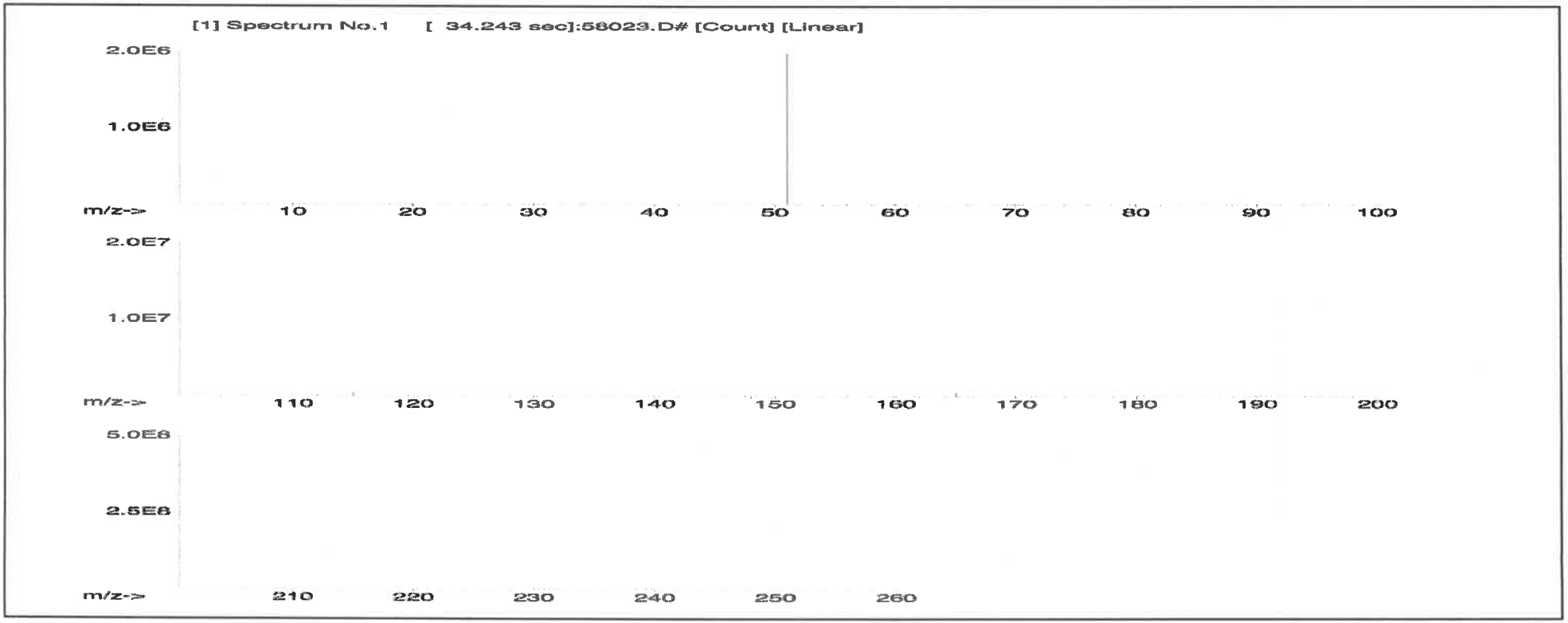
Aleah O'Brady

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



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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:

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).

SHIPPING DOCUMENTS

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-001-01	P001-BBDGA-001		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:30	9	5-g Encore	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:30	6	8 oz glass	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:30	3	4 oz glass w/septum	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:30	6	8 oz glass	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:30	3	8 oz glass	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		F	SPLP EPH	Stone	3/26/2025	09:30	3	8 oz glass	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		G	SPLP VOCs	Stone	3/26/2025	09:30	9	5-g Encore	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:30	6	8 oz glass	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:30	3	4 oz glass w/septum	4 C	Y
	P001-BBDGA-001-01	P001-BBDGA-001		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:30	6	8 oz glass	4 C	Y

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	8:35 3-27-25		8:35 3-27-25	IR Gun #1 2.1°C no Custody Seal Temp Blank present

Q16664

USEPA
DateShipped: 3/26/2025
CarrierName: Hand Deliver
AirbillNo: N/a

CHAIN OF CUSTODY RECORD
Site #: 02FP
Contact Name Josh Frizzell
(470) 277-4600

No: 2-032625-0004-0037-01
RFP# 905A
Lab: Alliance Technical Group, LLC - Non CLP
Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-001-02	P001-BBDGA-001		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:30	3	5-g Encore	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:30	2	8 oz glass	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:30	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:30	2	8 oz glass	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:30	1	8 oz glass	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		F	SPLP EPH	Stone	3/26/2025	09:30	1	8 oz glass	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		G	SPLP VOCs	Stone	3/26/2025	09:30	3	5-g Encore	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:30	2	8 oz glass	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:30	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-001-02	P001-BBDGA-001		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:30	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0855 3/27/25		8:35 3-27-25	IR Gun #1 2.1°C No Custody Seal Temp Blank present

Q1664

USEPA
DateShipped: 3/26/2025
CarrierName: Hand Deliver
AirbillNo: N/a

CHAIN OF CUSTODY RECORD
Site #: 02FP
Contact Name Josh Frizzell
(470) 277-4600

No: 2-032625-0004-0037-01
RFP# 905A
Lab: Alliance Technical Group, LLC - Non CLP
Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-002-01	P001-BBDGA-002		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:35	3	5-g Encore	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:35	2	8 oz glass	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:35	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:35	2	8 oz glass	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:35	1	8 oz glass	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		F	SPLP EPH	Stone	3/26/2025	09:35	1	8 oz glass	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		G	SPLP VOCs	Stone	3/26/2025	09:35	3	5-g Encore	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:35	2	8 oz glass	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:35	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-002-01	P001-BBDGA-002		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:35	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0835 3/27/25		0835 3-27-25	IR Gun #1 2.1°C
					No Custody Seal
					No Temp Blank

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-003-01	P001-BBDGA-003		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:40	3	5-g Encore	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:40	2	8 oz glass	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:40	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:40	2	8 oz glass	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:40	1	8 oz glass	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		F	SPLP EPH	Stone	3/26/2025	09:40	1	8 oz glass	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		G	SPLP VOCs	Stone	3/26/2025	09:40	3	5-g Encore	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:40	2	8 oz glass	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:40	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-003-01	P001-BBDGA-003		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:40	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0835 3/27/25		8:35 3-27-25	IR Cont # 1 2.1°
					No Custody Seal
					Temp Blank pres

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-004-01	P001-BBDGA-004		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:45	3	5-g Encore	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:45	2	8 oz glass	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:45	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:45	2	8 oz glass	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:45	1	8 oz glass	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		F	SPLP EPH	Stone	3/26/2025	09:45	1	8 oz glass	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		G	SPLP VOCs	Stone	3/26/2025	09:45	3	5-g Encore	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:45	2	8 oz glass	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:45	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-004-01	P001-BBDGA-004		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:45	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0935 3/27/25		0:35 3.27.25	If C-#1 2.1 °C No Custody Seal Temp Blk present

Q16664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-005-01	P001-BBDGA-005		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:50	3	5-g Encore	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:50	2	8 oz glass	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:50	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:50	2	8 oz glass	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:50	1	8 oz glass	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		F	SPLP EPH	Stone	3/26/2025	09:50	1	8 oz glass	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		G	SPLP VOCs	Stone	3/26/2025	09:50	3	5-g Encore	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:50	2	8 oz glass	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:50	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-005-01	P001-BBDGA-005		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:50	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0835 3/27/25		8:35 3-27-25	IR Gun # 1 2.1 No Custody Seal Trip Blank

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-006-01	P001-BBDGA-006		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	09:55	3	5-g Encore	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	09:55	2	8 oz glass	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	09:55	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	09:55	2	8 oz glass	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		E	EPH (TAT 3 Days)	Stone	3/26/2025	09:55	1	8 oz glass	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		F	SPLP EPH	Stone	3/26/2025	09:55	1	8 oz glass	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		G	SPLP VOCs	Stone	3/26/2025	09:55	3	5-g Encore	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	09:55	2	8 oz glass	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	09:55	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-006-01	P001-BBDGA-006		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	09:55	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	3/27/25 0835		8:35 3-27-25	IR Gun 1 2.1 C No Custody Seal Intact Temp Blank present

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-007-01	P001-BBDGA-007		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	10:00	3	5-g Encore	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	10:00	2	8 oz glass	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	10:00	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	10:00	2	8 oz glass	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		E	EPH (TAT 3 Days)	Stone	3/26/2025	10:00	1	8 oz glass	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		F	SPLP EPH	Stone	3/26/2025	10:00	1	8 oz glass	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		G	SPLP VOCs	Stone	3/26/2025	10:00	3	5-g Encore	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	10:00	2	8 oz glass	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	10:00	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-007-01	P001-BBDGA-007		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	10:00	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	3/27/25 0835		0835 3-27-25	IR Gun #1 2.1 C No Custody Seal Temp Blank present

Q1664

USEPA

DateShipped: 3/26/2025

CarrierName: Hand Deliver

AirbillNo: N/a

CHAIN OF CUSTODY RECORD

Site #: 02FP

Contact Name Josh Frizzell

(470) 277-4600

No: 2-032625-0004-0037-01

RFP# 905A

Lab: Alliance Technical Group, LLC - Non CLP

Lab Phone: 908-728-3144

Lab #	Sample #	Location	CLP Sample #	Tag	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	P001-BBDGA-008-01	P001-BBDGA-008		A	TAL VOCs (TAT 3 Days)	Stone	3/26/2025	10:05	3	5-g Encore	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		B	TAL SVOC+Pest+PCB (TAT 3 Days)	Stone	3/26/2025	10:05	2	8 oz glass	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		C	Percent Moisture (TAT 3 Days)	Stone	3/26/2025	10:05	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		D	TAL Metals+Hg+CN (TAT 3 Days)	Stone	3/26/2025	10:05	2	8 oz glass	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		E	EPH (TAT 3 Days)	Stone	3/26/2025	10:05	1	8 oz glass	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		F	SPLP EPH	Stone	3/26/2025	10:05	1	8 oz glass	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		G	SPLP VOCs	Stone	3/26/2025	10:05	3	5-g Encore	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		H	SPLP SVOCs + Pest+PCBs (TAT 7 Days)	Stone	3/26/2025	10:05	2	8 oz glass	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		I	Percent Moisture (SPLP) (TAT 7 Days)	Stone	3/26/2025	10:05	1	4 oz glass w/septum	4 C	N
	P001-BBDGA-008-01	P001-BBDGA-008		J	SPLP Metals+Hg+CN (TAT 7 Days)	Stone	3/26/2025	10:05	2	8 oz glass	4 C	N

Special Instructions: Please email results to S.Sumbaly@WestonSolutions.com and Josh.Frizzell@WestonSolutions.com. TAT for TAL analyses is 3 days. TAT for SPLP analyses is 7 days.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL SAMPLES ALL ANALYSES	WESTON	0835 3/27/25		8:35 3.27.25	IR Gun #1 2.1 C no Custody Seal Temp Blank present

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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1664 ROYF02
Client Name : Weston Solutions, Inc.
Client Contact : Smita Sumbaly
Invoice Name : Weston Solutions, Inc.
Invoice Contact : Smita Sumbaly

Order Date : 3/27/2025 10:47:00 AM
Project Name : RFP 905
Receive DateTime : 3/27/2025 8:35:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
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
Q1664-01	P001-BBDGA-001-01	Solid	03/26/2025	09:30						
					VOC-TCLVOA-10		8260D	10 Bus. Days		3 Days
Q1664-02	Q1664-01MS	Solid	03/26/2025	09:30						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-03	Q1664-01MSD	Solid	03/26/2025	09:30						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-07	P001-BBDGA-001-02	Solid	03/26/2025	09:30						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-09	P001-BBDGA-002-01	Solid	03/26/2025	09:35						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-11	P001-BBDGA-003-01	Solid	03/26/2025	09:40						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-13	P001-BBDGA-004-01	Solid	03/26/2025	09:45						
					VOC-TCLVOA-10		8260D	10 Bus. Days		
Q1664-15	P001-BBDGA-005-01	Solid	03/26/2025	09:50						

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1664 ROYF02
Client Name : Weston Solutions, Inc.
Client Contact : Smita Sumbaly
Invoice Name : Weston Solutions, Inc.
Invoice Contact : Smita Sumbaly

Order Date : 3/27/2025 10:47:00 AM
Project Name : RFP 905
Receive DateTime : 3/27/2025 8:35:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
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	3 days
Q1664-17	P001-BBDGA-006-01	Solid	03/26/2025	09:55					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1664-19	P001-BBDGA-007-01	Solid	03/26/2025	10:00					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1664-21	P001-BBDGA-008-01	Solid	03/26/2025	10:05					
					VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinguished By :
Date / Time : 3/27/25 1200

Received By :
Date / Time : 03.27.25 12:00

Storage Area : VOA Refridgerator Room